#### Title Page

# DEVELOPING A BUSINESS MANAGEMENT APPLICATION USING OBJECT ORIENTED PROGRAMMING TECHNIQUES

Case Study: Homewares Lighting Systems Ltd.

By

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## CERTIFICATION

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## DEDICATION

This work is dedicated to God Almighty and all my friends for their well wishes.

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#### **ABSTRACT**

One of the major areas of Information Technology deployment is business management. Proper application of Information Technology tools has helped so many businesses in enhancing their management and operational activities.

Internal and External constraints exist that acts as impediments to effective operations of business organizations transcends both small and large businesses. In resolving these constraints, I.T. tool and techniques have been applied with positive results. I.T. solutions to Business Management needs the appropriate software. Thus developing the required software is a major step in achieving the objective of offering solutions to Business needs using Information technology. Microsoft Visual Basic is one of the most flexible and powerful Rapid Application Development tool available today. Its use for Software development usually results in Software with the Windows feel and look.

Therefore, in developing a business management application for transaction processing, Microsoft Visual Basic would help in developing a software that meet the need for which it was designed.

## Chapter One

#### 1.1 Introduction

Modern Business Management recognizes the presence of internal and external constrains that needs to be properly attended to in order to achieve progress. These constraints comes in the form of record management, transaction processing, customer relations management and the coordination of other business activities. One way these constraints have been tackled head-on is by office automation (Office System). Office Systems refers to equipment used to create, store, process, or communicate information in a business environment. In today's world the fulcrum of an office system is the PC (microcomputer) and its associated software. It is well known that hardwares do not function in isolation. In a business environment the benefit of computing and its applications cannot be appreciated except there are software's specifically tailored to offer business solutions. The major tools needed to develop modern business application are object oriented programming (OOP) tools. OOP tools dictate the present trend in computer programming. This is because they generate software's that are interactive, user friendly and efficient.

Apart from the perceived gains of computer usage in business management, other intrinsic benefits are derivable from using business software as a management tool; it enhances productivity, promotes business process reengineering and supports and provides a viable information system.

Programming is part of an esoteric world where logic is sacred. Even if you understand exactly why a program works, there is still a magical element involved. Things appear and disappear. Objects materialize, and then dematerialize. They do so according to strictly defined logical rules; but still, there is the fact that things appear and disappear right before our eyes.

To be a good programmer, one has to be an insider to program development tool. A programmer to study arcane material, sit up over it and ponder its meaning, seeking to understand its mysteries. Many people never understand the subtleties of programming. They don't ever penetrate to the inner mysteries of this challenging field.

Some products seem to be effective at capturing the essence of the beautiful, mysterious logic that underlies the world of programming. Products such as C++, Visual Basic, Visual J++ and other Rapid Application Development tool have effectively captured and simplified the steps in development effective programs by providing a powerful sets of programming tools.

#### 1.2 Statement of Problem

As we traverse through the years it would be notice that computing needs of business changes. So also the type of software and computing requirement that would be needed to solve these needs. Most business requires effective computer software's to acts as a management tool. These software usually would be expected to incorporate a database that would serve as repository of information into which large volume of data would be stored and retrieved as required.

Therefore database management systems are being called on to provide a higher level of database management. No longer will databases manage data; they must manage information and be the knowledge centers of the enterprise. To accomplish this, the database must be extended to:

- Provide a higher level of information integration.
- Stores and retrieve all types of data.

Applications that require database support are quickly extending beyond traditional data processing into sophisticated office automation software. These applications have complex data structuring needs, significantly different data accessing patterns and special performance requirements. Conventional programming methodologies are not necessarily appropriate for these applications and conventional data management system may not be appropriate for managing their data.

Business management Applications deals with a hierarchical structure of information organization. Database access for these applications is typically a directed graph structure rather than an ad hoc query. In trying to manipulate such complex data, a programmer writes code to handle these. The Object Oriented Programming tool is the therefore the best bet in solving the complexities for handling such data management requirement.

#### 1.3 Objectives of Study

- ❖ To highlight the benefits of object oriented programming tools in developing modern applications.
- Illustrate the Software development process using a particular Object Oriented Programming Tool.

❖ To develop a business management software using Ms Visual Basic.

#### 1.4 Scope of Work

Object Oriented Programming and its principles would be discussed in detail, the actual software development process would be done using Microsoft Visual Basic. Hence, the study would be restricted further to Visual Basic components and their applications in software development. A business management software would be developed to handle the information processing required of a organization; Homeware Lightening Systems Ltd.

#### 1.5 Method of Data Collection

The data collection methods used in this study were by Interviews and Studying procedural Manual. In designing the software for the system, the personnel that uses the manual system were interviewed, the forms they used studies. This is to enable the design

#### 1.5 Definition of Terms

**ActiveX:** Microsoft's brand name for the technologies that enable interoperability using the Component Object Model (COM).

**API:** Application programming interface. The set of commands that an application uses to request and carry out lower-level services performed by a computer's operating system.

**AGP:** Accelerated Graphic Port; a new kind of Video RAM standard.

Polymorphism: In an object-oriented programming language, the ability to redefine a routine in a derived class (a class that inherited its data structures and routines from another class). Polymorphism allows the programmer to define a base class that includes routines that perform standard operations on groups of related objects, without regard to the exact type of each object. The programmer can redefine the routines, taking into account the type of the object, in the derived classes for each of the types.

Index: In Visual Basic, a number that identifies an element in an array, control array, or collection. In data access, a dynamic cross-reference of one or more table data fields (columns) that permits faster retrieval of specific records (rows) from a table. As records are added, changed, or deleted, the database management system automatically updates the index to reflect the changes.

**Method** A procedure that acts on an object.

**Module** A set of declarations followed by procedures.

**Object:** A combination of code and data that can be treated as a unit, for example, a control, form, or application component. Each object is defined by a class.

Object-Oriented Programming: In contrast with procedural programming, involves the use of both object-oriented design and an object-oriented programming language. Instead of consisting of sets of data loosely coupled to many different procedures, object-oriented programs consist of software modules called objects that encapsulate both data and processing while hiding their inner complexities from programmers and hence from other objects.

**ODBC** (Open Database Connectivity): A standard protocol that permits applications to connect to a variety of external database servers or files. ODBC drivers used by the ODBC driver manager permit access to SQL Server and several other data sources, including text files and Microsoft Excel spreadsheets. The ODBC application programming interface (API) may also be used to access ODBC drivers and the databases they connect to without using the Microsoft Jet database engine.

**Binding:** The process of putting an object into the running state so that operations supplied by the object's application (such as edit or play) can be invoked. The type of binding determines the speed with which an object's methods are accessed using the object variable.

**Procedure:** A named sequence of statements executed as a unit. For example, Function, Property, and Sub are types of procedures. A procedure name is always defined at module level. All executable code must be contained in a procedure. Procedures can't be nested within other procedures.

#### Chapter Two

#### 2.1 The Basics of Programming Languages

Programming Language, in computer science is an artificial language used to write a sequence of instructions (a computer program) that can be run by a computer. Similar to natural languages, such as English, programming languages have a vocabulary, grammar, and syntax. However, natural languages are not suited for programming computers because they are ambiguous, meaning that their vocabulary and grammatical structure may be interpreted in multiple ways. The languages used to program computers must have simple logical structures, and the rules for their grammar, spelling, and punctuation must be precise.

Programming languages vary greatly in their sophistication and in their degree of versatility. Some programming languages are written to address a particular kind of computing problem or for use on a particular model of computer system. For instance, programming languages such as FORTRAN and COBOL were written to solve certain general types of programming problems—FORTRAN for scientific applications, and COBOL for business applications. Although these languages were designed to address specific categories of computer problems, they are highly portable, meaning that they may be used to program many types of computers. Other languages, such as machine languages, are designed to be used by one specific model of computer system, or even by one specific computer in certain research applications. The most commonly used programming languages are highly portable and can be used to effectively solve diverse types of computing problems. Languages like C, PASCAL, and BASIC fall into this category.

High-level languages are commonly classified as

- \* procedure-oriented.
- functional.
- object-oriented, or logic languages.

The most common high-level languages today are procedure-oriented languages. In these languages, one or more related blocks of statements that perform some complete function are grouped together into a program module, or procedure, and given a name such as "procedure A." If the same sequence of operations is needed elsewhere in the program, a simple statement can be used to refer back to the procedure. In essence, a procedure is just a mini-program. A large program can be constructed by grouping together procedures that perform different tasks. Procedural languages allow programs to be shorter and easier for the computer to read, but they require the programmer to design each procedure to be general enough to be used in different situations.

Functional languages treat procedures like mathematical functions and allow them to be processed like any other data in a program. This allows a much higher and more rigorous level of program construction. Functional languages also allow variables—symbols for data that can be specified and changed by the user as the program is running—to be given values only once. This simplifies programming by reducing the need to be concerned with the exact order of statement execution, since a variable does not have to be redeclared, or restated, each time it is used in a program statement. Many of the ideas from functional languages have become key parts of many modern procedural languages.

Object-oriented languages are outgrowths of functional languages. In object-oriented languages, the code used to write the program and the data processed by the program are grouped together into units called objects. Objects are further grouped into classes, which define the attributes objects must have. A simple example of a class is the class Book. Objects within this class might be Novel and Short Story. Objects also have certain functions associated with them, called methods. The computer accesses an object through the use of one of the object's methods. The method performs some action to the data in the object and returns this value to the computer. Classes of objects can also be further grouped into hierarchies, in which objects of one class can inherit methods from another class. The structure provided in object-oriented languages makes them very useful for complicated programming tasks.

Logic languages use logic as their mathematical base. A logic program consists of sets of facts and if-then rules, which specify how one set of facts may be deduced from others, for example:

If the statement X is true, then the statement Y is false.

In the execution of such a program, an input statement can be logically deduced from other statements in the program. Many artificial intelligence programs are written in such languages.

#### 2.2 OOP Principles

OOP is a disciplined programming style that incorporates three characteristics; encapsulation, inheritance and dynamic binding. These characteristics differentiate OOP from traditional programming models in which data has a type and structure, distinct from

the program code and is processed sequentially. OOP builds on the concepts of reuse through the development and maintenance of class libraries of objects available for use and marinating applications.

- ❖ Encapsulation joins procedures and data to create an object, so that only the procedures are visible to the user, data is hidden from view. The purpose of encapsulation is to mask the complexity of the data and the internal working of the object. Only the procedures (methods) are visible to the outside world.
- ♣ Inheritance passes attributes to dependent objects, called descendants or receives attributes from objects called ancestors on which the object depends.
- ❖ Dynamic binding is the process whereby linking occurs at program execution time.

  All objects are program execution. For example in a stock management application, the function called program trading can sell or buy, depending on a large range of economic variables that define the current state. These variables are transparent to the user who invokes the trade process.
- ❖ Class library is mature, tested reusable codes that provides application enabling code such as help management, error recovery, function key support, navigation logic and cursor management. The class library concept is inherent to the OOP concept and in combination with the standards and training fundamentals is inherent to the productivity and error reduction encountered in project in which OOP tools are used.

Object Oriented programming is most effective when reusable components can be cut and pasted to create a skeleton application. Into this skeleton the custom business logic for this function is embedded. It is essential that the standard components use dynamic binding so

that changes can be made and applied to all applications in the environment. This provides one of the major maintenance productivity advantages.

- Objects
- Encapsulation and message passing
- Classes
- Libraries
- Inheritance
- Access modifiers

#### **Objects**

The fundamental unit in object-oriented programming is the object. Languages that follow object-oriented concepts describe the interaction among objects. All objects have a state and a behavior. The state of an object pertains to data elements and their associated values. Everything the object knows about these elements and values describes the state of the object. Data elements associated with objects are called *instance variables*.

The behavior of an object depends on the actions the object can perform on the instance variables defined within the object. In procedural programming, such a construct would be called a *function*. In object-oriented terminology, this construct is called a *method*. A method belongs to the class it is a member of, and you use a method when you need to perform a specific action more than once.

Thus, the state of an object depends on the things the object knows, and the behavior of the object depends on the actions the object can perform. If a software object that models a television is created, the object would have variables describing the television's current state, such as it is on, the current channel setting is 8, the current volume setting is 23, and there is

no input coming from the remote control. The object would also have methods that describe the permissible actions, such as turn the television on or off, change the channel, change the volume, and accept input from the remote control.

#### **Encapsulation and Message Passing**

Objects encapsulate instance variables and related methods into a single, identifiable unit. Therefore, objects are easy to reuse, update, and maintain. A programmer can quickly and easily do the following:

- Pinpoint the necessary input to the object and the output from the object
- Find variable dependencies
- Isolate the effects of changes
- Make updates as necessary
- Create subclasses based on the original object

Objects are as dynamic as you make them. An object can invoke one or more methods to accomplish a task. A user initiates a method by passing a message to an object. A message must contain the name of the object you are sending the message to, the names of the methods to perform, and the values needed by those methods. The object receiving the message uses this information to invoke the appropriate methods with the specified values. The benefit of encapsulation of instance variables and methods is that the programmer can send messages to any object without having to know how the object works. All he needs to know is what values a method will accept. Therefore, the software object describing the television could be extremely complex, but all that needs to be done is for the programmer or the end user have to know to use the television is how to press the appropriate buttons on the remote control. The press of a button on the remote control sends a message to the

television's software object, telling it which method to perform and the new input values for the method.

#### Classes

Classes encapsulate objects. A single class can be used to instantiate multiple objects. This means that you can have many active objects or instances of a class. The object describing the functions of your television is an instance of a class of objects called television. Keep in mind that each object within a class retains its own states and behaviors. By encapsulating objects within a class structure, a programmer can group sets of objects by type.

#### Libraries

In C++ and other programming languages, a collection of related classes or functions is called a *library*. Java puts a twist on the concept of libraries by using the term *package* to describe a collection of related classes. Just as classes encapsulate objects, packages encapsulate classes in Java.

#### Inheritance

Inheritance is a powerful aspect of object-oriented programming that allows codes to be reused, and extend the functionality of existing classes. If a class is created to draw a shaded rectangle on the screen, you could extend the class to move the rectangle to specific locations on the screen without having to rewrite the original class. A programmer could also extend the class for the shaded rectangle to display a series of user-selectable rectangles. In either case, the new class would inherit the methods that created the shaded rectangle and then extend the methods to perform the appropriate action.

Using this aspect of object-oriented programming, a new class can be created that inherits the functionality of an existing class. Then functions can be extended to form part of the old

class in ways that suit your current needs. The television class could have subclasses for black-and-white televisions, color televisions, and home-theater-style televisions. The new television subclass is not limited by the instance variables or methods of the superclass and can include instance variables and methods not defined in the superclass. The new subclass can also override inherited methods.

#### Access Modifiers

In object-oriented programming, access to methods and variables is controlled through access modifiers. The Java programming language defines four levels of access controls:

- Private methods and variables
- Protected methods and variables
- Friendly methods and variables
- Public methods and variables

#### Private Methods and Variables

Methods and variables that are controlled by an associated object and are not accessible to objects of different classes are generally considered to be *private*. The advantage of this is that only objects in a particular class can access the methods or variables without limitation. Java's private methods and variables are likewise accessible only by objects within the same class.

#### Protected Methods and Variables

Methods and variables that are controlled by an associated object and are accessible to objects in the current class or a subclass of the current class are generally considered to be *protected*. The advantage of this is that only objects in specific classes can access the

variables without limitation. Java's protected methods and variables are likewise accessible only by methods in the same class or subclass.

#### Friendly Methods and Variables

Methods and variables that are accessible to other objects in most circumstances are considered to be *friendly*. By default, methods and variables you declare in Java are assumed to be friendly and are accessible by any class and objects in the same package. The advantage of this is that objects in a particular package (generally a set of related classes) can access each other without limitation.

#### **Public Methods and Variables**

Methods and variables that are accessible to all objects, even those outside the current class and package, are considered to be *public*. Java's public methods and variables are accessible by any object or class. Therefore, public methods and variables can be accessed without limitation.

#### 2.3 Visual Tools and Object Programming

Modern Object Oriented Programming has been enhanced by the use of Visual Development Tools. The use of these tool allows application to be created with reduced amount of programming. That is, a good percentage of the job to be done is handled by using Visual designs and graphics to which underlying codes are attached.

Visual Tools have made programming quite simple. Task that hitherto requires a great deal of programming to be achieved can be created by first creating the graphical interface by using the tools provided the compiler and then associating program codes to them.

Visual tools allows the creation of application that has the *Windows feel and look*. That is, applications created with Visual tools are fully compatible with the Microsoft Windows Operating System and they also share common controls, interfaces and dialog boxes with the Windows O/S. Thus the use of Visual Tools is also referred to as Windows Programming. Popular examples of Visual Programming Tools are Microsoft Visual Studio that incorporates Visual Basic, Visual C++ Visual FoxPro and Visual Interdev.

#### 2.4 Event Driven Models and Interactive Development

In traditional or "procedural" applications, the application itself controls which portions of code execute and in what sequence. Execution starts with the first line of code and follows a predefined path through the application, calling procedures as needed.

In an event-driven application, the code doesn't follow a predetermined path — it executes different code sections in response to events. Events can be triggered by the user's actions, by messages from the system or other applications, or even from the application itself. The sequence of these events determines the sequence in which the code executes, thus the path through the application's code differs each time the program runs.

Because the sequence of events cannot be predicted,, the code must make certain assumptions about the "state of the world" when it executes. When you make assumptions (for example, that an entry field must contain a value before running a procedure to process that value), you should structure your application in such a way as to make sure that the assumption will always be valid (for example, disabling the command button that starts the procedure until the entry field contains a value).

Your code can also trigger events during execution. For example, programmatically changing the text in a text box cause the text box's Change event to occur. This would cause the code

(if any) contained in the Change event to execute. If it is assumed that this event would only be triggered by user interaction, you might see unexpected results. It is for this reason that it is important to understand the event-driven model and keep it in mind when designing your application.

The traditional application development process can be broken into three distinct steps: writing, compiling, and testing code. Unlike traditional languages, Visual Basic uses an interactive approach to development, blurring the distinction between the three steps.

With most languages, if a mistake is made in writing your code, the error is caught by the compiler when you start to compile your application. The programmer must then find and fix the error and begin the compile cycle again, repeating the process for each error found. Visual Basic interprets your code as you enter it, catching and highlighting most syntax of spelling errors on the fly. It's almost like having an expert watching over the programmers shoulder as he enters the code.

In addition to catching errors on the fly, Visual Basic also partially compiles the code as it is entered. When you are ready to run and test your application, there is only a brief delay to finish compiling. If the compiler finds an error, it is highlighted in the code. The error can be fixed and continue compiling without having to start over.

#### 2.5 Using Visual Basic for OOP

The Basic programming language began as a *procedural* language, based on variables function calls, and statements. It is evolving toward an *object-oriented* language, based or objects, properties, methods, and collections.

#### 2.6.1 Creating Interface.

Forms are the foundation for creating the interface of an application. Forms are used to add windows and dialog box to an application. They are also used as containers for items that are not a visible part of the application interface. For example, a form in an application can serve as a container for graphics that is to be displayed on other forms.

The first steps in building an application are to create the forms that will be the basis for the application's interface. Then objects that make up the interface are added to the forms. Essentially, the Integrated Development Environment (IDE) of Visual Basic is build around forms. Most programming feature of Visual Basics are built into forms and the appropriate code assigned to such controls.

#### 2.6.2 Setting Properties

The next step is to set the properties for the object that is created. The properties Windows are used to do this in Visual Basic. The property of a form or controls determines the way the form, control or object appears, how it is displayed and the action it performs when a particular condition is satisfied.

#### 2.6.3 Writing Code

The Code Editor window is where the Visual basic Codes are written for an application. Codes consist of language statements, constants and declarations. The code window can be used to view and edit any of the code in an application.

Codes in Visual basic is divided into smaller blocks called procedures. An event procedure such as those contains code that is executed when an event occurs (such as when a user clicks a button). An event procedure for a control combines the control's actual name

(specified in the Name property), an underscore (\_) and the event name. For example, if a programmer wants a command button name Command1 to invoke an event procedure when it is elicked, use the procedure Command1\_Click.

Private Sub enter Click()

Unload Form I

Form2.Show

End Sub

The event procedure is used to remove a form (Form1) from the screen and display another Form (Form2). The event procedure is invoked by clicking of enter command on a menu. The control name is *enter* while the event is a click event.

#### **Chapter Three**

## Systems Analysis And Design

#### 3.1 Description of Existing System.

The System that would be studied is the Business Management Procedure of Homewares Lightening System Limited; an establishment involved in the indoor and outdoor lightening, artistic painting and corporate gifts. Their major operations are;

- Stocking and Retailing of good to customers.
- \* Maintaining of a list of all customers.
- Transaction processing for all transactions carried out.

Maintaining manual logs, bin cards, inventory form, and invoices carries out these activities and the entire operations is coordinated by a production Supervisor.

The main aim of setting up the existing system is on commencement of the business operations of *Homewares Lightening Limited*; there arose the need for a record keeping method to be devised to take care of the business record keeping activities of the business. The existing system is strictly manual. That is all record keeping are done manual, transcribed to forms and other documents manually.

#### 3.2. Problems of Existing System.

- ➤ No definite order and pattern for processing transaction records (information).
- Administrative and Record Keeping problems resulting from the absence of Data Processing Standards and Procedures.

- The absence of an existing MIS structure. Hence there is no laid out pattern for information sharing and communication among the different levels of managers.
- Records are difficult to trace, since the clerk has to flip through piles of cards and patter in sequential order to get to the record to be located.
- There is no logical links between the different types of records
- No effective method of protecting data integrity and protection from accidental loss, destruction or corruption.

The present problems occurred because of the following reasons;

- ➤ No existing information processing system and no set standard for data processing within the system. Therefore the Staff relies on arbitrary methods for handling their data.
- If there was an existing information processing system, information would be easily communicated to management. Hence the business management process would be a lot easier.
- > The absence of trained and proficient staff that can handle and operate a Computer based information system.

#### 3.3 Feasibility Study

Designing and implementing a new system Homewares Lightening Systems Limited is feasible. Each alternatives have been realistically viewed against the current market trends and existing situations. Though each alternative would help see to the solution of the problem at hand; they all have their peculiar merits. The available feasible alternatives are;

- An Office Systems is a set of equipment used to create, store, process, or communicate information in a business environment. This information can be manually, electrically, or electronically produced, duplicated, and transmitted. Most modern office equipment—including typewriters, dictation equipment, facsimile machines, photocopiers, calculators, word processors and telephone systems.
  - An office automation system though would be effective in providing a solution to the problems at hand it would serve for the short run only.
  - Using an office system the only means of sending printed reports and other recorded data to head office is by fax. This is more expensive and tedious as many copies of reports would be continuously faxed on a routine basis.
  - Using an Office System we would have no choice than sending reports and other data through mail or courier service. In the long run with envisaged expansion in business operations (growth), market trends and increasing competition, there would be the need for a more sophisticated information processing system; that would be flexible enough to cope with increasing business needs and the changing market environment. Therefore the Office System Approach would not offer a comprehensive solution to the problem at hand.
- 2. *Information System Approach:* An information processing system refers to the entire resources for handling the information requirement of an establishment. It incorporates both the human resources requirement, computers and automated devices involved. The major component of an information system is the data processing system within it.

The information processing approach involves the setting up information and data processing system. Data processing is the analysis and organization of data by the repeated use of one or more computer programs. Data processing is used extensively in business, engineering, and science and to an increasing extent in nearly all areas in which computers are used. Businesses use data processing for such tasks as payroll preparation, accounting, record keeping, inventory control, sales analysis, and the processing of bank and credit card/value card account statements.

The Data Processing System for the Homewares would be designed to operate as a complete integrated set of interrelated system. This approach would provide information that satisfies the following attributes, viz; provide Information that is timely, accurate and relevant.

The information system approach would also used a customized business management software to manage the entire transaction/information processing function of the organization.

The Information System Approach is the most feasible alternative to solving the problems of Homewares Lightening Systems.

The Information System Approach was then viewed from three perspectives;

- Technical Feasibility.
- > Operational Feasibility.
- > Economic Feasibility.

Technical feasibility is the extent to which it is possible for Computer Systems to be applied as a replacement for business activities that were hitherto done manually. The was found to be quite feasible. Since business management software would be designed, it would serve as the new means of data entry and storage hence eliminating the need for data to be recorded on paper. The PC (microcomputer) is a versatile tool whose application cuts across diverse fields,.

Operational feasibility: the new system would be feasible operationally since new system would be designed to simulate the manual system and also eliminate the shortcomings of the manual system. Personnel would be trained on the inner workings and operations of the system and adequate documentation provided. Hence it possible for the system to be operated successfully.

Economic Feasibility: This is the cost consideration involved in implementing anew system. In recent times, there has been a considerable decrease in the cost of Microcomputer Systems. Hence Information processing system that are dependent on one or two PC are too cost intensive to implement. The cost implications of developing a new system are made up for by the benefits obtainable from the new system.

#### 3.4 Strengths of New System

The alternative method would offer the following benefits;

- i. Ensure effective processing of transaction, administration and operational data.
- ii. Proper record keeping and effective information documentation both in form of printed reports and as digital files on secondary storage devices.

- iii. The new system would provide a management view of the entire organization, since all business information can be accessed from a single location.
- iv. Information can be easily accessed and retrieved when need.
- v. Multiple reports can be created for different transaction records.

#### 3.1 Design Strategies For Implementing a Business Management System

- Identification of current system requirements
- Selection and Organization of the data that needs to be stored
- Planning for system Efficiency and Reliability
- Economic Cost comparison: Determination of the cost of implementing the proposed system

#### 3.5.1 Planning System Requirement

- Determination of the information or data to be keep track off.
- Organization strategy of the required information
- Determination of the user of the proposed system and the capability of such user.
- Projection of future database needs.

#### 3.5.2 Potential Hurdles

- Apathy of users to computerized systems, leading to the exhibition of system underutilization.
- Over dependency leading to the assumptions that the computerized system is failprove.
- Unauthorized access to stored data and information.
- Data lost due to user lack of maintenance culture
- System malfunctioning.

User adaptation to old system.

#### 3.5.3 Solving Potential Problems

- Adequate training of operators, users and all personnel concerned with the use of the new system.
- Periodic/Routine backup of stored information.
- Access control and user verification methods should be built into the software.
- Management Control: Management should always summarize information, observe trends and performance of variances.

#### 3.6 Features Of Used Programming Language (Visual Basic 6.0)

The proposed system would be developed with modern Object Oriented Programming Tools (Visual Basic) and would very much help in enhancing any standard operations.

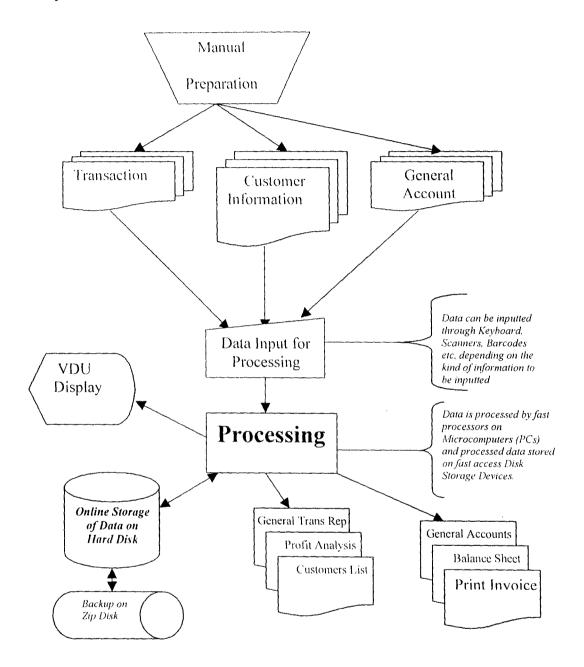
The Visual Basic has a number of features, which in turn are incorporated into the proposed system, this feature includes:

#### **FEATURES**

- Full Windows Compatibility: the software is designed to run in the Ms Windows
   Operating and any compatible environment, which is the standard for any modern
   software.
- *Mouse Support*: apart from keyboard invocations of commands, the software we develop supports the use of the mouse, hence, it is easier to navigate through the software environment and tasks can be executed at the click of a button.
- *Menu and Event Driven:* the software incorporate Pull Down menus, windows compatible dialogue boxes, prompts and command buttons. This has the added advantage of making the software more user-friendly and interactive.
  - Connectivity with other Windows based application: the software has the ability for Dynamic Data Exchange (DDE) and Dynamic Link Library (DLL) for Shared files, with other Ms Windows based software. As such data can be exported or imported to

- and from it (i.e. communication with other window based software is totally effective).
- Improved Multiple Database Structure: the database structure of any new software developed by us uses the Microsoft Open Database Connectivity (ODBC) style that supports the creation of multiple tables in a single database. This allows for better handling of large volume of related data items while still compact.
- Security: the software is designed such that only valid and authorized users can only gain access; thereby protecting the integrity of your data and the source code of your program being tampered with, which is one of the problems you faced with uncompileable program. Also the databases in the software could encrypted such that they can only be manipulated by the software alone.
- Output Control: the software controls the output to Screen, Printer or directly to a file in the format of any Ms Windows base standard software. (E.g. Access, Excel, Ms Word)
- Practical WYSIWYG (What-You-See-Is-What-You-Get) Report Display: the display screen shows you exactly what your final report will look like when your print
- Multiple Size Page Views: View as many report pages at Actual, Double or Half size.
- Pictorial Data Representation: data charting in our software gives view enhancement.
- Multi-Media Effects: Visual and Audio multi-media are available optionally, also they use all your current Operating System Settings like Sound, Screen Color, Date & Time e.t.c.
- *Utility Features:* pop-up on screen Calculator & Calendar.

#### 3.7 System Flowchart



#### 3.8 Input Specification

The database used supports Open Database Connectivity (ODBC) techniques that allows the creation of multiple tables in a single database. Hence the database is assigned an extension

.mdb (multiple database). The tables contained in the Homewares.mdb database and their structure are;

### > Customer: for storing customers details

Fields Name	DataType	Field Size	Field Meaning
Name	Text	50	Customer Name
Cuscode	Text	12	Customer Code
OfficeTel	Text	15	Office Telephone
HomeTel	Text	15	Home Telephone
Address	Text	150	Customer Address
MobileTel	Text	15	Mobile Phone

This table is indexed on the customer code field (cuscode).

#### Category: for storing assigned categories

Fields Name	DataType	Field Size	Field Meaning
Name	Text	50	Item Category Name
Code	Text	50	Category Code

### **Balsheet:** this table generates a balance sheet from the available transaction.

Fields Name	DataType	Field Size	Field Meaning
Desc	Text	200	Description
CRAmt	Currency	8	Credit Amount
DRAmt	Currency	8	Debit Amount

#### **Pass:** storing registered password and user access levels.

Fields Name	DataType	Field Size	Field Meaning
Username	Text	60	Username
Password	Text	30	Pass Word
AccessLevel	Text	30	Access Level for user

### > PayDetails: Recording payment and invoicing details.

Fields Name	DataType	Field Size	Field Meaning
Cuscode	Text	18	Customer Code
OrderNo	Text	15	Order Number
VAT	Currency	8	VAT Charge
Paid	Currency	8	Amount Paid
PayType	Text	10	Payment Type (Cash or Chequ
Bal	Currency	8	Outstanding balance
BankName	Text	50	Name of Bank
ChequeNo	Text	20	Cheque Number
AccountNo	Text	20	Account Number
Date	Date/Time	8	Date of Transaction

This table is indexed on the CusCode and OrderNo

> Settings: This table is used to assigned settings for the Company that would making use of the software.

Fields Name	DataType	Field Size	Field Meaning
CoyName	Text	50	Company Name
Admin	Text	50	Administrator's Name
VAT	Double	8	% charged on VAT
CoyAdd	Memo		Company Address

#### **Transaction**: for registering new order and generating invoice.

Fields Name	DataType	Field Size	Field Meaning
Icode	Text	50	Item Code
Cashier	Text	50	Cashier Name
OrderNo	Double	15	Order Number
Quantity	Text	8	Quantity of Item
CusCode	Text	15	Customer Code
TranDate	Date/Time	8	Date of Trans
TotalAmount	Currency	8	Total Amount

This table is indexed on the CusCode, Icode OrderNo and TransDate.

#### > Expenditure : stores data for expenditure account

Fields Name	DataType	Field Size	Field Meaning
TransType	Text	50	Transaction Type
TransAmount	Currency	8	Transaction Amount
TransDate	Date/Time	8	Transaction Date
TransBy	Text	50	Staff Authorizing Transaction
TransTo	Text	50	Customer to which Transaction is made
Receipt no	Text	20	Receipt Number
TransUnit	Double	8	No of Items Transacted

#### > Income : stores data for income account

Fields Name	DataType	Field Size	Field Meaning
TransType	Text	50	Field Meaning
TransAmount	Currency	8	Transaction Amount
TransDate	Date/Time	8	Transaction Date
TransBy	Text	50	Staff carrying out trans
TransTo	Text	50	Organization involved in transaction
Receipt no	Text	20	Receipt Number
TransUnit	Double	8	No of items transacted.

## > ItemInvent: is used to update the available inventory after a transaction has been processes

processes			
Fields Name	DataType	Field Size	Field Meaning
Desc	Text	50	Description
UnitInStock	Double	8	Unit in Stock
Category	Text	50	Item Category
ReOrder	Double	8	Reorder Level
UnitSellPrice	Currency	8	Unit Selling Price
UnitCostPrice	Currency	8	Unit Cost Price

This table is indexed on the Desc, leade

### **HomeInvent**: is used to add a new item to available inventory at hand.

Fields Name	DataType	Field Size	Field Meaning
Desc	Text	50	Description
UnitInStock	Double	8	Unit in Stock
ReOrder	Double	8	Reorder Level

The tables illustrated above are the component units of the Homwares.mdb database. The

database structured in the Microsoft Access Database format.

```
rstTemp.FindFirst ("leode =" & "" & TxtFields(2) & """)
                                                               End Sub
 If rstTemp.NoMatch = False Then
                                                                Private Sub cmdDelete Click()
 rstTemp.Move (0)
                                                                On Error GoTo handler
  rstTemp.Edit
                                                                 With datPrimarvRS.Recordset
  rstTemp![unitinstock] = TxtFields(3)
                                                                 RESP = MsgBox("The Current Record would be
  rstTemp.Update
                                                                Deleted...Continue (Y/N)", vbYcsNo + vbInformation)
 End If
                                                                 If RESP = vbYes Then
 datPrimaryRS.UpdateRecord
 datPrimaryRS.Recordset.Bookmark =
                                                                  .Delete
datPrimaryRS.Recordset.LastModified
                                                                  .MoveNext
                                                                  If .EOF Then .MoveLast
 Set rstTemp = dbs.OpenRecordset("SELECT * FROM
ItemInvent WHERE leade = '***********$$$***")
                                                                 End If
                                                                 End With
 dbs,Recordsets,Refresh
                                                                 Exit Sub
 datSecondaryRS.RecordSource = "select * from
[Transaction] where [OrderNo]=" &
                                                                handler:
datPrimaryRS.Recordset![OrderNo] & "'" & " Order by
                                                                 MsgBox Err.Description
                                                                End Sub
[leode]"
 datSecondaryRS.Refresh
Exit Sub
                                                                Private Sub cmdRefresh Click()
                                                                On Error GoTo handler
handler:
                                                                 'This is only needed for multi user apps
MsgBox Err.Description
                                                                 datPrimaryRS.Refresh
End Sub
                                                                  Exit Sub
                                                                handler:
Public Sub TransNew()
                                                                 MsgBox Err.Description
On Error GoTo handler
 If TxtFields(0) \Leftrightarrow "" Then TheOrderNo = TxtFields(0)
                                                                End Sub
 If TxtFields(1) \Leftrightarrow "" Then TheCust = TxtFields(1)
 If TxtFields(6) <= "" Then TheDate = TxtFields(6)
                                                                Private Sub cmdUpdate Click()
 TxtFields(0) = ""
                                                                On Error GoTo handler
 TxtFields(1) = ""
                                                                GenCode
 TxtFields(6) = ""
                                                                 datPrimaryRS.UpdateRecord
 datPrimarvRS.Refresh
                                                                 datPrimaryRS.Recordset.Bookmark =
 datPrimarvRS.Recordset.AddNew
                                                                datPrimaryRS.Recordset.LastModified
 If TxtFields(6) = "" Then
                                                                 Exit Sub
 TxtFields(6) = Format(Date, "mmm/dd/yyyy")
                                                                handler:
                                                                 MsgBox Err.Description
 TxtFields(6) = TheDate
                                                                End Sub
 End If
 TxtFields(0) = TheOrderNo
                                                                Private Sub cmdClose_Click()
 TxtFields(7) = UserName
                                                                Unload Me
 TxtFields(1) = TheCust
                                                                End Sub
 TxtFields(3) = ""
 TxtFields(4) = ""
                                                                Private Sub Command1 Click()
 TxtFields(8) = ""
                                                                FrmViewItem.Show 1
 TxtFields(1).SetFocus
                                                                End Sub
Exit Sub
handler:
                                                                Private Sub Command2 Click()
MsgBox Err.Description
                                                                On Error GoTo handler
                                                                wol = InputBox("Enter Quantity", "Add to current existing
End Sub
                                                                stock")
                                                                If wol ⇔ "" Then
Codes for FrmInvent.frm
                                                                datPrimarvRS.Recordset.Edit
                                                                txtFields(3) = Val(txtFields(3)) + Val(wol)
Private Sub cmdAdd Click()
                                                                End If
On Error GoTo handler
                                                                Exit Sub
                                                                handler:
 datPrimaryRS.Recordset.AddNew
```

Exit Sub handler:

MsgBox Err.Description

MsgBox Err.Description

Private Sub Command3 Click()

**End Sub** 

On Frror GoTo handler

wol = InputBox("Enter Item Description", "Quick Find Item") datPrimaryRS.Recordset.FindFirst ("Desc=" & "'" & wol & "'")

If datPrimaryRS.Recordset.NoMatch = False Then datPrimaryRS.Recordset.Move (0)

330

MsgBox "No Match", vbInformation

End If

Exit Sub

handler:

MsgBox Err.Description

End Sub

## Private Sub datPrimaryRS\_Error(DataErr As Integer, Response As Integer)

"This is where you would put error handling code 'If you want to ignore errors, comment out the next line 'If you want to trap them, add code here to handle them MsgBox "Data error event hit err:" & Error\$(DataErr) Response = 0 "Throw away the error

End Sub

#### Private Sub datPrimaryRS\_Reposition()

'Screen, MousePointer = vbDefault

On Error Resume Next

This will synch the grid with the Master recordset

datSecondaryRS.RecordSource = "select

[code].[Name],[Address] from [customer] where [code]=" & datPrimaryRS.Recordset![Code] & "" & " Order by [code]" datSecondaryRS.Refresh

"This will display the current record position for dynasets and snapshots

dotPrimaryRS.Caption = "Record: " &

(datPrimaryRS.Recordset.AbsolutePosition + 1)

**End Sub** 

## Private Sub-datPrimaryRS\_Validate(Action As Integer, Save As Integer)

"This is where you put validation code

This event gets called when the following actions occur Select Case Action

Case vbDataActionMoveFirst

Case vbDataActionMovePrevious

Case vbDataActionMoveNext

Case vbDataActionMovel.ast

Case vbDataActionAddNew

Case vbDataActionUpdate

Case vbDataActionDelete

Case vbDataActionFind

Case vbDataActionBookmark

Case vbDataActionClose

'Screen.MousePointer = vbiDefault

End Select

'Screen MousePointer = vbHourglass

End Sub

#### Private Sub DBCombo! LostFocus()

On Error GoTo handler

Data1.Recordset.FindFirst ("Name=" & "'" &

DBCombol.Text & """)

If Data L. Recordset. No Match = True Then

RESP = MsgBox("The Category \*\*\* " & DBCombo1 & "" & "Does not Exist Do you want it Registered (Y/N)?", vbYesNo

+ vbInformation)

If RESP = vbYes Then

Data1.Recordset.AddNew

Data1.Recordset![Name] = DBCombo1

Data1.Recordset.Update

Data LRefresh

Else

DBCombot = ""

DBCombol.SetFocus

End If

End If

Exit Sub

handler:

MsgBox Err.Description

End Sub

Private Sub TxtFields Change(Index As Integer)

If Index = 5 Then

If  $ixtFields(5) \Leftrightarrow$  "" Then

If  $Val(txtFields(5)) \le 0$  Then

MsgBox "Negative Re-Order Level"

txtFields(5) = \*\*\*

End If

End If

End If

End Sub

#### Public Sub GenCode()

Set dbs = OpenDatabase("c:\hwares\homewares.mdb")

Set rstTemp = dbs.OpenRecordset("SELECT \* FROM

ItemInvent WHERE Category =" & "" & DBCombol & """)

dbs.Recordsets.Refresh

If rstTemp.EOF = False Then rstTemp.Movel.ast

Data1.Recordset.FindFirst ("Name =" & "" & DBCombo1 & "")

'MsgBox Data1.Recordset.NoMatch

'Data1.Recordset.Move (0)

If Data1. Recordset. NoMatch = False Then

Data1.Recordset.Move (0)

TheCategoryCode = Data1.Recordset![Code]

TheCode = TheCategoryCode & rstTemp.RecordCount + 1

txtFields(0). Text = TheCode

Else

MsgBox "The Category not registered"

End If

**End Sub** 

#### Codes for FrmMainMenu.frm

#### Private Sub Command1 Click()

FrmInvent.SSTab1 Tab = 1

FrmInvent.SSTab1.TabVisible(1) = True

FrmInvent.SSTab1.TabVisible(0) = False

FrmInvent.Show 1

#### End Sub

Private Sub Command 10 Click()

Frame5. Visible = True

mode = 3

End Sub

Private Sub Command12 Click()

FrmPayrollInfor.Show 1

End Sub

Private Sub Command13 Click()

Frame6. Visible = False

End Sub

Private Sub Command 15 Click()

FrmGAccount.SSTab1.Tab = 1

FrmGAccount.Show I

End Sub

Private Sub Command 16 Click()

FrmGAccount.SSTab1.Tab = 0

FrmGAccount.Show I

End Sub

Private Sub Command18 Click()

lndex = 6

Call Label 5 Click(6)

End Sub

Private Sub Command2\_Click()

FrmInvent.SSTab1.Tab = 0

FrmInvent.SSTab1.TabVisible(0) = True

FrmInvent.SSTab1.TabVisible(1) = False

FrmInvent.Show I

**End Sub** 

Private Sub Command21 Ciick()

mode = 1

FrmModifyInvent.Data1.RecordSource = "SELECT \* FROM

[Invent]WHERE StockType = 'Non-Fixed'"

FrmModifvInvent.Data1.Refresh

FrmModifyInvent.Show 1

End Sub

Private Sub Command22 Click()

irmItemInvent.Show 1

End Sub

Private Sub Command24 Click()

frmCategory.Show I

End Sub

Private Sub Command25 Click()

frmCustDetails.Show I

End Sub

Private Sub Command28\_Click()

Index = 6

Call Label5 Click(6)

#### End Sub

Private Sub Command3 Click()

Frame5. Visible = True

mode = 2

End Sub

Private Sub Command4\_Click()

FrmStaffRepDialog.Show 1

End Sub

Private Sub Command5 Click()

FrmStudRepDialog.Show 1

End Sub

Private Sub Command6 Click()

Frame5. Visible = True

mode = 1

**End Sub** 

Private Sub Command7 Click()

frmTransaction.Show 1

End Sub

Private Sub Command8 Click()

RESP = InputBox("Enter Form Number?", "Form

Validation")

wole = RESP

frmStudForm.datPrimaryRS.Refresh

firmStudForm.datPrimaryRS.Recordset.FindFirst~("FormNo="

& "'" & RESP & "'")

If frmStudForm.datPrimaryRS.Recordset.NoMatch = True

Then

well = MsgBox("Form Number does not Exist", vbOKCancel

+ vbInformation)

Exit Sub

Else

FrmRegister.datPrimaryRS.RecordSource = "SELFC" \*

FROM [StudRec] WHERE FormNo = " & "" & RESP & ""

FrmRegister.datPrimaryRS.Refresh

FrmRegister.datPrimaryRS.Recordset.AddNew

FrmRegister.txtForm.Text = RESP

FrmRegister.datPrimaryRSF.Recordset.AddNew

FrmRegister.datPrimaryRSM.Recordset.AddNew

FrmRegister.datl?rimaryRSO.Recordset.AddNew

FrmRegister.cmdAdd.Enabled = False

FrmRegister.Show 1

End If

End Sub

Private Sub Command9 Click()

cboselectmonth.Clear

cboselectmonth.Text = Format(Now, "dd-mmm-vyvy")

FrmPayrollInfor.Show 1

Data4.Refresh

With Data4.Recordset

cbobanks.Clear

cbobanks.Addltem ("All Staff")

Do While .EOF = False

cbobanks.AddItem ![staffnum]

MoveNext Loop End With fraSelectMonth.Visible = True Data5.Refresh Do While Data5 Recordset EOF = False Data5.Recordset.Delete Data5.Recordset.MoveNext Loop Exit Sub End Sub

#### Private Sub Form Load()

If AccessLevel <> 1 Then mnut. Visible = False mnuTo. Visible = False End If sbStatusBar.Panels(2).Text = UserName Me.Caption = CovName Label9.Caption = CoyName End Sub

#### Private Sub Label5\_Click(Index As Integer)

If lndex = 6 Then RESP = MsgBox("Exiting " & CoyName & "...Continue (y/n)", vbYesNo + vbInformation) If RESP = vbYes Then End Else Exit Sub End If End If End Sub

#### Private Sub Label5 MouseMove(Index As Integer, Button

As Integer, Shift As Integer, X As Single, Y As Single) If Index <= 2 Then Image6. Visible = True Image7.Visible = False Image4. Visible = Faise Image5. Visible = False End If If Index = 3 Or Index = 4 Then Image6. Visible = False Image7. Visible = False Image4. Visible = False Image5. Visible ≈ True End If If Index = 5 Then Image6. Visible = False lmage7. Visible = True

Image5. Visible = False

End If image4. Visible = False Image5. Visible = False End If If Index = 6 Then Imageó. Visible = False Image7. Visible = False lmage4. Visible = True

Find If

If Index = 0 Then Framel. Visible = True Frame2. Visible = False 'Frame3, Visible = False Frame4. Visible = False Frame7. Visible = False Frame8. Visible = False Frame9. Visible = False Find If

If Index = 1 Then Frame4. Visible = True 'Frame3. Visible = False Frame2. Visible = False Framel. Visible = False Frame7. Visible = False Frame8. Visible = False Frame). Visible = False End If

If Index = 2 Then Frame 3.V sible = False Frame2. Visible = False Frame4. Visible = False Frame L. Visible = False Frame7. Visible = False Frame8. Visible = True Frame9. Visible = False End If

If Index = 3 Then Frame2. Visible = True Frame1. Visible = False 'Frame3, Visible = False Frame4. Visible = False Frame7. Visible = False Frame8. Visible = False Frame9. Visible = False End If

If Index = 4 Then Frame3. Visible = False Frame2. Visible = False Framel. Visible = False Frame4. Visible = False Frame7. Visible = True Frame8. Visible = False Frame9. Visible = False

If Index = 5 Then Frame3. Visible = False Frame2. Visible = False Frame1. Visible = False Frame7. Visible = False Frame4. Visible = False Frame8. Visible = True

Frame9. Visible = False End If

If Index = 6 Then Frame3.Visible = False Frame4.Visible = False Frame4.Visible = False Frame1.Visible = False Frame8.Visible = False Frame9.Visible = True Had If

Label5(Index).ForeColor = vbYellow For i = 0 To 6 If i <> Index Then Label5(i).ForeColor = vbRed Next i

End Sub

#### Private Sub mnu3 Click()

temp = ""

mode = 1
TheFinancialFlag = 1
timiFinanceReport.Show
End Sub

#### Private Sub mnu4 Click()

temp = ""
mode = 2
ThelfinancialFlag = 2
finnFinanceReport.Show
End Sub

#### Private Sub mnu5\_Click()

temp = ""
mode = 3
TheFinancialFlag = 3
ihmilinanceReport.Show

End Sub

#### Private Sub mnu6\_Click()

temp = ""
mode = 4
ThelfinancialFlag = 4
EmFinanceReport.Show

End Sah

#### Private Sub mnu7 Click()

temp = ""
mode = 5
The Financial Flag = 5
fim Finance Report. Show
End Sub

#### Private Sub mnuAB\_Click()

fmAboutShow 1 End Sub

#### Private Sub mnuC Click()

On Error GoTo handler

Exit Sub

handler:

MsgBox Err.Description

End Sub

#### Private Sub mnuCL\_Click()

frmView.CR1.ReportFileName = "c:\Hwares\customer.rpt"
RepTitle = "LIST OF ALL CUSTOMERS"
frmView Show 1

**End Sub** 

#### Private Sub mnuD\_Click()

On Error GoTo handler

Set dbs = OpenDatabase("c:\Hwares\Homewares.md\s' myquery1 = "Select \* From PayDetails WHERE bal > 0" dbs.Execute ("DELETE \* FROM PayDTrash") dbs.Execute ("INSERT INTO PayDTrash" & myquery1) RepTitle = "LIST OF ALL DEBIT CUSTOMERS" frm View.CR1.Formulas(4) = "Desc =" & "'Total Debit frm View.CR1.ReportFileName = "c:\Hwares\cusstatus...pt" frm View.Show 1

Exit Sub

handler:

MsgBox Err.Description

End Sub

#### Private Sub mnui2 Click()

fimView.CR1.ReportFileName = "e:\Hwares\itemlist.rpt"
RepTitle = "LIST OF ALL ITEM WITH THEIR
CATEGORY"
frmView.Show 1

End Sub

#### Private Sub mnul3 Click()

finnView.CR1.ReportFileName = "c:\Hwares\category...p.t"
RepTitle = "LIST OF ITEM CATEGORY"
frmView.Show 1
End Sub

#### Private Sub mnuI4\_Click()

frmView.CR1.ReportFileName = "c:\Mwares\iteminvent.rpt" RepTitle = "LIST OF CURRENT INVENTORY OF ITEMS" frmView.Show 1

**End Sub** 

#### Private Sub mnuPAD\_Click()

fmPass.Show 1 End Sub

Private Sub mnupf\_Click()
RepTitle = "PROPOSED PROFIT ON CURRENT STOCK" fmView.CR1.ReportFileName = "c:\Hwares\profit1.rpt" frmView.Show 1

End Sub

## Private Sub mnuPl\_Click() FrmGenInvoice.Show

End Sub

#### Private Sub mnuSS\_Click()

FrmSettings.Show 1

End Sub

#### Private Sub Timer2\_Timer()

if Label9.Left <= FrmMain!vienu.Left - FrmMainMenu.Width = 900 Then Label9.Left = FrmMainMenn.Width End If Label9.Left = Label9.Left - 16 End Sub

#### 3.9 OUTPUT SPECIFICATION

For the output of processing to be view (on Paper or Screen) they have to be first written to a file (Database Table) before they are sent to any output medium (Printer- for Hardcopy or Screen – for Softcopy). It should be noted that most (in fact all) of this Table are generic, with the sole aim of 'dumping' Report data/information and are deleted afterwards. It is also note-worthy that a generated table could be used for/by many Reports.

#### > TrashGAcct

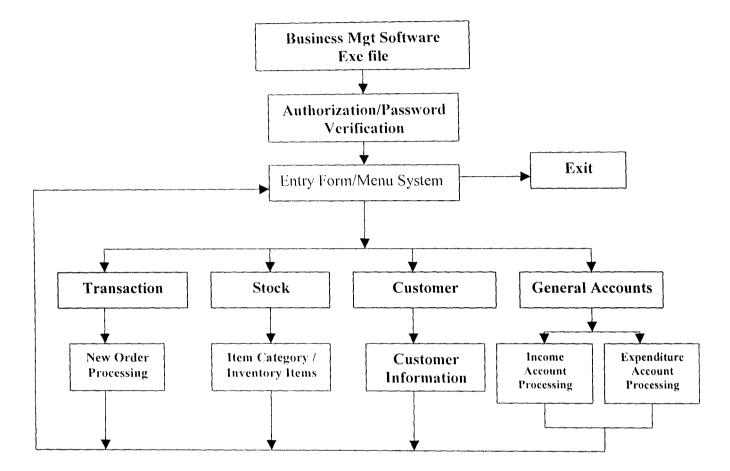
Fields Name	DataType	Field Size	Field Meaning
TransType	Text	50	Transaction Type
TransAmount	Currency	8	Amount
TransDate	Date/Time	8	Transaction date
TransTo	Text	50	Transaction total
Receipt-No	Text	20	Receipt No. Issued
TransUnit	Double	8	

#### > PayDTrash

Fields Name	Data Type	Field Size	Field Meaning
Cuscode	Text	15	Customer Code
OrderNo	Text	15	Order Number
VAT	Currency	8	Charge for VAT
Paid	Currency	8	Amount paid
PayType	Text	10	Payment Type (Cash or Cheque)
Bal	Currency	8	Balance
BankName	Text	60	Bank Name
ChequeNo	Text	20	Cheque Number
AccountNo	Text	20	Account Number
Date	Date/Time	8	Date of Payment

This table is indexed on the Cuscode and OrderNo fields.

#### 3.10 PROCEDURE CHART

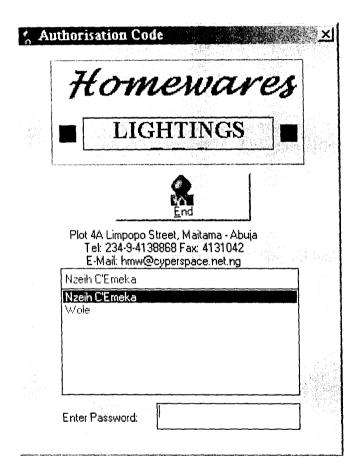


#### 3.11 INPUT DESIGN

The Design of Screens (FORMS as called in Visual Basic) is important in any system development process, because it is through this Forms (interface) that the User actually communicates with the program, thus, the efficiency or robustness of a program is firstly determined by the User interface (Forms). It is the user friendliness of the Forms in a program that determines whether is Software is good or not. With this taken into consideration, the following input designs are used.

FormAccess (Access.frm)

Screen Purpose: This Form doubly serves as the Welcoming Screen as well as the authorization check-point of the Homewares Management Softwares. Here it is expected that the user should supply his/her Username and Password to gain access to the system proper. An incorrect entry of either the Username or the Password makes the user an invalid user.



#### FrmMainMenu.Frm

Screen Purpose: This is the Main menu Form that contains the different activities the system can do. Different operational options are available on the main menu form for users to choose. The main menu form displays two types of menu items, the horizontal pull down menu and the vertical pop-up menus;

The functions performed by the horizontal menu items are;

#### REPORTS

- General Transaction Reports: This option displays the general transaction reports on a monthly, daily, weekly, quarterly or yearly basis based on the option selected. This option also displays the expected profit Analysis, Credit List, Debtor List and can be used to Print Invoices.
- *General Income:* This is used to invoke the report that displays the income breakdown from all preceding transactions.
- General Expenditure: This is used to invoke the report that displays all expenditure (expense) carried out the organization.
- Balance Sheet: This option is used to prepare a trial balance from all transactions. It
  used a time frame to query the tables containing transaction information.
- Inventory Analysis: This option is used to display a listing of, List of Stock Items,
   Item Category Listing and Customer List.

#### **TOOLS**

- Password Administration: This is used to set the list of Authorized User Name and their password. The name and password are input when Frmaccess (Access.Frm) is display when the software starts.
- Software Settings: This is used to set company particulars (Name and Address) of the organization that would be making used of the software.

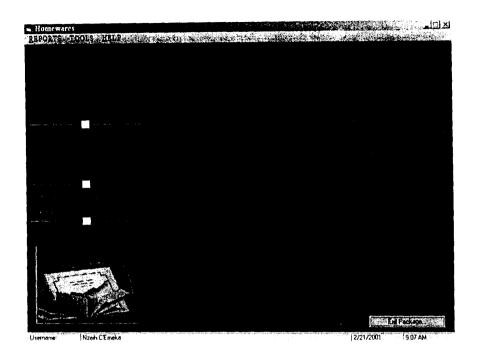
The Vertical Pop-Up menu displays a set of command buttons on the right hand side of the screen when they receive focus (when the mouse pointer rests on any of the menu item). The

vertical menu items are used mainly to enter data into an underlying table or process a transaction. When any of the vertical menu item receives focus a set of command buttons appears on the right and the user can select by clicking any of the options that corresponds with the intended operation.

#### **TRANSACTION**

- Transaction: This displays the main transaction entry form, general invoice, find and updates and edits an existing order and performs general transaction process.
- Stock Details: This option is used to add or view Item category.
- Customer Details: This is displays the form that is used to send customer information to the Customer table.
- House Ware Inventory: is used to add and view item inventory and make inventory requisition.
- House General Accounts: This is used to view and update income and expenditure account information.
- *End:* This option is used to exit the application. Whe it is clicked it displays a message box that prompt the user to continue or exit the application environment.

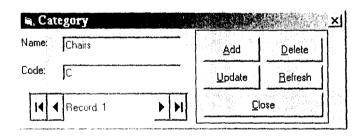
The FrmMainMenu also display a status bar at the bottom of the screen that displays the name of the current user, time and time.



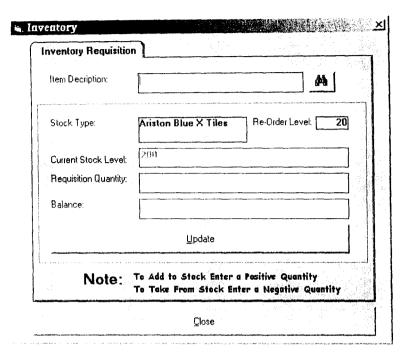
### frmCategory.frm

Screen Purpose:

This is the input design that is used to add or delete item categories.

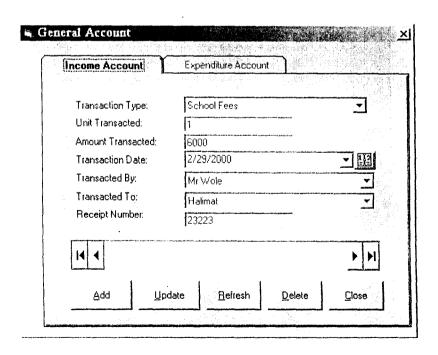


The **frmInvent.frm** can also be modified to display requisition when an inventory requisition is to be made.

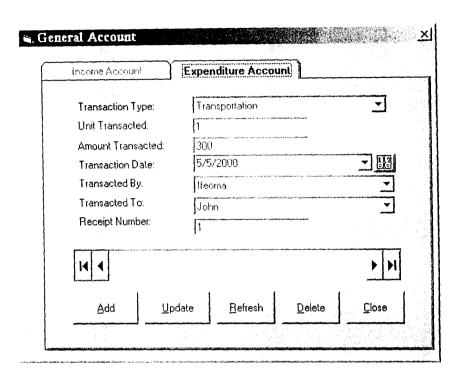


#### frmGAccount.Frm

Screen Purpose: This screen is used to input parameters for general accounts. That is income and expenditure accounts.

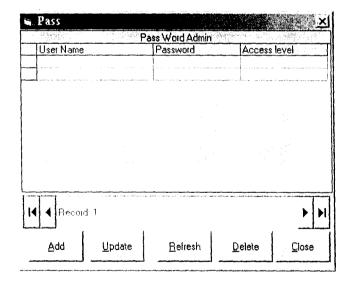


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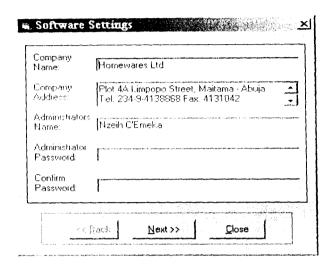
#### frmPass.frm

Screen Purpose: for entering new and editing existing user password and access levels.

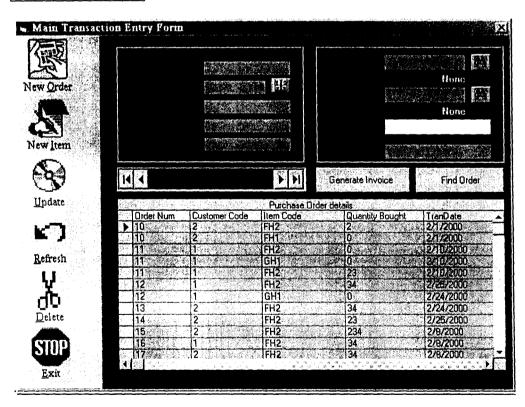


#### frmSetting.frm

Screen Purpose: this form is used to enter company particulars and name of administrators password.



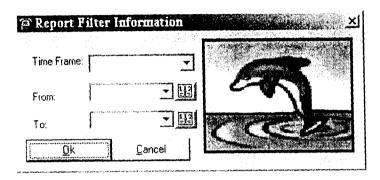
#### frmTransaction.frm



Screen Purpose: This form is use to place new orders, editing or delete and existing order, generate invoices and for general transaction processing.

#### FrmGetFilter.frm

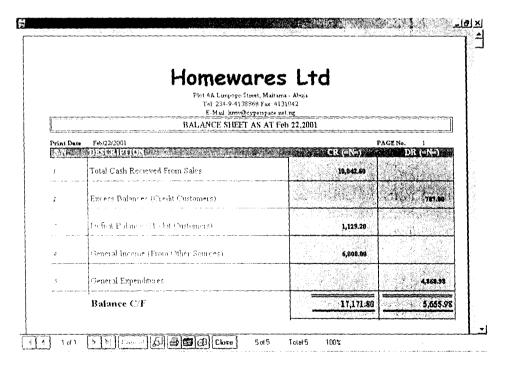
Screen Purpose: This is used to specify the period or time frame or a financial report would be generated.



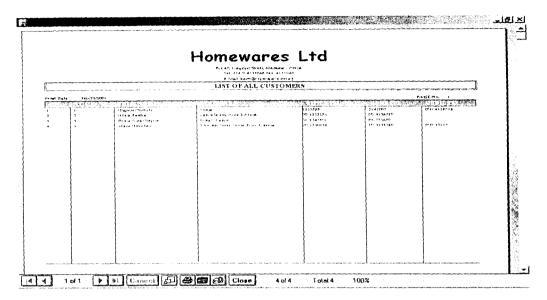
#### 3.12 OUTPUT DESIGN

Output Design (REPORTS as called in Visual Basic) is also important in any system development process. Reports can either be displayed on the screen or printed on paper. A good report is a basic instrument for management decision making, thus for a report to be alright it has to contain all bit of information required in it. The following output designs are used.

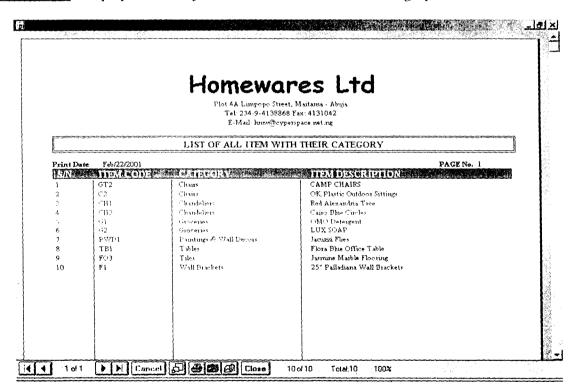
BalSheet.rpt: displays or prints the balance sheet as at the month specified.



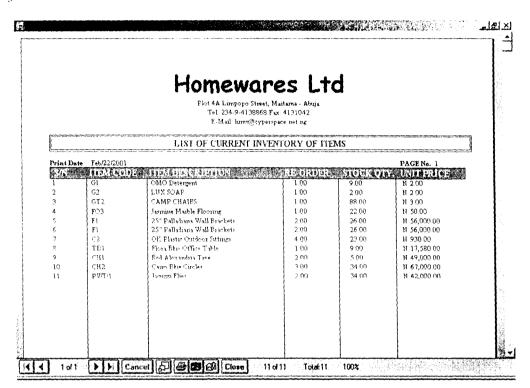
Customer.rpt: diplays the list of all registered customers and their other particulars.



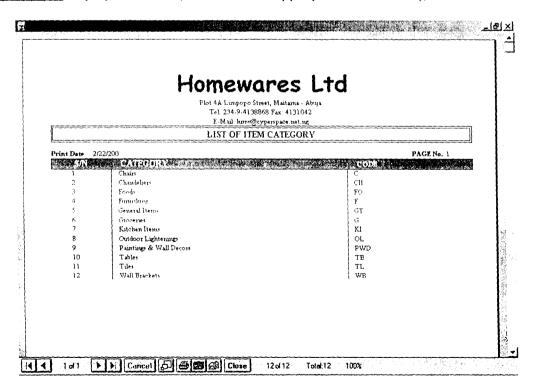
Itemlist.rpt: displays the list of all item in stook with their category.



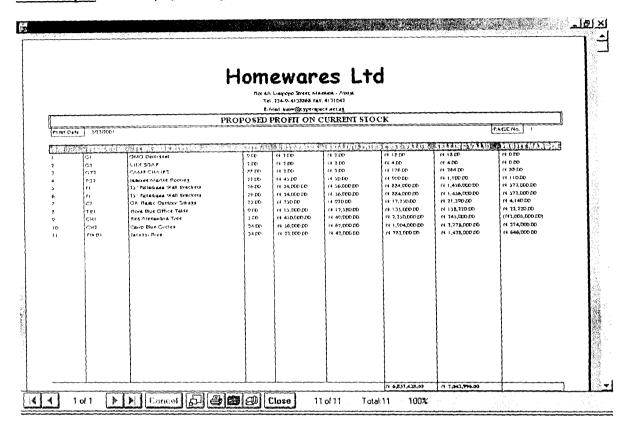
<u>ItemInvent.rpt</u>: displays Items in Inventory, the quantity in stock and the unit selling price of each item.



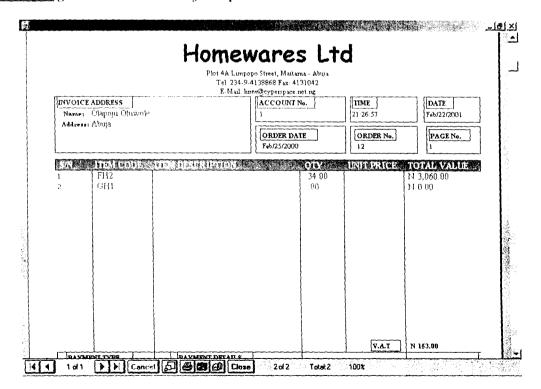
Category.rpt: displays item categories and the appropriate codes assigned to them.



**Profit1.rpt:** shows the profit the organization stands to make from selling outstanding items in stock.



Invoice.rpt: generates an invoice for a processed transaction/order.



#### CHAPTER FOUR

#### **System Implementation**

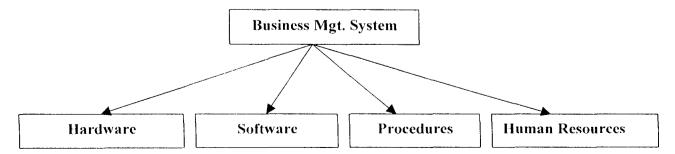
#### 4.1 INTRODUCTION

Implementation is the process of applying the developed system for the purpose it is meant for. System implementation involves the development of quality assurance procedures, including data security, back-up, recovery and system control system implementation objective is to complete the orderly and unobtrusive installation of the new system. During the system implementation, the new system is installed and users have the opportunity to operate the new system in "parallel" with the existing system.

The system implementation comprises the following task:

- Application system installation
- Documentation to provide user manuals
- Users Training on the new system
- Parallel system testing
- Data conversion/migration
- Acceptance of Testing
- System setup

# 4.2 REQUIREMENTS FOR IMPLEMENTING A BUSINESS MANAGEMENT SOFTWARE.



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#### 4.2.1 Hardware Requirement

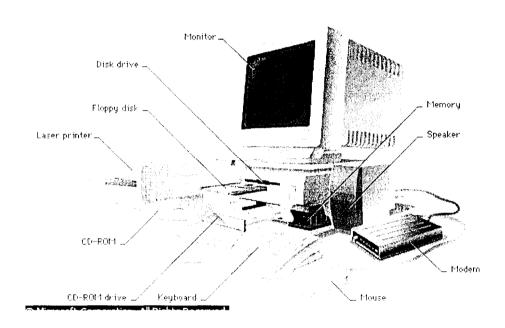
The Hardware requirement for implementing the Computer Based Business Management System is Complete PC (Personal Computer) and its associated accessories.

Personal Computer (PC) are machine capable of repetitively and quickly performing calculations and instructions. Designed to be used by a single person, a PC is smaller, less expensive, and easier to use than other classes of computers, such as supercomputers, mainframe computers, and workstations.

PCs have revolutionized entertainment, science, the media, art, medicine, education, and business because they provide computational abilities at a low cost to people with no extensive programming experience. PCs enable artists to envision and manipulate images. Musicians use them for learning, creating, and recording music. Businesses track finances and forecast company performance using PCs. Foreign correspondents can compose news stories on portable PCs, called laptops, and electronically submit these stories from remote locations. Many people work at home and communicate with fellow workers via their PCs in a practice known as telecommuting. PCs are also able to interface with worldwide communication networks, such as the Internet, and the graphics-based information database known as the World Wide Web to find information on any subject.

PCs consist of electronic circuitry called a microprocessor, such as the central processing unit (CPU), that directs logical and arithmetical functions and runs computer programs. A PC also

has electronic memory to temporarily store programs and data and mass storage devices—such as hard, floppy, and compact disc (CD-ROM) drives—to permanently store programs and data. Information and commands are entered by the user via a keyboard or a pointing device called a mouse. Information from the PC is displayed on a video monitor or on a liquid crystal display (LCD) video screen, or it can be printed on laser, dot-matrix, or inkjet printers



With the continuous manufacturing of Microprocessors of higher computing strength by major processor manufacturers such as Intel Inc AMD (advance Micro Devices) and Cyrix Technologies Corp., the power of PCs have grown sporadically in recent times. PCs have gradually grown from stand alone and single user computers to system that can support a network for multi user access. PC has gradually encroached into areas that hitherto used to be the exclusive domain of Minis and mainframe computers. With the entry of newer

processor models like the Intel Pentium III series, AMK K62-3D and others the market the computing strength of PCs would continue to be on the increase.

#### Hardware Specification

- > Intel Pentium III 700
- ➤ 64 MB Synchronous DRAM.
- ➤ 8 MB AGP Set.
- > 10.2 Gb Hard Disk Drive.
- ➤ 52x CD-ROM.
- > 15" Super VGA.
- Minitower ATX Casing.
- ➤ Microsoft PS/2 Mouse
- ➤ 1.4MB 3.5" FDD.
- Windows PS/2 Keyboard.
- IOMEGA 250MB Zip Disk.
- Full Multimedia.

#### Other Accessories.

- > HP Deskjet 1120 Printer.
- > APC 650 Smart UPS.

#### 4.2.2 Software Requirement

The software required by the system is a combination of both required operating (system software) and the application software is a business management software.

Operating System is the basic software that controls a computer. The operating system has three major functions: It coordinates and manipulates computer hardware, such as

computer memory, printers, disks, keyboard, mouse, and monitor; it organizes files on a variety of storage media, such as floppy disk, hard drive, compact disc, and tape; and it manages hardware errors and the loss of data.

Operating systems control different computer processes, such as running a spreadsheet program or accessing information from the computer's memory. One important process is the interpretation of commands that allow the user to communicate with the computer. Some command interpreters are text oriented, requiring commands to be typed in. Other command interpreters are graphically oriented and let the user communicate by pointing and clicking on an *icon*, an on-screen picture that represents a specific command. Beginners generally find graphically oriented interpreters easier to use, but many experienced computer users prefer text-oriented command interpreters because they are more powerful.

Operating systems are either single-tasking or multitasking. The more primitive single-tasking operating systems can run only one process at a time. For instance, when the computer is printing a document, it cannot start another process or respond to new commands until the printing is completed.

The operating that would be used for the system would be the Microsoft Windows Operating System; any of the following versions of Windows would suffice; Microsoft Windows 98, Windows Me (Millennium Edition) and Microsoft Windows 2000 Professional.

#### 4.2.3 Human Resources Requirement

The existing staff of the company would be trained on the mode of operation of the system.

This is necessary because it would be easier for the personnel that are already conversant with the operations of the manual system to understand the new system. Therefore it is not necessary for new persons to be recruited.

#### 4.2.4 PROCEDURES

Procedures are step-by-step method(s) of using a system to be able to achieve result. A procedure in the context of this project is a physical component because they are provided in a physical form such as manual and instruction booklets. The major types of procedures that are required are:

- User instructions
- Instruction for preparation of input
- Operating instructions for the computer center personnel.

#### 4.3 SYSTEM TESTING

After the installation of the new system, the system must undergo a test, once all the programs have been written and the training of the personnel to use the system is completed. The system testing is to ensure that all the sub-programs have been efficiently and correctly written. The system testing entails the execution of the program with test data so as to enable the system developer and the management to know the operational efficiency of the system. The system testing will also enable the designer to correct errors and delete programs or modules that are not efficient or relevant by a process called debugging, using test data input into the programs so as to produce the desired output reports. Test data of all possible

type/kind are used in other that all likely behaviors of the system to the input is ascertained before actual system implementation.

During this task, the Programmers or the System designer(s) assists the project staff in conducting the testing of the developed system so as to ensure that the system meets all the users needs and requirements. System—testing entails the testing and certification of the system developed. This phase ensures that all required features, functions and capabilities are present in the system developed, and that all other requirements are met. Any necessary revisions are made during the system testing.

It is note-worthy that test data should be of 'real-live' nature.

#### 4.4 SYSTEM SET-UP

After the successful System Testing, and the system output or requirements are mutually accepted by the Users of the system, the System Analyst and System Programmer(s), the next thing in the system implementation line is the setting up of the installed system, that is, putting in place or entering the basic information necessary for the system smooth take off.

Setup information in this new system include:

• Authorization Setup: Here it is required to identify the users of the new system and Password assigned to them. It is also note-worthy that not every user can have unlimited access to the entire system, thus, access levels would also be determined for each user of the system. Authorization need not be done every time the system is ran, but only when new users are to be given access to the system or if modification is necessary – changing password or access level. The assignment of access to users can only be done be the System Administrator.

• User Information: The new system is an 'open-system', and can be used by any other organization or company that uses or want to use the same method in this system for its pension administration. Thus it is pertinent that the user information is supplied once, upon the first running of the system.

#### 4.5 CHANGE-OVER & DATA MIGRATION

The change over from old to new system may take place when the system has been proved to the satisfaction of the new System Analyst and the other implementation activities have been completed.

The method and approach used for the change over is the parallel running system. The parallel system testing means processing current data by both the old and new system concurrently, to cross check the result and compares them. The main advantage is that the old system is kept alive and operational until the new system has been proved for at least one system circle. Using 'real-live' data in the real operational environment of the equipments, people and data, the results of the new system will be compared with old system to ensure the efficiency, capability and durability before acceptance by the user.

The change over task is designed to ensure that the software developed replicate the functionality of the system to be replaced.

Once the change over ends, the user staff complete their training and the parallel system testing are successful, the conversion of records of the old system to the file format of the new system, which involve data entry/capture of several forms of data using the software (*Data Migration*), is necessary.

### Chapter Five

#### 5.1 Conclusion

For Computers to be effectively put to use; there must be software that would be used to complement functions of the hardware. The Business Management Software have been designed with the principles of effective Software development in mind. This is aimed at making the Software user friendly, hence easy to use. Full Windows feels and look features and controls have been properly used. Hence the software can be used with minimal supervision.

#### 5.2 Recommendation

This software is recommended for use by any organization involved in the nature of business as specified by that carried out by Homeware Lightening Systems Ltd. The Software can be adapted to suit the business by changing the Company Name, Address and Administrators particulars. Also the source code for the software can be modified if need be to incorporate other business function to suit the need of any organization.

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Microsoft Encarta Encyclopaedia, Micosoft Inc., Redmond WA, USA 1999.

#### Code for Module 1 (Hwares.has)

Public dbs As Database

Public TheOrderNo As String

Public ultern As ListItem

Public rstTemp As Recordset

Public State, UserName, RepTitle As String Public Time, CoyName, CoyAdd As String

Public VAT, TransSum, NewTransSum As Double Public TheCurrentStock, ScilingPrice As Double

Public mode, PrintMode, AccessLevel, TheFinancialFlag As

Integer

#### Codes for FrmAccess.frm

Public mode As Integer

#### Private Sub Command1\_Click()

If Command I. Caption = "&Start" Then

FrmAccess.Height = 6540

Command! Caption = "&lind"

Exit Sub

End If

If Command L. Caption = "& End" Then End

End Sub

#### Private Sub DBCombol Click(Area As Integer)

Text1.SetFocus

End Sub

#### Private Sub DBComboi\_KeyPress(KeyAscii As Integer)

Call Text1\_KeyPress(13)

End Sub

#### Private Sub Form Click()

RESP = MsgBoxt"Do you want to exit y/n?", vbYesNo +

vbCritical)

If RESP = vbYes Then End

End Sub

#### Private Sub Form Load()

On Error GoTo handler

mode = 1

FrmSettings.Data1.Refresh

If FrmSettings.Data1 Recordset.EOF = False Then

FrmSeitings.Datal.Recordset.MoveFirst.

CoyName = FrmSettings.Data1.Recordset![CoyName]

CoyAdd = FrmSettings.Data1.Recordset![CoyAdd]

VAT = FrmSettings.Data1.Recordsett[VAT]

Else

FranSettings.Show I

FrinSettings.Data1 Refresh

If FrmSettings.Data1.Recordset.EOF = False Then

FrmSeitings.Data1.Recordset.MoveFirst

CoyName = FrmSettings.Data1.Recordsetl[CoyName]

CoyAdd = FrmSettings.Data1.Recordset\*{CoyAdd}

VAT = FrmSettings.Data1.Recordset[[VAT]]

Hise

MsgBox "No Company Settings found in Database. Some operations may be abnormal"

Find H

Fad Fi

Labell Caption = CovAdd

Me.Caption = "Authorisation Code"

Data LRefresh

**Exit Sub** 

handler.

MseBox Err.Description

End Sub

#### Private Sub Text1 KeyPress(KeyAscii As Integer)

If KeyAseii = 13 Then

Data LRefresh

With Data1 Recordset

Do While EOF = False

If Trim(TextLText) = ![Password] And

Trim(DBCombol.Text) = \[ \PserName\] Then

AccessLevel = ![AccessLevel]

UserName = DBCombol Text

FrmMainMenu.Show

Unload FrmAccess

Exit Sub

End If

.MoveNext

Loop

MseBox "invalid user"

Find With

Had If

End Sub

#### Private Sub Timer()

If Label1 Left <= Frankecess Left - Frankecess Width = 200

Then

Labell Left - hrmAccess.Wadth

End If

Labell Lett = Labell Left - 10

Had Sub

Private Sub Timer2 Timerca

If Frame Likeight >= 1695 Then

Commandl Hnabled = True

GoTo ending

End If

Frame I Height = Frame I Height + 10

ending:

End Sub

#### Code for FrnCAtegory,fim

#### Private Sub cmdAdd Click()

On Error GoTo handler

datPrimaryRS.Recordset.AddNew

Hait Sub

handler:

MsgBox Err.Description

#### nd Sub

#### rivate Sub emdDelete Click()

in Error GoTo handler

With datPrimaryRS.Recordset

RESP = MsgBox("The Current Record would be

Deleted...Continue (Y/N)", vbYesNo + vbInformation)

If RESP = vb Yes Then

.Delete

MoveNext

If EOF Then MoveLast

End If

End With

Exit Sub

handler

MsgBox Err.Description

End Sub

#### Private Sub cmdRefresh Click()

On Error GoTo handler

"This is only needed for multi-user apps

datPrimaryRS.Refresh

Exit Sub

handler:

MsgBox Err.Description

End Sub

#### Private Sub emd Update Click()

On Error GoTo handler

datPrimaryRS.UpdateRecord

datPrimaryRS.Recordset.Bookmark =

datPrimaryRS.Recordset.LastModified

Exit Sub

handler:

MsgBox Err.Description

**End Sub** 

#### Private Sub cmdClose\_Click()

Unload Me

End Sub

## Private Sub\_datPrimaryRS\_Error(DataErr As Integer, Response As Integer)

'This is where you would put error handling code

'If you want to ignore errors, comment out the next line

'If you want to trap them, add code here to handle them

MsgBox "Data error event hit err:" & Error\$(DataErr)

Response = 0 "Throw away the error

End Sub

#### Private Sub datPrimaryRS Reposition()

On Error Resume Next

This will synch the grid with the Master recordset

datSecondaryRS.RecordSource = "select

[code],[Name],[Address] from [customer] where [code]="" & datPrimaryRS.Recordset![Code] & """ & " Order by [code]"

datSecondaryRS.Refresh

This will display the current record position for dynasets and snapshots

datPrimaryRS,Caption = "Record: " & (datPrimaryRS,Recordset,AbsolutePosition + 1)

End Sub

## Private Sub-datPrimaryRS\_Validate(Action As Integer, Save As Integer)

This is where you put validation code

This event gets called when the following actions occur

Select Case Action

Case vbDataActionMoveFirst

Case vbDataActionMovePrevious

Case vbDataActionMoveNext

Case vbDataActionMoveLast

Case vbDataActionAddNew

Case vbDataActionUpdate

Case vbDataActionDelete

Case vbDataActionFind

Case vbDataActionBookmark

Case vbDataActionClose

'Screen MousePointer = vbDefault

End Select

'Sercen, MousePointer = vbHourglass

End Sub

## Private Sub Txtfields\_KeyPress(Index As Integer, KeyAscii As Integer)

If KeyAseii = 13 Then If Index = 0 Then Txtfields(1) = Left(Txtfields(0), 1)

End Sub

#### Codes for frmCustDetails

#### Private Sub cmdAdd\_Click()

On Error GoTo handler

datPrimaryRS.Refresh

If datPrimaryRS. Recordset. EOF = False Then

datPrimaryRS.Recordset.MoveLast

datPrimaryRS.Refresh

datPrimaryRS.Recordset.AddNew

txtFields(0).Text = datPrimaryRS.Recordset.RecordCount =

txtFields(1).SetFocus

Exit Sub

handler:

MsgBox Err.Description

End Sub

#### Private Sub cmdDelete Click()

On Error GoTo handler

With datPrimaryRS.Recordset

RESP = MsgBox("The Current Record would be

Deleted...Continue (Y/N)", vbYesNo + vbInformation)

If RESP = vbYes Then

.Delete

.MoveNext

If EOF Then MoveLast

End If

End With

Exit Sub

idler: 1sgBox Err.Description rd Sub

#### ivate Sub cmdRefresh\_Click()

a Error GoTo handler This is only needed for multi-user apps IntPrimaryRS.Refresh Exit Sub andler: MsgBox Err.Description ind Sub

#### Private Sub cmdUpdate\_Click()

On Error GoTo handler datPrimaryRS.UpdateRecord datPrimaryRS.Recordset.Bookmark = datPrimaryRS.Recordset LastModified Exit Sub handler: MsgBox Err.Description End Sub

#### Private Sub emdClose Click()

Unload Me End Sub

#### Private Sub datPrimaryRS Error(DataErr As Integer, Response As Integer)

"This is where you would put error handling code If you want to ignore errors, comment out the next line 'If you want to trap them, add code here to handle them MsgBox "Data error event hit err:" & Error\$(DataErr) Response = 0. Throw away the error End Sub

#### Private Sub datPrimaryRS Reposition()

'Screen MousePointer = vbDefault On Error Resume Next "This will synch the grid with the Master recordset 'datSecondaryRS,RecordSource = "select {code}.[Name].[Address] from [customer] where {code}=''' & datPrimaryRS.Recordset![code] & "'" & " Order by [code]" 'datSecondaryRS.Refresh 'This will display the current record position for dynasets and snapshots datPrimaryRS.Caption = "Record: " & (datPrimaryRS.Recordset.AbsolutePosition ± 1)

#### End Sub

#### Private Sub datPrimary RS\_Validate(Action As Integer, Save As Integer)

This is where you put validation code This event gets called when the following actions occur Select Case Action Case vbDataActionMoveFirst Case vbDataActionMovePrevious

Case vbDataActionMoveNext Case vbDataActionMoveLast

Case vbDataActionAddNev:

Case vbData/ActionUpdate

Case vbDataActionDelete

Case vbDataActionFind

Case vbDataActionBookmark

Case vbDataActionClose

'Screen MousePointer = vbDefault

End Select

'Screen.MousePointer = vbl lourglass.

#### End Sub

#### Private Sub Form Load()

'Create the grid's recordset ' datPrimaryRS.Refresh

#### End Sub

#### Private Sub Form Unload (Cancel As Integer)

'Screen.MousePointer = vbDefault

#### End Sub

#### Codes for frmGAccount.frm

#### Private Sub CmbMonth Click()

If Format(CmbMonth, "mm") = "Jan" Or Formati CmbMonth, "mm") = "Mar" Or Format(CmbMonth, "mm") = "May" Or Format(CmbMonth, "mm") = "Jul" Or Format(CmbMonta. "mm") = "Aug" Or Fermat(CmbMonth, "mm") < "Oct" Gr Format(CmbMonth, "mm") = "Dec" Then

Day(28). Visible = True

Day(29). Visible = True

Dav(30). Visible = True

End If

If Format(CmbMonth, "mm") = "Sep" Or Formati CmbMonth. "mm") = "Apr" Or Format(CmbMonth, "mm") = "Jun" Or Format(CmbMonth, "mm") = "Nov" Then

Day(28). Visible = True

Dav(29). Visible = True

Dav(30). Visible = False

If Format(CmbMonth, "mm") = "Feb" Then

If Val(embYear.Text) Mod 4 = 0 Or Val(embYear.Text) Mod

100 = 0 Then

Day(28). Visible = True

Day(29). Visible = False

Day(30). Visible = False

Day(28). Visible = False

Day(29). Visible = False

Dav(30). Visible = False

End If

Had If

#### End Sub

#### Private Sub cmbYear Click()

If Format(CmbMonth, "mm") = "Feb" Then If Val(embYear.Text) Mod 4 = 0 Or Val(embYear.Text) Mod

100 = 0 Then

Day(28). Visible = True

Dav(29). Visible = False

Day(30). Visible = False

Else Dav(28). Visible = FalseDav(29). Visible = False  $\partial av(30)$ . Visible = False Ind If find If End Sub

#### Private Sub emdAdd Click()

On Error GoTo handler Data1.Recordset.AddNew Exit Subhandler: MsgBox (Error(Err.Number)) End Sub

#### Private Sub-emdClose\_Click()

Unload Me

End Sub

#### Private Sub emdDelete (Click() On Error GoTo handler

With Data LRecordset RESP = MsgBox("The Content Record would be Deleted (v/n)?..". vbYesNo + vbCrideal) If RESP = vbYes Then Delete MoveNext If EOF Then Movel asc End If

End With Exit Sub handler: MsgBox Err.Description

#### End Sub

#### Private Sub cmdRefresh Click()

On Error GoTo handler This is only needed for multi user apps Data1 Refresh · Exit Sub handler:

MsgBox Err.Description

End Sub

#### Private Sub emdUpdate Click()

On Error GoTo handler Data1.UndateRecord Data L Recordset Bookmark = Data L Recordset Last Modified Exit Sub handler: MsgBox Err.Description

#### End Sub

#### Private Sub Combo3\_Cllck()

If Format(Combo4, "mm") = "Feb" Then If Val(Combo3.Text) Mod = 0 Or Val(Combo3.Text) Mod f(0) = 0 Then

 $Dav(28 \pm 31)$ . Visible = True Dav(29 + 31). Visible = False Dav(30 + 31). Visible = False  $Dav(28 \pm 31)$ . Visible = False Dav(29 + 31). Visible = False  $Dav(30 \pm 31)$ . Visible = False End if End If End Sub

#### Private Sub Combo4 Clicko

If Format(Combo4, "mm") = "Jan" Or Format Combo4. "mm") = "Mar" Or Format(Combo4, "mm") = "May" Or Forma(Combo4, "mm") = "Jul" Or Format(Combo4, "aam") = "Aug" Or Format(Combo4, "mm") = "Oct" Or Format(Combod, "mm") = "Dee" Then  $Dav(28 \pm 31)$ . Visible = True Dav(29 + 31). Visible = True  $Dav(30 \pm 31)$ . Visible = True End If

If Format(Combo4, "mm") = "Scp" Or Format Combo... "min") = "Apr" Or Format(Combo4, "min") = "Jon" Or Format(Combo4, "mm") = "Nov" Then

 $Dav(28 \pm 31)$ . Visible = True Dav(29 + 31). Visible = True Day(39 ± 31). Visible ≈ False End If

If Format(Combo4, "mm") = "Feb" Then If Val(Combo3.Text) Mod 4 = 0 Or Val(Combo3.Text) Mod 100 = 0 Then

 $Day(28 \pm 31)$ . Visible = True Dav(29 + 31). Visible = False Day(30 + 31). Visible = False

Day(28 ± 34). Visible ≈ False  $Dav(29 \pm 31)$ . Visible = False  $Dav(30 \pm 31)$ . Visible = FalseEnd II

End If

#### End Sub

#### Private Sab Command 1 Click()

Unload Me End Sub

#### Private Sub Command2 Click()

On Error GoTo handler Data5.UndateRecord Data5.Recordset.Bookmark = Data5.Recordset LastModified Exit Sub handler: MsgBox Err.Description End Sub

#### Private Sub Command3 Click()

If FraCal Visible = True Then FraCal, Visible = False Exit Sub End If

Cal. Visible = True d Sub

#### ivate Sub Command4 Click()

a Error GoTo handler his is only needed for multi-user apps rata5 Refresh at Sub indler: .suBox Err.Description nd Sub

#### rivate Sub Command5 Click()

RESP = MsgBox("The Current Record would be Deleted v/n)?..", vbYesNo + vbCritical) If RESP = vbYes Then .Delete MoveNest

If EOF Then MoveLast End If

m Error GoTo handler With Data5.Recordset

End With Exit Sub handler: MsgBox Err.Description End Sub

Private Sub Command6 Click() On Error GoTo handler Data5 Recordset AddNew Hyir Sub-

handler.

MsgBox (Errer(Err.Number))

End Sub

#### Private Sub Command7 Click()

If Frame1 Visible = True Then Frame!. Visible = False Exit Sub-End If Framel Visible = True End Sub

#### Private Sub Day\_Click(Index As Integer)

If Index < 31 Then TheDate = CmbMonth & "/" & Day(Index).Caption & "/" & embYear Combol = TheDate FraCal. Visible = False If  $Index \ge 31$  Then TheDate = Combo4 & "/" & Day(Index - 31).Caption & "/" & Combo3 Combo2 = The DateFramel Visible = False End If

End Sub

#### Private Sub Form Load()

TFor The Calender For i = 1900 To 2100embYear,Additem (i) Combo3. Additem (i) Next i CmbMonth = Format(Now, "n.anm") Combo4 = FormatiNov, "mmm" + cmbYeat = Format(Now, "yyyy")
Combo3 = Format(Now, "yyyy") Day(Format(Now, "dd") - 1), Value = True

If Format(CmbMonth, "mna") = "Jan" Or Formas Cmb Vessh. "mm") = "Mar" Or Format Curb Month, "mm" > = "May" Or FormatiCmbMonth, "mm") = "Jul" Or FormatiCmbMonth. "mm") = "Aug" Or Format; CmbMonth, "mm") = "Oet" (# Format(CmbMonth, "mm") = "Dec" Then

Day (28), Visible = True Day(29). Visible = True Day(30). Visible = True Had If

If Format(CmbMonth, "mm") = "Sep" Or Format CmbMonth. "mm") = "Apr" Or Formal(CmbNonth, "mm") = "Jim" Or Format(CmbMonth, "mm") = "Nov" Then

Day(28). Visible = True Day(29). Visible = True Day(30), Visible = False End If

HTormat(CmbMonth, "mm") = "Feb" Then

If Vali Combo3. Text) Mod 4 = 0.0; Vali Combo3. Text) Mod

100 = 0 Then Day(28). Visible = True Day(29). Visible = False Day (30). Visible - False

Else Day(28). Visible = False

Dav(29). Visible = False Day(30). Visible = False

Had If lend If

If Format(Combo4, "mm") = "Jan" Or Format(Combo4. "mm") = "Mar" Or Format(Combo4, "mm") = "May" Or Format(Combo4, "mm") = "Juf" Or Format(Combo4, "mm") = "Aug" Or Format(Combo-L"mm") = "Oct" Or Format(Combo4, "mm") = "Dec" Then  $Dav(28 \pm 31)$ . Visible = True $Dav(29 \pm 31)$ . Visible = True

 $Dav(30 \pm 31)$ . Visible = True End If

If Format(Combo4, "mm") = "Sep" Or Formati Combo4. "nun") = "Apr" Or Format(Combo4, "nun", = "Jun" Or

FormatiCombo4, "mun") = "Nov" Then

Dav(28 + 31). Visible = True Dav(29 + 31). Visible = True

Dav(30 + 31). Visible = False

ormat(Combo4, "mm") = "Feb" Then al(Combo3.Text) Mod 4 = 0 Or Val(Combo3.Text) Mod  $(28 \pm 31)$ . Visible = True  $(29 \pm 31)$ . Visible = False (30 + 31). Visible = False  $\sqrt{(28 + 31)}$ . Visible = False  $y(29 \pm 31)$ . Visible = False v(30 + 31). Visible = False d II dIf and The Calender ad Sub

#### bdes for FrmFinanceReport.frm

#### 'rivate Sub Command1\_Click()

f TheFinancialFlag = 1 Then DailyFinance TheFinancialFlag = 2 Then WeeklyFinance frmFinanceReport.WindowState = vbMinimized Unload Me irm View. Show

End Sub

#### Private Sub Command2 Click()

Unload frmFinanceReport

End Sub

#### Private Sub Command3 Click()

QuaterlyFinance

frmFinanceReport.WindowState = vbMinimized

Unload Me

fim View, Show

End Sub

#### Private Sub Command4 Click()

Unload frmFinanceReport

**End Sub** 

#### Private Sub Command 5 Click()

Unload frmFinanceReport

End Sub

#### Private Sub Command6\_Click()

vearlyFinance

firmFinanceReport.WindowState = vbMinimized

Unload Me

frm View, Show

End Sub

#### Private Sub Command7 Click()

Unload frmFinanceReport

End Sub

#### Private Sub Command8 Click()

MonthlyFinance

frmFinanceReport.WindowState = vbMinimized

Unload Me

Irm View, Show

End Sub

#### Public Sub DailyFinance()

Set dbs = OpenDatabase("e:\Hwares\Homewares.indb")

If Combo l.Text <> "" And Combo 2.Text <> "" And

Combo3.Text <> "" Then

TheDate = Trim(Combo2.Text) & "/" & Trim(Combo1.Text)

& "/" & Trim(Combo3, Text)

dbs.Execute ("DELETE \* FROM TransTrash")

dbs.Execute ("INSERT INTO TransTrash SELECT \* FROM

[Transaction] " &

"WHERE TranDate = #" & CDate(TheDate) & "#") RepTitle = "LIST OF TRANSACTION FOR" & TheDate frmView.CR1.ReportFileName = "c:\\Iwares\Trans.rpt"

MsgBox "Invalid Date Specification"

Exit Sub

End If

#### End Sub

#### Public Sub yearlyFinance()

On Error GoTo handler

TheDate = Trim(Combo2.Text) & "/" & Trim(Combo1.Text)

& "/" & Trim(Combo3.Text)

If Combo7.Text < "" Then

Set dbs = OpenDatabase("c:\l Iwares\l Iomewares.mdb")

myouery1 = "Select \* From [Transaction] where

datepart('M', Transaction]. TranDate)>1 AND

Datepart('yvvv'.[Transaction].TranDate)=" + Combo7.Text

dbs.Execute ("DELETE \* FROM TransTrash")

dbs.Execute ("INSERT INTO TransTrash" & myomery [1]

RepTitle = "LIST OF TRANSACTION FOR YEAR" & Combo7

frm View.CR1.ReportFileName = "c:\\Iwares\Trans.rpt"

MsgBox "Invalid Date Specification"

Exit Sub

End If

Exit Sub

handler:

MsgBox Err.Description

#### End Sub

#### Public Sub WeeklyFinance()

On Error GoTo handler

TheDate = Trim(Combo2.Text) & "/" & Trim(Combo1.Text) & "/" & Trim(Combo3.Text)

If Combo L.Text <> "" And Combo 2.Text <> "" And

Combo3.Text <> "" Then

Sqlstr = "Select \* From [Transaction] where datepart('M'.[Transaction].TranDate)=" + "\*" + Combo2.Fext

```
Salstr = Salstr + "AND
      Sqlstr = Sqlstr + "AND
 ratepart('yyyy',[Transaction].TranDate)=" + Combo3.Text
                                                                Datepart('d', [Expenditure], TransDate)>=" + Combol, Text
                                                                      mvquerv3 = Sqlstr + "AND
      Sqlstr = Sqlstr + "AND
 Datepart('d',[Transaction].TranDate)>=" + Combol.Text
                                                                Datepart('d', [Expenditure] TransDate)<=" +
                                                                Str(Val(Combo1.Text + 7))
      myquery 1 = Sqlstr + "OR
Datepart('d',[Transaction].TranDate)<=" +</pre>
Str(Val(Combo1.Text + 7))
                                                                ' Query for Banks
Set dbs = OpenDatabase("e:\Hwares\Homewares.mdb")
If Combo LText <> "" And Combo 2. Text <> "" And
                                                                      Salstr = "Select * From {Bank} where
                                                                datepart('M',[Bank], TransactionDate)=" + "" + Combo2, Text
Combo3.Text <> "" Then
TheDate = Trim(Combo2.Text) & "/" & Trim(Combo1.Text)
                                                                      Sqlstr = Sqlstr + "AND
& "/" & Trim(Combo3 Text)
                                                                Datepart('yyyv'.[Bank].TransactionDate)=" + Combo3.Text
dbs.Execute ("DELETE * FROM TransTrash")
dbs.Execute ("INSERT INTO TransTrash" & myquery I)
                                                                      Sqlstr = Sqlstr + "AND
                                                                Datepart('d', fBank [. Transaction Date) >= " + Combo L Text
RepTitle = "LIST OF TRANSACTION FOR WEEK
ENDING "& TheDate
                                                                      myquery4 = Sqlstr + "AND
frm View.CR1.ReportFileName = "c:\VIwares\Trans.rpt"
                                                                Datepart('d', [Bank]. TransactionDate) = " ¬
                                                                Str(Val(Combol.Text + 7))
MsgBox "Invalid Date Specification"
                                                                'For Other Transactions
Exit Sub
                                                                Set mydata = OpenDatabase("cMBizMan2000\BizBank.mdb")
End If
End If
                                                                If temp \Leftrightarrow "E" Then
                                                                Set mytab = mydata.OpenRecordset(myguery i)
Exit Sub
                                                                With mytab
handler:
                                                                Do While EOF = False
MsgBox Err.Description
                                                                datForTheReport.Recordset.AddNew
                                                                If I[TransType] \Leftrightarrow "" Then
Exit Sub
                                                                datForTheReport.Recordset![TransType] = ![TransType]
                                                                If ![TranSpec] <> "" Then
If datForTheReport.Recordset.BOF = False Then
                                                                datForTheReport.Recordset![TransDesc] = ![TranSpec]
datForTheReportRecordsetMoveFirst
                                                                If!|TransAmount| <> "" Then
Do While daiForTheReport.Recordset.EOF = False
datForTheReport.Recordset.Delete
                                                                datForTheReportRecordset!|TransAnguant| =
                                                                !fTransAmount]
dati-orTheReport.Recordset.MoveNext
                                                                TheDate = Trim(Combo2.Text) & "/" & Trim(Combo1.Text)
                                                                datForTheReport.Recordset[[TransTotal] = [[TransTotal]
& "/" & Trim(Combo3.Text)
                                                                If ![TransBy] ⇔ "" Then
If Combo1.Text 	< "" And Combo2.Text 	< "" And
                                                                datForTheReport.Recordset![TransBy] = ![TransBy]
Combo3.Text <> "" Then
                                                                If:||TransTo| <> "" Then
' Query for Other transactions
                                                                datForTheReport.Recordset![TransTo] = ![TransTo]
                                                                If ![Receipt_no] 		○ "" Then
      Sqlstr = "Select * From [OtherTrans] where
                                                                datForTheReport.Recordset!{Receipt_no} = !{Receipt_no}
datepart('M',[OtherTrans].TransDate)=" + "'" + Combo2.Text
                                                                datForTheReport.Recordset![TransDate] = TheDate
                                                                datForTheReport.Recordset.Update
      Sqlstr = Sqlstr + "AND
                                                                .MoveNext
Datepart('vvvy', [OtherTrans].TransDate)=" + Combo3.Text
                                                                Loop
      Sqlstr = Sqlstr + "AND
                                                                End With
Datepart('d', OtherTrans[.TransDate)>=" + Combol.Text
                                                                End If
      myquery 1 = Sqlstr + "OR
Datepart('d'.[OtherTrans].TransDate)<=" +
                                                                If temp = ^{"}E" Then
Str(Val(Combo1, Text + 7))
                                                                Set mytab = mydata.OpenRecordset(mvquerv3)
                                                                With mytab
                                                                Do While EOF = False
' Query for Expenditures
                                                                datForTheReport.Recordset.AddNew
                                                                If ![TransType] <> "" Then
      Sqlstr = "Select * From [Expenditure] where
                                                                datForTheReport.Recordset![TransType] = ![TransType]
datepart('M'.[Expenditure | TransDate)=" + "" + Combo2.Text
                                                                'If![TranSpec] <> "" Then
                                                                datForTheReportRecordset![TransDese] = ![TranSpec]
      Sqlstr = Sqlstr + "AND
                                                                If I]TransAmount] <> "" Then
Datepart('vyvv', [Expenditure [TransDate] = " + Combo3.Text
                                                                datForTheReport.Recordset![TransTotal] = ![TransAmount]
```

· · · · · · · · · · · · · · · · · · ·	
![TransUnit] <> "" Then	Combo2 AddItem "September"
#ForTheReport.Recordsed[TransAmount] = ![TransUnit]	Combo2.Additem "October"
![TransBy] $\Leftrightarrow$ "" Then	Combo2.AddItem "November"
afForTheReport.Recordset![TransBy] = ![TransBy]	Combo2.Additem "December"
TransTo  ⇔ "" Then	For i = 0 To 10
atForTheReport.Recordsett[TransTo] = ![TransTo]	Combo3. Addition Format\$(Now, "yyyy") - i
*![Receipt no] < "" Then	Next i
adforTheReport.Recordset![Receipt_no] = ![Receipt_no]	Find If
atl'orTheReport,Recordset[[TransDate] = TheDate	
antForTheReport.Recordset,Update	Winode = 3 Or mode = 30 Then
MoveNext	Framel Visible = False
.000	Frame2.Visible = False
and With	Frame3. Visible = False
and If	Frame I. Visible = True
	Combo6.AddItem "January"
	Combo6.AddItem "February"
End If	Combo6.Additem "kiarch"
End Sub	Combo6.AddItem "April"
	Combo6.AddItem "Mav"
Public Sub MonthlyFinance()	Comboo.AddItem "June"
On Error GoTo handler	Combo6, AddItem "Jaiv"
Set dbs = OpenDatabase("c\lambda Iwares\Homewares.mdb")	Combo6.Additem "August"
If Comboo.Text ♦ "" And Comboo.Text ♦ "" Then	Combo6.AddItem "September"
dbs.Execute ("DELETE * FROM TransTrash")	Combo6.Additem "October"
Sqlstr = "Select * From [Transaction] where	Combo6.AddItcm "November"
datepart('M'.[transaction].TranDate)=" +	Combo6.AddItem "December"
Str(Combo6.ListIndex + 1) ÷ "AND	For i = 0 To 10
Datepart('vvvv',[Transaction].TranDate)=" + Combo8.Text	Combo8.AddItem Format\$(Now, "yyyy") - i
myquery I = Sqlstr + "AND	Next i
Datepart('yyyy',[transaction].TranDate)=" + Combo8,Text	Find If
dbs.Execute ("INSERT INTO TransTrash" + my query1)	If mode = 4 Or mode = 40 Then
RepTitle = "LIST OF TRANSACTION FOR " &	Framel. Visible = False
UCase(Format\$(Combo6, "nan")) & "," & Combo8	Frame3. Visible = False
frmView.CR1.ReportFileName = "e:\Hwares\Trans.rpt"	Frame4. Visible = False
Else	Frame2. Visible = True
MsgBox "Invalid Date Specification"	Combo5.AddItem "First"
End If	Combo5,AddItem "Second"
Exit Sub	Combo5 Additem "Third"
handler:	Combo5.AddItem "Fourth"
MsgBox EmDescription	For i = 0 To 10
End Sub	Combo4.AddItem FormatS(Now, "yyyy") - i
	Nexti
Private Sub Form Load()	Find If
If $mode = 1$ Or $mode = 2$ Or $mode = 10$ Or $mode = 20$ Then	If $mode = 5$ Or $mode = 50$ Then
Frame I. Visible = True	Frame1.Visible = False
Frame2. Visible = False	Frame2. Visible = False
Frame3. Visible = False	Frame4. Visible = False
Frame4. Visible = False	Frame3. Visible = True
For i = 1 To 3:	Feri = () Te 10
Combol.AddItem i	Combo7.AddItem Format\$(Now, "yyyy") - i
Next i	Nexti
·	Lind If
Combo2.AddItem "January"	End Sub
Combo2.AddItem "February"	
Combo2.AddItem "March"	Public Sub QuaterlyFinance()
Combo2.AddItem "April"	On Error GoTo hundler
Combo2.Additem "May"	Set dbs = OpenDatabase("e:\!-Iwares\!-Iomewares.mdb
Combo2.AddItem "June"	If Combo5.Text ⇔ "" And Combo4.Text ⇔ "" Then
Combo2.AddItem "July"	Select Case Combo5 Texa
Combo2.AddItem "August"	Case "First"

' Query for Other transactions Salstr = "Select \* From [Transaction] where tepart('M', Transaction | TranDate) <= 3" mvguerv1 = Sglstr + "ANDatepart('vyyv',[Transaction].TranDate)=" + Combo-LText Case "Second" ' Query for Other transactions Sqlstr = "Select \* From [Transaction] where atepart('M'. | Transaction |. TranDate)>3 and .atepart('M',[Transaction].TranDate)<=6" mvguery1 = SqIstr + "ANDDatepart('yyyy', [Transaction.TranDate]=" + Combo4.Text Case "Third" ' Query for Other transactions Selstr = "Select \* From [Transaction] where .latepart('M'.J.Transaction].TranDate)>6 and Jatepart('M',[Transaction].TranDate)<=9" mvquery1 = Sqlstr + "ANDDatepart('vyyy', [Transaction]. TranDate)=" + Combo4. Text Case "Fourth" ' Query for Other transactions Sqlstr = "Select \* From [Transaction] where datepart('M', [Transaction]. TranDate)>9" myquery! = Sqlstr + " AND Datepart('yyyy',[Transaction].TranDate)=" + Combo4.Text End Select dbs.Execute ("DELETE \* FROM TransTrash") dbs.Execute ("INSERT INTO TransTrash" + myquery1) RepTitle = "LIST OF TRANSACTION FOR " & UCase(Combo5) & " QUARTER " & "," & Combo4 frmView.CR1.ReportFileName = "c:\Hwares\Trans.rpt" MsgBox "Invalid Date Specification" End If Exit Sub handler: MsgBox Err.Description End Sub

#### Codes for GenInvoice.frm

#### Private Sub Command I\_Click()

Data1.Recordset.FindFirst ("OrderNo=" & "'" & Text4 & "'")
If Data1.Recordset NoMatch = True Then
MsgBox "Transaction Details has not been saved"
Command7.SetFocus

Exit Sub

End li

Set dbs = OpenDatabase("e:\Hwares\Homewares.mdb")
dbs.Execute ("DELFTE \* FROM TransTrash")

dbs.Execute ("INSERT INTO TransTrash SELECT \* FROM

Transaction WHERE OrderNo=" & "'" & Text4 & "'")

CR1.ReportFileName = "e:\Hwares\Invoice.rpt"

CR1.Formulas(0) = "Time=" & "" & Format(Now,

"hh:mm:ss") & """

CR1.Formulas(1) = "CoyName=" & "" & CoyName & ""

'CR1.Formulas(2) = "CovAdd=" & "" & CovAdd & ""

CR1.Destination = crptToPrinter

CR L.PrintReport

End Sub

Private Sub Command2\_Click()

Frm ViewOrder, Show 1

End Sub

Private Sub Command3 Click()

On Error GoTo handler

Set dbs = OpenDatabase("c:\! Iwares\! Iomewares.mdb")

dbs.Execute ("DELETE \* FROM PayDetails WHERE

OrderNo = " & "" & Text4 & """)

Exit Sub

handler:

MsgBox Err.Description

**End Sub** 

Private Sub Command4 Click()

Data1.Recordset.FindFirst ("OrderNo=" & """ & Text4 & """)

If Data L.Recordset.NoMatch = True Then

MsgBox "Transaction Details has not been saved"

Command7.SetFocus

Exit Sub

End If

Set dbs = OpenDatabase("c:\l Iwares\l Iomewares.mdb")

dbs.Execute ("DELETE \* FROM TransTrash")

dbs.Execute ("INSERT INTO TransTrash SELECT \* FROM

Transaction WHERE OrderNo=" & "" & Text4 & "")

CR1.ReportFileName = "e:\Hwares\Invoice.rpt"

CR1.Formulas(0) = "Time=" & "" & Format(New.

"hh:mm:ss") & ""

CR1.Formulas(1) = "CoyName=" & "'" & CoyName & "'"

'CR1.Formulas(2) = "CoyAdd=" & "'" & CoyAdd & "

CR1.Destination = crptToWindow

CR1.WindowState = crptMaximized

CR I.PrintReport

End Sub

Private Sub Command5\_Click()

Me. Width = 4875

Unload Me

End Sub

Private Sub Command7\_Click()

On Error GoTo handler

If Option3. Value = True Then

If Txt(0) =" And Txt(1) =" And Txt(2) =" Then

MsgBox "Enter Cheque Information... Saving Aborted"

Txt(0).SetFocus ·

Exit Sub

End If

End If

Data1.Recordset.AddNew

Data LRecordset! [OrderNo] = Text4

Data1.Recordset![CusCode] = txtFields(1)

Data1.Recordset![Paid] = txtFields(10)

Data1.Recordset![VAT] = txtFields(11)

Data1.Recordset![bal] = txtFields(9)

 $Data1.Recordset!\{BankName\} = Txt(0)$ 

Data1.Recordset![ChequeNo] = Txt(1)

Data1.Recordset!|AccountNo| = Txt(2)

Data1.Recordset[[Date] = Text1

If Option L. Value = True Then

Data1.Recordset![PavTvpe] = "Cash"

Else

Data1.Recordset[[PayType] = "Cheque"

End If

Data1.Recordset.Update

Command LSetFocus

Exit Sub

handler:

MsgBox Err Description

End Sub

#### Private Sub Form Load()

Text1 = Format(Now, "mmm-dd-yyyy")

End Sub

#### Private Sub mnu 1 Click()

MsgBox "For a Credit Customer (i.e.-ve Balance) Enter -ve Offset to Reduce Credit \*\*\*\*\* For a Debit Customer (i.e.+ve Balance) Enter +ve Offset to Reduce Debit"

End Sub

#### Private Sub Option 1 Click()

Frame I. Enabled = False

**End Sub** 

#### Private Sub Option3 Click()

Framel Enabled = True

Txt(0).SetFecus

End Sub

#### Private Sub Text2 KeyPress(KeyAscii As Integer)

If Key Ascii = 13 Then Call Text2\_LostFocus

End Sub

#### Private Sub Text2\_LostFocus()

On Error GoTo handler

Data3.Recordset.FindFirst ("ORDERNO=" & "'" & Text2 & "'")

If Data3.Recordset.NoMatch = False Then

Data3.Recordset.Move (0)

Data3.Recordset.Edit

Text3.SetFocus

Else

MsgBox "Such Order No. not existing"

Text2 = ""

End If

Exit Sub

handler:

MsgBox Err.Description

End Sub

#### Private Sub Text3\_KeyPress(KeyAscii As Integer)

'On Error GoTo handler

If KevAscii = 13 Then

TheStart:

The New Bal = Val(Text3)

MsgBox TheNewBal

If TheNeBal <> "" Then

Data3.Refresh

'If Data3.Recordset.EOF ← False Then

Data3.Recordset.MoveFirst

If Data3.Recordset![bal] < Val(Text3) Then

TheNewBal = Val(Text3) - Data3.Recordset![bal]

Data3.Recordset.Edit

Data3.Recordset![Paid] = Data3.Recordset![Paid] +

Data3.Recordset![bal]

Data3.Recordset![bal] = 0 'Data3.Recordset![bal] - Val(Text3)

Data3.Recordset.Update

DBGrid1.Refresh

End If

MsgBox TheNewBal

Text3 = TheNewBal

If Val(Text3) <> 0 Then GoTo TheStart

End If

End If

Exit Sub

handler:

MsgBox Err.Description

Exit Sub

'Do While Data3.Recordset.EOF = False

'If Data3.Recordset![bal] < Val(Text3) Then

"TheNewBal = Data3.Recordset![bal] - Val(Text3)

'Data3.Recordset.Edit

'Data3.Recordset![Paid] = Data3.Recordset![Paid] +

Val(Text3)

Data3.Recordset![bal] = Data3.Recordset![bal] - Val(Text3)

'Data3.Recordset.Update

'Data3.Refresh

' If Data3.Recordset.EditMode = 1 Then

' DBGrid1.Refresh

' End If

'End If

End Sub

#### Private Sub Text4\_KeyPress(KeyAscii As Integer

If KeyAscii = 13 Then Call Text4\_LostFocus

**End Sub** 

#### Private Sub Text4 LostFocus()

Data2.RecordSource = "SELECT \* FROM Transaction

WHERE OrderNo=" & "" & Text4 & ""

Data2.Refresh

If Data2.Recordset.EOF = True Then

MsgBox "Such Order No. not existing"

Text4 = ""

Else

Pod If Data2\_Recordset.FindFirst ("ORDERNO=" & "'" & Text4 & If Index = 10 Then If Data2.Recordset.NoMatch = False Then Data2 Recordset Move (0) (xthields(9) = New TransSum - Val(txthields(10)) If txtFields(9) < 0 Then txtFields(1) = Data2.Recordset![CusCode] RESP = MsgBox("Credit Customer Y/N?", vbYesNo + Data2.Refresh vbluformation). TransSum = 0If RESP = vbNo Then (xdFields(10)) = "" Do While Data2.Recordset. TOF = False If Data2.Recordset![TotalAmount] <> "" Then End If End II TransSum = TransSum +End Sub Val(Data2.Recordset\*(TotalAmount)) End If Data2.Recordset.MoveNext Private Sub Txtfields KeyPress(Index As Integer, Loop KeyAscii As Integer)  $t \times t = t \cdot (t \cdot (t)) = t \cdot (t \cdot (t))$ If KeyAsoii = 13 And Index = 10 Then Command7. SetFocus End Sub txtFields(10).SetFocus txtFields(11) = Str((TransSum \* VAT) / 100)Private Sub txtFields\_LostFocus(Index As Integer) txtFields(9) = Str(TransStan + Val(txtFields(11)))If Index = 7 Then Command10.SetFecus NewTransSum = Val(txtFields(9))If TransSum = 0 Then End Sub Command I. Enabled = False Command4.Enabled = False Codes for Transaction.frm Command7.Finabled = False Data3.RecordSource = "SELECT \* FROM PayDetails WHERE CusCode='\*\*\*\*\*\*\*\*\*\*\* Private Sub CmbMonth Click() Data3.Refresh If Format(CmbMonth, "mm") = "Jan" Or Format CmbMonth, Exit Sub "mm") = "Mar" Or Format(CmbMonth, "mm") = "No. 10r Hise Format(CmbMonth, "mm") = "Jul" Or Format/CmbN.outh. Command L.Fnabled = True "mm") = "Aug" Or Format(CmbMonth, "mm") = "Oct" Or Command4.Enabled = True Format(CmbMonth, "mm") = "Dee" Then Command7.Enabled = True Dav(28). Visible = True End If Day(29). Visible = True Hise Day(30). Visible = True txtFields(1).Text = " "End If MsgBox "No Customer Entry for the Order Number" If Format(CmbMonth, "mm") = "Sep" Or Format(CmbMonth, End If "min") = "Apr" Or Format(CinbMonth, "mm", = "Jun" Or Had If Format(CmbMonth, "mm") = "Nov" Then End Sub Dav(28). Visible = True Day(29), Visible = True Private Sub TxtFields\_Change(Index As Integer) Day(30). Visible = False 17 Index = 1 ThenEnd If Data3.RecordSource = "SELECT \* FROM PayDetails If Format(CmbMonth, "mm") = "Feb" Then WHERE CusCode=" & "" & txtFields(1) & "" & " AND bal If Val(cmb Year, Text) Mod 4 = 0 Or Val(cmb Year, Text) Mod ◇ VAL(0) ORDER BY OrderNo ASC:" 100 = 0 Then Data3.Refresh Day(28). Visible = True DBGrid1.Refresh Dav(29). Visible = False For i = 0 To DBGrid LApproxCount - 1 Dav(30). Visible = False DBGridLRow = iHise Total = Total + Val(DBGri.i1.Columns(2).Text)Day(28). Visible = False Next i Dav(29). Visible = False Label8.Caption = Total Day(30). Visible = False End If If Data3.Recordset.EOF = False Then well = MsgBox("The End If Customer is a Debit or Credit Customer... Reconcile Account End Sub (Y.N?", vbYesNo + vbInformation) If well = vbYes Then Private Sub cmbYear Change() Me.Width = 8370If Format(CmbMonth, "mm") = "Feb" Then Else If Val(embYear, Text) Mod 4 = 0 Or Val(embYear, Text) Mod Me. Width = 4875

End If

100 = 0 Then

Day(28). Visible = True

 $\chi(29)$ . Visible = False v(30). Visible = False w(28). Visible = False w(29). Visible = False w(30). Visible = False id If nd II ad Sub rivate Sub embYear Click() Format(CmbMonth, "mm") = "Feb" Then Val(embYear, Text) Mod 4 = 0 Or Val(embYear, Text) Mod 00 = 0 Then  $\mu\alpha$  (28). Visible = True Dav(29). Visible = False Day(30). Visible = False lise Day(28). Visible = False Dav(29). Visible = False Dav(30). Visible = False and If rind if End Sub Private Sub Commandi Click() On Error GoTo handler mode = 111 wol = InputBox("Enter Order Number", "Quick Find Order") Set dbs = OpenDatabase("c:\fryares\homewares.mdb") Set rstTemp = dbs.OpenRecordset("SELECT \* FROM Transaction WHERE OrderNo = " & "" & wol & """) dbs.Recordsets.Refresh If rstTemp.EOF = False Then 'rstTemp.Movel.ast datPrimaryRS.RecordSource = "SELECT \* FROM Transaction WHERE OrderNo =" & "'" & wol & "'" datPrimaryRS.Refresh Else MsgBox "No Match", vbInformation End If Exit Sub handler: MsgBox Err.Description End Sub Private Sub Command2 Click() End Sub

Frm ViewItem. Show 1 Call txtffields\_LostFocus(2)

#### Private Sub Command3\_Click()

FrmViewCast.Show 1

End Sub

#### Private Sub Command4 Click()

If FraCal Visible = True Then FraCal.Visible = False Exit Sub Hnd If

FroCal. Visible = True End Sub

#### Private Sub Command5 Click()

FrmGenInvoice.Text4 = TxtFields(0)FrmGenInvoice, Show 1

End Sub

#### Private Sub-datPrimaryRS\_Error(DotaErr As Integer, Response As Integer)

This is where you would put error handling code 'If you want to ignore errors, comment out the next line 'If you want to trap them, add code here to handle them MsgBox "Data error event hit err:" & Error\$(DataErr) Response = 0 "Throw away the error End Sub

#### Private Sub-datPrimaryRS\_Reposition()

'Screen.MousePointer = vbDefault On Error Resume Next "This will synch the grid with the Master recordset

'datSecondaryRS.RecordSource = "select [leode].[UnitInStock].[Quantity].[TranDate] from [Transaction] where [OrderNo]=" & datPrimaryRS.Recordset![OrderNo] & "'" & " Order by Heodel"

'datSecondaryRS.Refresh

This will display the current record position for dynasets and snapshots

datPrimaryRS.Caption = "Record: " & (datPrimaryRS.Recordset.AbsolutePosition + 1) End Sub

#### Private Sub-datPrimaryRS Validate(Action As Integer, Save As Integer)

This is where you put validation code

This event gets called when the following actions occur

Select Case Action

Case vbDataActionMoveFirst

Case vbDataActionMovePrevious

Case vbDataActionMoveNext

Case vbDataActionMoveLast

Case vbDataActionAddNew

Case vbDataActionUpdate

Case vbDataActionDelete

Case vbDataActionFind

Case vbDataActionBookmark

Case vbDataActionClose

Screen.MousePointer = vbDefault

Find Select

'Screen.MousePointer = vbHourglass

#### End Sub

#### Private Sub Day Click(Index As Integer)

TheDate = CmbMonth & "7" & Day(Index).Caption & 1.1" & emb Year

TxtFields(6) = TheDate

FraCal. Visible = False

#### Sub

cate Sub Form_Load()
el2.Caption = CovName
PrimaryRS.RecordSource = "SELECT * FROM
ansaction   WHERE Icode=************************************
PrimaryRS.Refresh
or The Calender
$\tau i = 1900 \text{ To } 2100$
bYear,AddItem (i)
NU 1
abMonth = Format(Now, "mram") abYear = Format(Now, "vvvv")
ry(Format(Now, "dd") - 1). Value = True
format(CmbMonth, "mm") = "Jan" Or Format(CmbMonth.
m") = "Mar" Or Format(CmbMonth, "mm") = "May" Or
ormat(CmbMonth, "mm") = "Jul" Or Format(CmbMonth,
.m") - "Aug" Or Format(CarbMonth, "min") - "Oct" Or
ormet(CmbMonth, "mm") = "Dec" Then
ray(28). Visible = True
Day(29). Visible = True
Day(30). Visible = True
ind H
f Format(CmbMonth, "mm") = "Sep" Or Format(CmbMonth,
'mm") = "Apr" Or Format(CurbMonth, "mm") = "Jun" Or
Format(CmbMonth, "mm") = "Nov" Then
Day(28).Visible = True
Day(29). Visible = True
Day(30). Visible = False
End If If Format(CnibMonth, "mm") = "Feb" Then
if Val(embYear.Text) Mod 4 = 0 Or Val(embYear.Text) Mod =
100 = 0 Then
Day(28).Visible = True
Day(29). Visible = False
Day(30). Visible = False
Else
Day(28). Visible = False
Day(29). Visible = False
Day(30), Visible = False
End If
Find If
End The Calender
End Sub
Private Sub-Form_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)

mode = 0

End Sub

#### Private Sub grdDataGrid Db!Click()

On Error GoTo handler grdDataGrid.Col = 0mode = 111wol = grdDataGrid.Text Set dbs = OpenDatabase("e:\hwares\homewares.mdb") Set rstTemp = dbs.OpenRecordset("SELECT \* FROM Transaction WHERE OrderNo =" & "" & wol & "") dbs.Recordsets.Refresh If rstTemp.EOF = False Then 'rstTemp.Movel.ast datPrimaryRS.RecordSource = "SFLECT \* FROM Transaction WHERE OrderNo =" & "" & wol & "" datPrimaryRS.Refresh MiseBox "No Match", vb.hiformation End If Exit Sub handler: MsgBox Err.Description End Sub

#### Private Sub TB1\_ButtonClick(ByVal Button As MSCometlLib.Button)

On Hiror GoTo hundler mode = 1 Select Case Button, Tag Case "1" Set dbs = OpenDatabase("e:\landau ares\homewares.mdb") Set rs(Temp = dbs.OpenRecordset("SELECT DISTINCT OrderNo FROM transaction ORDER BY OrderNo ASC:") dbs.Recordsets.Refresh If rstTemp.EOF = False Then rstTemp.Movel.ast TheOrderNo = rstTemp.RecordCeant + 1 datPrimaryRS.RecordSource = "SELECT \* FROM" [Transaction] WHERE OrderNo=" & "" & TheOrderNo & "" datPrimarvRS.Refresh Case "2" TransNew mede = 1Case "3" TransUpdate mode = 2Case "4" datPrimaryRS.Refresh RESP ≈ MsgBox("The Current Transaction would be Deleted ...continue (Y/N)", vbYesNo + vbInformation) If RESP = vbYes Then Set dbs = OpenDatabase("eshwares/homewares mdb") Set rstTemp = dbs.OpenRecordset("SELECT \* FROM ItemInvent WHERE Teode =" & "" & TxtFields(2) & """) dbs.Recordsets Refresh Do While rstTemp.EOF = False rs(Temp.Edit rstTempi[unianstock] = rstTempi[unianstock] = TxtFields(5) rstTemp.Update rstTemp.MoveNext Loop dbs.Recordsets.Refresh With datPrimaryRS.Recordset

Delete

JoveNext	TransUpdate
*HOF Then MoveLast	lixit Sub
ad With	lind If
$\prod_{n \geq 0}$	If mode = 2 Then mode = 1
e "6" aload Me	TransNew
A Select	End II
4 Sub	End If
idleri	End Sub
gBox Err. Description	
	Private Sub txtFields_LostFocus(Index As Integer)
.d Sub	On Error GoTo handler
	Set dbs = OpenDatabase("e:\hwares\homewares.mdb")
ivate Sub Timer1_Timer()	
cabe/2.Left <= frmTransaction.Left - frmTransaction.Width	If Index = 1 And TxtFields(1) $\Leftrightarrow$ "" Then
260 Then	Set rstTemp = dbs.OpenRecordset("SELECT * FRCM
bel2.t.eit = frmTransaction.Width	Customer WHERE CusCode = "Ac "" & TxtFletdschidex) &
nd Ir	"")
ibel2.Left = Label2.Left - 10	dbs.Recordsets.Refresh
ad Sab	rstTemp.FindFirst ("CusCode =" & "'" & TxtFields(hdex))
	"")
rivate Sub TxtFields_Change(Index As Integer)	If rstTemp.NoMatch = True Then
	RESP = MsgBox("Such Customer Code Record do not
Imode > 111 Then	existRegister Now (Y/N)?", vbYcsNo ± vbInformation)
(Tritifields(5) <> "" Then	If RESP = vbYes Then frmCustDetails.Show 1
1 Valk TxtSields(5)) < 0 Then	like
Asglox "Cannot be Negative"	Label3.Caption = rstTemp![Name]
$\operatorname{ExtFields}(5) = {}^{nn}$	TxtFields(2).SetFocus
Enit Sub Find If	End if   End if
End If	1 Md (1
TAIG II	If Index = 2 And TxtFields(2) <> "" Then
If Index = 5 Then	Set rstTemp = dbs.OpenRecordset("SELECT * FROM
TxtFlelds(3) = $Val(TheCurrentStock) - Val(TxtFlelds(5))$	ItemInvent WHER! Icode =" & "'" & TxtFields(Index) & "
If $Val(TxtFields(3)) \le Val(TxtFields(4))$ Then	dbs.Recordsets.Refresh
MsgBox "Below Re-Order Level"	rstTemp.FindFirst ("Icode =" & "" & TxtFields.Index) & "
Tinthiclds(5) = $^{n}$	If rst Temp. NoMatch = False Then
TxtFields(3) = TheCurrentStock	rstTemp.Move (0)
Exit Sab	Label4.Caption = rstTemp!{Desc}
Find If	SellingPrice = rs(Temp![unitSellprice]
End ff	Txtl/ields(3) = rstTemp![unitinstock]
	TheCurrentStock = rstTemp!(unitinstock)
If Index = 5 Then	$Txtriolds(4) = rstTemp!\{reorder\}$
If TxtFields(Index) <> "" Then	TxtFields(5).SetFocus
TxtFields(8) = SellingPrice * Val(TxtFields(5))	Hisc
Find If	MsgBox ("No Item Details not Registered")
End if	End If
End II	End If
	Exit Sub
End Sub	handler:
	MsgBex Err.Description
Private Sub Txtfields_KeyPress(Index As Integer,	'If Index = 5 Then Cali txtFields_KeyPress(5, 13).
Key Ascii As Integer)	End Sub
If KeyAseii = 13 And Index = 2 Then Call	
txtfields_Lostfocus(2)	Public Sub TransUpdate()
If KeyAseii = 13 And Index = 1 Then Call	On Error GoTo handler
txtFields_LostFocus(1)	Set dbs = OpenDatabase("eithy ares/homewares.indb")
If KeyAscii = 13 And Index = 5 Then	Set rstTemp = dbs.OpenRccordset("SELECT * FROM
If mode = 1. Then	ItemInvent WHERE leade =" & "" & TxtFields(2) & "" }
mode = 2	dbs.Recordsets.Refresh