COMPUTERIZING INTERNAL CONTROL SYSTEM IN ACCOUNTING PROCESS IN AN ORGANISATION

A Case Study of Pharma Deko Plc, Agbara, Ogun State

BY

RAIMI, OLATUNDUN TAWAKALITU
PGD/MCS/547/97/98

Department of Mathematics and Computer Science
Federal University of Technology, Minna, Niger State

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A Project Submitted to the

**Department of Mathematics and Computer Science
Federal University of Technology, Minna, Niger State**

**IN PARTIAL FULFILMENT OF THE REQUIREMENT
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(PGD) IN COMPUTER SCIENCE.**

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CERTIFICATION

This is to certify that this project carried out by **Miss Raimi O.T** meets the requirements for the award of a Post Graduate Diploma in Computer Science of Federal University of Technology, Minna, Niger State

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Prince R.O. Badmus   Date
Project Supervisor

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Dr. S. A. Reju   Date
Head of Department

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External Examiner   Date

DEDICATION

This work is for God;

Qassim my beloved and,

For every Child who has needed a mother

ACKNOWLEDGEMENT

I wish to acknowledge my profound gratitude to God for granting me the grace to go through the course.

My able supervisor, Prince R.O. Badmus, the Head of Department, Dr. S. A. Reju, all lecturers in the department. I appreciate all your efforts.

I must also express my thanks to my family, my dad particularly. Not forgetting Engr. Murphy Epelle, and the families of Adisa and Hazeez.

My friends who have supported me in ways too numerous to mention.

God Bless you all.

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ABSTRACT

Business organisations in recent times have become complex and dynamic, such that the dynamism spreads across all areas of activities, which therefore necessitates review of management system.

Internal Control System (ICS) is a management system that is used to ensure strict adherence to policies and ensure accurate record keeping of all information. This study therefore, gives insight to discourage fraudsters, ensure that there is no deviation from set standards and minimize errors.

Also, Auditors are given reasonable assurance that transactions are properly taken care of, thus, easing the work of the Auditors. While at this, personnel performance is enhanced and this will be of benefit to the organisation.

A dbase IV program was used to achieve the stated objectives in internal control system and there is security system to ensure authoritative access to document and information among other things.

CHAPTER ONE

1.0   INTRODUCTION

In ancient times, most business were small and owner operated. The owners were greatly involved with most of the decision making. However, as times went on and business started growing in size and complexity, professional managers gradually came to replace the owners. Professional Managers too, as they do not have first hand knowledge of all aspect of the business, often rely on the information provided them by the accounting system to make decisions. In order to test the reliability and accuracy of the information provided, a system of control is developed, this system of assessing accounting procedure is called Internal Control System. And it can best be described as "the whole systems of control financial and otherwise established by the management in order to carry on the objectives of the organisation in an orderly and efficient manner and to ensure strict adherence to management policies, safeguard the assets and secure as far as possible the completeness and accuracy of all records.

The advent of Information Technology especially the use of computers in developing efficiency in organisation has also increased the necessity for installation of a computerized control system in organisation. This is because, the speed of efficiency is also used to accomplished bad practices in organisation, errors made has become more costly and fraud is being committed easily and unless a system of internal control with equal speed is installed, this can go undected for a long period of time.

It is therefore very necessary for organisations not to rely on Managerial Supervision and manual means of control alone. Though due to the fact that organisation differs, there is no absolute standard for an internal

control system. But, the most that may be said by way of generalization is that an adequate system of internal control is one that is both economical and effective having regard to the resources, size and nature of the business concern and the managerial ability of those involved.

1.1 AIM AND OBJECTIVE OF THE STUDY

This study aims at bringing to light the principles and practical aspects of internal control system in management of various kinds of organisations with special emphasis on how it can be computerized for easy and quick results.

Also, the study reveals all relevant aspects of control as it affects the organisation and their interrelationship with one another. It is not assume that internal control system is not in existence previously in industry, but the study is directed towards the areas in which most organisations have been deficient, the study show how proper installation, implementation and maintenance of the system can aid in achieving general organisation goals and objectives.

This study further aim at encouraging a system of supervision in an organisation that may necessarily add to overhead costs but will be of optimal advantage.

1.2 CONCEPT AND COMPONENTS OF INTERNAL CONTROL SYSTEM

CONCEPT

The concepts of internal control system can be deduced from its definition as the whole system of controls and financial and otherwise established by management in order to carry on the objectives of the organisation in

an orderly and efficient manner, its designed to ensure adherence to management policies, safeguard the assets and secure as far as possible the completeness and accuracy of all records.

The definition stated above entails more than just a part of the organisation but the whole of the system of controls, which may be financial or otherwise. Internal control system is established by management either by themselves or through the use of external consultant that are vast in accounting matters. The system should therefore be operated in an efficient manner for it to be able to serve its purpose.

Also, the concept requires that management should ensure strict adherence to making policies known and understood by those involved. For an organisation making use of internal control system to achieve its objectives of safeguarding assets, it must make sure that every aspects of its transaction is well recorded and processed. This will go a long way to show how accurate these records are.

Internal control system as a concept may also include everyday surveillance described as internal check. It involves the checking of day to day transaction made in the organisation. This may be regarded by some as a routine system but it is actually a form of control especially where the work of one person to be vetted independently or is complementary to the work of another.

Internal Audit, which is concerned with review of records and operations is another concept to note.

COMPONENTS OF INTERNAL CONTROL SYSTEM

It should be noted that, the emphasis in internal control system is on accuracy, reliability and safeguards against errors and fraud of all business records. As such internal control system in every organisation should comprise the following:

a.   Accounting Controls
b.   Administrative controls

Accounting Controls

These are controls that fall within the recording functions which checks that the transactions to be recorded and processed have been properly authorized, that they are all correctly recorded and adequately processed. Such controls include checking the arithmetical accuracy of the records, the maintenance and checking of total reconciliation's, control accounts, trial balance, accounting documents etc.

Administrative Controls

These include the management plan and all the methods and procedures that are concerned mainly with operational efficiency and adherence to managerial policies usually relate only indirectly to financial records. They generally include performance appraisal, employees training and selection program and quality control.

The extent of classification of management plan and control methods and procedures into management or accounting control system extends beyond financial and accounting matters and the custody of company assets. Functions such as work-study, production quality control for

example may be an integral part of the system although not falling within the spheres of finance.

In practice, internal control system means a continuous assessment carried on by the management itself, by means of which the work of each individual is independently checked by others as stated as one of the aspect of note in its concept.

1.3   **METHODOLOGY**

This refers to the method used in obtaining information that was used in the project.   Many methods exist but the ones particularly use for the purpose of this study are;

Interview method
Record Search Method
Observation.

Interview Method

This method of eliciting information from respondents can be describe as the most common way of obtaining information on objective, constraint, allocation of duties, problems and failures in the existing system.

It involves an interpersonal or face to face questioning based on very well structured and objective questions by the writer.

RECORD SEARCHING METHOD

This method can be described as a kind of historical data collection method, and it is so described because it's a way of using past data to analyze current information gathered thereby enabling the researcher to make postulations on the topic of the study.

Record searching is very much in use in obtaining or establishing quantitative information. For instance, information like frequencies, ratios, trends etc. and through these data, indications of the extent of which management objectives has been attained is established.

OBSERVATION

This is the third type of method used in this project work. It involves watching an operation for a period of time to see for oneself whether people being watched are doing things in conformity with what is expected.

1.4   SCOPE AND LIMITATION OF T HE STUDY

Internal control system is a vast area of study. With this and other factors like complexities of business operations, this project is therefore not intended to exhaust internal control system as regards computerisation of it as a system, but to treat at least, judiciously those areas that will give a clear view of the system.

In view of the above, it is necessary to restrict the scope of this study to some important aspects of controls. Hence, the following areas of control will be examined in this work.

- Internal control system in payment of wages and salaries.

- Assessment of Internal control system to evaluate its rate of contribution to efficiency in organisation.

- Review of Internal Control system in computer based environment.

1.4   DEFINITION OF TERMS

1.   **Absolute Standard:** An all encompassing requirement that has to be met before objectives of control is attained in a system.

2.   **Auditing Standard:** Requirements needed for an accounting procedure to be Certified by an Auditor.

3.   **Ordinate Methods:** All other methods used to support the laid down method of control.

4.   **Authorisation:**   The right to perform certain duties other than the normal by an accounting officer.

5.   **Errors:**   These are mistakes made during the cause of making accounting entries. These may be inadvertent or deliberate.

6.   **Fraud:**   Intentional Misrepresentation of Financial Information by one or more individuals among management, employee or third parties.

7.   **Custody Procedures:** This refers to how important documents should be safely kept, by whom and for which period.

8.   **Statutory Requirements:** Whatever is required by law to exist before certain action can be taken.

CHAPTER TWO

2.0 BRIEF HISTORY OF PHARMA-DEKO

Pharma-Deko Plc, started in Nigeria in 1962 as Parke-Davis and Company (US) operating a non-trading branch in Nigeria to promote its world wide range of quality pharmaceutical products. In December 1969, the company was incorporated under Nigeria Law as Parke Davis and Company (Nig) Limited – A private Company. Prior to this, the importation and distribution of the company products was done by appointed agents. The new company took over all these functions upon incorporation. Then in 1974 with the promulgation of the Nigerian Enterprises Promotion Decree (1972), 40% of the shares of the company were sold to Nigerian Citizen and associations. The company operated under this name, until February 28th, 1980, when the name was changed to Pharma-Deko Plc Limited, and in pursuance of the Company and Allied Matters Decree 1990, is now known as Pharma-Deko Plc.

The organisation today, is one of the leading producer of Pharmaceutical products amongst which are, Hexedene, Sans Cream Soda (Sugar Free Drink), Dextra Energy Drink, Salins Liniment, Pharmadec (Drops and Syrup), Parkalin Cough Syrup, Anuproct Suppository, Antasil Antacid etc. These products are distributed nationwide through a network of Medical and Sales Representatives.

2.0.1 ORGANISATIONAL STRUCTURE

Pharma-Deko Plc, is divided into eight departments, in which each operates as an independent unit, but collaterally with all the other

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departments. These departments are Production, Sales/Marketing, Materials, Accounts, General Administration, Engineering, Projects and Quality Assurance.

2.1 **REVIEW OF RELEVANT LITERATURE**

The system of internal control is the plan of organisation and all the · methods and procedures adopted by the management of an entity to assist in achieving management's objective of ensuring, as far as practicable, the orderly and efficient conduct of its business. This also include adherence to management policies and safeguarding of assets, the prevention and detection of fraud and errors the accuracy and completeness of the accounting records.

Some authors further described internal control system as a kind of Audit Procedure because:

The Auditors, in forming his opinion on Financial information needs reasonable assurance that transactions are properly recorded and not been omitted. Internal control even if fairly simple and unsophisticated may contribute to the reasonable assurance the Auditor seeks. The Auditor's objective in studying and evaluating internal control is to establish the reliance he can place thereon in determining the nature, timing and extent of his substantive auditing procedure.

Also, the Auditor obtains an understanding of the accounting system to identify points in processing of transaction and handling of assets where error or fraud may occur.

Anything that protects an entity's assets or entitlements from loss or misstatement may be considered to be an internal control system.

Business and other entities have always use internal control in an attempt to protect themselves against losses resulting in fraud.

The process by which an entity's board of directors, management and or personnel obtain reasonable assurance as to achievement of specified objectives; it consist of interrelated components with integrity, ethical values and competence and the control environment serving as a foundation for others.

From the above statement, it can be deduced that internal control as a system lays emphasis on some structures I:e **Control Structures** on which the system rests, for better achievement of results.

The internal control structure is divided in three:

A. **THE CONTROL ENVIRONMENT** This is a characteristic that defines the good control working relationship in a company. Some elements of the Company's "Control Environment" may be vague – referring to management's attitude and behaviour related to concern about accuracy, carefulness and honesty and management method of communicating responsibility and authority to accounting personnel. Others are not vague. In general, the control environment is characterised by structures (organisational chart), good communication of control objectives and supervision of personnel. The following are characteristics of good internal control environment.

i. Personnel capable of performing their jobs well.

ii. A plan of organisation that provide appropriate segregation of functional responsibilities.

iii. Control over access to assets and important documents and blank forms.

iv.   Periodic comparison of records with actual assets and liabilities and actions to correct deviation.

B. **THE ACCOUNTING SYSTEM**   An accounting system process transaction, record them in journals and ledgers and produces financial statement without necessarily guaranteeing their accuracy. Nevertheless, the accounting policies and procedures often constitute important elements of control.

C. **CONTROL PROCEDURE**   These are specific error checking routines performed by Company's personnel. It is an action taken for the purpose of preventing, detecting and correcting errors and irregularities in transactions.

2.2   FEATURES OF INTERNAL CONTROL SYSTEM

Essentially, the features of internal control system includes:

i.   Plan of organisation

ii.   Authorization, recording and custody procedures

iii.   Managerial supervision and Reviews.

THE PLAN OF ORGANISATION

With particular reference to the allocation of duties, this is to establish clear lines of responsibility between sections, managers, directors etc. and ensure coordination of efforts. Delegation of authority and responsibility should be as clear as possible and must be carried out as prescribed by the management. Subdividing duties among two or more individuals helps to prevent accounting errors as well as fraud. When a

duty is separated, only the combined efforts of two or more people must be exercised to embezzle funds or otherwise steal from the Company.

In addition, the allocation of duties and responsibilities would mean that the activity of one person is checked or verified by another person before it is incorporated into the second person's routine.

AUTHORIZATION, RECORDING AND CUSTODY PROCEDURES:

This aspect of internal control system, include internal checks, so that jobs are arranged in such a manner that a line is drawn between custodianship and accountability. That is, no one person is to authorize and carry through the recording of every aspect of the transaction, as such without collision between persons, fraud is in this way prevented and errors are tolerably minimal. A responsible official must authorise any action before the action can be undertaken by a subordinate. This prevent improper actions being taken.

MANAGERIAL SUPERVISION AND REVIEW

This is done to ensure individual participation of achievements by the objective of enterprise by means of reports, records and invigilations. It include internal audit and its review which will ensure management that the internal check system and the accounting system are effective in design and operation and directed towards achievement of the goals of the enterprise.

2.3   INTERNAL CONTROL AND INTERNAL AUDIT

Internal Control is carried out by people within an organisation, its purpose is to evaluate the organisation's financial control system and some aspect

of managerial performance. That is, internal audit is a review of operations and records undertaken within a business.

Internal Control's aim on the overhead, is to ensure that accurate entries of records are made. The work of internal audit are carried out by Internal Auditors.

There exist another type of Auditor called External or independent Auditors. These, unlike the internal auditors are not employees of the organisation whose books they are auditing. Their duties are carried out according to statutory requirements e.g. as laid down by the Company and Allied Matters Decree No 1 of 1990, ICAN Decree of 1965.

2.4   RELATIONSHIP BETWEEN INTERNAL AND EXTERNAL AUDITORS

As aforementioned, internal auditors are those persons under the employment of an organisation and performing functions expected of an auditor, while External Auditors is an independent persons who is called upon from outside an organisation to verify the accuracy of their accounts. There are several differences and similarities between the internal and external auditors and these can be explained under the following headings.

SCOPE OF WORK:

The scope of an internal auditor's work is often determined by the management of such organisation under whose control their duties fall. On the other hand, external auditor's work is not influenced or determined by any force within the organisation, but his scope of duties from the responsibilities stipulated on him by statutes.

RESPONSIBILITY

The Internal Auditor's responsibility is to management while that of the external auditor is to the shareholder.

Despite the commendable difference that exists between the internal and· external auditors, there still exists some similarities in the nature of their work that cannot be overlooked. They include:

a. Verification of Assets and liabilities with the aim of establishing its value, that is, making sure that the assets and liabilities have been evaluated based on true and fair view.

Depreciation of these assets are also verified to ensure that it is done on an acceptable basis consistent with the one adopted in the previous year. Also, auditors take the pain of verifying the existence of assets that had been stated in the books and most often than not they rely on physical verification procedure whenever possible and appropriate. Another area of verification is the determination of ownership of assets and liabilities. This is done through the examination and confirmation of the documents concerned.

b. Auditors try to examine the appropriateness of the control system of an organisation.

c. Examination and checking of accounting records and statement. These statements and include vouchers, cheques, stock records, payroll, profit and loss account and balance sheet.

d.   The wide experience of the independent auditors may be of assistance to the internal audit while the internal auditors intimate acquaintance with the business concern may be of help to statutory auditors.

2.,5   FACTORS TO BE CONSIDERED IN INTERNAL CONTROL SYSTEM

The applications of internal control system emphasis on the following factors;

1.   **SIZE OF THE ORGANISATION**

Small enterprises do not need elaborate internal control system, since the size can be easily covered by effective managerial supervision.   But due to the fact that large business involves multiple duties, managerial supervision alone will be inadequate. Besides, the complexity of large business in recent times calls for a very reflective and efficient internal control system.   It can therefore be said that the complex the activities of an organisation became the more is the need for elaborate, effective and efficient internal control system and managerial supervision needed.

2.   **DOCUMENTARY AND PHYSICAL CONTROLS**

Due regards must be paid, to the procedures established to ensure that reliable records are being kept and that physical control over assets, such as machinery and plants, cash, stock, titled deed, certificates is being done effectively when applying an internal control system.

3. **COST EFFECTIVENESS**

The benefit derivable from any system of internal control should be one that exceed the cost of its application. This means, when applying an internal control system care should be taken so that the cost do not exceed the benefit that can be derived from such a system.

For example, reimbursement of expense claimed by local personnel clearly require detailed checking and comparison with supporting documents by responsible officers.

However, the cost of vetting numerous claims for various small amount can be very high sometimes. Infact, much higher than any possible expenditure on erroneous or fraudulent claim. Therefore, best solutions may be in test checking only a small proportion.

2.6   **RELEVANCE OF INTERNAL CONTROL SYSTEM IN PAYMENT OF WAGES AND SALARIES**

There are many areas of management in which an internal control system is needed. These areas are often departmentalized for effective managerial control. But specifically the area to be considered in this study is wages and salaries department.

Wages, salaries, commission etc serves as another area where cash are handled by personnel and this can easily be another avenue for fraud especially when they are not well paid.

Administration wages and salary basically deals with the various procedures used in establishing the general level of a company's payment to its employee relative to the payment made by other companies and the relative grading of the job within a Company in terms of pay. In some companies, especially manufacturing sector, wages account for a great proportion of the cost incurred, therefore the method to be adopted for fixing wages and salaries level should of utmost concern to any organisation so that the final level at any given time must be fair to both the employer and the employed.

The objective of payment of wages and salaries are:

1.   To attract and retain sufficient staff of the required integrity to meet the Company's objectives.

2.   To provide incentive for better staff work.

3.   To have a strong policy which is logical and consistent, easily understandable and flexible.

Ordinarily, a distinction is often made between wages and salaries. Some people classifies wages as payment for manual work while salaries for non-manual work. However, wages can be described as a payment for definite amount of work as measured by time or piece. So that if less than a full week is bounced a proportionate deduction from the weekly wages will be made, where as salaried workers suffer no such deductions.

Salaries relate to the time employed on monthly basis. Types of wages include piece rate, workers are paid according to the unit produced and time rate according to the time spent at work place.

Fixing wage rate is done by the wages and salaries department of organisation or by the department meant to do that in the case of small firms. Records of work for each employee are kept at the wages and salaries department for compilation of net payment, and it is maintained by keeping of check cards. The check cards bears the name and staff number of each employee and it monitors his/her activities in the work place during normal time and overtime hours.

The check card therefore serves as a check on the employee's movement and it is a control device. In a company where check cards are used, officers should be assigned to oversee that employees clock in and out at appropriate time as late arrival may get their early colleagues to clock in for them. The time recorded by clock cards should be entered in the wages record and the piece rate or time rate included. All the wages and salaries an employee is entitled to is then recorded on the payroll sheet, deductions due are also made before net pay is made to the employee.

2.6.1   **ACTUAL PAYMENT OF WAGES AND SALARIES**

Payment to employees can be done either by cash or cheque paid into their personal bank account. In case of such payments, care should be taken so that the account number is correct and the cheque should be restrictively crossed.

However, in a situation where employees are paid in cash the following matters need to be decided upon.

1. Proper control should be made to safeguard the inclusion of ghost workers in the payroll. This can be done by checking the payrolls after preparation by both the Personnel Manager and head of accounts and wages officer. This of course should be done independently.

2. Who is to pay the cash wages over to the employees should be independent by those responsible for the preparation of payroll pay packets and employees should be made to sign at the front of their names on the payroll immediately they receive their pay packet.

3. What arrangements are to be made concerning unclaimed wages should be determined.

   Unclaimed wages and salaries should be returned back to the department where they are kept for few days after which they are returned to the cashier and the cashier issue a receipt to cover the amount lodged with him/her.

CHAPTER THREE

3.0 SYSTEM ANALYSIS AND DESIGN

INTRODUCTION

System Analysis and Design involves investigation and understanding of the work methods and procedures used in an organisation with the view of making better recommendation on how to improve on the current situation and or bring in new and better methods.

In this study, System Analysis and Design will include the examination of possible and easy way of changing internal control system into a computerised one and how to employ other facilities in ensuring a good accounting control.

3.1 INTERNAL CONTROL SYSTEM IN COMPUTER ENVIRONMENT

This is the formal basis of this study. Computer environment describes an organisational system where computer is formally used in data processing, that is, all information processed are automated as much as possible.

A computer can be defined as and electronic device, that accept data as input, process it according to specified instructions and bring out an output. And any system where computers are in use is said to be Electronic Data Processing Environment.

The principle of Internal Control System control system does not change when it is conducted in an Electronic Data Processing Environment,

except that the environment differs i.e in methods of data processing and storage of information.

However, contrary to manual processes being supported by paper documents like approval, vouchers, invoices and records of accountability such as inventory records, documents in computer system exist only in machine sensible form i:e in standard format. The use of paper is very minimal and data in standard format cannot be read or modified without the use of computer. And as an aspect of note to accounting personnel and auditors, all information should be complete and easily accessible. It will be very necessary hence, to have personnel that are knowledgeable in the use of computer even External Auditors are not left out.

A computer environment requires the presence of the following elements.
- The hardware – e.g Monitor, Keyboard, Central Processing unit etc
- The Software – Application packages, progamming etc.
- The Staff.

3.2   FEASIBILITY STUDY

The essence of a feasibility study is to find out how the solution being proffered will fit in and how workable it will be in the new environment. Feasibility Study is very necessary because it helps to prevent wasting time, efforts and other resources.

3.2.1   ANALYSIS OF EXISTING SYSTEM

In studying the already existing system, it was discovered that computer is partially use in processing only highly sensitive information and the use of

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manual method is predominantly in use. Manual method, however has the following defects,

1. It does not allow for easy and quick gathering of information.

2. Inability to ensure confidentiality of the accounting records.

3. There is no clear or well defined line in authorization and performance of duties.

4. Errors and omission may occur in manual methods and this may lead to inbalance in the final accounts.

5. Inability of the system to subject itself to modern day audit procedures.

   In view of the above disadvantages in the use of manual methods, computerisation holds the following advantages, this therefore answers the question why it is necessary to change;

1. Computerisation of the system will enhance efficient and effective handling of data of any size.

2. Computerisation of internal control system will allow for easy assessing of different account handled by different staff.

3. It will facilitate easy data interaction between and within various levels of management since every member of staff at a defined level will have easy access to their units.

4.   It will lead to easy storage and retrieval of data thereby eliminating misplacements.

5.   Data will be more reliable, since errors and omission will be at the minimum.

3.2.2 SYSTEM DESIGN

System design involves putting together the analysed problem or already existing design and formulating a new design in order to improve on the objective of the organisation.   As such, alternative design is total computerizing but the question that comes up to the mind is what method of design is to be use?.

System design however, requires the consideration of the following elements;

1.   Input
2.   Output
3.   Files
4.   Procedures

1.   INPUT

The type of inputs will be influenced greatly by the needs of output e.g. the necessity for quick response from the system would determine the need for an on-line type of input.

Consideration will be given to:-

a.   Data collection method and validation

b.   Types of input media available

c.   Volumes of input documents

d.   Design of input layouts.

2.   OUTPUT

It is necessary to consider what is required from the system before deciding how to set about producing it. These requirements will have become clear as the project progressed. The analyst will need to consider

a.   Forms

b.   Types

c.   Volume and frequency of reports and documents

d.   Choice of the output media.

3.   FILES

This element is very much linked to input and output. Input is processed against the files to produce the necessary output. Consideration involved in designing files are:

a.   Storage media

b.   Method of file organisation and access

c.   File Security

d.   Record Layout.

4.   **PROCEDURES**

These are the steps which unify the whole process, which link everything together to produce the desired output. These will involve both computer and clerical procedure. They will start with the origination with the source document and end with the output document being distributed.

The above elements would be put into use after the system has been fully converted.

3.3   **CHANGE OVER**

System conversion is a vital activity and it requires careful handling of data, one of the means of system conversion is **Changeover.**

Conversion, involves conversion of old data files into the form required by the new system. The changeover from the old to the new system may take place when:

1.   The system has been proved to the satisfaction of the system analyst and other implementation activities has been completed.

2.   Users, Managers are satisified with the results of the system test, staff training and reference manuals.

3.   The targets data for changeover is due.

The changeover may be achieved in a number of ways. The most common methods are, Direct, Parallel Running, Pilot Running and Staged Changeover

DIRECT CHANGE OVER

This means processing current data by both the old and new in one move: It is a bold move, which should be undertaken only when everyone concerned has confidence in the new system. When a direct changeover is planned, system tests and training should be comprehensive, and the changeover itself planned in detail. This method is potentially the least expensive but the most risky.

For security reasons, the old system may be held in abeyance, including people and equipment. In the event of a major failure of the new system the organisation would revert to the old system.

PARALLEL RUNNING

This means processing current data by both the old and the new system to cross check the results.

The main advantage lies in the fact that, it allows for the old system to be kept alive and operational until the new system has been proved for at least one system cycle, using full live data in the real operational environment by place, people, equipment and time. it allows the result of the new system to be compared with the old system before acceptance by the user, thereby promoting user confidence.

It however, has the disadvantage of extra cost, the difficulty and (sometimes) the impracticability, of user staff having to carry out the

different clerical operations for two systems (old and new) on the time available for one.

PILOT RUNNING

This is similar in concept to parallel running data from one or more previous periods for the whole or part of the system is run on the new system after results have been obtained from the old system, and the new results are compared with the old. It is not as disruptive as parallel operation, since timing is less critical. This method is more like an extended system, test, but it may be considered a more practicable form of changeover for organisational reasons.

STAGE CHANGEOVER

This involves a series of limited size direct changeovers, the new system being introduced piece by piece. A complete part or logical section is committed to the new system while the remaining part or sections are processed by the old system. Only when the selected part is operating satisfactorily is the remainder transferred.

This method reduces the risk inherent in a direct changeover of the whole system and enables the analyst and users to learn from mistakes made as the changeover progresses.

Staged changeover has its disadvantage in the control of the selected parts of the old and new system.

It also tends to prolong the implementation period.

Considering, the fact that the organisation under study has already started the use of computer, though not particularly applied to the topic of study, it is suggested that, a changeover procedure be adopted. Though, it is very expensive, but it is the easiest way out.

3.4   TESTING PROJECT FEASIBILITY

Technical Feasibility

The organisation under study, has the right technology for the changeover to take place, since it has computer equipment in use, it will therefore, only require the adaptation of these existing system to suit the new requirements. It will also be necessary to purchase additional equipment that will best suit the purpose.

Operational Feasibility

Since some of the staff are already computer literate, it will only require few additional computer literate personnel and train them in the use of the new packaged being proffered. The training should however be very intensive as this is what require of the Direct Changeover method use.

Economic Feasibility

Change generally is accompanied with cost to be expended whether physical or otherwise, hence, the costs and benefit analysis of the program needs to be embarked upon, and factors to consider under this include;

i)   Re-organising Staff

ii)   The cost/benefit of employing new staff, that are computer literate and to set up training sessions for both the already existing staff and the incoming ones.

3.5   COST AND BENEFIT ANALYSIS

Developmental Cost	N	N
Equipment Cost		400,000.00
Installation Cost		100,000.00

Personnel Cost		
Staff Training	45,000.00	
Staff Salaries	50,000.00	
		95,000.00

Operational Cost		
Maintenance Cost	100,000.00	
Furniture	50,000.00	
Stationeries (Diskettes & Others)	200,000.00	
New Software & System Analyst Cost	250,000.00	
Standby Arrangement	200,000.00	
		800,000.00

Total Analysis cost = Developmental Cost + Operational Costs= **N1,395,000.00**

Total Cost of Analysis = **N1,395,000.00**

BENEFITS

The following underlisted benefits accrues to the organisation if it takes to the new program.

1. **Data Security:** All databases will be well secured as unauthorised personnel will not have access to the documents.

2. **Efficiency, Effectiveness and Accuracy:** In terms of quick data processing, and errors made deliberately or inadvertent will be at it minimum, because, the system will be use by more than one person, as such any deliberate act alone to marr the organisation will be discovered.

   Accuracy in term of reduced errors, will also go a long in aiding Audit procedures.

3. **Easy Data Interaction:** Authorised personnel from different department can easily access each other's data entries without necessarily leaving their desks.

4. **External Auditors:** Especially, those learned in Auditing procedures in an Electronic Data Processing Environment will find it easier to access all necessary documents without hindrances.

5. **Saves Cost:** On the long run, cost normally incurred every year on overheads will be reduced greatly e.g cost of stationeries.

CHAPTER FOUR

4.0   PROGRAM DEVELOPMENT AND IMPLEMENTATION

In developing a program, one is concern with all the activities that contributes to the initiation of the program. It is concern with the examination of the programming language to be use, the Algorithm; Pseudocodes, Flowchart and even file format creation where necessary. On the other hand, program implementation involves making the developed program operational. That is putting in to work by applying it in the area required to know whether it serves the purpose for which it is written. Moreso, the process involves development of quality assurance procedures including data security, backups and recovery system controls. Testing program with real and artificial data for proper implementation is sometimes included.

4.1   PROGRAMMING LANGUAGE USED

Selecting the programming language involves determining the one that best suit the area of application. The following factors are to be considered.

1.   The existing hardware/configuration.
2.   The difficulty of the program.
3.   Availability of programmer for the language.

In this study, a Database Management System (DBMS) package is use. There are different types of DBMS packages. The first being

COBOL, Common Business Oriented Language in the 1950s, and many others came into focus after it, among which is DBASE. The DBASE IV version is however used as the programming language. It is the most advanced version of DBASE packaged, and it provides a full relational databases environment.

Dbase IV, has many helpful facilities which include;

1.   It is easy to learn and get use to by trained and untrained computer personnel.

2.   Data can easily be integrated using this program. i.e Many files can be access and operated upon as though they are a single file. This factor supports speed in implementation of actions.

3.   There is reduction in data duplication and inconsistency.

4.   There is data security, because in DBASE Environment, databases are centrally controlled and this leads to better management and standards can easily be enforced, and this is all what this study is stressing.

4.2   FEATURES OF THE LANGUAGE CHOSEN

DBASE IV software, is an advanced version of Dbase, that provides a full relational databases environment for users. And it possess the following features;

1.   Can contain as much as 255 Fields in a file.

2.	It allows for popup Menus and Windows design.

3.	It can contain a large memory variables.

4.	It allows for users defined functions.

5.	There is improved printer handling capabilities and faster execution.

## 4.3	IMPLEMENTATION OF THE PROGRAM

Implementation of the program in the system will involve a number of activities such as co-ordination of the efforts of the user departments. It is very important that a System Analyst should be involve in this aspect, this will allow for a close monitoring of the system in order to observe results. And it will require the followings:

1.	Preparation of the schedule for the implementation exercise by the system analyst.

2.	Preparation and presentation of management briefings in order to educate the staff on the new system.

3.	Order for the specified software and hardware, test and evaluate them as necessary.

4.	Document all instructions for the use of the new program for use by the staff and organise in-house staff training.

5.	Test-run the new system and establish new procedures.

6.	Plan and organise the conversion.

7.   Direct changeovers will be use but notwithstanding, the system analyst is still expected to supervise the process until it is fully operational.

4.3.1 **STARTING THE PROGRAM**

With the above procedures established, one can now access the new program. It contains the actual program for inspecting data entries in different files and the general program on Audit Procedures. The program will be loaded from a floppy diskette when inserted into the Disk Drive, the user will then change directory to the dbase directory then load the dbase management system by typing dbase from the dos prompt. Once at the dot prompt in the dbase environment the program can be executed by typing DO ICS.

Immediately the PASSWORD program is executed and the user must enter a valid password to continue using the program otherwise the program execution terminates. If a valid password is supplied the user is requested to login by entering his or her name. This leads to the Mainmenu from which options can be selected.

i:e   :   C:\> CD DBASE   Press Enter Key

        C:\DBASE\> Dbase   Press Enter Key

        . DO ICS   Press Enter Key

Main Menu

1.	Payment Process
2.	Inventory ← 1. Supply / 2. Sales
3.	Incidences
4.	Auditor Remarks
5.	Report ← 1. Financial / 2. Inventory
6.	Exit
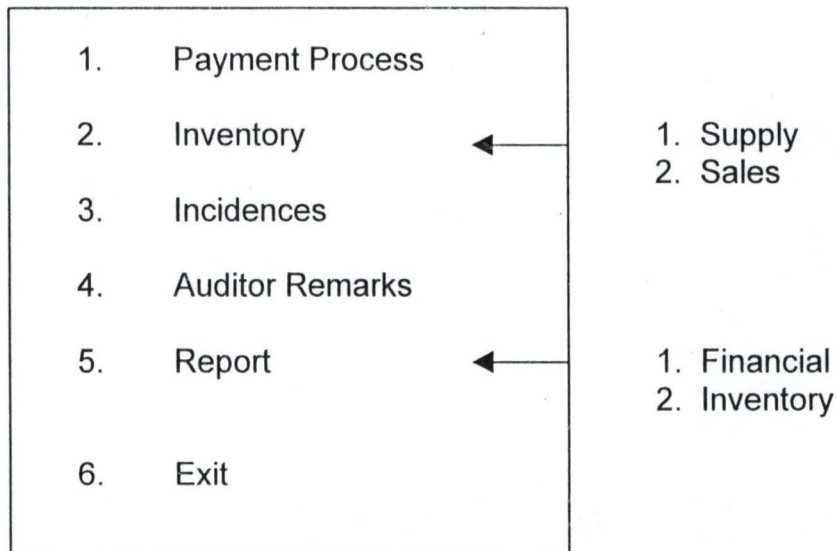
From the diagram of the Main Menu illustrated, above, each of the items can be accessed, and further details is shown in the submenu. Under the process Records, the program is design in such a way that once the type of records has been identified any modification can be done i:e view, delete, modify or add records.

Auditors remarks is just like a memo, whereby accreditation and certification of audited records are remarked on, by both the Internal Auditors and the External Auditors.

Authorization shows, that the lists of individuals that has control over certain aspect of records and to what extent.

The user can then go back to the Dot Prompt or Dos by using the EXIT option on the menu bar.

4.4   DOCUMENTATION

This is the process of describing the way a program works. There are two forms of documentations namely;

-       Internal Documentation

-       External Documentation

Internal Documentation has to do with description/Remarks inscribed in the program, in this study, care has been taken that there is enough remarks and comments in the written programm so that anybody using the system will understand what the program is all about.

External Documentation is when a reference manual has to be printed for future uses of the program. This aspect has also been taken care of, in fact, all documentation aspect are expected to be handled by the system analyst, that is why it is mentioned on the implementation requirements.

4.5   HARDWARE SPECIFICATION

The proposed internal control system will require personal computers with the following configuration

1.   At least 2MB of Ram (Random Access Memory)

2.   286 Mainprocessor

3.   3.5" Floppy disk drives

4.   Coloured or black and white monitor

5.   Stabilizer of 1000 volts

6.   UPS of 1000 Volts

7.   Laserjet printer 5L or 6L or Dot Matrix Printer.

8.   Stationeries like Computer paper for processing the hardcopies of information.

9.   Minimum hard disk space of 4.5MB

10.   The software requirements will include the written programs to be use in the computer system.

4.6   **PROGRAM MAINTENANCE**

A well designed information system should be flexible and adaptable. Changes should be easily managed without elaborate re-programming – thus; in this study, the program is written in modules in order to accommodate new changes. As such, once the system has been installed, maintenance needs to be done in order to meet new information needs.

The hardware peripherals too should be well maintained as specified in their manufacturer's manuals.

CHAPTER FIVE

SUMMARY AND CONCLUSION

Within its scope, this study has tried to narrate what internal control system is all about. It is a general system of control in an organisational set up, established to see to the adherence of policies and that accurate records are being kept.

Internal control system in an organisations gives auditor reasonable assurance that transactions are properly recorded – thus aiding auditing standards and procedures. As such, those areas of internal control system treated in this study, illustrates how the system can be of great assistance for effective and efficient management performance. For instance, the area of wages and salaries where misappropriations of fund is common.

The need for the system in a computer based environment is though the emphasis in this study, because of the advantages inherent in a computerized system over the manual methods. Finally, the program designed therein can also be use to generate adequate control and supervision through segregation of duties and authorization.

RECOMMENDATIONS

1.   Internal control system should be allowed to preserve in the organisation and even expand towards areas not treated in this study.

2.   Since computer technology is dynamic, the organisation should always try to come abreast what is happening in the computer world, especially on issues relating to security, because nowadays, even fraudsters are vast in the knowledge of computer techonolgy.

The management should provide an enabling environment for the smooth take off of the new system by providing enough fund for the acquisition of the right hard-wares and softwares and such other items like spacious offices, Air-conditioners and improve staff welfare package.

Lastly and importantly, the maintenance aspect of the new system should not be forgotten,otherwise, the system will collapse.

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APPENDIX

```
                    ┌─────────────┐
                    │   REPORTS   │
                    └──────┬──────┘
                           │
                           ▼
                        ╱─────╲
                      ╱   IS    ╲        ┌──────────────┐
                     ⟨ CHOICE = 1 ⟩─────▶│    PAYREP     │
                      ╲    ?    ╱        └──────────────┘
                        ╲─────╱
                           │
                           ▼
                        ╱─────╲
                      ╱   IS    ╲        ┌──────────────┐
                     ⟨ CHOICE = 2 ⟩─────▶│    FINREP     │────┐
                      ╲    ?    ╱        └──────────────┘    │
                        ╲─────╱                              │
                           │                                 │
                           ▼                                 │
                        ╱─────╲                              │
                      ╱   IS    ╲        ┌──────────────┐    │
                     ⟨ CHOICE = 3 ⟩─────▶│   STOCKREP    │────┤
                      ╲    ?    ╱        └──────────────┘    │
                        ╲─────╱                              │
                           │                                 │
                           ▼                                 │
                        ╱─────╲                              │
                      ╱   IS    ╲        ┌──────────────┐    │
                     ⟨ CHOICE = 4 ⟩─────▶│   AUDITREP    │────┤
                      ╲    ?    ╱        └──────────────┘    │
                        ╲─────╱                              │
                           │                                 │
                           ▼                                 │
                        ╱─────╲                              │
                      ╱   IS    ╲        ┌──────────────┐    │
                     ⟨ CHOICE = 5 ⟩─────▶│    LOGREP     │────┘
                      ╲    ?    ╱        └──────────────┘
                        ╲─────╱
                           │
                           ▼
                        ╱─────╲
                      ╱   IS    ╲
                     ⟨ CHOICE = 6 ⟩
                      ╲    ?    ╱
                        ╲─────╱
                           │
                           ▼
                      ╭─────────╮
                      │  STOP   │
                      ╰─────────╯
```

```
┌─────────────┐                    ┌─────────────┐
│   INCID     │                    │   AUDIT     │
└─────────────┘                    └─────────────┘
       │                                  │
       ▼                                  ▼
┌─────────────┐                    ┌─────────────┐
│USE INCIDFILE│                    │USE AUDITFILE│
└─────────────┘                    └─────────────┘
       │                                  │
       ▼                                  ▼
 ┌──────────────┐                  ┌──────────────┐
 │INPUT CODE,DATE│                 │INPUT AUDITOR'S│
 │   REMARK      │                 │  NAME, CODE   │
 │               │                 │ REMARK ETC.   │
 └──────────────┘                  └──────────────┘
       │                                  │
       ▼                                  ▼
 ┌──────────────┐                  ┌──────────────┐
 │WRITE RECORD TO│                 │WRITE AUDITOR'S│
 │  INCIDFILE    │                 │  RECORD TO    │
 │               │                 │  AUDITFILE    │
 └──────────────┘                  └──────────────┘
       │                                  │
       ▼                                  ▼
┌─────────────┐                    ┌─────────────┐
│   CLOSE     │                    │   CLOSE     │
│  INCIDFILE  │                    │  AUDITFILE  │
└─────────────┘                    └─────────────┘
       │                                  │
       ▼                                  ▼
  (  RETURN  )                       (  RETURN  )
```

PAYMENT

```
┌─────────────┐
│   PAYMENT   │
└──────┬──────┘
       │
       ▼
┌─────────────┐
│  USE PAYFILE│
└──────┬──────┘
       │
       ▼
 ┌──────────────┐
 │ INPUT AMOUN  │
 │ PURPOSE, DATE│
 └──────┬───────┘
        │
        ▼
 ┌────────────────┐
 │ WRITE RECORD TO│
 │    PAYFILE     │
 └──────┬─────────┘
        │
        ▼
┌─────────────┐
│    CLOSE    │
│   PAYFILE   │
└──────┬──────┘
       │
       ▼
   ( RETURN )
```

INVENT

```
┌─────────────┐
│   INVENT    │
└──────┬──────┘
       │
       ▼
   ╱───────╲
  ╱   IS    ╲        ┌─────────┐
 ( CHOICE = 1 )─────▶│  SALES  │
  ╲    ?    ╱        └─────────┘
   ╲───────╱
       │
       ▼
   ╱───────╲
  ╱   IS    ╲        ┌─────────┐
 ( CHOICE = 2 )─────▶│ SUPPLY  │
  ╲    ?    ╱        └─────────┘
   ╲───────╱
       │
       ▼
   ╱───────╲
  ╱   IS    ╲
 ( CHOICE = 3 )
  ╲    ?    ╱
   ╲───────╱
       │
       ▼
   ( RETURN )
```

Flowchart 1

START

↓

USE LOGFILE

↓

INPUT LOGGERS NAME

↓

GET SYSTEM DATE & TIME

↓

WRITE LOGNAME, TIME AND DATE TO LOGFILE

↓

CLOSE LOGFILE

↓

MAIN

↓

STOP

Flowchart 2

MAIN

↓

DISPLAY MAIN MENU

↓

INPUT CHOICE

↓

IS CHOICE = 1 ? → PAYMENT

↓

IS CHOICE = 2 ? → INVENT

↓

IS CHOICE = 3 ? → INCID

↓

IS CHOICE = 4 ? → AUDIT

↓

IS CHOICE = 5 ? → REPORT

↓

IS CHOICE = 6 ?

↓

STOP

```
********************************
*  SUMMARY OF PAYMENT PROCESSES  *
********************************
```

S/NO	DATE	AMOUNT	PURPOSE
1	01/02/2000	4555.00	STATIONERIES
2	01/02/2000	233.00	ONE EXTENSION WIRE
3	01/02/2000	5677.00	ONE PEUGEOT TYRE

```
*************************
*  SUMMARY OF INVENTORY  *
*************************
```

CODE	ITEM NAME	QUANTITY	UNIT PRICE	RE-ORDER
AA111	BISCUITS	470	34.00	50
BB123	BEVERAGES	123	245.00	20
SS188	KEYBOARD	20	1200.00	2

```
          ********************************
          * SUMMARY OF AUDITORS' REMARKS *
          ********************************

*******************************************************************************
    NAME         DATE     TYPE              REMARKS
*******************************************************************************
SEUN BALE     02/02/2000    E    ACCOUNT CORRECTLY BALANCED
-------------------------------------------------------------------------------
BANKS         02/02/2000    I    ERRORS ON INVENTORY (CORRECTED)
-------------------------------------------------------------------------------
```

```
********************
* SUMMARY OF USERS *
********************
```

S/NO	NAME	DATE	TIME
1	GEORGE WILLIAMS	01/02/2000	22:12:28
2	HELEN BADMUS	01/02/2000	22:12:59
3	VICTOR AKINNOLA	01/02/2000	22:19:00
4	JOSHUA	01/02/2000	22:32:26
5	TAWA	01/02/2000	23:36:33
6	ADEWALE BRIGHT	01/02/2000	23:59:19

```
E ALL

confirm on
date to brit
century on
talk off
stat off
bell off
safe off
color to w/b,,r

ar
log
@ 1,20 to 3,60 panel
@ 2,35 say "PLEASE LOGIN"
@ 5,10 to 20,70
store space(30) to mname
store dtoc(date()) to mdate
store time() to mtime

@ 8,12  say "Enter Login Name : " get mname pict "@!"
@ 10,12 say "Date               : "+ mdate
@ 12,12 say "Time               : " +mtime
    read
    append blank
    repl date with mdate, time with mtime, name with mname
    @ 15,15 say "Press any key to continue"
    wait""
se data

ore 0 to sup
lo while sup <> 6
close all
set colo to rg+/b
lea
@3,20 to 17,60 doub
@1,32 SAY '         MAIN MENU          '
@5,32 SAY '********************'
@8,32 say '1 == PAYMENT PROCESS '
@9,32 say '2 == INVENTORY        '
@10,32 say '3 == INCIDENCES       '
@11,32 say '4 == AUDITOR REMARK '
@12,32 say '5 == REPORTS          '
@13,32 say '6 == QUIT             '
@17,32 to 19,48 doub
@18,33 say 'Selection : '
@18,47 get sup pict '9' RANGE 1,6
ad
do case
case sup = 1
    do PAYMENT
case sup = 2
    do INVTEST
case sup = 3
    do INCID
case sup = 4
    do AUDIT
case sup = 5
    do REPORTS
dc
```

```
enddo
return

Procedure Reports
  store 0 to sp
  do while sp <> 6
  close all
  set colo to rg+/b
  clea
  @3,20 to 17,60 doub
  @1,32 SAY '        MAIN MENU        '
  @5,32 SAY '*********************'
  @8,32 say '1 == USERS REPORT     '
  @9,32 say '2 == AUDITOR REPORT   '
  @10,32 say '3 == INCIDENCES       '
  @11,32 say '4 == STOCK REPORT     '
  @12,32 say '5 == PAYMENTS         '
  @13,32 say '6 == QUIT             '
  @17,32 to 19,48 doub
  @18,33 say 'Selection : '
  @18,47 get sp pict '9' RANGE 1,6
read
  do case
  case sp = 1
      do logrep
  case sp = 2
      do audrep
  case sp = 3
      do increp
  case sp = 4
      do invrep
  case sp = 5
      do payrep
endc
enddo
return


procedure INVTEST
store 0 to ssp
  do while ssp <> 3
  close all
  set colo to rg+/b
  clea
  @3,20 to 17,60 doub
  @1,32 SAY '        MAIN MENU        '
  @5,32 SAY '*********************'
  @8,32 say '1 == SALES      '
  @10,32 say '2 == SUPPLY       '
  @12,32 say '3 == EXIT         '
  @17,32 to 19,48 doub
  @18,33 say 'Selection : '
  @18,47 get ssp pict '9' RANGE 1,3
read
  do case
  case ssp = 1
      do UPDATE WITH 1
  case ssp = 2
      do SUPPLY
endc
```

```
enddo
return


procedure SUPPLY
store 0 to ssl
do while ssl <> 3
close all
set colo to rg+/b
clea
@3,20 to 17,60 doub
@1,32 SAY '        MAIN MENU        '
@5,32 SAY '*********************'
@8,32 say '1 == FRESH SUPPLY '
@10,32 say '2 == MORE SUPPLY '
@12,32 say '3 == EXIT         '
@17,32 to 19,48 doub
@18,33 say 'Selection : '
@18,47 get ssl pict '9' RANGE 1,3
read
do case
case ssl = 1
      do invent
case ssl = 2
      do update with 2
endc
enddo
return

Procedure Audit
clear
se audit
  @ 1,20 to 3,60 panel
  @ 2,32 say "AUDITOR'S REMARK"
  @ 5,10 to 20,70
  store space(20) to mname
  store dtoc(date()) to mdate
  store space(40) to mremark
  store space(1) to mtype

  @ 8,12  say "Auditor Name : " get mname pict "@!"
  @ 10,12 say "Date            : " + mdate
  @ 12,12 say "Remark          : " get mremark pict "@!"
  @ 14,12 say "External/Internal (E/I) : " get mtype pict "!";
     valid mtype $ "EI" error "Invalid Entry"
     read
     append blank
     repl date with mdate, type with mtype
     repl name with mname, remark with mremark
     @ 17,15 say "Press any key to continue"
     wait""
lose data
return


rocedure Incid
clear
se Incid
   @ 1,20 to 3,60 panel
   @ 2,35 say "INCIDENCES"
```

```
  @ 5,10 to 20,70
  store space(5) to mcode
  store dtoc(date()) to mdate
  store space(40) to mremark

  @ 8,12  say "Incidence Code : " get mname pict "@!"
  @ 10,12 say "Date           : " + mdate
  @ 12,12 say "Remark         : " get mremark pict "@!"
    read
    append blank
    repl date with mdate
    repl name with mname, remark with mremark
    @ 15,15 say "Press any key to continue"
    wait""
close data
return

procedure Invent
clear
use Invent
  @ 1,20 to 3,60 panel
  @ 2,32 say "INVENTORY OPERATION"
  @ 5,10 to 20,70
  store space(5) to mitem_code
  store space(20) to mitem_name
  store 0 to mre_order, mquantity, mun_price

  @ 8,12  say "Item Code      : " get mitem_code pict "@!"
  @ 10,12 say "Item Name      : " get mitem_name pict "@!"
  @ 12,12 say "Quantity       : " get mquantity pict "9999"
  @ 14,12 say "Unit Price     : " get mun_price pict "99999.99"
  @ 16,12 say "Re-order Level : " get mre_order pict "9999"
    read
    append blank
    repl item_code with mitem_code, item_name with mitem_name
    repl quantity with mquantity, un_price with mun_price
    repl re_order with mre_order
    @ 18,15 say "Press any key to continue"
    wait""
close data
return

procedure Update
parameter kk
clear
use Invent
  @ 1,20 to 3,60 panel
  @ 2,32 say "INVENTORY OPERATION"
  @ 5,10 to 20,70
  store space(5) to mitem_code
  store 0 to mquantity
  @ 8,12  say "Item Code      : " get mitem_code pict "@!"
  read
  locate all for item_code = mitem_code
  if found()
  @ 12,12 say "Quantity       : " get mquantity pict "9999"
    read
    store quantity to mbefore
    if kk = 1
       mquantity = mbefore - mquantity
```

```
        else
            mquantity = mbefore + mquantity
        endif
        repl quantity with mquantity
    else
        @ 14,12 say "Item does not exist "
    endif
        @ 18,15 say "Press any key to continue"
        wait""
close data
return

procedure payment
clear
use finance
    @ 1,20 to 3,60 panel
    @ 2,32 say "PAYMENT PROCESS"
    @ 5,10 to 20,70
    store 0 to mamount
    store dtoc(date()) to mdate
    store space(30) to mpurpose
    @ 8,12 say "Date        : " + mdate
    @ 10,12 say "Amount      : " get mamount pict "999999.99"
    @ 12,12 say "Purpose     : " get mpurpose pict "@!"
        read
        append blank
        repl date with mdate
        repl amount with mamount, purpose with mpurpose
        @ 15,15 say "Press any key to continue"
        wait""
close data
return


procedure Payrep
CLEAR
use finance
go top
    ? space(24),"********************************"
    ? space(24),"* SUMMARY OF PAYMENT PROCESSES *"
    ? space(24),"********************************"

    ? space(5),"*****************************************************************
    ? space(5),"* S/NO      DATE           AMOUNT                    PURPOSE
    ? space(5),"*****************************************************************
    sn = 1
do while .not. eof()
    ? space(5),'|',str(sn,3),'| ',date,' | ',str(amount,12,2),' | ',purpose
    ? space(5),replicate("-",73)
    sn = sn + 1
    skip
enddo
wait ""
close data
return

Procedure Invrep
CLEAR
use invent
go top
```

```
pace(28),"**************************"
pace(28),"* SUMMARY OF INVENTORY *"
pace(28),"**************************"

***************************************************************************
S/NO     CODE            ITEM NAME              QUANTITY   UNIT PRICE   RE-ORDER *
***************************************************************************
  1
hile .not. eof()
  '|',str(sn,3),'| ',item_code,' | ',item_name,' | ',str(quantity,5),
? ' | ',str(un_price,12,2),' | ',str(re_order,4),'|'
? replicate("-",77)
sn = sn + 1
skip
do
  ""
se data
urn

cedure LogRep
AR
log
top
pace(30),"********************"
pace(30),"* SUMMARY OF USERS *"
pace(30),"********************"

pace(5),"*****************************************************************
pace(5),"* S/NO                NAME                              DATE          TIME
pace(5),"*****************************************************************
 1
while .not. eof()
? space(5),'|',str(sn,3),'| ',name,' | ',date,' | ',time,'|'
? space(5),replicate("-",69)
sn = sn + 1
skip
do
t ""
se data
urn

cedure IncRep
AR
Incid
top
pace(27),"**************************"
pace(27),"* SUMMARY OF INCIDENCES *"
pace(27),"**************************"

****************************************************************************
* S/NO     CODE         DATE                       REMARK                   *
****************************************************************************
 1
while .not. eof()
? '|',str(sn,3),'| ',code,' | ',date,' | ',remark,' |'
? replicate("-",77)
sn = sn + 1
skip
do
t ""
```

```
se data
urn

cedure AudRep
AR
 audit
top
pace(24),"*******************************"
pace(24),"* SUMMARY OF AUDITORS' REMARKS *"
pace(24),"*******************************"

**************************************************************************
          NAME              DATE    TYPE               REMARKS
**************************************************************************
while .not. eof()
? name,date,' ',type,' ',remark
? replicate("-",78)
skip
do
t ""
se data
urn
```

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