

**COMPUTER APPLICATION TO LOCAL GOVERNMENT  
BUDGETING AND PLANNING.**

**(A CASE STUDY OF LAPAI LOCAL GOVERNMENT COUNCIL)**

**BY**

**KOLO MAMMAN**

**PGD/MCS/97/98/637**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/  
COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY,  
MINNA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.**

***SEPTEMBER 2001.***

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APPROVAL PAGE

This project work has been read and certified by the undersigned as meeting the requirements of the department of mathematics/computer science, Federal University of Technology, Minna.

\_\_\_\_\_  
PRINCE R. BADAMOSI  
PROJECT-SUPERVISOR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DR. S.A. REJU  
HEAD OF DEPARTMENT

\_\_\_\_\_  
DATE

\_\_\_\_\_  
EXTERNAL EXAMINER

\_\_\_\_\_  
DATE

## DEDICATION

This work is dedicated to the Glory of Almighty Allah for his guidance, protection and care over us all. Also dedicated to my children and the entire family of mine. May Allah bless you all.

## ACKNOWLEDGEMENT

May the Almighty Allah be praised for his constant and everlasting care and protection over us. Academic pursuits is not easy, but with the support of Allah, one is grateful for seeing us to the end of the program.

My project supervisor, Prince Badamosi, he has been so concerned, helpful, above all very considerate. He has sacrificed much to see to the fruition of this work. May Allah in his definite mercies, bless, guide, guard and protect you and the family from the hands of evil doers Amen.

To the current Head of department, we thank you for your administrative capabilities. To my various lecturers, you have all been wonderful and we shall remain grateful for the knowledge imparted.

To my Employer, I thank you for giving me the chance to better myself academically. To my friends and brothers, sisters and colleagues, you have all been part of this achievement. May Allah reward you all abundantly. Amen.

## ABSTRACT

Budgeting and planning decisions are often faced by management in all types of organisation. These decisions are decisions that must be made carefully since the future growth of any organisation depends solely on such vital decisions.

This work therefore centers more on the conception of how to plan and budget for greater investment and how management in various organisations could update their vast potentials on how to improve in generating revenue based on proper budgeting and planning.

The programming language in use is Dbase IV due to its vast features and capabilities.

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## CHAPTER ONE

### 1.0. INTRODUCTION

The link between computer technology and our present day is evident by the increased activities worldwide. This has gone to such an extent that it is obvious that human efforts alone can no longer cope with increased pace of these activities. Therefore with the industrial revolution, which brought about the introduction of computers in many diverse fields, the expected problem of storing and organising data is one way under control.

This is because a computer has the capability of processing a large data with a very short period of time and with the most possible accuracy.

It is therefore; important to note that one of the areas that has benefited mostly from the expansion of computer technology is the area of business. Business of course, uses computer for a variety of tasks, which include payroll processing, inventory control, account receivable and account payable, information management, personnel information management, e.t.c.

However, of all the various applications of computers in business environment, the one that is examined here is the area of budgeting and planning.

Intervention of government in the area of pricing makes it's complicated to increase arbitrarily in line with rising cost and this requires a proper budgetary planning whether in marketing, manufacturing or in the control administrative systems of a firm.

In addition, Wiener in the U.S.A. and Stafford Beer in Britain have developed many of cybernetics to show how automatic regulations can be enforced into a business. "Cybernetics" refers to the source of a system with the computer, and the development of management authorization system, the necessary feedback is known and deviation formalised.

The reason for co-ordinate control in business organisation arises due to the scarcity of resources, which is the main cause of all economic problems. While resources are limited, human wants are many and often conflicting, couple to these problems, people are told to arrange their wants according to how important they are to them. The allocation of the available resources to satisfy individual unit in a business concern has often cause a serious problem to most business enterprises.

Due to this, the available funds and resources have to be made at every stage of the financial needs of each department and the control has to be made at every stage of budgetary plan so as to be able to reduce cost in order to meet the set target.

As at this point, it is important to name some of the advantages of budgetary planning and control system, but before this it is important attempting to define the term budgeting and budgetary control.

We have many definitions of these terms, as put forward by eminent scholars but the generally accepted definitions is that of the Institute of Cost and Management Accountants (ICMA). They defines a budget "as a financial

or quantitative statement prepared and approved period to a defined period of time of the policy to be pursued during that period of the purpose of attaining a given objective, it may include income expenditure and the employment budgetary relating the responsibilities of executives to the management of a policy and the continuous comparison of actual result, either to secure by individual action the objectives of that policy or to provide a firm basis for its revision.”

Arising from these definitions, budgets can be said to provide suitable yardsticks for prudent financial management. They serve as a means of comparison of the set target with actual results. With a formal budgetary plan and control system, it helps to give top management a summarized view of the results to be expected from proposed plan of operation and the management in choosing between a number of alternatives. Once the approval of the budget is obtained, it serves as a guide to executive and departmental needs responsible for the individual segment of the council operations because of the clear definition of duties embedded.

Through a system of responsibility accounting, it serves as a measurement of performance since large budget deviations reflect either the failure of the organisation to achieve the planned standard of performance or its inability to improve on them.

Budgetary planning and control mechanisms foster the centralization of control and the decentralization of responsibility. They act as guiding principle

- of management decisions when known conditions affect the management and most especially they facilitate the planning and control of the income and expenditure so that maximum profitability is achieved. It directs capital expenditure in the most profitable way and ensures that the required working capital is available for the efficient operations of the business.

Nevertheless, it does not mean that budgetary planning and control systems have no demerits. This is because the system is a means to an end and not an end in itself.

Therefore,

- The success of the system depends on how it is prepared and implemented by the managers of the company. If there is a lack of personal commitment on the part of the formulator in accurate figure will result and this may impose serious limitations on the results obtained.
- In addition, responsibility may overlap and the administrative cost of the system may out-weigh its benefits.

Nevertheless, for any profit oriented organisation, budgetary planning and control system are not only desirable but indispensable because they exists in planning the overall policy of the firm co-ordinate its activities so that each is part of an integral total and to control each functional department in order to achieve the best possible results.

## 1.1 OBJECTIVES OF THE STUDY

The main objectives of this study are as follows: -

- (a) To examine the differences between budgetary and actual results obtained and to attempt to identify the cause of the differences.
- (b) To examine the budgetary control system of the council
- (c) Automatic generation of the necessary accounting reports required by the council.
- (d) To eliminate delays involved in the preparation of budgetary reports.
- (e) To provide a logical and physical design of a computerised budgeting and planning system that will suit the council.

More importantly, the study is inspired by the conviction that the achievement of a good computerised budgeting and planning will lead to the success of the council in terms of achieving its stated objectives.

## 1.2 WHAT IS BUDGET?

A budget is the statement in financial and quantitative terms of expenditures for a defined period of time. A budget differs from a "forecast" which is merely an assessment of future events, which are likely to occur if no positive planning action is taken. Forecast, however, are a necessary preliminary to budget preparation, it is only when existing trends have been

modified to account of changed conditions necessary to alter the forecast results and to establish a budget plan.

Lack of facilities to prepare budget especially the use of computers over the years has resulted in some point of budget deficit in both the public and private sectors of the economy. It is in this light that every effort especially through the latest information technology has to be adopted to ease constraints and extrapolation in both monitoring and preparation of budgets.

Organization has to ensure that organisational expenditure estimates matches its total receipts. Control of budgets is achieved by people, and the subsidiary budgets must therefore be structured so that the responsibilities for implementation are clearly identified with individual managers. It is only when the finding to be carried out by each manager have been defined that it becomes possible to define the output to be achieved. Control through budgets involves the existence of an organisation's decisions to invest fund in the long-term assets are of considerate significance since they tend to influence the organisations wealth, determine its size, set the pace and direction of the growth, it should be noted that the organisation capital budget decision include addition, disposition, modification and replacement at long-time or fixed assets.

### 1.3 PURPOSES OF BUDGETING

- a. To direct management or policy makers attention from the present to the future.
- b. To force the policy makers analyze the organisation activities critically
- c. To enable management or policy maker to anticipate problems or opportunities in time to deal with them effectively
- d. To give management a continue reminder of the actions they have decided upon.
- e. To provide a reference point for control purposes

### 1.4 DEFINATION OF TERMS

- (1) **BUDGETING SYSTEM**- An accounting subsystem that permits managers to manage and track actual revenues and expenses and to compare these amounts to the revenues and expenses that were expected.
- (2) **CAPITAL BUDGET**-An accounting report that contains information about the planned acquisition or disposal of major plant assets during the current year.
- (3) **CASH-FLOW REPORT**-An accounting report that shows the estimated amount of cash that will be received and spent each month.



- (4) **CORPORATE PLANNING**-This can be defined as improving the serving of objectives, organizing the work, people and system to enable those objection to be attained.
- (5) **PLANNING** - A formal systematic, managerial process, organised by responsibility time and information to ensure that operational planning, project planning.
- (6) **BUDGET** - Is the statement in financial and quantitative terms of expenditures for a defined period of term.
- (7) **INFLATION** - A time of generally rising prices for goods and factors of production. Or a situation in which the prices of goods are all continuously rising at the same time.
- (8) **STRAGETIC PLANNING** – The process of deciding on the objectives on the resources used to attain these objectives.

## 1.5 FEATURES OF COMPUTER

- (1) **Speed:** - computer's internal speed is virtually instantaneous. It performs work at very high speed. It has the ability to add new data and the adequacy of preservation of documents with maximum speed and minimum assistance.
- (2) **Storage:** - The speed of the computer makes it possible to process large quantities of information. With the computer, its storage devices can retain infinite amount of information.

(3) **Accuracy:** - The accuracy of computer is consistently high and seldom leads to false results. Almost without exception, the errors in computing are due to human rather than to technological weakness.

(4) **Diligence:** - A computer does not suffer from the human traits of tiredness and lack of concentration.

(5) **Versatility:** - Computer seems capable of performing almost any task provided the task can be reduced to series of logical steps.

## CHAPTER TWO

### 2.0 REVIEW OF RELATED LITERATURE

Accounting is “the language of business”. This is because business facts and events are collected, and reported in accordance with accounting principles and procedures, and in accounting terms. Accounting enables companies and governmental agencies to summarize and report in understandable fashion a huge number of transactions.

Businessmen use accounting to compute the profit earned by a business firm during a year or other period. Accounting also records and classifies a company asset and liabilities and the interest of the owners. The profession in which accounting principles are used called accountancy and the members of the profession are known as accountants.

There are three main fields of accounting, we have industrial accounting which covers the entire field of accounting for industrial enterprise. These includes, book-keeping, cost accounting, auditing controllership, book-keeping is the practices and procedures followed in recording and summarizing the transaction intend into by business organisation, every good business firm must have a book keeping department to keep it's financial records. Book-keeping operates under the principles of accounting but new accounting has gone beyond book-keeping. Cost accounting on the other hand deals with the determination of cost of goods manufactured and sold. Costs are classified as direct materials, direct labour and overhead. Direct materials are the raw

material that finally appear in the finished product. Direct labour is the cost of paying employees who works directly on a product. Overhead includes all cost such as power light. Cost accounts must know how to collect information about these costs and spread among some products that a company manufactures

Financial accounting, this word derive it name from the Latin word finis. It includes the preparation and interpretation of general financial statements.

Closely related to accounting is auditing, this also derive it name from Latin word "Audire". It is concerned with examining and reviewing accounting information to determining whether it is reasonable accurate and presented in an understandable fashion. Auditors are accountants who review the work of other accountants.

## **CONTROLLERSHIP:**

The controllers of a business enterprises, the chief accounting officer and a member of the management's. He sees that accounting work done efficiently and that the information use is effectively.

Government accounting, governments like business accounting to help them obtain information about their actions and financial conditions of cost control is relatively new. The idea of budgeting is used by most people, some of who are not directly away but who have to balance their business account at the end of a month in year. Method of cost control i.e. budgetary control concept has been tried and developed in commerce and industry in the united State of America, United Kingdom and Europe. The company understand and have started to practise the use of internal auditing budgets, budgetary controls supervision, graphical and statistical method of controlling costs so as to be able to meet their desire set targets.

### **2.1 BUDGETING SYSTEM OF THE COUNCIL**

The accounting system in practise in the company is an integrated financial and coast accounting type. Their budgeting system is a flexible budget system. To achieve their objectives the council is making use of "management accounting expenditure code book" in which all codes relating to a specific operation are listed under a relevant cost center.

## A. ANNUAL OPERATING BUDGET

The annual budget (comprising of capital and recurrent expenditure) is a pointer to the whole council's operation for a particular financial year in which a picture image of council is portrayed. When approved, it becomes a good guide for all activities to be embarked upon with all the limitation in order to achieve the council's operations set goals.

## 2.2 METHOD OF COST COMPILATION

Finance department is broken down into sub section with each section for specific duties as per job description. The major sub-sections are:-

1. Wages section
2. Disbursement section
3. Costing section
4. Stores section
5. Assets section
6. Computer section (accounting Machines)
7. Insurance section

From each of the above sections, a monthly return of their recording e.g. Bank book, Cash Book, Payroll, stores issues, Sales purchasers etc) are made available for posting into financial control accounts and the details on codes for posting into the cost ledger by costing section

### 2.3 MONTHLY COST STATEMENT

For control purposes throughout the council, actual costs are normally compared with the budget on cost statement and variances declared at the end of each month to ensure that all departments keep in step with budget. A disturbing variances are investigated promptly. From time, the management endeavours to improve on its accounting, policy through the dictates of experience. There should be an efficient organisation for budgetary planning and control system to be operated effectively. The following procedures are necessary in council budgeting system.

1. The preparation of an organisation chart for budgetary planning and control
2. There should be a budget time
3. The introduction of adequate accounting records
4. The creation of centre for budget
5. The establishment of a budget committee.

In most local government council, a budget committee is appointed to formulate a general programme for preparing budgets and affecting overall control. The committee compose of chief executive of the council. It should be borne in mind that the aim of budgeting is to produce a complete forecast of how all the various sections of a company should behave. Budgets are prepared by each head of department and will be submitted for approval.

When it is approved, it then becomes the operating plan of the firm for that period of time, this acts as authority for each departmental head to take necessary step to implement it. The budget provides the standard by which is such an important feature of the system.

Budget can be either fixed or flexible. The company under study makes use of flexible type of budget. A fixed budget is one that remains unchanged irrespective of the level of activity actually attained. While flexible budget recognizes the difference between fixed and variable costs and it changes in relation to the level of activity attained.

Budget period is known as the time covered by a budget. The length of the period depends upon the nature of the plan being made some forecast can be made for a relatively long period i.e. up to ten year or even longer in exceptional circumstances. Other can safely cover few months irrespective of the type of budget, the longer the period covered, the less reliable will be the figure obtained. Short period of budget may be incorrect while a long period may be correct simply because the fluctuation experience in different period are averaged out when a number of year is considered. For control purposes the budget period is divided into shored periods.

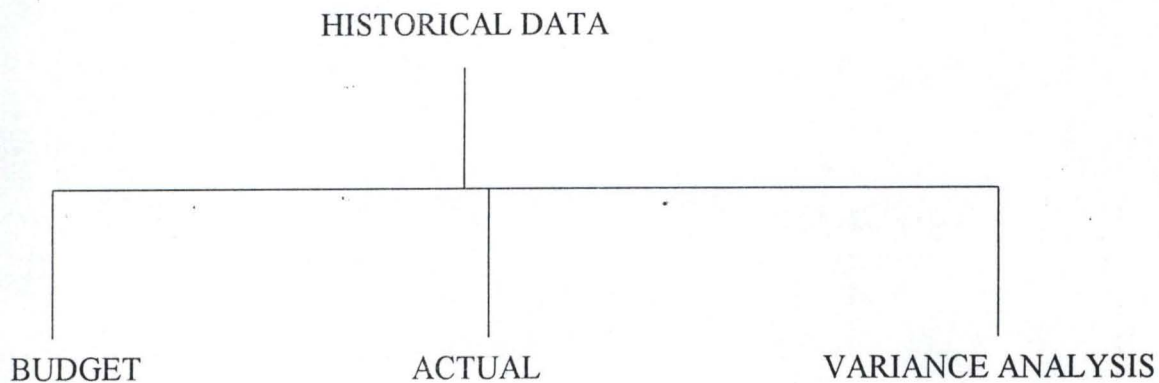
#### **2.4 IMPORTANCE OF BUDGETARY CONTROL**

When budgetary control is being used in an organisation as in plan of this policy, plans and action are co-ordinated and controlled. The following are the importance of budgetary control: -



1. Corporate planning and budgetary control can be linked i.e. all personnel from the top to the lowest knows the part they have to play so as to achieve the target set. The best results are likely to be obtained when there is a clear plan of action and there is guiding control budgetary controller.
2. Performance indicators can be developed for all parts of a business. Measurements of performance production targets, sales quotas and other targets are achieved automatically as part of the system. Costs are controlled and comparison of actual and budgeted costs are made.
3. Strengths and weaknesses can be recognised and improvement can be made. The necessary examination of the organisation and the study of the costs behave and are incurred usually result in improved efficiency and weaknesses that exist become apparent, and action taken to eliminate them.
4. Delegation is encouraged: - Budgeting follows sound management principles. Delegation of responsibilities is given positive recognition. Budgetary control reduces the possibility of danger due to delegation of responsibility.
5. Weakness can be traced: - The cost variances reveal any weaknesses that @ more over, they reveal the nature of each weakness. So where the nature or weakness is determined necessary action can be taken quickly and in time.

## 2.5 VARIANCE ANALYSIS



Variance could be deduced arithmetically as **Variance = Budget-Actual**

There are two types of variance: these are favourable variance and adverse unfavourable variance.

- (a) Favourable variance: - This occurs when a budget is achieved with a resultant surplus budget surplus is called favourable variance.
- (b) Adverse or unfavourable variance:- this occurs where a budget is not implemented to the latter, thereby leaving funds idle or diverting for unbudgeted or invariable project.

## 2.6 POSSIBLE CAUSES OF UNFAVOURABLE VARIANCE

- (1) Poor monitoring and implementation
- (2) Cost over run
- (3) Bureaucratic red-tapism

(4) Inadequate funding by use of unskilled contractors

(5) Inappropriate technology

## **2.7 ELEMENT OF COST**

Analysis and classification of cost for the purpose of budgetary planning and control. It is important to analyse and classify cost into their appropriate classes. The cost accountant is responsible for the allocation of suitable method for controlling the purchase and to make use of material production cost can be divided into 3 types i.e. Material cost, labour and overhead cost.

### **MATERIAL COSTS**

Are the total costs of material used in production? It comprises of material price and material usage i.e. material used up in production.

### **LABOUR COST**

Are the cost paid to workers that are engaged in production of a product.

### **OVERHEAD COST**

Overhead cost is defined as the total cost of indirect material, indirect labour and indirect expenses. Indirect cost in this connection means that cost which cannot be allocated to a particular cost unit or cost centre. Overhead may be analysed by this various function.

1. Production overhead

2. Administrative overhead
3. Selling and distributing overhead, for the purpose of budgetary control overhead may be incorporated in to department budgeted, overhead could be actual or predetermined to overhead because, the cost of the product will not be accurate it bear and appropriate proportion of the overhead cost.

## **2.8 STANDARD COSTING**

Standard cost are carefully determined, pre-computer costs, which support to be estimates of costs as they should be standard cost may be forecast of cost to a production of a number of products. Standard costs are more scientific determined and are more detailed. So that off standard cost performance can be pre-pointed. Standard costs are support to represent costs they should be so that any deviation such cost represent measure of performance. The differences between the actual and standard is known as variance.

An actual cost is the actual amount of cost to be used while standard is the amount expected to be use and the different between them give variance.

### **ADVANTAGES OF STANDARD COSTS**

1. It provides a current range of performance or measure of performance or measure of efficiency.
2. It establish goal or incentives for improvement of performance and enhancement of morale.

3. They affect economy's in accounting record keeping.
4. If standard costs are comparable to a par for a golf coarse yard sticks against which to measure performance currently.

## 2.9 TYPES OF BUDGET

The following are the different types of budgets,

1. **Fixed budget** or standard budget- this type of budget is not subject to review
2. **Flexible budget**- this type of budget is subject to review
3. **Balanced budget**- is such budget where every expenditure item is matched by sufficient revenue or income.
4. **Deficit budget**- where expenditure are otherwise matched.

## 2.10 STEPS IN THE PREPARATION OF BUDGET

In the preparation of budget both in the public and private sector, consideration has to be made on the following factors:-

1. The political economy, social and technology this is in view of the fact that the political situation of the can by or of the environment has tro be considered. The economy of course, must as well comes into focus as well as the social and the technology of the time.
2. Step would be to the review of the budget, this plays a significant role in measuring the achievements so far of the previous budget as well as in

habiting factors that militate against achievement of the previous budget.

3. The forecast of the two items.

## 2.11 THE ADMINISTRATION OF BUDGETARY CONTROL

The information which must be available to enable budget to be prepared by all executives on a consistent basis and in form which facilitate consolidation into the master budget are: -

- (a) The organisation structure of the council setting out clearly for responsibilities of each officer and the limits of his authority.
- (b) The classification and coding of the various items of income and expenditure to be covered by the budget.
- (c) Copies of the forms to be used in submitting budget. Wherever possible, the layout forms should be similar to that of the management report which will be used later to compare budgeted and actual results.

## 2.12 CORDINATION OF BUDGETS

In order that an acceptable master budget can be prepared, it is necessary to ensure that the various subsidiary or individual budgets are coordinated. The most obvious example of this is the need to ensure that the quantities, which for example the sales department of a company is forecasting that they will

sell, are in line the quantities which production department are budgeting to produce.

In addition to the areas where it is necessary to check that quantities of a production department agree with quantities budgeted to be used by another department, it is also necessary to ensure that financial implications of individual budgets are coordinated e.g. capital expenditure proposed by operating departments must be reconciled with the cash available for capital expenditure as shown the cash budget.

### **ZERO BASE BUDGETING**

Zero-base budgeting expressed very simply, means going back to the start. The basic idea is that a manager should ignore what has been done in the past and should attempt to justify every item of expenditure by asking what purpose activity to achieve.

Zero – based budgeting is an approach to cost planning which rejects the view of budgeting as an incremental process where by past years budget and actual figures become the basis for the next budget. It attempts to deal with deficiencies of traditional approaches to budgeting that use current costs as a guide and look for a percentage increase on the current figures.

The advantages of Zero- base budgeting compared with traditional method of budgeting include: -

## BUDGETING FOR CAPITAL EXPENDITURE

In the same manner, other individual budget are prepared. Budgeting for capital expenditure could be well prepared in either given pre-written software or written program. The control of capital expenditure project falls into five stages;-

- (i) Budgeting
- (ii) Project authorization
- (iii) Implementation
- (iv) Reporting and review
- (v) Audit of result achieved

The main purpose of the capital expenditure budget is to provide a forecast of the amount of cash likely to be needed for investment projects during the years ahead.

### 2.13 BENEFITS OF THE PROPOSED SYSTEM

A lot of benefits will be derived from the proposed system, some of which are:-

- (a) **Accuracy**-when a computer is properly programmed, it will do the intended work with high degree of accuracy. This is because, computer does not get bored, so that the errors that human beings easily might commit is easily avoided.
- (b) **Speed** – the computer can perform calculations and process data more quickly than other alternative methods. Work might take a very



long time to be finished can be done within a short period by the computer. As a result of speed, large volume of transaction can be handled within a short period.

- (c) **Retention and storage** – computer can store and search massive files of data and programs and the contents of these files cannot fade away or get lost.
- (d) **Reliability** – computers can work for almost 24 hours in a day except a little time out for equipment check-up and maintenance.
- (e) **Wide application** – computer can be used to solve a wide range of problems and can be used to do a lot of things that seem impossible manually.

## CHAPTER THREE

### 3.0 SYSTEMS ANALYSIS AND DESIGN

#### 3.1 INTRODUCTION

Systems analysis and design is a process similar to problem solving. The process of system analysis involves a number of procedures that can be applied to any aspect of study.

Design is the process whereby the systems analyst applies his/her own judgement, skill and knowledge to interpret the requirement specification that provides detailed documentation of the new system.

For effective design to be accomplished, certain basic factors must be considered: -

- a. Production of desired information at the appropriate time, and amount with an acceptable level of accuracy.
- b. The need to minimize lost and time spent on data preparation and collation.
- c. Effective safeguards for prevention of frauds
- d. Effective security measures to avoid loss of data store in files

### **3.2 PROBLEM VERIFICATION**

Certain key questions need to be answer in this process of problem verification in the computer application to budgeting and planning. Such questions include thus :-

- What is being done?
- How is it done?
- How frequent does it occur?
- How great is the volume of transaction?
- How well is the task being performed?
- Does a problem exist, how serious is it?

To answer these questions, variety of individuals were talked to, to gather details about the council process and their opinions of why things happen as they do and their ideas for changing the process and improvement.

### **3.3 THE PRESENT MANUAL SYSTEM: -**

The manual system, which is used, is inefficient because of the following problems; -

1. Much time is wasted in retrieving past records of the company
2. These records might have been misplaced. This leads to the problem of getting accurate information.

3. Duplication of certain items/heads
4. Inclusion of non-realizable income in the budget
5. Frequent omission of relevant items for planning
6. A lot of time is wasted when the management wants immediate information

### 3.4 FEASIBILITY STUDY

The aim of this preliminary investigation was to find out the objectives of the present system and whether these objectives were being achieved. The objectives set to accomplish at this stage were :-

(a) .To classify and understand the project request the guiding question is in this form:-

- (i) What is being done presently?
- (ii) What is required to improve the system?
- (iii) What is it needed for?

b. Determination of the size of the project: - this was necessary so as to estimate the number of people and amount it will require to develop the project

### 3.5 COST AND BENEFITS ANALYSIS OF THE NEW SYSTEM

#### 1. HARDWARE PROCUREMENT

	N	K
486 Dx2/66/MH2 PROCESSOR	250,000.00	
14" COLOUR MONITOR	50,000.00	
CPU	120,000.00	
102,UK KEYBOARD	15,000.00	
LASER JET PRINTER (6L MODEL)	45,000.00	
UPS (1000K.V)	60,000.00	
STABILIZER (100k.v.A)	25000.00	
MOUSE PAD	<u>5,000.00</u>	
TOTAL	<u><u>N570,000.00</u></u>	

#### 2. SOFTWARE:

	N	K
WORD PROCESSOR (6.1)	15,000.00	
DBASE PROGRAM	20,000.00	
CURRENT WINDOW	<u>20,000.00</u>	
TOTAL	<u><u>N45,000.00</u></u>	

#### 3. DEVELOPMENT COST

	N	K
SYSTEMS ANALYSIS AND DESIGN FOR 4 WEEKS AT 10,000/WEEK	40,000.00	
SOFTWARE DEVELOPMENT FOR 4 WEEKS AT 10,000.00	40,000.00	
PERSONNEL TRAINING AND DEVELOPMENT FOR 4 WEEKS AT 10,000.00	<u>80,000.00</u>	
TOTAL	<u><u>N160,000.00</u></u>	

#### 4. OPERATING COST

CONSUMABLES FOR 1 YEAR	100,000.00
UTILITIES	100,000.00
2A/C (21/2HP)	100,000.00
MISCELLANOUS EXPENSES	<u>50,000.00</u>
	<u><u>N350,000.00</u></u>
<b>GRAND TOTAL =</b>	<u><u><b>N1,125,000.00</b></u></u>

## SYSTEMS BENEFITS

- (1) Reduction in the use of stationeries
- (2) Sorting and arranging of information in various ways can be done easily and quickly
- (3) Reduction in printing of cards, ledgers etc.
- (4) Elimination of many repetitive work of budgeting and planning
- (5) Automatic updating of records and maintenance.

### 3.6 TESTING PROJECT FEASIBILITY

For testing project feasibility, the following have to be undertaken:-

- i. Operational feasibility
- ii. Technical feasibility
- iii. Economic feasibility

(1) Operational Feasibility- this is concerned with the workability of the proposed system when developed and installed. There is no complicated problem nor harm the proposed system could cause the user but rather will improve performance.

(2) Technical Feasibility – this seeks to clarify if the proposed project can be done with current equipment, existing software technology and available personnel.

(3) Financial Feasibility – this is undertaken to assess the cost of implementing a proposed project vis-a-vis the benefits derived from implementing the project

### 3.7 INPUT SPECIFICATION

For computer to perform the task of data processing, data needs to be entered into the system. The input specification states the source and type of data that needs to be supplied into a system. This is considered important because if the information supplied is correct, it usually follows that the result of processing would also be right. This is in consonance with the popular adage- "Garbage in Garbage out".

### 3.8 OUTPUT SPECIFICATION

One of the important features of an information system is the output it produces. The information is essentially about form, types, volumes and frequency of reports and documents to be generated.

There is two major forms in which the report will be produced namely: -

- (1) On the screen and
- (2) Printed report (hard copy)

## CHAPTER FOUR

### 4.0 SYSTEMS IMPLEMENTATION

#### 4.1 INTRODUCTION

The systems implementation and application stage is required to put into use the newly designed system. This is always done to provide the environment conducive for efficient working of the system. This chapter begins with choice of software used and its features. The requirements in terms of hardware configuration and software types required for the computerised procedure is also stated. The mode testing of the new system and conversion the system that are considered important are described in this chapter. Finally, the documentation of the workings of the system is also considered essential in order to aid references by the users as well as to aid proper understanding of the system.

#### 4.2 CHOICE OF LANGUAGE

The proposed system is written using database management system (DBMS). A database is an organised collection of related information designed to meet the various needs of an organisation or establishment. DBMS is a package of computer programs and its documentation used to create, maintain, organise and retrieve information from a database. It is a software package that helps establishments or institution manage their data resources.

Specifically, the important function of a DBMS are as follows:-



- Create and populate a data base
- Retrieve data from the database
- Generate report from the database
- Update information in the database
- Organise the data of the database
- Maintain integrity and consistency of data
- Provide shareability of data to users.

Database management software is of various types, which include Dbase, Foxbase, Informix, Paradox, Oracle and a host of others. Specifically, the new system is developed in Dbase. Dbase is also of different versions such as Dbase ii, Dbase iii, Dbase iii+, Dbase iv and the latest Dbase v. Dbase iv which is this system has capabilities for programming.

### **4.3 FEATURES OF LANGUAGE CHOSEN**

In the early days, programs were developed in a file-processing environment. In this environment, user's requirements are treated in isolation with the application program operating almost independently. Files and records are designed in such a way to satisfy individual operational needs thus imposing organisational barriers with regards to the data.

However, in most information systems, it is desirable to have the ability to jump over these imposed barriers and access data right across the organisation.

This leads to the introduction of database management. Data processing environment, data are viewed as a whole irrespective of their type. Furthermore, the integration of data of different types are linked by logical relationships through a DBMS. The features of DBMS are as follows;

1. **DATA INTERGRATION:** - In a database, information from several files is co-ordinated, accessed and operated upon as though it is in a single file. Logically, the information is centralised, physically the data may be located in different files. In addition, it is possible for two or more application to be sharing compatible data.
2. **DATA REDUNDANCY IS ELIMINATED:** -Data redundancy occurs when the same data appears in more than one file. This leads to wastage of storage space and duplication of efforts during data entry. One basic feature of DBMS is that it eliminates data redundancy since data are not duplicated in files.
3. **DATA INDEPNDENCE:** - Another feature of DBMS is that it ensures data independence because application programs are isolated from the physical or logical storage of data. This feature seeks to allow for changes in the content and organisation of physical data without re-programming of applications.
4. **DATA INTEGRITY:** - This is an important feature of DBMS. Since details stored once without duplication, the information retrieved is consistent as only one update is enough if there is a change in the data.

#### 4.4 HARDWARE REQUIREMENT

The new system is designed to work on a standard microcomputer. Specifically, the computer configuration should include a microcomputer, a printer and an uninterrupted power supply, (UPS). The description and capacity of each of these are as follows :-

i) **COMPUTER HARDWARE:** - A microcomputer with microprocessor of about

Pentium 166MHZ (megahertz) and a minimum RAM (Random Access memory)

The computer should possess a hardware disk capacity of about 2.1GB(gigabyte) and a floppy disk drive unit providing for 3.5 inches diskette. This ensure speedy retrieval of information and to meet up the future computer needs of the Authority.

II) **PRINTER:** - A printer is required to make hard copies of the reports that will be generated. In the proposed system, a printer is required for the generation of the necessary reports. For this purpose, a printer of neat letter quality feature and speed of about 12,00 lines per minute with a maximum width of 132 characters per line is recommended. In addition, a LaserJet printer (LaserJet 6L) is also required for production of text and report.

**III) UPS:** - This facility will ensure constant power supply to the computer and its environment. It will have the capability for automatic provision of power in case there is power failure in order to allow for continuity of job.

#### **4.5 SYSTEM TESTING**

System testing is the stage of implementation, which is aimed at ensuring that the system works accurately and efficiently before life operation commences. The logical design and the physical design should be thoroughly and continually examined on paper to ensure that they will work when implemented. Therefore, the systems testing in implementation should serve as a confirmation that all is correct and an opportunity to show user that the system works.

However, this proposed system was fully tested to confirm its reliability specifically; a user acceptance testing was performed. This type of testing involves the users of the program in testing to confirm that system is doing what is required to be done.

The testing was done using a set of carefully selected test data, which was entered into the system. The result was compared with the result obtained from the previous run and they were found to be the same.

In view of this, it is then concluded that the newly developed systems is working accordingly.

#### 4.6 SYSTEMS CONVERSION AND CHANGEOVER

This involves file conversion, file setup and change over file conversion requires changing the old (existing) system files to the format and content required by the new system. File setup is the process of setting up the converted files on the computer changeover is the full replacement of all the old procedures by the new ones.

The changeover could be in any of the three following forms:

- i) Parallel changeover
  - ii) Direct changeover
  - iii) Pilot changeover
- (i) **Parallel changeover** requires with the old and new system to run concurrently for some time using the same inputs. The output of the two systems is compared. This will continue until the new system is confirmed to be working satisfactorily
- (ii) **In the case of direct changeover** the old system becomes operational immediately.
- (iii) **The pilot changeover** requires changing to the new system on a piece meal.

However, it is recommended that a parallel changeover method for the full conversion of the system. This is to ensure that within the period of changeover, the store activities in terms of storage and information retrieval are not in any way affected.

#### **4.7 SYSTEMS DOCUMENTATION**

Documentation is the description of how a system works. This is done to ensure better understanding of the system by the users in case of any problem. Therefore, in documenting the proposed system, the mode of starting the new system and the description and linkage of the menu structure would be stated.

#### **4.8 POST IMPLEMENTATION REVIEW**

After the system is implemented and the conversion is completed, provision needs to be made for a review of the system. This has to do with maintenance of the system against environmental change, which may affect either the computer or other parts of computer – based system. This may lead to the improvement of a system function and the correction of faults, which arise during the operation of a system.

Specifically, the objectives of the post implementation review is to; -

- i. Determine whether the system goals and objectives have been achieved.
- ii. Determine whether personnel procedures, operating activities and order control has been improved.
- iii. Determine whether user service requirements have been met, while

simultaneously reducing errors and costs.

- iv. Determine whether known or unexpected limitations of the system need attention.

However, the amendment procedure agreed upon with the use of this system is directly through the users. The users are expected to identify any problem areas on this, the system will further be designed to meet requirement.

#### **4.9 STARTING THE PROGRAM**

Load the Dbase program by typing Dbase from the DOS prompt.

C:/> CD Dbase press enter key

Go to the Dbase directory

C:/DBASE/> DBASE press enter

This loads the dbase program. From the dot prompt, type "do budget"

. DO BUDGET.

The program is then activated and the main menu is displayed.

The main-menu consists of: -

- (1). Add records
- (2). Delete records
- (3). Modify record
- (4). View records
- (5). Report summary

(6) Exit.

Depending on your choice from the main-menu, the appropriate subprogram is loaded.

The report menu is loaded when option 5 is selected. From the report menu, one can choose the appropriate report to be generated.

### **ADD RECORDS**

To add records, the computer prompts the user for the operation code of that particular record. After being entered, the computer checks to ascertain whether it already exists; if it does it flashes a message that it does else it allows the user to enter other fields of the record; operation date. Description amount, operation type income or expenditure. This goes on until the user responds negatively to the computer's asking if he/she wants to enter more records.

### **DELETE RECORDS**

Just like adding records the computer prompts for the operation code after which it searches for a match. On finding one, it asks the user if he/she is sure of wanting to delete that particular record. If yes it deletes it and if no it prompts for the record to delete.



## MODIFY RECORDS

After procedure of prompting for the operation code and searching for a match, if a match is found it then allow the user to modify the relevant field else it prompts that record does not exist. The user is then allowed to enter another operation code if he/she wants to modify more records.

## VIEW RECORDS

Here, the user is allowed only a glimpse of the record. A search is made the operation code of the record, which the user enters. If found, all the field of the records are displayed else the system prompts that the record does not exist

## REPORT EXPENDITURE:

This gives a summary of expenditure (heading parameter 1) and generates a summary of all amounts as shown in the output

## REPORT INCOME:

This also generates a summary of records (heading parameter 2) if operation type "income" and sums up the total of amounts for all records of this type also as shown in the output.

## REPORT BOTH (INCOME AND EXPENDITURE)

This gives a summary of a combination of records both of type "income" and "expenditure, showing the total amount in each case.

## CHAPTER FIVE

### **5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS.**

#### **5.1 SUMMARY**

The project has focused on the need for a computerised budgetary planning and control. Without effective implementation of budgetary planning and control a plan may become ineffective on the council that formulated it.

#### **5.2 CONCLUSION**

The continued substitution of computer-based systems for manual procedures has in modern days become a worldwide affair. This is due to its relevance in virtually all aspects of human endeavour. This interest is intensified by the capability of computers in performing a given set of procedures with all necessary accuracy. It is not subjected to committing error and its ability to accomplish any task makes it applicable in the present time.

However, it would be accepted that a computer procedure needs to be designed in a way to achieve the benefit of computer usage in terms of speed, full automation of procedures, avoid constant problems, ensure data security and so on. It is in recognition of this fact that a newly designed fully automated. Computerised budgeting and planning for the enter management of Lapai Local Government council is recommended.

## 5.2 RECOMMENDATIONS

The need for the installation of the proposed system is to ensure the maximization of its benefits. However, for the system to be of immense benefits, the following recommendations should be adopted.

1. MANPOWER REOUIREMENT: - The use of computer in the council requires a review of the manpower presently available. Some staff like the typist will have to be trained to the use of word processor and new staff will have to be employed. There is also for the council to employ an in-house programmer who is fully knowledgeable about the concept of Database management system. The programmer should be able to write programs in dBASE Iv. This is to ensure future modification of the suite of programs that constitute this proposed system.
2. PERSONNEL TRAINING REOUIREMENT: - There is the need for the training of a staff in the Accounting Department on how to use the proposed system. This is expected to be done before the installation of the system.
3. SECURITY: - In any computer based system, there is the need for security in order to avoid both logical and physical problems. In view of this, people (both staff and outsider) should not be given any access into the computer room.

4. **COMPUTER ENVIRONMENT:** - Normally, a computer environment should be air-conditioned. The council should provide a good cooling facility for the computer so as to ensure durability of the system.

However, it should be realised that the above recommendations need to be adopted in order to fully maximize the importance of a computer-based system.

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\*\*\*\*\*

\* BUDGETING

\*\*\*\*\*

```
SET TALK OFF
SET SAFETY OFF,
SET SCORE OFF
SET CONFIRM ON
SET ESCAPE ON
SET MESSAGE TO ""
SET DEVICE TO SCREEN
SET STATUS OFF
CLEA ALL
SET COLOR TO GR+, G, G
CLEAR
DO MAINBUD
STOPPER = ''
DO WHILE STOPPER = ''
DO DEFIN
DO MAIN
CLEAR
ENDDO
RETURN
```

PROCEDURE DEFIN

```
IF ISCOLOR()
  SET COLOR OF BOX TO GR+/BG
  SET COLOR OF NORMAL TO W+/B
  SET COLOR OF HIGHLIGHT TO GR+/BG
  SET COLOR OF MESSAGES TO W+/N
  SET COLOR OF TITLES TO W/B
  SET COLOR OF FIELDS TO N/BG
  SET COLOR OF INFORMATION TO B/W
ENDIF
```

SET BORDER TO DOUBLE

\* SET BORDER TO DOUBLE

```
DEFINE POPUP MAINMENU FROM 1,25
DEFINE BAR 1 OF MAINMENU PROMPT " M A I N   M E N U " SKIP
DEFINE BAR 2 OF MAINMENU PROMPT "===== " SKIP
DEFINE BAR 3 OF MAINMENU PROMPT "ADD RECORD(s)";
  MESSAGE "Addition of record(s) to the database file"
DEFINE BAR 4 OF MAINMENU PROMPT "DELETE RECORD(s)";
  MESSAGE "This option allows deletion of record(s)"
DEFINE BAR 5 OF MAINMENU PROMPT "MODIFY RECORD(s)";
  MESSAGE "This option allows modificatio of record(s)"
DEFINE BAR 6 OF MAINMENU PROMPT "VIEW RECORD(s) ";
  MESSAGE "This option allows you to view records"
DEFINE BAR 7 OF MAINMENU PROMPT "REPORT SUMMARY";
  MESSAGE "This option allows Generation of reports"
DEFINE BAR 8 OF MAINMENU PROMPT "E X I T ";
```

```
MESSAGE "You want to Shutdown"  
ON SELECTION POPUP MAINMENU DO MAIN_PARA
```

```
*-----> Popup for Report  
DEFINE POPUP REPOM FROM 6,45  
DEFINE BAR 1 OF REPOM PROMPT " R E P O R T   M E N U" SKIP  
DEFINE BAR 2 OF REPOM PROMPT "===== " SKIP  
DEFINE BAR 3 OF REPOM PROMPT "EXPENDITURE SUMMARY";  
MESSAGE "Generate report of expenditure "  
DEFINE BAR 4 OF REPOM PROMPT "INCOME SUMMARY ";  
MESSAGE "Generate report of income "  
DEFINE BAR 5 OF REPOM PROMPT "BOTH SUMMARY ";  
MESSAGE "Generate report of expenditure & income "  
ON SELECTION POPUP REPOM DO REPO_PARA
```

```
*-----> Popup for Exit  
DEFINE POPUP EXITM FROM 7,45  
DEFINE BAR 1 OF EXITM PROMPT " E X I T   M E N U" SKIP  
DEFINE BAR 2 OF EXITM PROMPT "===== " SKIP  
DEFINE BAR 3 OF EXITM PROMPT "EXIT TO PROMPT";  
MESSAGE "Return to the Dbase Prompt"  
DEFINE BAR 4 OF EXITM PROMPT "EXIT TO DOS ";  
MESSAGE "Shutdown and return to DOS"  
ON SELECTION POPUP EXITM DO EXIT_PARA
```

#### PROCEDURE MAINBUD

```
* -----> This section design the screen  
DEFINE WINDOW MAINSC FROM 1,1 TO 22,78 NONE COLOR W+/B  
DEFINE WINDOW WORK_IN FROM 7,5 TO 21,75 DOUBLE COLOR W+/B  
ACTIVATE WINDOW MAINSC  
@1,20 to 3,60 double  
@2,24 say "B U D G E T I N G" COLOR W*  
ACTIVATE WINDOW WORK_IN  
RETURN
```

```
PROCEDURE MAIN  
ACTIVATE POPUP MAINMENU  
RETURN
```

#### PROCEDURE MAIN\_PARA

```
DO CASE  
CASE BAR() = 3  
DO ADDREC  
CASE BAR() = 4  
DO DELREC  
CASE BAR() = 5  
DO MODREC  
CASE BAR() = 6  
DO VIEWREC
```

```
CASE BAR() = 7
  ACTIVATE POPUP REPOM
  DEACTIVATE POPUP
CASE BAR() = 8
  ACTIVATE POPUP EXITM
  DEACTIVATE POPUP
ENDCASE
RETURN
```

```
PROCEDURE REPO_PARA
DO CASE
  CASE BAR() = 3
    DO REPEXP
  CASE BAR() = 4
    DO REPINC
  CASE BAR() = 5
    DO REPBOTH
ENDCASE
RETURN
```

```
PROCEDURE EXIT_PARA
DO CASE
  CASE BAR() = 3 '
    STOPPER = 'Q'
    CANCEL
  CASE BAR() = 4
    ,QUIT
ENDCASE
RETURN
```

```
Procedure ADDREC
store 'Y' to ans
set stat off
use budget
do while ans ='Y'
clear
store space(7) to mcodeno
@1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
read
locate all for codeno = mcodeno
if found()
  @8,20 say 'Record already exist'
else
store 0 to mamount
store space (25) to mdescrip
store space(11) to moptype
store space (10) to mopdate
DO GETDATA
READ
clear
```



```

append blank
replace codeno with mcodeno
replace descrip with mdescrip
replace amount with mamount
replace optype with moptype
replace oupdate with mopdate
endif
@10,10 to 12,50
store 'N' to ans
@11,12 say 'Are there more records? (Y/N)' get ans pict '!';
valid ans $ 'YN' error 'Invalid entry !!!'
read
enddo
CLEAR
close databases
return

```

#### Procedure DELREC

```

store 'Y' to ans
use budget
do while ans= 'Y'
  clea
  @2,15 to 4,55
  @3,20 say 'Deletion of record'
  store space(7) to mcodeno
  @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
  read
  locate all for codeno = mcodeno
  if found()
    @10,10 to 12,50
    store 'N' to reply
    @11,12 say 'Are you sure? (Y/N)' get reply pict '!';
    valid reply $ 'YN' error 'Invalid entry!!!'
    read
    if reply = 'Y'
      .dele
      pack
    endif
  endif
else
  @8,20 say 'Record does not exist'
  endif
  @10,10 clea to 12,50
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'Delete more records? (Y/N)' get ans pict '!';
  read
enddo
CLEAR
close data
return

```

#### Procedure MODREC

```
use budget
store 'Y' to ans
do while ans = 'Y'
  clea
  store space(7) to mcodeno
  @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
  read
  locate all for codeno = mcodeno
  if found()
    store descrip to mdescrip
    store amount to mamount
    store optype to moptype
    store opdate to mopdate
    DO GETDATA
    READ
    clear
    replace codeno with mcodeno
    replace .descrip with mdescrip
    replace amount with mamount
    replace optype with moptype
    replace opdate with mopdate
  else,
    @8,20 say 'Record does not exist'
  endif
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'Modify more record? (Y/N)' get ans pict '!';
  valid ans $ 'Y/N' error 'Invalid entry!!!'
  read
enddo
CLEAR
close databases
return
```

#### Procedure VIEWREC

```
use budget
store 'Y' to ans
do while ans = 'Y'
  clea
  store space(7) to mcodeno
  @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
  read
  locate all for codeno = mcodeno
  if found()
    store descrip to mdescrip
    store amount to mamount
    store optype to moptype
    store opdate to mopdate
```

```

DO GETDATA
WAIT
clear
else
  @8,20 say 'Record does not exist'
endif
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'View more record(s)? (Y/N)' get ans pict '!';
  valid ans $ 'Y/N' error 'Invalid entry!!!'
  read
enddo
CLEAR
close databases
return

```

#### Procedure REPEXP

```

define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'exp.out'
set device to screen
  set alternate on
  set space on
  DO HEADING with 1
  use budget
  go top
  ct = 1
  mtot = 0
do while .not. eof()
if left(optype,1) = 'E'
  ? '|',str(ct,3),'|',codeno,'|',opdate,'|',descrip,'|',amount,'|'
  ct = ct + 1
  mtot = mtot + amount
  ? replicate('-',75)
endif
  skip
enddo
? space(54),'TOTAL = ',str(mtot,9,2)
?
set alternate off
wait
close data
deactivate window user
return

```

#### Procedure REPINC

```

define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'inc.out'

```

```

set device to screen
  set alternate on
  set space on
  DO HEADING with 2
  use budget
  go top
  ct = 1
  mtot = 0
do while .not. eof()
if left(optype,1) = 'I'
  ? '|',str(ct,3),'|','codeno','|',opdate,'|',descrip,'|',amount,'|'
  ct = ct + 1
  mtot = mtot + amount
  ? replicate('-',75)
endif
  skip
enddo
? space(54),'TOTAL = ',str(mtot,9,2)
?
set alternate off
wait
close data
deactivate window user
return

```

#### Procedure REPBOTH

```

define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'both.out'
set device to screen
  set alternate on
  set space on
  DO HEADING with 3
  use budget
  go top
  ct = 1
  mtot1 = 0
  mtot2 = 0
do while .not. eof() ,
  ? '|',str(ct,2),'|','codeno','|',opdate,'|',descrip,'|'
if left(optype,1) = 'I'
  ?? space(9),'|',amount,'|'
  mtot1 = mtot1 + amount
else?
  ?? amount,'|',space(9),'|'
  mtot2 = mtot2 + amount
endif
  ct = ct + 1
  ? replicate('-',81)
  skip

```

ddo  
space(48),'TOTAL = ',str(mtot2,9,2),' ',str(mtot1,9,2)

alternate off  
it  
se data  
activate window user  
urn

PROCEDURE GETDATA  
PEAR  
3,5 SAY "OPERATION CODE :" + MCODENO  
5,5 SAY "OPERATION DATE :" GET MOPDATE PICT "99/99/9999"  
7,5 SAY "DESCRIPTION :" GET MDESCRIP PICT "@!"  
9,5 SAY "EXPEND/INCOME :" GET MOPTYPE PICT "@M Expenditure,Income";  
MESSAGE "Press SPACE to view options and RETURN to select"  
1,5 SAY "AMOUNT :" GET MAMOUNT PICT "@!"  
TURN

PROCEDURE HEADING  
PARAMETER LL  
space(17), "\*\*\*\*\*"  
space(17), "\* B U D G E T I N G \*"  
space(17), "\*\*\*\*\*"

LL = 1  
space(27), "\*\*\*\*\*"  
space(27), "\* SUMMARY OF EXPENDITURE \*"  
space(27), "\*\*\*\*\*"

REPLICATE(" ",75)  
" \* OPERATION \* OPERATION \* \* \*"  
S/NO \* CODE \* DATE \* DESCRIPTION \* AMOUNT \*"  
REPLICATE(" ",75)

SE  
L = 2  
space(30), "\*\*\*\*\*"  
space(30), "\* SUMMARY OF INCOME \*"  
space(30), "\*\*\*\*\*"

REPLICATE(" ",75)  
" \* OPERATION \* OPERATION \* \* \*"  
S/NO \* CODE \* DATE \* DESCRIPTION \* AMOUNT \*"  
REPLICATE(" ",75)

SE  
space(23), "\*\*\*\*\*"  
space(23), "\* SUMMARY OF INCOME & EXPENDITURE \*"  
space(23), "\*\*\*\*\*"

REPLICATE(" ",81)

```
? "*" * OPERATION * OPERATION *
? "*" SN * CODE * DATE * DESCRIPTION * EXPEND. * INCOME *
? REPLICATE("*",81) * AMOUNT * AMOUNT *
ENDIF
ENDIF
RETURN
```

\*\*\*\*\*  
 \* B U D G E T I N G \*  
 \*\*\*\*\*

\*\*\*\*\*  
 \* SUMMARY OF EXPENDITURE \*  
 \*\*\*\*\*

\*\*\*\*\*

* S/NO *	* OPERATION CODE *	* OPERATION DATE *	* DESCRIPTION *	* AMOUNT *
1	EX-1001	10/02/19	PURCHASE OF STATIONERIES	12000.00
2	EX-2300	21/07/19	PAYMENT OF SALARIES	45000.00
3	EX-2339	30/12/19	PURCHASE OF VEHICLE	210000.00
4	EX-2900	04/02/20	PURCHASE OF RAW MATERIALS	46020.00
				TOTAL = 313020.00

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 \* B U D G E T I N G \*  
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 \* SUMMARY OF INCOME & EXPENDITURE \*  
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* SN *	* OPERATION CODE *	* OPERATION DATE *	* OPERATION DESCRIPTION *	* EXPEND. AMOUNT *	* INCOME AMOUNT *	
*****						
1	EX-1001	10/02/19	PURCHASE OF STATIONERIES	12000.00		
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2	IN-1021	11/06/19	SALES OF PRODUCT		34500.	
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3	EX-2300	21/07/19	PAYMENT OF SALARIES	45000.00		
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4	IN-2455	22/07/19	STAFF TAX DEDUCTION		13560.	
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5	EX-2339	30/12/19	PURCHASE OF VEHICLE	210000.00		
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6	EX-2900	04/02/20	PURCHASE OF RAW MATERIALS	46020.00		
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7	IN-4322	05/02/20	SALES AND SUPPLY		867900.	
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				TOTAL =	313020.00	915960.