

COMPUTER APPROACH TO BUDGETTING
(A CASE STUDY OF BUDGET OFFICE, FEDERAL MINISTRY
OF FINANCE, ABUJA)

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PGD\ MCS\ 97/98/616

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APPROVAL PAGE

This project work has been read and certified by the undersigned as meeting the requirement of the Department of Mathematics \ Computer Science, Federal University of Technology, Minna.



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EXTERNAL EXAMINER

DATE

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All praises belong to the almighty Allah by whose grace I went through the course of study. My special thanks go to my supervisor Prince Badmos for all his assistance towards the successful completion of this project work.

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My thanks go to all those who contributed directly and indirectly towards my success in the course of my study.

DEDICATION

This project is dedicated to the Almighty Allah, the only deity worthy of worship.

On earth here, the project is dedicated to the memory of my late father, Mallam Mubakar Okolo for his inspiration to me on the value of education; to my lovely mother-Mrs Halimatu Sadiya and My faithful wife (Amidetu) for their unalloyed support and understanding throughout my course of study.

Not to be left out, is my only daughter, Miss Halimatu Sadiya who could not recognize me on my return from school because of her tender age. I thank her so much for her understanding.

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CHAPTER ONE

INTRODUCTION

HISTORICAL BACKGROUND

Budget is a quantitative plan of action in monetary terms to be pursued in a forthcoming period. It amounts to collation of all sources of revenue and then matched against expenditure outlets and the budget is normally pre-approved and once it is approved it becomes an executive order.

Budget could be for a period as small as a day or as long as a year (yearly budget) or even more than a year – rolling plan.

In matters of national finance it is said that no single penny can be spent without appropriation act and it is the budget prepared by the executive that is the appropriation bill which is eventually passed into an act.

This exercise grew from struggles of 16th and 17th centuries of the West. It was a struggle between the legislature and the executive arms of government. With the decline in feudal system of governance, dues gave way to taxes and because consequently the feudal bonds disappeared tax payers then demanded to be consulted before they pay any tax..

The magna carta of 1216 in England properly documented this and mostly on the lines before expenditure control came much later.

Centuries passed by, parliament appeared contented restricting the amount sovereigns levied while allowing them spend as much as it please the, But if the centuries crisis led to 1688 revolution in Great Britain which led to the signing of Bills of Right. Now parliament has control over both expenditure, and taxes levied. It is today in the matter of national finance Visa-a-vis the appropriation act.

Budget today is not simply to raise money o pay for government, expenditure but rather has become an important economic policy instrument which has positive or negative impact n the economy A deficit or positive budget may have inflation or deflation any consequences it may in any nation

This practice was handed over to us by our colonial masters and nor in Nigeria, at the Federal level the office of Budget in the Federal Ministry of Finance is saddled with the responsibility of budget preparation on behalf of the executive arm of government .

The procedures today are

- a. **Call circular:-** This is circular calling on all ministries parastatals, Agencies commission etc to submit their budget proposals. This circular will equally indicate policy thrust of government , the

direction government going the specimen of forms to be used the date of submission and a lost of other importation

- b. Various organizations submit their budget to the budget office, they are given opportunity to defend the budget after which all necessary amendment are made before the budget is collorated into a single document for presentation to the national assembly as an appropriation bill by the president.
- c. The national assembly deliberation on the budget and after all necessary amendments is in passed and sent to the president for assent.
- d. The budget is assented to and it becomes an order to be executed by the executive arm of government. At this stage the budget is broadcast to the nation.

1.2 STATEMENT OF PROBLEM

The world is fast becoming a global village and vastly disturbed technologically hence we cannot continue to go through the huddle of manual budget preparation as it is done today.

At the budget preparation stage a lot of works are done manually e.g every staff may be entitled to annual increment and leave bonus, some are withheld and others are deferred.

Some approvals for employment being expects and the potential new employee will used to be paid therefore the amount of their remuneration must be included in the budget.

A lots of projects are on-going (W.I.P) and others will commend in the forthcoming period.

Policies that have elements of simulation forecasting etc need be made.

The whole of these and others are done manually every year besides the budget monitoring and evaluation.

When done manually more than necessary human, material and financial resources are the input. After all said and done how accessible are these vital information to policy formulators who may want to evaluate the budget but way of variance analysis and investigation?

This is the big role the computer will play.

1.3 OBJECTIVES

The objective of this research work is to see how computer can assist us in the budget preparation with a view to achieving the following.

- a. Elimination of all wasteful expenditure associated with manual budget preparation.
- b. Early rendition of the budget both by the executive to the legislature and from the legislature back to the executive as an approved budget.
- c. Easy access to the budgetary data and information for easy of monitoring and evaluation
- d. Elimination of all budget slacks – this is very prominent in Nigeria
- e. Provision of analysis of variation from previous year's budget.

1.4 SCOPE AND LIMITATIONS

This project is restricted to the budgetary process at the Federal government level i.e. does not include other federating units in Nigeria it does not go into budget evaluation what the project tries to do is to have a high quality budget so that the evaluation which may come later will be meaningful. We all know that the quality of output can never be better than the quality of input.

This project work has a lot of irritations few of which are enumerated here.

-The time slot for a project of this magnitude should be extensive rather than the one year.

-The bureaneraly researcher went through with the officials of the govt

Inadequate record keeping as they relate to the previous year's budget

- Though text books on budgeting scanty the practice is far from the theory
- Most by what is called computerized environment is where secretaries use micro-soft word to type letters and that is all.
- The financial implications of data gathering was environment and not within the reach of common man.

1.5 SOURCES OF GOVERNMENT REVENUE.

Some of the sources of government revenue which form the thrust of the revenue budget in broad form are

- a. Customs and excise
- b. Direct taxes
- c. Levies and internal revenue
- d. Mixing

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A. Recurrent Expenditure

- (a). Personnel Emolument Cost
- (b) Travelling and Transport
- (c) Utility
- (d) Telephone
- (e) Stationery
- (f) Maintenance of Asses
- (g) Vehicle Maintenance
- (h) Staff Training and development etc

B. Capital Expenditure

- (a) Office Building
- (b) Staff Housing Schemes
- (c) Infrastructures
- (d) Plant and Machinery
- (f) Motor Vehicles etc

These are what we have in the Expenditure Summary budget which is a collection of all the individual organizations' (under the Federal govt) budget.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 BUDGET OFFICE

This office can be traced function-wise because over the years departments with different names performed the functions of the current day office of Budget in the federal Ministry of Finance.

In the past we had Federal Ministry of Finance, and later federal Ministry of finance and economic development.

At both stages there was the budget department of the Federal Ministry of Finance.

It is this department that today metamorphosed into an extra-ministerial department called Budget office.

2.2 DEFINITION OF TERMINOLOGIES

1. **Budget:-** A quantitative plan of action in monetary terms to be pursued in a forth coming
2. **Budgeting:-** This is the totality of the Process of making a budget
3. **Revenue:-** This is the earnings of the government from the various sources enumerated in Section 1.5
4. **Expenditure:-** The cost incurred in acquiring an asset or rendering a service.

5. **Deficit Budget:-** Where it is projected that expenditure is going to be greater than revenue
6. **Surplus Budget:-** Where expenditures is projected to be less than revenue.
7. **Balance Budget:-** Where the projected revenue is equal to the projected expenditure
8. **Sectorial Allocation:-** This is allocation of funds to the various sectors of the economy
9. **Call Circular:-** This is a circular letter emanating from the budget office which state the budget and fiscal politics of government for the period the budget is to be prepared for.
10. **Budget Defence:-** This is where all those submitting budget for allocation into the Federal Government budget are called upon to defend their budget proposals. This can happened both at the level of the budget office and at the legislative level.
11. **Appropriation Bill:-** This is the prepared budget submitted to the legislative for deliberation and approval.
12. **Appropriation Act:-** When the budget is deliberated on and approval by the legislature, the president their assents to it an it becomes appropriation act.

13. **Budget Review:-** This is looking at the approved budget against the performance for a given period with a view to adjusting it to meet with the realities.

14 **Post Budget Dinner:-** This is a forum organized by government after the budget broadcast to discuss the budget with the populace. This is normally done over dinner.

15. **Budget Briefing:-** The budget broadcast is normally in aggregate figures and policy statements. The detailed analysis is normally provided by the finance Minister at the budget briefing.

16. **Monitoring:-** This is the checking carried out by the relevant authorities to ensure that budgetary provisions released were spent for the purposes for which they were released and also whether they were judiciously spent.

2.3 FUNCTIONS OF THE BUDGET OFFICE

The purpose of budgeting is goal congruence meaning that all functional and individual objectives should blend together in achieving the top management i.e government's goals.

It is the practice in Nigeria that the direction, control, responsibility, preparation and execution of the budget are delegated to a small body of executives known as the budget office.

The principal function's of this office are

- a. To receive individual budgets from responsible executives and to consider them in relation to the overall objectives of the government.

In Nigeria , we have had budget of hope, budget of reformation, budget of consolidation etc. so at every given, budgetary period there is a principal objective to be pursued by government.

- b. To decide the general policies affecting the budget of more than one organisation . At one time when the expenditure could not be operated within the revenue estimates ad the various organizations stood firm against cutting their budget, the way forward was a flat rate cut across the board.
- c. To suggest and consider revisions of the budget to the government
- d. The office collates the various organizations budget and recommend the acceptance of the Master budget to the presidency.
- e. To receive and consider in the high of government objections and policies the budget reports showing actual results compound with the budget ad to recommend correction action where necessary.

2.4 BUDGETARY PROCESSES

The essential stages in the preparation of budget are

1. Call Circular

The budget office sends out call circular to all organizations concerned stating all necessary details as seen above.

2. Identification of Limiting factors

Any factor which restricts demands, revenue, the volume of production or any other resource and so limits the activity of the government is described as a limiting factor.

It is essential to identify the limiting factors as an early stage in the budgetary process because these may determine the starting point for budget preparation for each factor government must consider whether:-

- (a) It is possible to overcome the limitation or
- (b) The limitation has to be accepted because it is outside the government's control.

Good examples of these limitations are OPEC quota which does not allow members to produce as much as they would have loved to so no matter how mouth watering the crude oil price in the world market may be there is a limitation on the amount of revenue derivable from crude oil sale since the quantity that can be produced is limited.

Another limitation is the crude oil price itself. The price is one of the determinants of the total revenue from oil sale.

The same kind of limitations could be found on the expenditure side of the budget. In the days of IMF, condition amities must be complied with. Before staff training and development are provided for, personnel emolument cost must have been taken care of. All these must be identified in the budgeting process.

3. FUNCTIONAL BUDGETS

Every functional aspects of government will have a budget prepared for it we have functions like

a. EDUCATION

This will contain the budgets of all units under the Federal Ministry of Education ranging from Unity schools, college of Education, Polytechnics advance teacher college, universities through NUC and at the end the complete budget for Education is made.

b. HEALTH

This contain the budget of all organization that falls under the definition of health.

These range from specialist hospitals, teaching hospitals, primary health care, eye centres, Federal medical centre, the main health ministry itself etc and all through we have the health budget for the year.

c. the same things goes for

- works and housing, petroleum, solid minerals, trade and commerce , industry, science and technology etc.

4. MASTER BUDGET.

All the various functional budget are pooled together at the budget office to produce the single master budget for the Federal Govt.

5. RUDIMENTS

Every organization involved may be revenue collected or spending only. Whatever is the case the rudiments of preparing budget is as follows:-

REVENUE:-

The organization has to estimate the total revenue it feels it can collect in the forth coming year broken into the relevant heads and sub-heads

e.g custom and excise

Import duties on soft drinks

Import duties on beer

Import duties on vehicles

Excise on tyres, carpets, tobacco products etc

At the end the total revenue budget of the organization shows the total estimated revenue to be collected in the given period broken down into various items as given above.

Same is applied to other organizations.

EXPENDITURE

The organization will equally estimate the expenditure to be incurred in the same period broken down into the various sub-heads of expenditure i.e.

- Personal cost
- Travelling and transport
- Utilities etc

In arriving at The organization will equally estimate the expenditure to be incurred in the same period broken down into the various sub-heads of expenditure i.e.

- Personal cost, Travelling and transport, Utilities etc

In arriving at personal cost, for instance question like there need to be asked

- what is the total on the roll.

- How many are leaving the service in that budget period
- How many need to be employed
- What is their remuneration.

Answer to these question and the relevant adjustment will give the figure of personal and this can be done using the computer same approach is applicable to all other expenditure including capital projects.

CHAPTER THREE

3.0 RESEARCH DESIGN AND METHODOLOGY

.1 SYSTEM ANALYSIS AND DESIGN

This entails the process of facts gathering, analyzing the facts, interpreting them and using the information got to recommend the necessary improvements to the current system.

This consists of several steps amongst which are.

- The problem definition and identification
- The feasibility studies
- Investigation and facts recording
- Data analysis
- System design

When these stages are strictly followed we would come out with a system that is most desirable.

.2 PROBLEM DEFINITION

The Problem of budgeting at the Federal Government level in Nigeria are broadly three.

- a. The budgeting inputs are falsified resulting into huge sum of budget slacks.

- b. The budgeting methods or approach is also a very serious headache. The approach adopted is incremental where the previous year's budget is merely interpolated with all the inefficiencies and no one ever give a second thought to the alternative approaches to budgeting like Zero based budgeting or plan program budgeting system (PPBS).
- c. The worst of or all is the late rendition of the budget every year. In the Second republic the earliest time the budget was read was in April of the budget year and even as late as March, 2002, the budget year 2002 was not ready. This delay is largely due to the manual method of handling the budget.

3.3 FEASIBILITY STUDIES

Here preliminary investigation of the existing system is carried out and then possible alternatives are checked out for and recommended.

Also the analysis of the budgets to be derived from the recommended system are highlighted.

The current budgeting system does not allow room for critical analysis of the budget inputs. Therefore the budget at all times is not a true reflection of what the estimates supposed to be. Budgets may be prepared using a particular salary step for every body and most times very high one so that

when funds are released based on this, the only problem the officer controlling votes have is how to spend the money.

The input parameters can be checked by the Computer and where necessary adjustments carried out as against the current system of incremental budgeting.

When the new system (Computerized budgeting system) is in place and because of the versatility and speed of the Computer a lot of time will be saved which can then be used to check the input parameters that will alternately results into a very meaningful budget.

3.4 EXISTING SYSTEM.

The existing budgeting system at the Federal Government level in Nigeria is the incremental budgeting system. This is where the previous year's figures are merely increased by a certain percentage or an arbitrary increase with a round figure to give the budget for the period in question.

The budgeters put a lot of slacks into the budget so much so that rather than asking for extra-budgetary provisions they refund money to chest at year end.

The problem with government is that rather than visiting the budgeting process of those refunding money to chest, they are praised. Yet

the same budget figures from which funds were reformed to chest the previous year are interpolated to give the budget figures for the current year.

In the wards of comrade Adams Oshiomole, NLC President (2001), the current level of government expenditure could be adequately taken care by just 30% of the total expenditure but for the budget stack it is at the level it is.

In the same vein the revenue estimates are made so small that within a short period the estimates are compassed, and then relevant government functionaries praised for supposing the budget revenue budgeting process. Also ever of the previous year's revenue budget are interpolated but they are done at a rate lower than that applied for expenditure.

3.5 FACTS FINDING METHODS

The facts finding methods applied for this study are record searching i.e.

Secondly data and reading from the office records.

Questionnaire would not serve any useful purpose here because too amny people are involved in the budgetary process and the nature of the Public service work would not allow the devolution of the correct information

discussions were held with key officials of the budget office and of other ministries and Parastatals both formally and informally.

Newspapers also Completed the records kept but the various offices besides one television broadcast including the Presidential media chart of 31st March, 2002.

The yearly approved budget is available for sale at the federal govt. press, the post & budget dinner is there though restricted to big elites since dinner is involved but the budget briefing is for all and Sunday. These are some of the various ways facts about the budget and budgetary process were gathered.

3.6 FACTS ANALYSIS.

In 1960, the Nigerian govt. budget was \$400,000, in 2001 it was about #850b and by the year 2002 it is #1.064 Trillion.

In year 2001 it was a surplus budget but in 2002 it is a deficit budget.

YEARLY BUDGETS

YEAR	BUDGET	SURPLUS /DEFICT
1960	\$400,000	SURPLUS
2001	#850b	SURPLUS
2002	#1.064 Trillion	DEFICIT

3.7 COST BENEFIT ANALYSIS

A. COST- It may look expensive to purchase Computer sets, install and operate them but the benefits to be derived are so enormous.

HARDWARE

a.	2 Units of Computer sets	#250,000
b.	2 Units of Printers	#150,000
c.	Ups/Stabilizer	<u>#10,000</u>
		<u><u>#410,000</u></u>

SOFTWARE

a.	Word Perfect	#80,000
b.	Dbase Iv or III Plus	#50,000
c.	Installation Cost	<u>#100,000</u>
		<u><u>#260,000</u></u>

OPERATING COST

a.	NO new employee required (Train those on ground)	-
b.	Training for sweeks @ #25000 Per week	#200,000
c.	Stationeries diskettes, Ribbons etc	<u>#20,000</u>
		<u><u>#220,000</u></u>

GRAND TOTAL

#890,000

SUB-HEAD	DETAIL	AMOUNT
1	Additional Recruitment	150,000
2	Increase due to Ghost Employee Investigation Involving additional travelling	250,000
3	Increase in NEPA trrif	20,000
4	Restriction on use of phone by junior office.	(90,000)
		330,000

This is equally applicable to capital expenditure and the revenue estimates

2. INPUT SPECIFICATIONS

Here two files are to be kept Viz the transaction and the master files. From the transaction file the details of the variations in budget can be obtained while the Master file gives the main budget. Therefore as transaction affecting the budget takes place they are immediately captured into the transaction file and the file is processed later to update the Master file which gives the organizations budget.

REVENUE ESTIMATES

HEAD	SUB-HEAD	DETAIL	AMOUNT
1	-	Customs/Excise	-
1	5	duty on soft drink	xx
1	43	Excise on tobacco	xx
2	-	Direct taxes	-
2	1	Personal Income tax	xx
2	2	Companies income tax	xx
3	-	Lience & INT. Revenue	-
3	1	Court fines	xx
3	3	FCT Fishing Permit	xx
4	-	MINNING	-
4	1	Mining Fees	xx
4	2	Royalty on Gold	xx
4	3	Royalty on Quarry	xx

EXPENDITURE ESTIMATES

HEAD	SUB-HEAD	DETAIL	AMOUNT
0035	1	Personnel Cost	xx
0035	2	Travelling/Transport	xx
0035	3	Utility	xx
0035	4	Telephone	xx
0035	5	Printing/Stationery	xx

These are the formats into which the data are captured to give us the Summary or Master budget at the end of the exercise.

CHAPTER FOUR

4.0 PROGRAMM IMPLEMENTATION AND DOCUMENTATION.

4.1 INTRODUCTION

This Chapter concentrates on the software development and implementation.

It looks at the programming language, the software packages and all the various elements of the software.

The data structure, input and output files have been dealt with under the input and output specification in chapter three of this project.

The implementation of the software development deals with the operational manual, the change over procedures and systems documentations.

4.2 CHOIC OF PROGRAMMING LANGUAGE.

The chosen programming language for this project is Dbase IV because of its numerous features which can facilitates the job we want it to integrated package.

In budgeting a lot of Ministries, Parastatals, Agencies etc are involved. and Dbase IV has the facility to do this,

Dbase file can could as much as 2brecords with each record having up to 128 fields containing as much as 4000 characters user can use Dbase in a

very manner using a menu facility called the assistant or use Dbase commands (dot command) directly without using the menu facilities provided by the assistant.

It offers a larger numbers of commands for users to create, retrieve, restore, and delete records.

It also allows for searching, updating, Sorting, Printing and making some mathematical calculations.

Dbase also offers a programming language that enables user to construct his own Dbase application. A larger number of built-in functions, string manipulations function. The Programming language include command to perform conditional branching looping, calculations, Sorting records, format input Screens, output report etc.

4.3 CHOICE OF SOFTWARE PACKAGE.

To make a choice of Package, some criteria were used and they are thus:-

- a. Flexibility of the package.
- b. Security of the records in the file and the file itself.
- c. User friendliness of the package.
- d. Facilities for different type of file processing.

- e. Effectiveness and efficiency of the package with regard to functions of the program.

4.4 SOFTWARE DEVELOPMENT & TESTING.

The end point of system analysis is the starting point of the software development.

The existing system is known and what it does and the procedures are known. Then what the new system should do has to be agreed upon and then understandable by the Computer.

If there are associated manual operations or procedures they have to be specified too.

Finally efforts are made to discuss the data structure of the program and the operational Manual.

4.5 FILE DESIGN.

At this stage the final organisation of files. This is of key importance because once you enter data into a Dbase and decided to add new fields, you must go to all existing records and enter the new fields.

The method adopted therefore is to group the data into logical classes and according to output requirements.

The overriding factors considered in writing the package are

1. Accessing the files non of the files is indexed or sort.
2. Data redundancy in field design for the Dbase is minimized.
3. Computer relationship between the fields in each file are avoided.
4. Too many fields in each file are avoided!
5. The main objective of integration of Dbase files are strictly pursued.

4.6 SYSTEM CONVERSION.

At this stage a change to the new system is desirable.

a. DIRECT CHANGE OVER.

This is most appropriate when there is no resemblance b/w the new system and the old system.

It means abandoning the old system Completely at a given point and the commencement of the use of the new system at that point.

b. PARALLED CHANGE OVER.

This is where the two systems are run simultaneously and the output Compared. Any discrepancies are taken care before the old system is discarded.

The financials implication of this may be enormous but it provides a lots of safeguards.

c. PILOT CHANGE OVER.

This would involve the change of a part of the system either in parallel or directly.

Looking at the enormity involved in the Federal govt. budgeting, it will be better to run a Parallel change over undermining the cost implication.

4.7 HARDWARE REQUIREMENTS

- a. 2 Units of Computer set with all the necessary facilities for an expanded system.
- b. 1 dot Matrix Printer and 1 dot Laser Jet Printer.
- c. A Unit of UPS and a Stabilizer

4.8 STAFF TRAINING.

The budget preparation needs to be trained both in the use of word perfect software and other Accounting packages especially the Dbase.

Though the cost may be envions, the training should span through the entire budgetary processes.

Once this training is properly undertaken including the change over, the other subsequent training of the up-coming staff will be done by the senior ones joint like people rise through the rank and file.

Also Computer experts could be employed for this purpose and can subsequently make a career along this line.

4.9 MAINTENANCE.

This provides the assurance of the ready availability of the system. If the system is adequately documented the maintenance will easily flow.

4.10 DOCUMENTATION.

The new system needs to be thoroughly documented to gain the following advantages.

- a. New users of the system will have a quick insight into the system when it is properly documented.
- b. Ease of maintenance will be enhanced.
- c. Ease of problem identification and solution.

4.11 SECURITY

The system security ranges from the physical access to the hardware to the access to files and software.

Adequate arrangement for unauthorized access to the hardware, Computer software, the files, information etc is most desirable.

Backup copies of files should be kept outside the organisation and adequate arrangement made for file processing in case of break down.

4.12 STARTING THE PROGRAM

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

```
C:\> CD Dbase press enters 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 records
- (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 prompt the user for the operation code of that particular record. After being entered, the computer check 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 types income or expenditure. This goes on until the 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 user if he/she is sure of wanting to delete that particular records. If yes it deletes it and if no it prompts for another 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 of the operation code of the record, which the user enters. If found, all the fields 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 generated 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 CONCLUSION & RECOMMENDATIONS

5.1 CONCLUSION

The main objectives of this project work is the application of Computer in Budgeting at the Federal government level.

The following Conclusions are therefore drawn from the result of the research work carried out.

- (a). The Federal government budget always Come late leading to the use. of expenditure authority called provisional general warrant PG.W
- (b). Incremental budgeting approach is adopted in budget preparation leading to interpolation of previous year's figures with all the in built in- efficiencies, slacks, etc.
- (c). There is no explanation to the ever increasing expenditure level without a proportionate increase in revenue even when the leaders of labour are saying that the level of expenditure can be financed with 30% of the budget if not for inefficiencies.
- (d). No attempt has been made to explain the difference between the proceeding and the proceeding budgetary provisions even when comparative figures are provided.
- (e). Some organisations suffer a lot of budget cuts while some enjoy bogus budgets not minding whose budget Submissions are genuine.

5.2 RECOMMENDATIONS

Enormous advantages abound in the Computerization of the budgeting process and against this back drop the following recommendations are made.

- (a) The proposed Computer system should be adopted and implemented henceforth.
- (b) The Federal government should embark on massive staff training in Computer operations so that they will be skilled and be able to cope with their challenges or that they be able to live upto their responsibilities.
- (c) The acquisition of the Computer system Hardware & Software should take cognisance of the rate At which technology is going and ensure that systems that are maintainable are acquired.
- (d) The acquisition of the Computer system for this purpose should be centrally organised so that variation systems will not exist.
- (e) With time, the various budgeting Computer system in the various organisations should be net worked to further eliminate costs associated with "non-network" systems.

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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 update 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
  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 update to mopdate
  DO GETDATA
  READ
  clear
  replace codeno with mcodeno
  replace descrip with mdescrip
  replace amount with mamount
  replace optype with moptype
  replace update 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 update 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

```

```
enddo
? space(48),'TOTAL = ',str(mtot2,9,2),' ',str(mtot1,9,2)
?
set alternate off
wait
close data
deactivate window user
return
```

PROCEDURE GETDATA

CLEAR

```
@ 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"
@11,5 SAY "AMOUNT       :" GET MAMOUNT PICT "@!"
RETURN
```

PROCEDURE HEADING

PARAMETER LL

```
? space(17), "*****"
? space(17), "*   B U D G E T I N G   *"
? space(17), "*****"
?
?
IF LL = 1
? space(27), "*****"
? space(27), "* SUMMARY OF EXPENDITURE *"
? space(27), "*****"
?
? REPLICATE("!",75)
? "!" * OPERATION * OPERATION *          *          *!"
? "!" S/NO * CODE * DATE * DESCRIPTION * AMOUNT *!"
? REPLICATE("!",75)
ELSE
IF LL = 2
? space(30), "*****"
? space(30), "* SUMMARY OF INCOME *"
? space(30), "*****"
?
? REPLICATE("!",75)
? "!" * OPERATION * OPERATION *          *          *!"
? "!" S/NO * CODE * DATE * DESCRIPTION * AMOUNT *!"
? REPLICATE("!",75)
ELSE
? space(23), "*****"
? space(23), "* SUMMARY OF INCOME & EXPENDITURE *"
? space(23), "*****"
?
? REPLICATE("!",81)
```

? "*" * OPERATION * OPERATION *

* EXPEND. * INCOME *"

? "*" SN * CODE * DATE * DESCRIPTION

* AMOUNT * AMOUNT *"

? REPLICATE("?",81)

ENDIF

ENDIF

RETURN

 * B U D G E T I N G *

 * SUMMARY OF INCOME & EXPENDITURE *

* SN *	* OPERATION CODE *	* OPERATION DATE *	* DESCRIPTION *	* EXPEND. AMOUNT *	* INCOME AMOUNT *
1	EX-1001	10/02/19	PURCHASE OF STATIONERIES	12000.00	
2	IN-1021	11/06/19	SALES OF PRODUCT		34500.00
3	EX-2300	21/07/19	PAYMENT OF SALARIES	45000.00	
4	IN-2455	22/07/19	STAFF TAX DEDUCTION		13560.00
5	EX-2339	30/12/19	PURCHASE OF VEHICLE	210000.00	
6	EX-2900	04/02/20	PURCHASE OF RAW MATERIALS	46020.00	
7	IN-4322	05/02/20	SALES AND SUPPLY		867900.00
TOTAL =				313020.00	915960.00

.11 . 7

 * 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

□

 * B U D G E T I N G *

 * SUMMARY OF INCOME & EXPENDITURE *

* SN *	* OPERATION CODE *	* OPERATION DATE *	* DESCRIPTION *	* EXPEND. AMOUNT *	* INCOME AMOUNT *
1	EX-1001	10/02/19	PURCHASE OF STATIONERIES	12000.00	
2	IN-1021	11/06/19	SALES OF PRODUCT		34500.00
3	EX-2300	21/07/19	PAYMENT OF SALARIES	45000.00	
4	IN-2455	22/07/19	STAFF TAX DEDUCTION		13560.00
5	EX-2339	30/12/19	PURCHASE OF VEHICLE	210000.00	
6	EX-2900	04/02/20	PURCHASE OF RAW MATERIALS	46020.00	
7	IN-4322	05/02/20	SALES AND SUPPLY		867900.00
TOTAL =				313020.00	915960.00

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