

TOPIC:

A SYSTEM ANALYSIS, DESIGN AND  
DETAILING OF A COST CONTROL SYSTEM  
FOR ZARIA INDUSTRY LIMITED

BY

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## ACKNOWLEDGMENT

Once acknowledge, you are honored, this honor goes to my able supervisor Prince Badmus of FUT Minna.

No programme goes successfully without a sponsor, I wish to honor my financier Bro Ben Forba, the Managing Director of Mikeben Group, and to his wife Madam Forba Vicky.

Even the strongest will can collapse without moral support, I wish to recognized the support of Dr Assam Assam, Forbin Bruno Mr Mc Ghogomo, Abubakar Idris, Lawal Nas and Dr Aminu Sirajo.

Nothing is much more than a complement from a brother Roland Atemkeng.

To crown it all I believe the highest support was the technical and moral support from Com. Shuaibu Umar Mohammed, and Alhaji Adamu Aliyu Shika, the Managing Director of Perfect Design Computers and all the staffs of PDC.

I also like to thank my employers Kaduna State Polytechnic for giving me some breathing space to study. Here reference goes to my HOD Mr Ochia Nwachucku.

Finally I would like to recognized the prayer from my Dad Mr FORBIN and the guidian from my Mum Late Magdalene FORBIN.

Among those I can't forget are Mr Cayetan FORBIN Mr Devine Asong, Mr Acha Cplins, Mr Paddy Nkatu, Mr Jingwa Alex, Mr Roland Jingawa, Mr Walter Forbah, Darich Forba, Mum Delphine and Oliver the boy.

W here about the HOD & other  
lecturers.

## DEDICATION

This project is dedicated to my Benefactor  
MASTER BEN FORBAH of MIKEBEN ENTERPRISE.



## ABSTRACT

This project is about the development of a cost control system for Zaria Industry Limited. Zaria Industry Limited was incorporated in 1973 and started operation in 1974, and has the capacity of producing 1.5 million meter of tarpaulin per annum. The company operates with independent system of maintaining the cost ledger separate from other ledgers.

A system analysis of this system was carried out and it was found out that a cost control system would require the following tables; Account table, material table and budget table. The resulting transaction tables include, material transaction, and expense transaction.

The resulting programming environment used for this work was Access. Access is a native of the Microsoft family of software and it is a relational database.

With the use of Access the following reports were extracted.

1. Journal by Account
2. Operating statement
3. Stock listing
4. Cost ledger
5. Reorder listing
6. Journal by Department
7. Journal by Date
8. Journal by material

We did not include any security for the software at this stage.



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# CHAPTER ONE

## INTRODUCTION

The features which distinguishes a manager from other members of the business team is that he has the responsibility and authority to take decisions. At the senior level these decisions will relate to the future policy or conduct the business. At a more junior level they will relate to particular actions which will assist in the implementation of a policy. For example, the board of director would decide on the nature of the business activities and the amount of profit it must make to satisfy its shareholders. A cost accountants decision may be limited to either increasing production at present fixed cost in order to improve on profit. At a further lower level the foreman may have the power to Authorize overtime work in certain circumstances.

In taking such decisions, the managers concerned will need information about the past results of the type of action they have in mind and also if possible about the future effect of their decisions. Having taken any decision the manager will need to check that the expected result are achieved, that is to control the activities of all other sectors of the business.

The main aim of this project thus, is to provide information for control of cost for zaria industries limited. The result of control activities will in many cases lead to reformulation of plans for future. That is, the information obtained about achieved results will form part of the material required for taking further decisions.

Information is thus vital to the role of management, and the usefulness of any information will depend on it, being:

- relevant to the scope of authority of the manager receiving it.
- Relevant to any particular decision for which it is required.
- Produced in time for it to be used.

## **1.2 MANAGEMENT INFORMATION SYSTEM**

A management information system is a set of organized procedures for collecting recording analyzing and communicating all the information the managers need in carrying out their functions of decision making planning and control.

Some of the information will be provided on a regular basis, like periodic accounts while other information will be developed from special investigations for the purpose of particular decisions, like the evaluation of a proposal to build a new factory.

Again, some of the information needed by manager will have to be obtained from sources outside the business and some will be obtained from records of what happen inside the business. In both cases the information may relate either to physical data or data in money value.

What is essential to a satisfactory system is the recognition that certain types of information are likely to be needed from time to time and the assurance that when it is needed somebody will have the responsibility and the means to obtain it.



### 1.3 BACKGROUND OF ZARIA INDUSTRIES LIMITED

Zaria industries limited was incorporated in 1973 and started operations in 1974. Z.I.L has the capacity of producing 1.5 million meter of tarpaulin per annum.

The shareholders were originally the Kaduna state government and the Japanese government. Presently the company is owned by Kaduna state and other private Nigerian.

Zaria industries limited is divided into eight departments;

spinning department

weaving department

finishing department

sewing department

power department

administration department

marketing department

Zaria industries limited maintains about fifty eight account in their chart of account. Some of the accounts in the chart of account include;

maintenance

depreciation

postage and telephone'

salaries and allowance etc.

Zaria industries limited uses various materials to produce their final product tarpaulin. A few of the materials include cotton, yarn, chemicals, dye, stationary, spare parts, lubricants.

Various expenses are not the direct result of production. These expenses may include marketing and distribution , promotion and entertainment. All the above expenses are the direct result of the marketing department hence would be charge to it. Similarly all other expenses would be debited to specific department accordingly.

#### **1.4 STATEMENT OF THE PROBLEM**

It is not unusual to find companies which are still being run manually. under such situations it is difficult to obtain information promptly and accurately for decision making. This requirement has lead to the computerization of most companies in Nigeria.

Zaria industries limited is one of the companies in Nigeria that is not computerized. The impact of this is the lack of information for management decision. For example the cost department cannot determine promptly when any department has spent more than the amount allocated for it in the budget. Secondly it is often tedious for the cost accountant when accounting for cost incurred by different department at the end of the financial year. Thirdly, even tracing some expenses incurred by the company is hard because of lack of proper records.

#### **1.5 SCOPE OF THE STUDY**

The study is limited only to the cost system of zaria industry limited. The system being developed would be able to produce;

STOCK LIST: the aim of the stock list is to control pilferage in the store. This is

done by listing the material balance of each item before routing check. If the balance from the system do not tally with the stock in stores then the store accountant has to account for any shortage or excess.

REORDER LIST: the aim of the reorder list is to control for shortage before time.

The reorder list is a list of items whose balance stock is below the reorder level.

OPERATING STATEMENT: the aim of the operating statement is to control for expenses beyond the budget line. This output compares budgeted amount and total expenses to date if any account has a favorable budget or not.

Finally the system would be able to list the transaction that have taken place within the company over a period, by date, by department and by accounts type.



## CHAPTER TWO

### LITREATURE REVIEW

#### 2.1 COST ACCOUNTING AND ITS FUNCTION

Cost accounting can be defined as the preparation and presentation of accounting information in such a way as to assist management in the formulation of policies operations of the undertaking. Hence cost accounting has a key role to play in the provision of cost accounting information. Since decision taking planning and control are generally descriptive of all the functions of management, it would appear that any information which could be useful to managers and which was evaluated in money terms could be a cost accountants responsibility. Furthermore, since accounting records are based on physical data,, the provision of much statistical information could fall within the terms of reference of a cost accountant.

At this stage it is wise to differentiate between financial accounting and cost accounting. The procedures of financial accounting are designed to reflect the transaction of a business in its relationship with the outside world, as represented by customers, suppliers, employees and shareholders. Hence the end result of financial accounting is the preparation of annual or other periodic accounts, including a statement of financial position (the balance sheet ) and a statement of result (profit and loss account ).

On the other hand the main function of cost accounting is cost finding. Cost finding means taking the transactions which appear in the financial accounts to provide information which will be more helpful to the managers of

the business. This re analysis relate to the purpose for which expenditure is incurred.

The second major function of cost accounting is cost control. Cost control is actually the comparison of actual cost against predetermine ideas of what they should have been.

Thirdly, the cost system is required to assist management decisions. Hence the duties of a cost department can be listed as follows;

- i) issues instruction about cost coding and costing procedure.
- ii) prepare management reports
- iii) dealing with managers in explaining the cost reports
- iv) studies sales pricing, the effect of changes in activities, cost reduction schemes e.t.c.
- v) engages in the collection and analysis of historic cost information
- vi) responsible for providing assistance to managers in the detail preparation of budgets and for analyzing variance from budget.

## **2.2 TYPES OF COST ACCOUNTING SYSTEMS**

The following are the principal type of cost accounting system. The independent system, partial integrated system where separate ledgers are maintained for the cost records, and fully integrated system where all accounts are controlled centrally.

Under the independent cost accounting system, separate ledger are maintained for cost accounts and controlled by the cost department.



The most common accounts found under this system are;

raw material account

the job account

the account for finished goods

the cost control account.

Since our interest in this project is cost control, it is wise to delve a little bit more into the control account. The main features the control account is that its balance should equal the sum of all the accounts in the ledger it controls. Apart from acting as a check on the accuracy of the entries in the detailed accounts, the balances of the control accounts can be used in the trial balance extracted from the books. Hence in this system the cost ledger will include various control accounts. For example, the raw materials ledger control account, the work in progress ledger control account, the finished good control account, wage control account, factory overhead account, administrative overhead control account, selling and distribution overhead control account.

The transactions entries for such a system are the result of records of invoice from suppliers, issue note for materials from store, discount offered customer, overhead absorption by jobs.

The cost control accounts will be used only when any transaction occurs which involves one cost or revenue entry but the other entry is not a cost item. It follows that where both transaction are of a cost or revenue nature, there will be no entry in the cost control account. It also follows that where neither entry for a particular transaction is a cost or revenue item, there will be no entry in any cost ledger account.



The independent system is the cost accounting system being used by zaria industry limited. Having described the independent system, it is wise to through a little light on the other two systems.

The partial integrated account is often used where the set up of the particular organization is such that the accounting records can best be located in the financial account departments. In the financial account department, all accounts other than those kept in the cost office are in the ledger for which there is a cost control account. Under this system a uniform set of cost codes and standing order numbers is used. The book entry in the cost ledger, when this method is used are exactly the same as under the independent system, except that the cost control account is replaced by the general ledger account.

Under the fully integrated accounting system the cost and financial account are combined into one unified accounting system. There are two accounting methods of integration;

- the double entry method

- the third entry method.

The double entry method eliminate the use of control accounts by using one set of account only. The cost ledger includes the creditors control account, the cash account, the provision for depreciation account, and the debtors control account, in place of the general ledger cost control account.

Though the itemized cost accounts are needed for internal purposes, a company has still to prepare its annual accounts in a form complying with the statutory disclosure requirements. This means that the fully integrated system must permit cost to be analyzed for the purposes of allocation, apportionment and absorption, while at the same time keeping details of those cost in total form

for inclusion in the financial profit and loss account.

The third entry method is similar to the double – entry method but incorporate an extra account called the cost control account, in which cost are collected that can then be analyzed (to the areas which caused the cost ) in a memorandum account outside the double entry system. The cost control account enables the cost then to be charged to finished goods accounts and other accounts by using it as the double entry.

### **2.3 BUDGETARY CONTROL.**

A budget can be defined as an expression in financial and quantitative terms of business plan for a defined period of time.

For purposes of control, it is necessary to establish action plans linked with the responsibility of individual managers and summarized to show that over the period covered, the planed profit and the planned employment of resources will be acceptable to the board and will be consistent with the longer term plans of the business.

This action plan are commonly referred to as budgets and the summary for the business as a whole is the master budget for the period.

In setting budget various assumption will have to be made. For example, the demand for the company products, the prices of materials used and the level of wage rates. Eventually circumstance will changs, these assumptions will become invalid and actual performance will deviate from budget for reasons outside the control of the manager of the business. It will then be time to make a new set of plan. Hence the period covered by budget is limited. It is common practice to set budget covering the financial year of the business. During the



course of the year, management report will be presented at shorter regular intervals, possibly monthly. This is often known as phasing the budget.

Once budgets have been established for each area of functional responsibility, the remaining two stages in budgetary control are; the continuous comparison of actual with budget results. This comparison will bring to light any variance from budget and the subject of variance identification and analysis is seemingly one of the major roles of the cost system. Action resulting from this comparison is to secure adherence to the budget objectives or in the alternative to agree to some modification of the original budget.

### **2.3.1 MASTER AND SUBSIDIARY BUDGET.**

The master budget for the business as a whole will take the form of

- A projected profit and loss account for the budget period.

- A projected balance sheet as at the end of the period.

- A projected source and application of funds statement.

In case there are significant fluctuations in sales, profit or cash requirements during the course of the budget year, the master budget may be subdivided between three monthly or between peak and off peak seasons. Subsidiary budgets will be prepared in details for the various elements in the master budget such as

1) sales (2) direct cost (3) overhead cost (4) capital expenditure budget (5) changes in debtors creditor and stock (6) changes in cash holding.

These subsidiary budgets will build up to the master budget explain it and be the medium through which control is affected over the achievement of the budget plan.,



A subsidiary budget will be prepared for each budget center, and these will be grouped together so far as necessary to correspond with the areas of responsibility of the senior functional managers. They are called functional budgets. The cost system for zaria industries limited, was developed based on functional budget. The functional budgets for zaria industries limited include

**SALES AND MARKETING:** this would include the budgeted sales quantities and values, and also the cost of the various departments within the marketing function. This is the responsibility of the marketing manager.

**PRODUCTION:** this include budgets of production quantities, cost of production, changes in work in progress and the cost of various factory departments. This is the responsibility of the production manager.

**ADMINISTRATION:** it would comprise the various departmental cost budgets in the administration area. This is the responsibility of the chief accountant.

### **2.3.2 CONTROL OF PERFORMANCE AGAINST BUDGETS.**

Once a budget has been approved, it constitute an action plan for the manager concerned, and they are responsible for ensuring that they adhere to that plan, unless circumstance makes this impossible or undesirable.

The cost account department will help manager keep track of their performance by issuing periodic reports showing actual achievement compared with the budget. This is one of main objectives of the computerized system. The system will report differences between budgets and actual figures or variances. If the variance are reported early managers can investigate the reasons for these variances and prompt action taken.

The possible benefits of budgetary control can hence be set to be the organization of the business should be more clearly defined and with it the responsibility of individual managers. Managers are given greater awareness of the business objective and become more closely involved with the need for profit achievement and cost control. This is better coordination of the various functions of the business. Variance analysis identifies areas of weakness in the business operations.

### **ANALYSIS OF VARIANCE AND BUDGETARY CONTROL**

The analysis of variance can be view under the following heading

- i) Sales value variance : the are two possible reasons for variation in the sale value that the quantity of goods or service sold is different from that which had been budgeted ( volume variances ).

That the selling price per unit differs from that budgeted ( price variance). It is the role of the cost accountant to identify this variance and demand explanation from the marketing manager.

- ii) Production overhead variance: similarly we have two type of variance, volume variance and price variance. It will be appreciated that if the actual volume of work done differs significantly from that budgeted, then the amount of expenditure incurred on certain items might be expected to vary correspondingly. In other words some part of the production overhead expenditure variance will be an activity variance, and only the residue will be attributable to lack of effective control of cost.

Hence one of the major aim of variance analysis is to segregate uncontrollable variance from controllable variance.



The activities variances is simply an adjustment to budget money value in this instance and doesn't necessitate any physical measurement. The reliability of these adjustments does of course depend on the correct definition of fixed and variable cost. If the classification is suspect the method can give misleading information about the amount of controllable variance.

The explanations given of the above two variances gives an insight into the question of analysis of variance. There are other variances for which the cost accountant would be sensitive to, including variance on direct materials and labour, selling and administration variance etc.

It is customary for each department manager to receive a periodic statement showing his budgeted and actual expenditure on various items. This is the last objective of the cost control system being developed.



## CHAPTER THREE

### SYSTEM ANALYSIS

#### 3.1 SYSTEM INVESTIGATION.

Data about the system was collected by interviewing. The researcher talked to the cost accountant of zaria industries limited Mr. Nabaya Garba and the stores accountant. The cost accountants primary purposes of a computer system are listed below to answer enquiries on budget adherence by different cost centers (variance analysis)

to maintain and update a cost ledger

to maintain and update a cost journal

to compute a cost profit volume analysis.

The stores accountant listed the following requirements.

store inventory report

store alert report.

##### 3.1.1 FACTS FOUND

**MATERIAL RANGE:** the range of materials being used by all departments of zaria industries limited is about ninety. This include raw material like cotton, chemical, dye, fuel for the production department to administrative requirements like stationaries etc. The material range is subdivided into three, stationary, raw materials, maintenance materials.

**PURCHASE RECEIVED:** an average of 400 purchase requisition are received by the cost department each day containing between one to twenty items each

averaging three thousand naira. Materials received from purchases are up to fifty each day. They are checked and recorded by the purchase officer before taken to stores. Unexpectedly I found that zaria industries limited has just one store where all their materials are stored in different sections.

The cost ledger has four general account. That is the raw materials accounts, job account, account for finished goods, the cost control account. The following are typical subsidiary account, wage control, factory overhead control account, administration overhead control account, sales and distribution averted control account, cost of sales control account etc.

Finally book keeping entries include, recording invoice from suppliers, issued materials from stores, absorbing overhead by jobs.

## **3.2 SYSTEM DESIGN**

### **3.2.1 CODE NUMBERING OF ENTITY SET**

Material Code Number: the most important characteristic of a material are its process, its type and subdivision. The process is conveniently indicated by one nemonic alphabetic letter at the start of the material code number. Another letter for the sources process and two digit to stand for material type. The last digit is a check digit.

For example, the material code for cotton yarn is w s 228 where w—weaving, (process) s - from stores (preceding process), 22 – material type 8 =  $2^2 + 2^2$  = check digit.

### 3.2.2 ACCOUNT CODE NUMBER

General account are coded with one digit i.e. 1 to 4. Subsidiary accounts are coded with two digit, the first is the general and the second is the code for the subsidiary account. The method continue if there is any sub account to the subsidiary account. For example, given the general account, cost control account, it has a code 1. The wage control account which is a subsidiary under the cost control account will have code 11. If the temporary wage control account is a wage control account for temporary workers, it will have the code 1101. Hence we will have.

ACCOUNT CODE	NAME	LEVEL	TYPE	GEN
1	cost control	1	Gen.	
11	wage cost control	2	Gen.	1
1101	Temporary wage control	3	Detail	11

### 3.3 SYSTEM OBJECTIVE

The system objective needs to reflect the aim of the user department. It is at times necessary to modify the approach in order to make the system, economic, practical, efficient, flexible and secured.

Amalgamating these aspects results in the main systems objective being as below

to provide a cost ledger summary report.

To provide an operating statement on quarterly basis.

To provide store inventory report before checking.

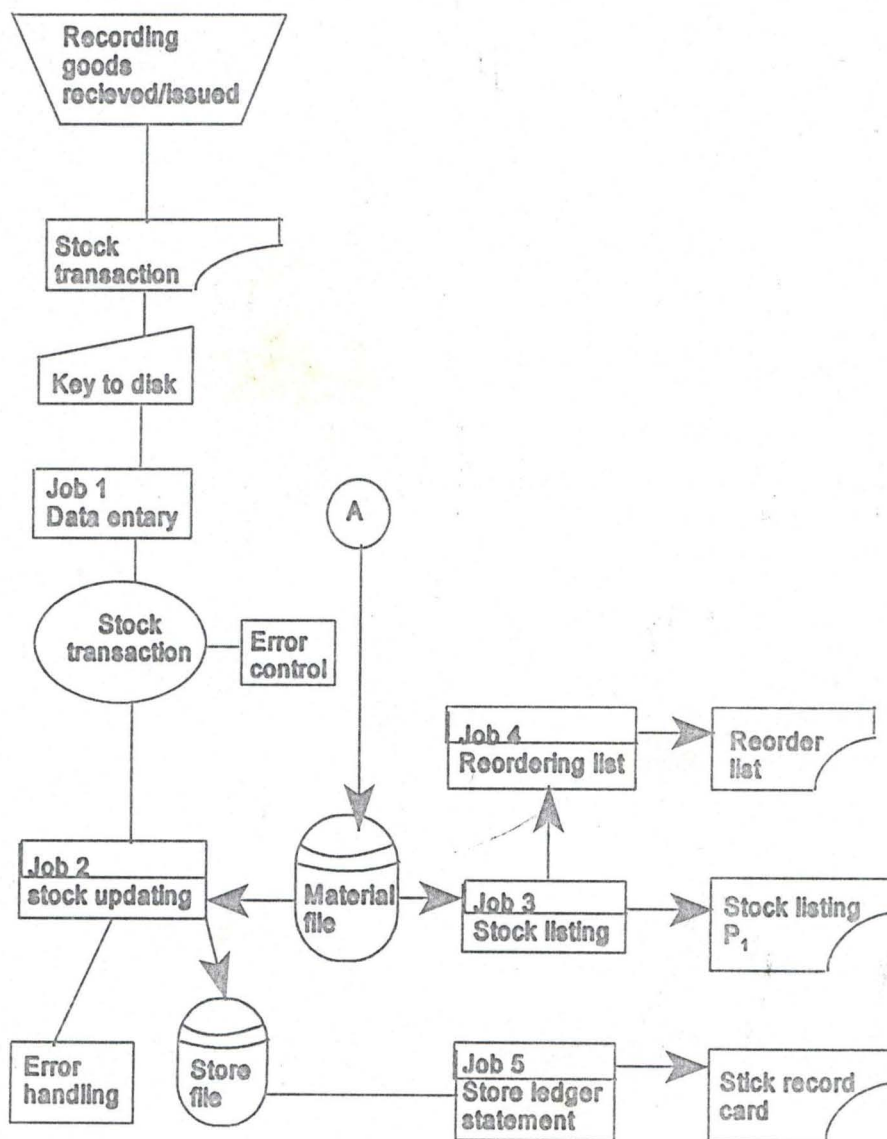


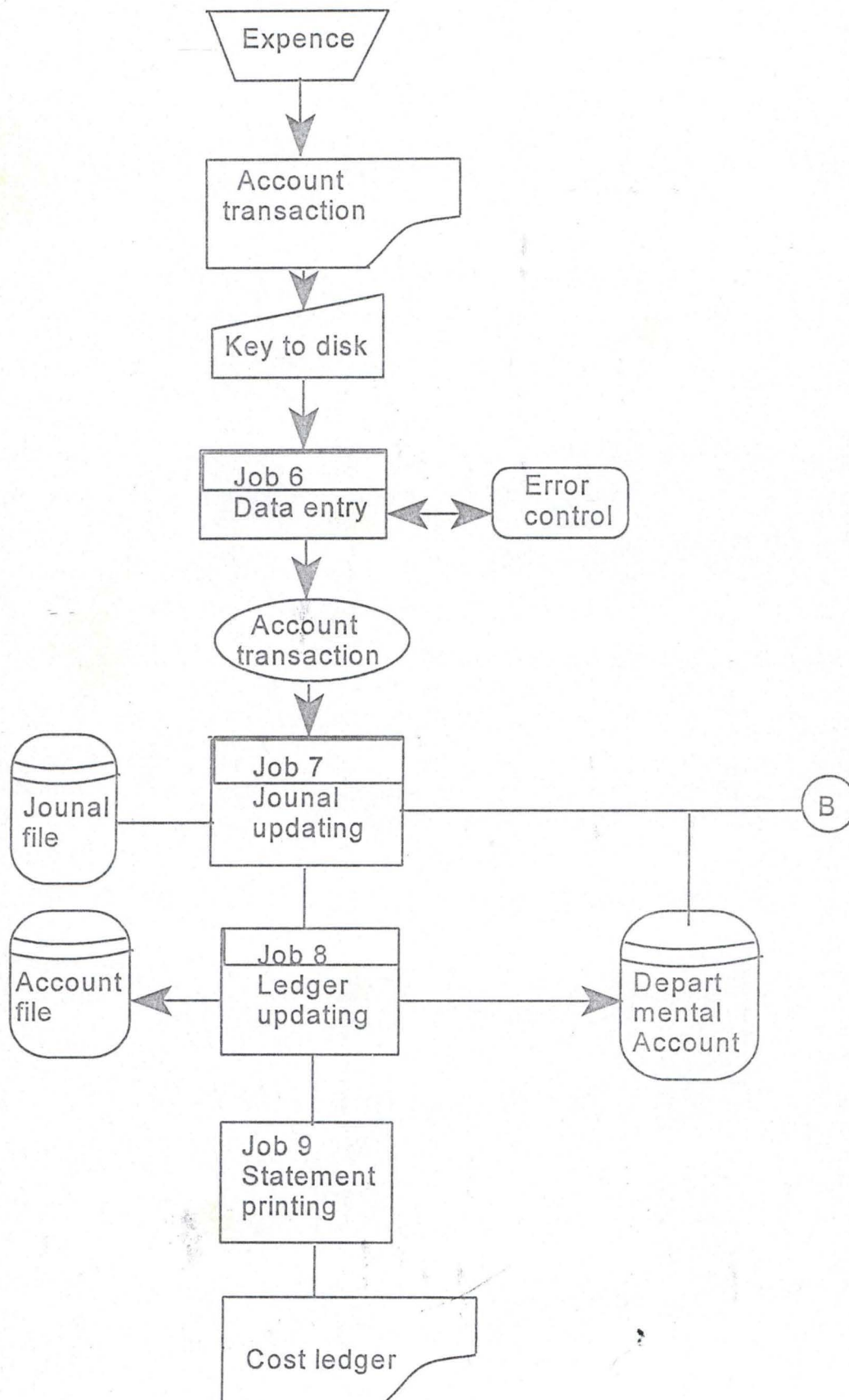
To provide store alert report.

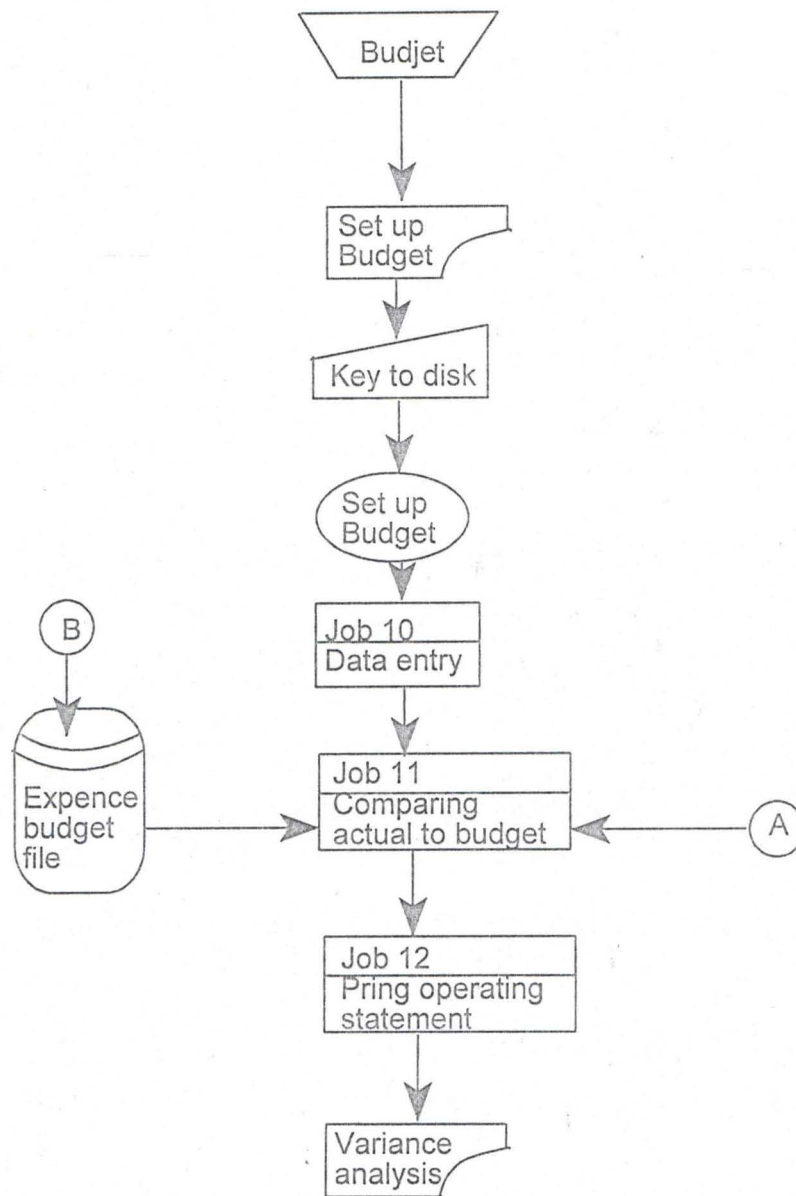
To provide a monthly journal of all cost transaction.

### 3.4 SYSTEM FLOW CHART

A flow chart tailored to meet such objective may result as follows. The flow chart has been divided into three with material budget and expense having separate flow chart and linked accordingly.

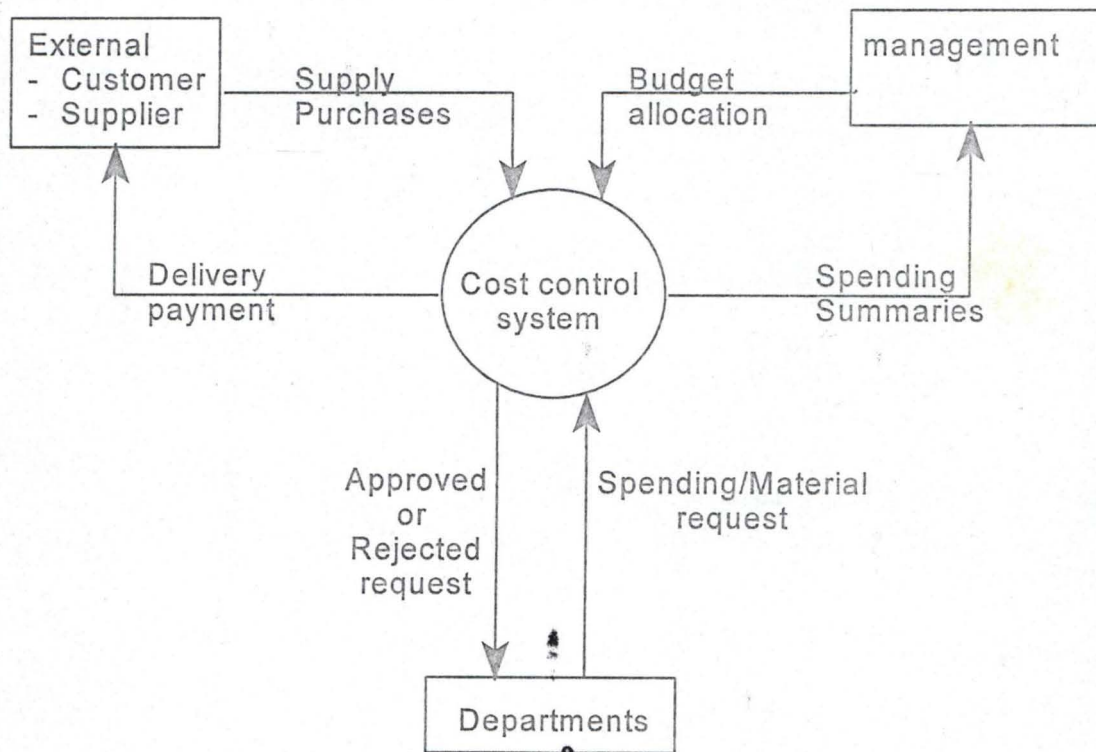






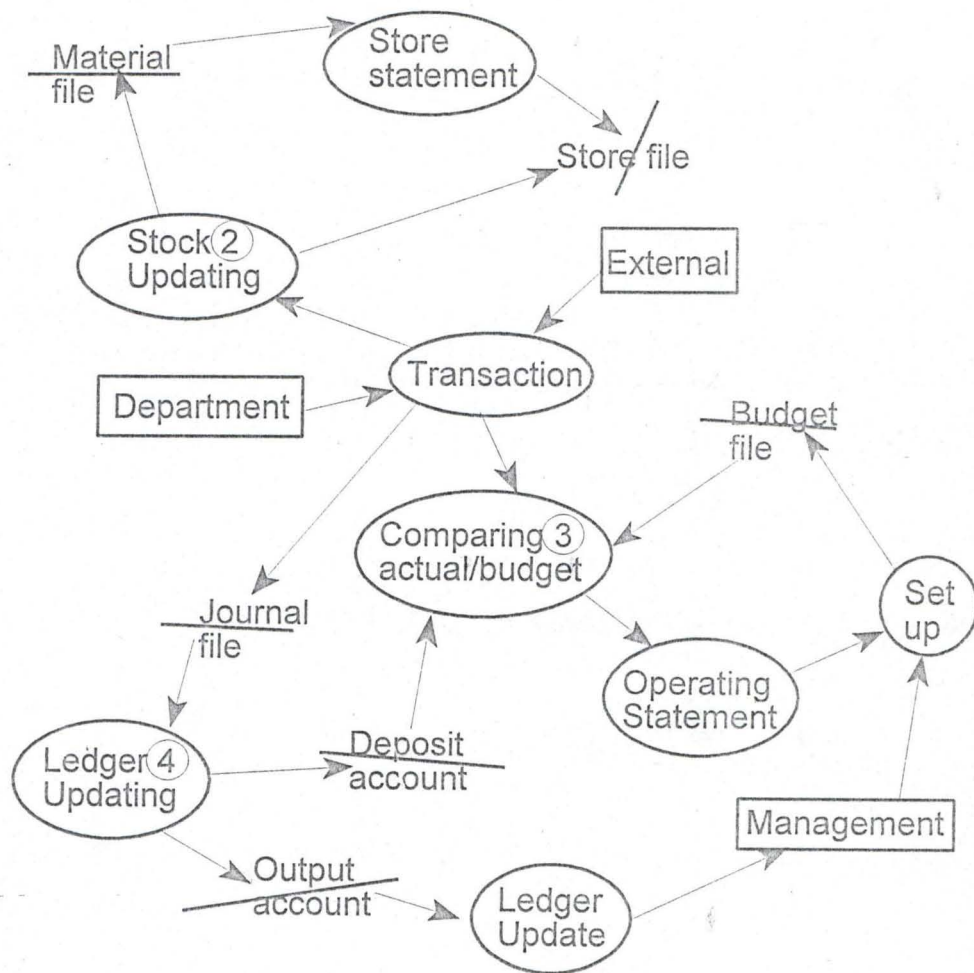


CONTEXT DIAGRAMME: To illustrate the flow of data within the system. We develop the data flow diagram starting with the context diagram given below. The context diagram is leveled in subsequent diagrams.



3.42 CONTEXT DIAGRAM

LEVEL ONE: In the first leveling of the system of the system the following activities are shown in the diagram below (1) transaction , ledger updating, stock updating comparing actual to budget. The following files are included , journal file, type account file, expense budget file, material file, departmental account file. Finally the following reports are shown 1. Store statement, operating statement, ledger update, set up budget.



At the second leveling the following expansions were made 1.

Expansion of transaction 2. Expansion of stock updating 3. Expansion of comparing actual to budget 4. Expansion of ledger update.

## 1.0 EXPANSION OF TRANSACTION

The expansion of transaction result in the following processes:

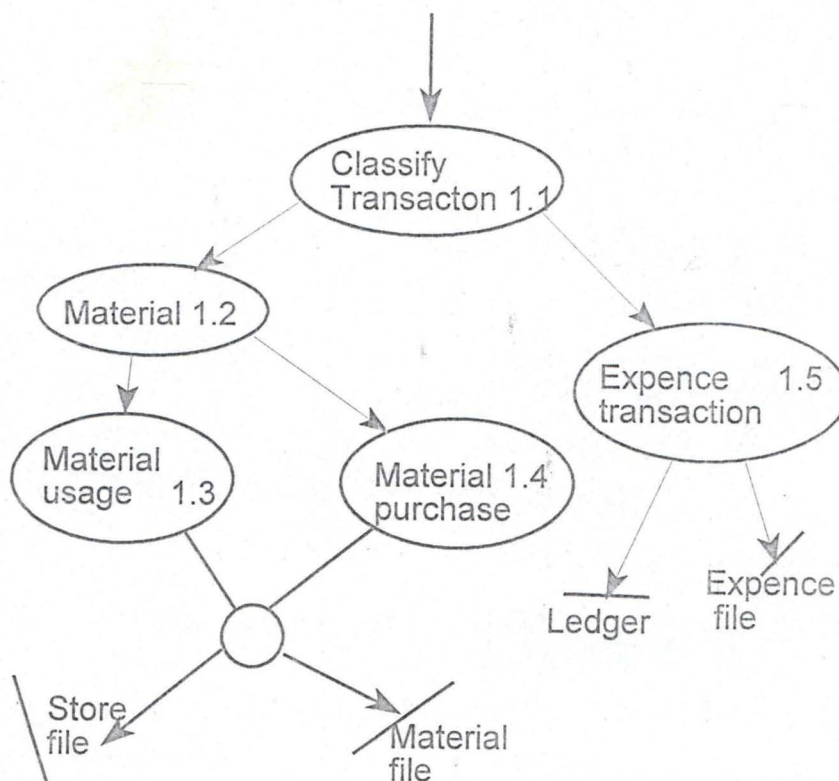
Classify transaction

Material purchase

Material usage

Expense transaction.

Diagrammatically it is presented as follows.





## EXPANTION OF STORE UPDATING

The expansion of store updating result into the following processes

Classify stock transaction

Material in

Material out

Update material account

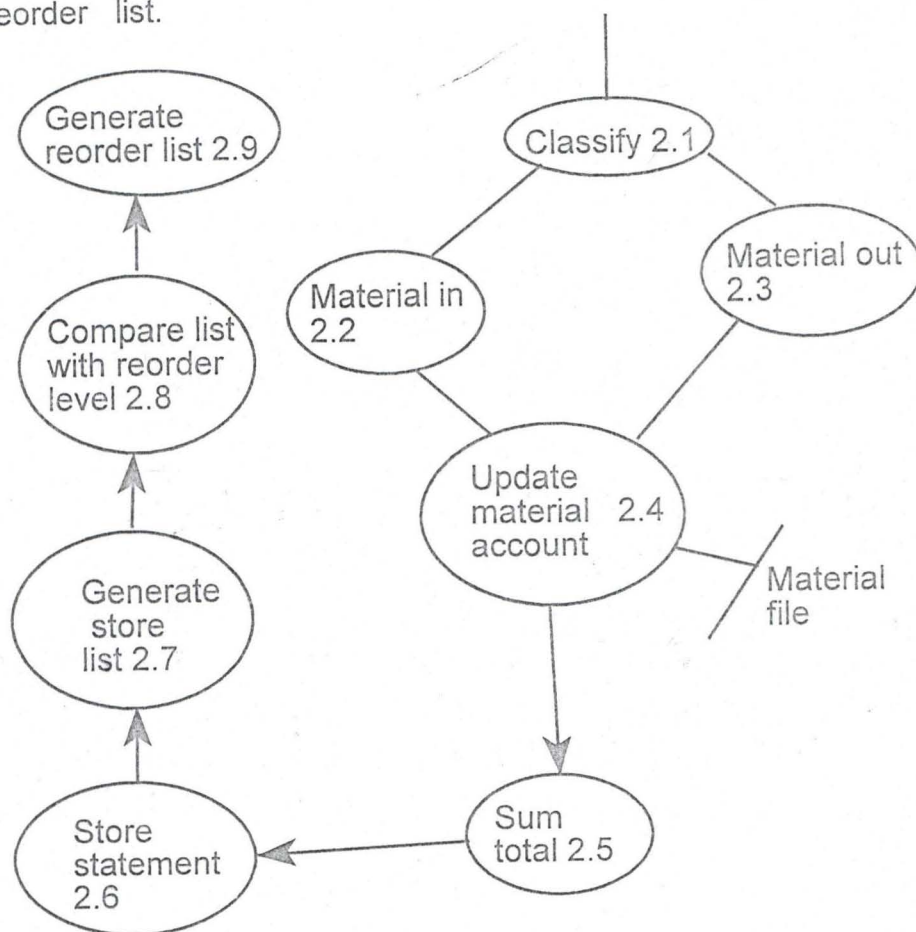
Update store account

Sum totals

Generate store list

Compare list with reorder level

Generate reorder list.



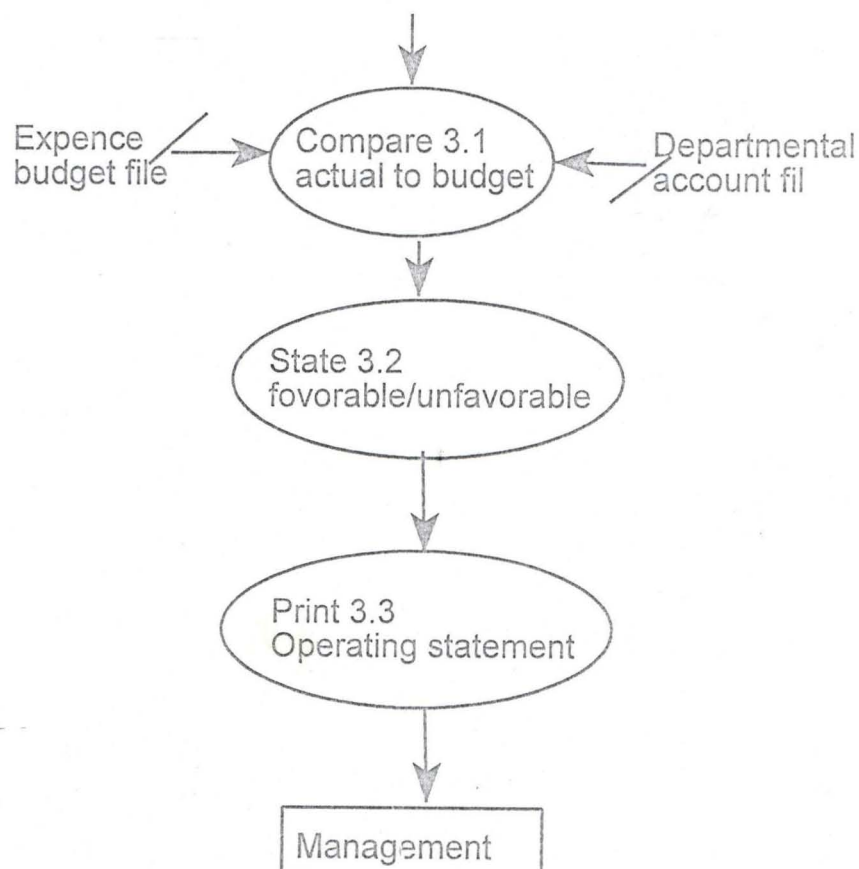
## EXPANSION OF COMPARING ACTUAL TO BUDGET

The expansion of comparing actual to budget result in the following processes

compare actual to budget

list favorable and unfavorable budget

print operating statement for management.



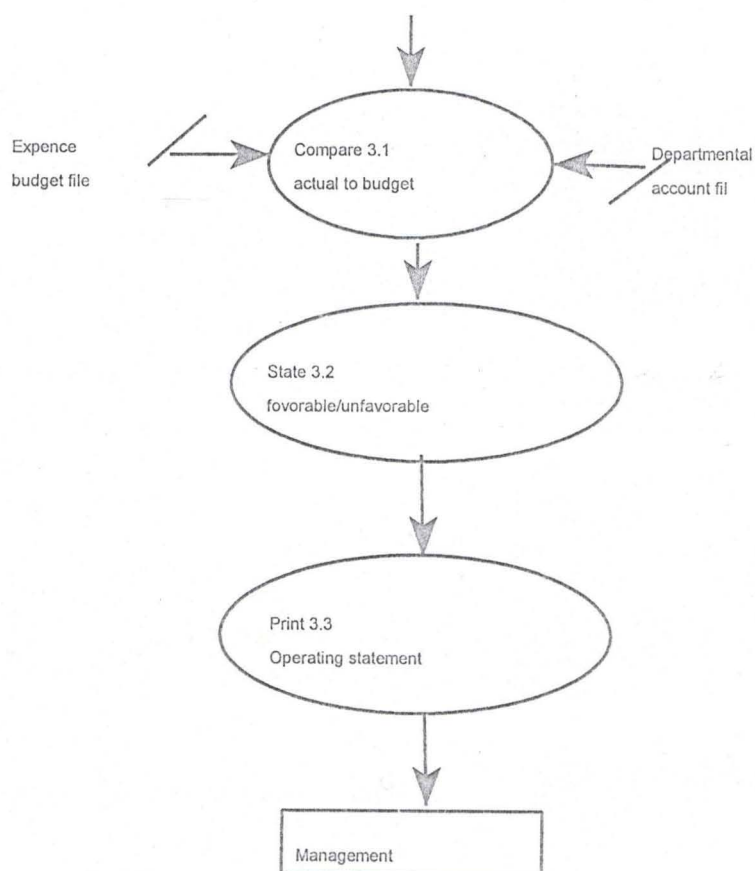
## EXPANSION OF COMPARING ACTUAL TO BUDGET

The expansion of comparing actual to budget result in the following processes

compare actual to budget

list favorable and unfavorable budget

print operating statement for management.





## EXPANSION OF THE LEDGER UPDATING

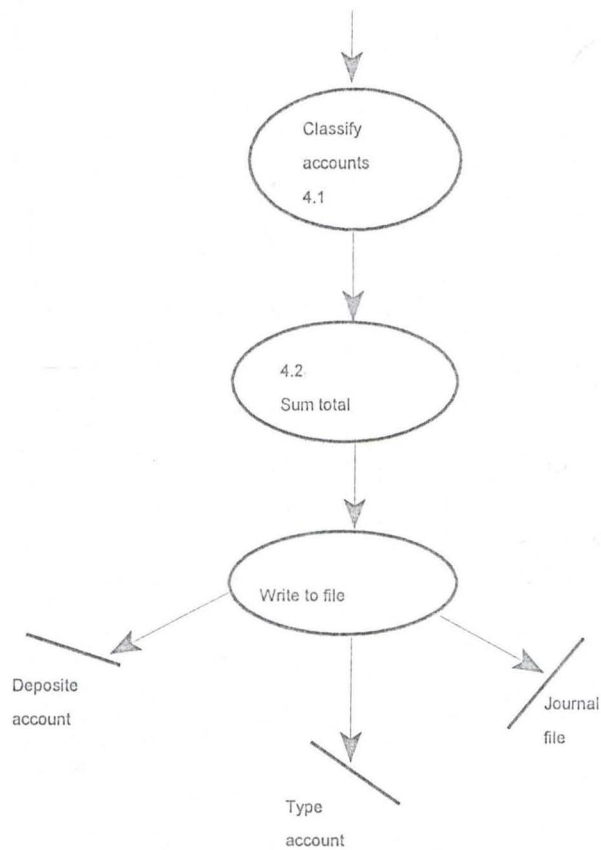
The of the leger updating result in the following processes

classify account

write to file

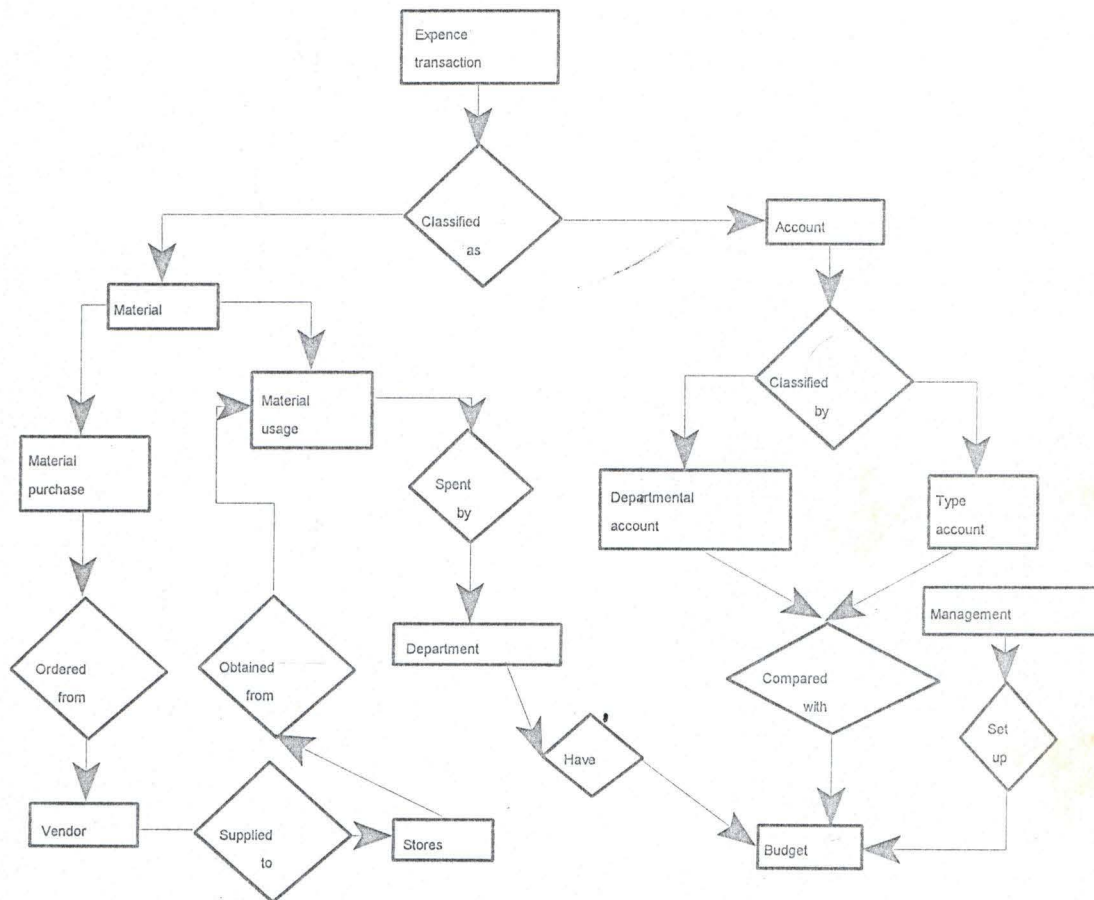
sum totals

classify account



### 3.4.3 The Entity Relation Diagram

In one attempt to describe the data, an ER structure was used. The resulting entity relationship diagram may result as follows.



## FILE TECHNIQUE

From the entity relationship diagram the files required by this system include

1. Account file,
2. Material file
3. Budget file
4. Material transaction file
5. Sorted material file by material code
6. Expense transaction file
7. Sorted journal file by department
8. Sorted journal file by general
9. Account
10. Stock file
11. Department file

From the file list above the following are master files

1. Material file
2. Budget file
3. Account file
4. Department

The transaction files include

1. Material transaction file
2. Expense transaction file

The out put file include

1. Sorted material transaction file by material code
2. Sorted expense transaction file by department



3. Sorted expense transaction file by date
4. Sorted expense transaction file by general
5. Stock file
6. Sorted material transaction file by dept.

The data element for each of the files are given below. Accompany the data elements are the data specification and the frequency of entry per period of processing

**Material File:**

Data	Items	Specification	Character	Frequency
Material	code	Alpha numeric	5	1
Maximum	Stock level	Numeric	8	1
Minimum	Stock level	Numeric	8	1
Ordinary	Level	Numeric	8	1
Units		Numeric	8	1

The file organization is set to be Random

**Account file**

Data	Items	Specification	Character	Frequency
Account	Code	Numeric	5	1
Account	Name	Character	20	1
General	Account	Numeric	5	1
Account	Level	Numeric	1	1
Departments	Code			

The file organization is set to be sequential

### Budget Allocation file

Data	Items	Specification	Character	Frequency
Account	Code	Numeric	5	1
Department	Code	Numeric	1	1
General	Account	Numeric	2	1
Account	Level	Numeric	1	1
Amount		Numeric	8	1

The file organization is set to be sequential

### Account Transaction file

Data	Items	Specification	Character	Frequency
Transaction	Number	Numeric	8	500
Date		Date	6	30
Account	Code	Numeric	5	500
Description		Character	50	500
Department	Code	Numeric	1	500
Debit		Numeric	8	250
Credit		Numeric	8	250

The file organization is set to be sequential (serial)

### Material Transaction File

Data	Items	Specification	Character	Frequency
Date		Date	8	100
Material	Code	Alpha numeric	5	100
Transaction	Number	Numeric	8	100
Requisition	Number	Numeric	8	100
Description		Character	50	100
Department		Numeric	2	100
Issued		Numeric	8	100
Receipt		Numeric	8	100

The file organization is set to be serial

### Department

Data	Items	Specification	Character	Frequency
Department	Code	Numeric	1	1
Department	Name	Numeric	10	1
Manager	Code	Character	30	1

The file organization is set to be sequential

### Stock File

Data	Items	Specification	Character	Frequency
Date		Date	6	30
material	Code	Numeric	5	30
Material	Name	Numeric	5	30



## CHAPTER FOUR

Given the above file organization the targeted menu for pitching processes needed can be as follows

### COST CONTROL SYSTEM

#### ZARIA INDUSTRY LIMITED

##### MAIN MENU

- A > FILE MAINTENANCE
- B > TRANSACTION DATA ENTRY
- C > QUERY AND PRINTING
- D > EXIT

ENTER YOUR OPTION

##### MENU A: FILE MAINTENANCE

- 1 > MATERIAL
- 2 > EXPENSE BUDGET ALLOCATION
- 3 > ACCOUNTS
- 4. > DEPARTMENT

##### MENU B: TRANSACTION DATA ENTRY

- 1 > EXPENSE
- 2 > MATERIAL

##### MENU C: QUERY OR PRINTING

- 1 > STOCK LISTING
- 2 > REORDER LISTING
- 3 > OPERATING STATEMENT
- 4 > JOURNAL LISTING
- 5 > COST LEDGER

**MENU C4: JOURNAL LISTING**

- 1 > BY DEPARTMENT
- 2 > BY DATE
- 3 > BY MATERIAL
- 4 > BY ACCOUNTS

**JOB SPECIFICATION**

To carry out the above processes described by the menu, the system must be able to carry out the following jobs.

**JOB 1: DATA ENTRY**

- Job 1.1: Data entry on Expense transaction
- Job 1.2: Data entry on Material transaction
- Job 1.3: Date entry on Material file
- Job 1.4: Data entry on Budget file
- Job 1.5: Data entry on Account file
- Job 1.6: Data entry on Department file

## **JOB 2:        UPDATING**

Job 2.1:    Stock        updating  
Job 2.2:    Journal     updating  
Job 2.3:    Ledger     updating  
Job 2.4:    Stock        updating

## **JOB 3:        REPORT GENERATION**

Job 3.3:    Generating    stock        list  
Job 3.2:    Generating    reordering   list  
Job 3.3:    Generating    operating    statements  
Job 3.4:    Generating    journal      listing  
Job 3.5:    Generating    cost         ledger

## **JOB 4:        ROUTINE MANIPULATION**

Job 4.1:    Comparing   actual    to            Budget  
Job 4.2:    Sum            total        for           accounts  
Job 4.3:    Sorting  
Job 4.4:    Compute    balance    for each    account

## ***PROCESS SPECIFICATION***

### ***Process 1.1***

*For each expense transaction Do*

*Enter transaction number, description, Account  
code, amount debited, amount credited*

*SEARCH account in account file*

*IF account is in account file THEN*

*Retrieve account details from account file  
send details to process 2.2, 2.3*

*ELSE*



*Give message "Account number is invalid*

*END FOR*

#### *PROCESS 1.2*

*FOR each material transaction DO*

*ENTER material code, description, Department  
issue, receipt, requisition Number,*

*SEARCH material code in material file*

*IF material code is in material file THEN*

*Retrieve material details from material file*

*send details to process 2.1, 2.4, 2.3*

*ELSE*

*Give message "material code is invalid"*

*END FOR*

#### *PROCESS 1.3*

*FOR each material DO*

*Enter material code, maximum stock, level*

*minimum stock level, ordering level, ordering quantity, units*

*IF material code is in material file*

*Give message "material code already exist, Do you want to change it) N*

*IF Yes THEN*

*OVERWRITE that record*

*Else loop*

*ELSE*

*Append the new material specification to file*

*END FOR*

#### *Process 1.4*

*FOR each Budget allocation DO*

*Enter account Number department code account level general account, amount.*

*IF account number already exist in Budget file, Give message "account Budget has been  
entered, do you want to change it) N*

IF No THEN  
Loop  
ELSE  
OVERWRITE that record  
ELSE  
APPEND the new Budget allocation to Budget file  
END FOR

#### PROCESS 1.5

FOR each account DO  
Enter account codes, names of accounts general accounts, account level  
IF account code already exist in account file Give message "account already exist,  
Do you want to change it "N  
If No then loop  
ELSE  
OVERWRITE that record  
ELSE  
Append the new account specification to account file and loop  
END IF  
END FOR

#### PROCESS 2.1 & 2.2

FOR each material transaction that is accepted by process 1.2 DO  
APPEND material transaction to material transaction file  
END FOR  
SORT material transaction file by material code to sorted material file  
FOR each material code DO  
Compute total of issue by process 4.3  
Compute total of receipt by process 4.3  
Compute balance  
Send balance to stock file  
Compute new balance in stock file.

END FOR

*SORT material transaction file by department to sorted material file by dept.*

PROCESS 2.3

*FOR each expense transaction that is accepted by process 1.1 DO*

*APPENDED expense transaction to expense transaction file*

END FOR

*SORT Expense transaction file by department to sorted expence file*

*For each department DO*

*Compute total for Debit by process 4.3*

*Compute total for credit by process 4.3*

END FOR

*SORT Expense transaction file by date to sorted expence file by dete*

*FOR each date do*

*Compute total of debit by process 4.3*

*Compute total of credit by process 4.3*

END FOR

*SORT expense transaction file by general account by detail account to sorted expence  
file by acc. for each general account DO*

*Compute total Debit of all general account by process 4.3*

*Compute total credit for all general account by process 4.3*

*Send totals to Account file*

*Compute balance by process 4.5*

*Add balance to the smaller.*

END FOR

PROCESS 3.1

*OPEN updated stock file FOR EACH record DO*

*DISPLAY stock codes, names and balance.*

END FOR

PRINT STOCK LIST

PROCESS 3.2



*Open updated stock file and material file for each record DO*

*GET material code from material file*

*Compare stock balance and recorder level by process 4.1*

*IF stock is less than recorder level*

*Give message Yes*

*ELSE*

*Give message No*

*END IF*

*Read reorder Quantity from material file*

*Display material code, name, recorder level, balance, recorder Quantity.*

*END FOR*

### *PROCESS 3.3*

*Open Sorted expence by Depertment and Budget allocation file*

*FOR each department code DO.*

*Compute total of debit by process 4.3*

*GET departmental code from Budget file*

*Get Budget allocation for Department*

*Compute variance (balance) by process 4.5*

*IF balance is positive favorable is Yes*

*ELSE*

*Favorable is No*

*END IF*

*Read, department name, Budget allocation*

*Display department name, Budget allocation*

*variance favorable*

*END FOR.*

### *PROCESS 3.4*

*PRINT SEXPDEPT*

*PRINT SEXPDAT*

PRINT SMAT CODE

PROCESS 3.5

PRINT Updated Cost Ledger Sorted by Account

PRINT Updated Cost Ledger Sorted by Dept.

PROCESS 4.1

Input A , B

If  $A > B$  THEN ANS is yes

ELSE

Answer is NO

PROCESS 4.2

Total = 0 input = value

Do while the is more input

    Total = Total value

    Loop

PROCESS 4.3

Input A , B

If  $A \geq B$

Then Balance =  $A - B$

Else

Balance =  $B - A$

## CHAPTER FOUR

### PROGRAM DESIGN AND REPORT

#### INTRODUCTION

Programs are often required in a system for a number of reasons

- 1- to make enquiries on the database
- 2- update the database with new transaction
- 3- produce reports.

Enquiry programs now use special enquiry language eg structure query language, and reports are often produced by special report generators eg crystal reports, while transaction update requires a special type of high-level language like Visual Basic.

This chapter concentrate on the design process for writing programmes on enquiries and report generations.

#### STRUCTURED PROGRAMMING:

Good program should also be easy to maintain and accommodate the system changes that always occur after a system is built. maintenance is improved when well define functions appear in the same section of programs.

This is often term structured programming. structures programming uses standard control structures to improve programme clarity and maintainance.

The control structures encourage level down programme development by orderly expansion of programming blocks. This is consistent with the level down method of the dataflow diagram as found in chapter 3



## ACCESS PROGRAMMING :

Microsoft access is a native of the microsoft office family of software, composing Access Excel and microsoftword. It is a relational database and has a strong relationship with visual basic programming language. Infact visual basic uses microsoft Access database engine for its database applications.

Hence, programing in Access is infact similar to that of visual basic. Even microsoft access has the capability of tranlating Access code into visual basic codes.

## OBJECT ORIENTED PROGRAMING

Like in visual basic , so in microsoft access, it beheaves like an object. That is to say, a form is an object with commond bottions as controls objects on those forms. Microsoft access language extend your command over these objects by allowing you to declare and use variable in your codes that represents objects. Theses object variable allows you to manipulate a form or a control as easily as you can manipulate an interger or string variable.

in this application the following form objects were declared.

- 1) swichboard .
- 2) transaction data entry
- 3) file mainternance
- 4) report and queries
- 5) journal listing.

Common control found on the form which are often labeled by the form name.

- 1) control for opening other forms which are often labeled by the form

name.

- 2) control for record operation like adding records or deleting records etc.
- 3) control for closing forms.

The codes for typical operation as named above are given in appendix 3 and resulting forms.

### **MICROSOFT ACCESS ENQUIRIES.**

Microsoft access has a graphic interface that facilitate queries. Choosing different tables and fields will automatically generate the structure query language code.

The idea behind Enquery language is that, instead of having to write a special program to get data from a database a user should merely have to state what condition retrieved data must satisfy. This is by specifying the rows and column to be retrieved and what conditions these rows and columns must satisfy.

In this projects 5 Queries or dynamic sets were declared. They include:-

- (1) Operating statement Queries
- (2) Reorder Queries
- (3) Stock listing Queries
- (4) Journal by account Queries
- (5) Journal by Department Queries
- (6) Journal by Material type Queries

The codes that specify these queries are given in appendix 2. The result from a sample data is printed in appendix 4.

## **MICROSOFT ACCESS REPORTS.**

Crystal reports is a powerful yet easy to use program for creating custom reports, lists, and form letters using data from existing data-bases. The program works by establishing connections with one or more of you data-bases. Using these connections as conduits, crystals reports in the values from data base fields you select and used them in the report, either in their original form or as part of a formulae that generates more a much sophisticated values.

Microsoft access uses crystals reports for its report. The reports generate for this project include.

1. Operating statement
2. Stock listing
3. Reorder listing
4. Account type journal
5. Departmental journal
6. Material usage journal etc.

The generated reports are given in appendix 5.



## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

#### INTRODUCTION:

The use of Access in the development of this project is not in all suitable or perfect. Firstly the hardware requirements for this project is a little bit high. The windows enviroment requires at least 8mb of ram in order to run. Hence to run this project the minimum requirement is 8mb.

Secondly this package also require that access be loaded in the system before it can run. This is a limitation for any organisation with a smaller memory capacity and which hasn't access in the system.

Despite the above drawbacks it is common knowledge that memory chips are falling in price. Also many organisation are now opgrading their system to be able to run windows.

Secondly developing the project in access makes its generality more enhanced, since any user buying windows operating system is given access free.

#### SECURITY CONTROL AND AUDIT

Control is a method to ensure that the system process data as it was designed to. Audit is check on the system by an auditor who want to make sure that the system is built as specified and the processed result are correct. Audit also has to ensure that they are erros in both entering and processed data.

While security is concern with the protection of data resources and the program against accidental or intentional destruction, modification or desclausure to an authorise person.

The audit of the system programs has been thouroughly carried out. In terms of control, each data has a data validation property that limits the type and specification of data into the system. Despite this, organisational majors are highly advice to increase security.

The system by itself was given very litle security at this stage but, password for each table and report can be place while ownership to tables can be specified. Also physical security of the system is highly advice. Backup of data are also adviced.

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Option Compare Database  
Option Explicit

Private Sub Command16\_Click()  
On Error GoTo Err\_Command16\_Click

DoCmd.GoToRecord , , acNewRec

Exit\_Command16\_Click:  
Exit Sub

Err\_Command16\_Click:  
MsgBox Err.description  
Resume Exit\_Command16\_Click

End Sub  
Private Sub Command17\_Click()  
On Error GoTo Err\_Command17\_Click

DoCmd.DoMenuItem acFormBar, acEditMenu, 8, , acMenuVer70  
DoCmd.DoMenuItem acFormBar, acEditMenu, 6, , acMenuVer70

Exit\_Command17\_Click:  
Exit Sub

Err\_Command17\_Click:  
MsgBox Err.description  
Resume Exit\_Command17\_Click

End Sub  
Private Sub Command18\_Click()  
On Error GoTo Err\_Command18\_Click

DoCmd.Close

Exit\_Command18\_Click:  
Exit Sub

Err\_Command18\_Click:  
MsgBox Err.description  
Resume Exit\_Command18\_Click

End Sub

End Sub

Option Compare Database  
Option Explicit

Private Sub Command1\_Click()  
On Error GoTo Err\_Command1\_Click

Dim stDocName As String  
Dim stLinkCriteria As String

stDocName = "expense"  
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit\_Command1\_Click:  
Exit Sub

Err\_Command1\_Click:  
MsgBox Err.description  
Resume Exit\_Command1\_Click

End Sub  
Private Sub Command2\_Click()  
On Error GoTo Err\_Command2\_Click

Dim stDocName As String  
Dim stLinkCriteria As String

stDocName = "mattran"  
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit\_Command2\_Click:  
Exit Sub

Err\_Command2\_Click:  
MsgBox Err.description  
Resume Exit\_Command2\_Click

End Sub  
Private Sub Command3\_Click()  
On Error GoTo Err\_Command3\_Click

DoCmd.Close

Exit\_Command3\_Click:  
Exit Sub

Err\_Command3\_Click:  
MsgBox Err.description  
Resume Exit\_Command3\_Click

End Sub

Option Compare Database  
Option Explicit

Private Sub STOCK\_Click()  
On Error GoTo Err\_STOCK\_Click

Dim stDocName As String

stDocName = "stocklisting"  
DoCmd.OpenReport stDocName, acPreview

Exit\_STOCK\_Click:  
Exit Sub

Err\_STOCK\_Click:  
MsgBox Err.description  
Resume Exit\_STOCK\_Click

End Sub  
Private Sub REORDER\_Click()  
On Error GoTo Err\_REORDER\_Click

Dim stDocName As String

stDocName = "reorder"  
DoCmd.OpenReport stDocName, acPreview

Exit\_REORDER\_Click:  
Exit Sub

Err\_REORDER\_Click:  
MsgBox Err.description  
Resume Exit\_REORDER\_Click

End Sub  
Private Sub OPSTATEMENT\_Click()  
On Error GoTo Err\_OPSTATEMENT\_Click

Dim stDocName As String

stDocName = "opstatement"  
DoCmd.OpenReport stDocName, acPreview

Exit\_OPSTATEMENT\_Click:  
Exit Sub

Err\_OPSTATEMENT\_Click:  
MsgBox Err.description  
Resume Exit\_OPSTATEMENT\_Click

End Sub  
Private Sub COST\_Click()  
On Error GoTo Err\_COST\_Click

Dim stDocName As String

stDocName = "COST LEDGER"  
DoCmd.OpenReport stDocName, acPreview

Exit\_COST\_Click:  
Exit Sub

Err\_COST\_Click:  
MsgBox Err.description  
Resume Exit\_COST\_Click



```
End Sub
Private Sub JOURNAL_Click()
On Error GoTo Err_JOURNAL_Click
```

```
    Dim stDocName As String
    Dim stLinkCriteria As String
```

```
    stDocName = "JOUNALISTING"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
```

```
Exit_JOURNAL_Click:
Exit Sub
```

```
Err_JOURNAL_Click:
    MsgBox Err.description
    Resume Exit_JOURNAL_Click
```

```
End Sub
Private Sub Command8_Click()
On Error GoTo Err_Command8_Click
```

```
    DoCmd.Close
```

```
Exit_Command8_Click:
Exit Sub
```

```
Err_Command8_Click:
    MsgBox Err.description
    Resume Exit_Command8_Click
```

```
End Sub
```

```
Option Compare Database
Option Explicit
```

```
Private Sub Command1_Click()
On Error GoTo Err_Command1_Click
```

```
    Dim stDocName As String
    Dim stLinkCriteria As String
```

```
    stDocName = "material"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
```

```
Exit_Command1_Click:
Exit Sub
```

```
Err_Command1_Click:
    MsgBox Err.description
    Resume Exit_Command1_Click
```

```
End Sub
Private Sub Command2_Click()
On Error GoTo Err_Command2_Click
```

```
    Dim stDocName As String
    Dim stLinkCriteria As String
```

```
    stDocName = "ACCOUNTS"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
```

```
Exit_Command2_Click:
Exit Sub
```

```
Err_Command2_Click:
    MsgBox Err.description
    Resume Exit_Command2_Click
```

```
End Sub
Private Sub Command3_Click()
On Error GoTo Err_Command3_Click
```

```
    Dim stDocName As String
    Dim stLinkCriteria As String
```

```
    stDocName = "budget"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
```

```
Exit_Command3_Click:
Exit Sub
```

```
Err_Command3_Click:
    MsgBox Err.description
    Resume Exit_Command3_Click
```

```
End Sub
Private Sub Command4_Click()
On Error GoTo Err_Command4_Click
```

```
    DoCmd.Close
```

```
Exit_Command4_Click:
Exit Sub
```

```
Err_Command4_Click:
    MsgBox Err.description
    Resume Exit_Command4_Click
```

```
Err_ACCOUNT_Click:
    MsgBox Err.description
    Resume Exit_ACCOUNT_Click

End Sub
Private Sub Command5_Click()
On Error GoTo Err_Command5_Click
```

```
DoCmd.Close
```

```
Exit_Command5_Click:
Exit Sub
```

```
Err_Command5_Click:
    MsgBox Err.description
    Resume Exit_Command5_Click
```

```
End Sub
```



Option Compare Database  
Option Explicit

Private Sub DEPT\_Click()  
On Error GoTo Err\_DEPT\_Click

Dim stDocName As String

stDocName = "deptjournal"  
DoCmd.OpenReport stDocName, acPreview

Exit\_DEPT\_Click:  
Exit Sub

Err\_DEPT\_Click:  
MsgBox Err.description  
Resume Exit\_DEPT\_Click

End Sub  
Private Sub DATE\_Click()  
On Error GoTo Err\_DATE\_Click

Dim stDocName As String

stDocName = "DATE"  
DoCmd.OpenReport stDocName, acPreview

Exit\_DATE\_Click:  
Exit Sub

Err\_DATE\_Click:  
MsgBox Err.description  
Resume Exit\_DATE\_Click

End Sub  
Private Sub MATERIAL\_Click()  
On Error GoTo Err\_MATERIAL\_Click

Dim stDocName As String

stDocName = "materialjournal"  
DoCmd.OpenReport stDocName, acPreview

Exit\_MATERIAL\_Click:  
Exit Sub

Err\_MATERIAL\_Click:  
MsgBox Err.description  
Resume Exit\_MATERIAL\_Click

End Sub  
Private Sub ACCOUNT\_Click()  
On Error GoTo Err\_ACCOUNT\_Click

Dim stDocName As String

stDocName = "accountjou1"  
DoCmd.OpenReport stDocName, acPreview

Exit\_ACCOUNT\_Click:  
Exit Sub

Option Compare Database  
Option Explicit

Private Sub Command16\_Click()  
On Error GoTo Err\_Command16\_Click

DoCmd.GoToRecord , , acNewRec

Exit\_Command16\_Click:  
Exit Sub

Err\_Command16\_Click:  
MsgBox Err.description  
Resume Exit\_Command16\_Click

End Sub  
Private Sub Command17\_Click()  
On Error GoTo Err\_Command17\_Click

DoCmd.DoMenuItem acFormBar, acEditMenu, 8, , acMenuVer70  
DoCmd.DoMenuItem acFormBar, acEditMenu, 6, , acMenuVer70

Exit\_Command17\_Click:  
Exit Sub

Err\_Command17\_Click:  
MsgBox Err.description  
Resume Exit\_Command17\_Click

End Sub  
Private Sub Command18\_Click()  
On Error GoTo Err\_Command18\_Click

DoCmd.Close

Exit\_Command18\_Click:  
Exit Sub

Err\_Command18\_Click:  
MsgBox Err.description  
Resume Exit\_Command18\_Click

End Sub

Option Compare Database  
Option Explicit

Private Sub Command14\_Click()  
On Error GoTo Err\_Command14\_Click

DoCmd.GoToRecord , , acNewRec

Exit\_Command14\_Click:  
Exit Sub

Err\_Command14\_Click:  
MsgBox Err.description  
Resume Exit\_Command14\_Click

End Sub  
Private Sub Command15\_Click()  
On Error GoTo Err\_Command15\_Click

DoCmd.DoMenuItem acFormBar, acEditMenu, 8, , acMenuVer70  
DoCmd.DoMenuItem acFormBar, acEditMenu, 6, , acMenuVer70

Exit\_Command15\_Click:  
Exit Sub

Err\_Command15\_Click:  
MsgBox Err.description  
Resume Exit\_Command15\_Click

End Sub  
Private Sub Command16\_Click()  
On Error GoTo Err\_Command16\_Click

DoCmd.Close

Exit\_Command16\_Click:  
Exit Sub

Err\_Command16\_Click:  
MsgBox Err.description  
Resume Exit\_Command16\_Click

End Sub



Option Compare Database  
Option Explicit

Private Sub Command10\_Click()  
On Error GoTo Err\_Command10\_Click

DoCmd.GoToRecord , , acNewRec

Exit\_Command10\_Click:  
Exit Sub

Err\_Command10\_Click:  
MsgBox Err.description  
Resume Exit\_Command10\_Click

End Sub  
Private Sub Command11\_Click()  
On Error GoTo Err\_Command11\_Click

DoCmd.DoMenuItem acFormBar, acEditMenu, 8, , acMenuVer70  
DoCmd.DoMenuItem acFormBar, acEditMenu, 6, , acMenuVer70

Exit\_Command11\_Click:  
Exit Sub

- Err\_Command11\_Click:  
MsgBox Err.description  
Resume Exit\_Command11\_Click

End Sub  
Private Sub Command12\_Click()  
On Error GoTo Err\_Command12\_Click

DoCmd.Close

Exit\_Command12\_Click:  
Exit Sub

Err\_Command12\_Click:  
MsgBox Err.description  
Resume Exit\_Command12\_Click

End Sub

End Sub

Option Compare Database  
Option Explicit

Private Sub Command8\_Click()  
On Error GoTo Err\_Command8\_Click

DoCmd.GoToRecord , , acNewRec

Exit\_Command8\_Click:  
Exit Sub

Err\_Command8\_Click:  
MsgBox Err.description  
Resume Exit\_Command8\_Click

End Sub  
Private Sub Command9\_Click()  
On Error GoTo Err\_Command9\_Click

DoCmd.DoMenuItem acFormBar, acEditMenu, 8, , acMenuVer70  
DoCmd.DoMenuItem acFormBar, acEditMenu, 6, , acMenuVer70

Exit\_Command9\_Click:  
Exit Sub

Err\_Command9\_Click:  
MsgBox Err.description  
Resume Exit\_Command9\_Click

End Sub  
Private Sub Command10\_Click()  
On Error GoTo Err\_Command10\_Click

DoCmd.Close

Exit\_Command10\_Click:  
Exit Sub

Err\_Command10\_Click:  
MsgBox Err.description  
Resume Exit\_Command10\_Click

End Sub

Option Compare Database  
Option Explicit

Private Sub Command2\_Click()  
On Error GoTo Err\_Command2\_Click

Dim stDocName As String  
Dim stLinkCriteria As String

stDocName = "MAINTERNANCE"  
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit\_Command2\_Click:  
Exit Sub

Err\_Command2\_Click:  
MsgBox Err.description  
Resume Exit\_Command2\_Click

End Sub  
Private Sub Command3\_Click()  
On Error GoTo Err\_Command3\_Click

Dim stDocName As String  
Dim stLinkCriteria As String

stDocName = "TRANSAC"  
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit\_Command3\_Click:  
Exit Sub

Err\_Command3\_Click:  
MsgBox Err.description  
Resume Exit\_Command3\_Click

End Sub  
Private Sub Command4\_Click()  
On Error GoTo Err\_Command4\_Click

Dim stDocName As String  
Dim stLinkCriteria As String

stDocName = "QUERY"  
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit\_Command4\_Click:  
Exit Sub

Err\_Command4\_Click:  
MsgBox Err.description  
Resume Exit\_Command4\_Click

End Sub  
Private Sub Command7\_Click()  
On Error GoTo Err\_Command7\_Click

DoCmd.Close

Exit\_Command7\_Click:  
Exit Sub

Err\_Command7\_Click:  
MsgBox Err.description  
Resume Exit\_Command7\_Click



The structured query language for all queries are given bellow.

#### **AccountJournal**

```
SELECT expense.trans_nos, First(expense.account_code) AS account_code,  
Sum(expense.debit) AS totaldebit, Sum(expense.credit) AS totalcredit  
FROM expense  
GROUP BY expense.trans_nos;
```

#### **DeptJournal**

```
SELECT expense.trans_nos, expense.dept_code, department.dept_name,  
expense.account_code, expense.credit, expense.debit  
FROM (expense INNER JOIN mattran ON expense.trans_nos = mattran.trans_nos) INNER  
JOIN department ON expense.dept_code = department.dept_code  
ORDER BY expense.trans_nos;
```

#### **MaterialJournal**

```
SELECT mattran.trans_nos, mattran.mat_code, material.mat_name, mattran.issued,  
mattran.reciept, mattran.date  
FROM mattran INNER JOIN material ON mattran.mat_code = material.mat_code;
```

#### **OperatingStatement**

```
SELECT First(ACCOUNTS.gen_account) AS gen_account, accountjou1.account_code,  
ACCOUNTS.account_name, Sum(accountjou1.totaldebit) AS totaldebit,  
Sum(accountjou1.totalcredit) AS totalcredit, First(budget.amount) AS amount, [amount]-  
[totaldebit] AS variance  
FROM (accountjou1 INNER JOIN budget ON accountjou1.account_code =  
budget.account_code) INNER JOIN ACCOUNTS ON accountjou1.account_code =  
ACCOUNTS.account_code  
GROUP BY accountjou1.account_code, ACCOUNTS.account_name;
```

#### **Reorder**

```
SELECT DISTINCTROW material.mat_code, material.mat_name, material.max_stock,  
material.min_stock, material.order_level, material.oder_quantity, stocklisting.ballance  
FROM material INNER JOIN stocklisting ON material.mat_code = stocklisting.mat_code;
```

#### **StockListing**

```
SELECT mattran.mat_code, material.mat_name, Sum(mattran.issued) AS total_issued,  
Sum(mattran.reciept) AS total_reciept, ([total_issued]-[total_reciept]) AS ballance  
FROM material INNER JOIN mattran ON material.mat_code = mattran.mat_code  
GROUP BY mattran.mat_code, material.mat_name  
ORDER BY mattran.mat_code;
```

#### **JournalListing**

```
select date,trans_nos,account_code,credit,debit, "account" from expense as [journaltype]  
UNION select date,trans_nos,mat_code,reciept,issued,"material" from mattran;
```

# ZARIA INDUSTRY LIMITED

## COST CONTROL SYSTEM

FILE MAINTERNANCE

QUERY AND PRINTING

TRANSACTION DATA ENTRY

STOP

BY

FORBIN IVO NKEMBENG



MATERIAL

ACCOUNTS

BUDGET

STOP



EXPENCE TRANSACTION

MATERIAL TRANSACTION

STOP

# QUERY AND PRINTING

OPERATING STATEMENT

STOCK LISTING

COST LEDGER

REORDER LISTING

JOURNAL LISTING




STOP






account_code	11	
account_name	raw material account	
gen_account	1	
account_level	2	
balance b/f		
		STOP
account_code	21	
account_name	job account	
gen_account	2	
account_level	2	
balance b/f		
		STOP
account_code	31	
account_name	fin goods account	
gen_account	3	
account_level	2	
balance b/f		
		STOP
account_code	41	
account_name	cost control account	
gen_account	4	
account_level	2	
balance b/f		
		STOP
account_code	1101	
account_name	cost of sales	
gen_account	11	
account_level	3	
balance b/f	\$10,000.00	



mat_code	<input type="text" value="10002"/>	<input +""="" type="button" value=" "/>
mat_name	<input type="text" value="SART"/>	
max_stock	<input type="text" value="56"/>	<input type="button" value="X"/>
min_stock	<input type="text" value="11"/>	
order_level	<input type="text" value="20"/>	<input type="button" value="STOP"/>
oder_quantity	<input type="text" value="25"/>	
nballance	<input type="text" value="0"/>	
reoder	<input type="text" value="No"/>	

trans_nos	<input type="text" value="1"/>	
req_nos	<input type="text" value="111"/>	
mat_code	<input type="text" value="1001"/>	
description	<input type="text" value="for tap"/>	
Issued	<input type="text" value="50"/>	
reciept	<input type="text" value="100"/>	
DEPT_CODE	<input type="text" value="116"/>	
date	<input type="text" value="9/ 6/97"/>	

trans nos	<input type="text" value="1"/>	
date	<input type="text" value="01-Jan-98"/>	
account_code	<input type="text" value="1101"/>	
description	<input type="text" value="salaries"/>	
dept_code	<input type="text" value="1001"/>	
debit	<input type="text" value="\$10,000.00"/>	
credit	<input type="text" value="\$20,000.00"/>	



trans_nos	1	
req_nos	111	
mat_code	1001	+
description	for tap	
issued	50	X
receipt	100	
DEPT_CODE	116	STOP
date	9/ 6/97	
trans_nos	3	
req_nos	112	
mat_code	1002	+
description	for tap	
issued	20	X
receipt	1000	
DEPT_CODE	115	STOP
date	6/ 7/97	
trans_nos	4	
req_nos	113	
mat_code	1003	+
description	for tap	
issued	300	X
receipt	200	
DEPT_CODE	146	STOP
date	4/ 9/97	
trans_nos	6	
req_nos	125	
mat_code	1004	+
description	GREG	
issued	1500	X
receipt	5000	
DEPT_CODE	101	STOP
date	5/ 9/97	
trans_nos	8	
req_nos	1258	
mat_code	1001	+



transaction num	account_code	totaldebit	totalcredit
1	1101	\$10,000.00	\$20,000.00
3	1101	\$10,000.00	\$2,000.00
4	2101	\$5,000.00	\$400.00
5	3101	\$4,500.00	\$0.00
6	4101	\$5,000.00	\$2,000.00
7	4101	\$20,000.00	\$2,000.00
8	4102	\$300,000.00	\$200.00
9	2105	\$30,000.00	\$10,000.00

# ZARIA INDUSTRY LIMITED

## JOURNAL BY ACCOUNTS

<i>transaction number</i>	<i>account code</i>	<i>totaldebit</i>	<i>totalcredit</i>
1	1101	\$10,000.00	\$20,000.00
3	1101	\$10,000.00	\$2,000.00
4	2101	\$5,000.00	\$400.00
5	3101	\$4,500.00	\$0.00
6	4101	\$5,000.00	\$2,000.00
7	4101	\$20,000.00	\$2,000.00
8	4102	\$300,000.00	\$200.00
9	2105	\$30,000.00	\$10,000.00

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# ZARIA INDUSTRY LIMITED

## OPERATING STATEMENT

<i>gen account</i>	<i>ccount code</i>	<i>account name</i>	<i>totaldebit</i>	<i>amount</i>	<i>variance</i>	<i>favorable</i>
11	1101	cost of sales	\$20,000.00	\$80,000.00	\$60,000.00	#Name?
21	2101	transport expence	\$5,000.00	\$50,000.00	\$45,000.00	#Name?
31	3101	DEPRECIATION	\$4,500.00	\$250,000.00	\$245,500.00	#Name?
41	4101	BANK	\$25,000.00	\$30,000.00	\$5,000.00	#Name?
41	4102	salary	\$300,000.00	\$36,000.00	(\$264,000.00)	#Name?

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# ZARIA INDUSTRY LIMITED

## STOCK LISTING

<i>material code</i>	<i>total issued</i>	<i>total receipt</i>	<i>ballance</i>
1001	139	120	19
1002	20	1000	-980
1003	300	200	100
1004	1500	5000	-3500

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# ZARIA INDUSTRY LIMITED

## COST LEDGER

COST CENTRE	ACCOUNT NAME	DEBIT		CREDIT	
11	cost of sales		\$20,000.00		\$22,000.00
	cost center subtota	\$20,000.00		cost center subtota	\$22,000.00
21	transport expence		\$5,000.00		\$400.00
	cost center subtota	\$5,000.00		cost center subtota	\$400.00
31	DEPRECIATION		\$4,500.00		\$0.00
	cost center subtota	\$4,500.00		cost center subtota	\$0.00
41	BANK		\$25,000.00		\$4,000.00
	salary		\$300,000.00		\$200.00
	cost center subtota	\$325,000.00		cost center subtota	\$4,200.00



# ZARIA INDUSTRY LIMITED

## REORDER LISTING

<i>material code</i>	<i>material name</i>	<i>max stock</i>	<i>min stock</i>	<i>order level</i>	<i>oder quantity</i>	<i>ballance</i>	<i>reorder</i>
1001	cotton	200	30	31	100	19	
1002	yarn	1000	200	300	500	-980	
1003	chemicals	56	23	24	5	100	
1004	dye	100	25	30	70	-3500	

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# *ARIA INDUSTRY LIMITE*

## *JOURNAL BY DEPARTMENT*

<i>transaction number</i>	<i>dept code</i>	<i>dept name</i>	<i>account code</i>	<i>credit</i>	<i>debit</i>
1	1001	spinning	1101	\$20,000.00	\$10,000.00
3	1001	spinning	1101	\$2,000.00	\$10,000.00
4	1003	marketing	2101	\$400.00	\$5,000.00
6	1005	sewing	4101	\$2,000.00	\$5,000.00
8	1008	administration	4102	\$200.00	\$300,000.00

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# ZARIA INDUTRY LIMITED

## JOURNAL LISTING BY DATE

<i>date</i>	<i>trans nos</i>	<i>credit</i>	<i>debit</i>	<i>transaction type</i>
4/9/97	4	\$200.00	\$300.00	material
5/9/97	6	\$5,000.00	\$1,500.00	material
6/7/97	3	\$1,000.00	\$20.00	material
9/6/97	1	\$100.00	\$50.00	material
9/11/97	8	\$20.00	\$89.00	material
11/9/97	9	\$10,000.00	\$30,000.00	account
1/1/98	1	\$20,000.00	\$10,000.00	account
2/2/98	3	\$2,000.00	\$10,000.00	account
2/3/98	4	\$400.00	\$5,000.00	account
8/9/98	5	\$0.00	\$4,500.00	account
8/10/98	6	\$2,000.00	\$5,000.00	account
9/11/98	7	\$2,000.00	\$20,000.00	account
9/16/98	8	\$200.00	\$300,000.00	account



# *ZARIA INDUSTRY LIMITED*

## *JOURNAL BY MATERIAL*

<i>transaction number</i>	<i>material code</i>	<i>material name</i>	<i>issued</i>	<i>reciept</i>	<i>DATE</i>
1	1001	cotton	50	100	9/ 6/97
3	1002	yarn	20	1000	6/ 7/97
4	1003	chemicals	300	200	4/ 9/97
6	1004	dye	1500	5000	5/ 9/97
8	1001	cotton	89	20	9/11/97

# ZARIA INDUSTRY LIMITED

## *JOURNAL BY ACCOUNTS*

<i>transaction number</i>	<i>account code</i>	<i>totaldebit</i>	<i>totalcredit</i>
1	1101	\$10,000.00	\$20,000.00
3	1101	\$10,000.00	\$2,000.00
4	2101	\$5,000.00	\$400.00
5	3101	\$4,500.00	\$0.00
6	4101	\$5,000.00	\$2,000.00
7	4101	\$20,000.00	\$2,000.00
8	4102	\$300,000.00	\$200.00
9	2105	\$30,000.00	\$10,000.00