Stores and Purchase Order Management

DISSERTATION SUBMITTED IN PARTIAL FULFILMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

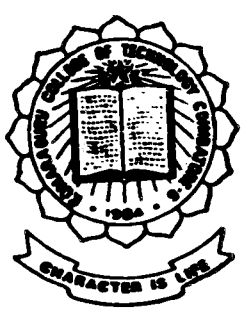
MASTER OF COMPUTER APPLICATIONS

OF BHARATHIAR UNIVERSITY

By

A. SAMPATH KUMAR

Reg. No. 9338M0193



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Kumaraguru College of Technology

Coimbatore - 641 006

JUNE 1996

DECLARATION

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DECLARATION

I hereby declare that the project entitled

STORES AND PURCHASE ORDER MANAGEMENT

submitted to Kumaraguru College of Technology , is a record of the original work done by me under the Supervision and Guidance of Prof.P.Shanmugam, Professor and Head, Department of Computer Science and Engineering , Kumaraguru College of Technology, Coimbatore and that this project work has not formed the basis for the award of any Degree/Diploma/Associateship/Fellowship or similar title to any candidate of any University.

Place : Coimbatore

Date : 03/06/96

(A.SAMPATH KUMAR)

Countersigned by

Staff-in-charge/Guide

Prof.P.Shanmugam, M.Sc.(Engg.),M.S.(Hawaii),
Professor and Head ,
Department of ComputerScience and Engineering,
Kumaraguru College of Technology,
Coimbatore -641 006.

CERTIFICATES

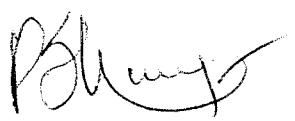
CERTIFICATE

This is to certify that this Project Work entitled

STORES AND PURCHASE ORDER MANAGEMENT

Submitted to Kumaraguru College of Technology in partial fulfilment of the requirements for the award of the Degree of the Master of Computer Applications is a record of original work done by **A.SAMPATH KUMAR** during his period of study in the Department Of Computer Science and Engineering , Kumaraguru College Of Technology, Coimbatore, under my supervision and guidance and this project work has not formed the basis for the award of any Degree/Diploma/Associateship/Fellowship or similar title to any candidate of any University.

Head of the Department and Guide



Prof .P.SHANMUGHAM M.Sc.(Engg),M.S.(Hawaii),

Professor and Head ,

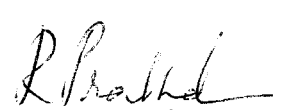
Department Of Computer Science & Engineering,

Kumaraguru College of Technology,

Coimbatore--641 006.

Submitted for University examination held on 14.6.95.

Internal Examiner.



External Examiner.

Kovai Computers

281-S, N.S.R. ROAD
COIMBATORE - 641 025

Software Engineers & Computer Consultants

DATE : 03/06/96

CERTIFICATE

This is to certify that A.SAMPATH KUMAR , Final year student of M.C.A., Department of Computer Science and Engineering , Kumaraguru College of Technology, Coimbatore , has developed the project entitled "STORES AND PURCHASE ORDER MANAGEMENT",for one of our clients. The project has been implemented and the performance of the system is excellent. Due to the confidentiality of the organization the student was not permitted to take the source code outside the premises.

Guide/Organization

T. SURESH, M.E.

Managing Partner

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ACKNOWLEDGEMENT

I take this opportunity to express my deep sense of gratitude to **Prof.P.SHANMUGAM M.Sc.(Engg.), M.S.(Hawaii),** Professor and Head, Department of Computer Science & Engineering , for his active guidance, counselling and encouragement during the course of my project work .

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Last but not the least , I express my sincere thanks to all my friends who were always there when the need arose.

SYNOPSIS

This text is a report of the Project entitled 'STORES AND PURCHASE ORDER MANAGEMENT' which has been developed for the Stores and Purchase Departments of CLASSIC APPARELS LTD.,Pollachi, the clients of KOVAI COMPUTERS,Coimbatore.

It aims at bringing about a detailed report on the computerization of the operations of Stores and Purchase departments.This project work comprises the task of the Design and Development of a Software Package ,to achieve the above.

This system will carry out the various operations related to the Stores and purchase departments such as, Stores Management,Item issues, Stock Monitoring,Purchase Indent raising, Purchase Order processing, Quotation analysis and various maintenance issues.

There are two main modules in this package namely Stores management and Purchase order processing,each of which has several submodules. This system is suitably designed so that the on-line information

about the transactions are available.The various reports produced by the system help enhance the performance of the system. The complete system has been developed in an user-friendly manner using the visual development environment , thus providing the user a very good graphical user interface and ease of use.The whole system consists of independent modules with a high degree of modular cohesiveness and low degree of inter-module coupling . The system also incorporates Object Orientation concepts.

There are six chapters in this project report. The first chapter explains the nature of the project and why it is needed and it also lists the limitations of the current system.Chapter two gives a brief Description of the Organization ,its activities ,the existing system and the objectives of the proposed new system.This chapter also discusses the Hardware & Software platforms proposed for the new system. The third chapter explains the Design and Development of the system.It incorporates an overview of the system,its various modules, input-output design and database design. Chapter four deals with the testing and implementation phases.The fifth chapter gives a conclusion and the sixth discusses the scope for future enhancements.

INTRODUCTION

Today computers play a vital role in every organization.There is almost no field that does not use computers. In this information revolution era every organization wants to be the best and seeks the ways to achieve the goal.One of the ways for this is the effective management of data and information in the system so that it does not fail the organization at crucial decision making times.For this the speed of information retrieval and the effective management of information and data in the system are the key factors.This is where the computer comes. Today's powerful computers provide new ways for better information management than older methods.One of such applications is the system discussed here.

This chapter describes the project in detail and its necessity by discussing the current system's limitations.

1.1.ABOUT THE PROJECT

In any production industry the Stores and Purchase Departments play a vital role.They deal with the raw material purchase and its flow inside the organization.

The Stores is the nerve center of an organization.It handles the raw materials which is the basic ingredient of the system. The Stores maintains the proper flow of the raw materials.It receives the raw materials that are purchased by the Purchase department classifies and stores it,issues these items on request to the other departments,and if the item is not available or the stock level is low it informs the purchase department via the Purchase Indents to procure it.

The Purchase department deals with the procurement of raw materials that are needed by the organization. It puts inquiries to the vendors via tenders, and analyses the received quotations. Based on the quotations and the past performance of the vendors it sends the purchase order to the qualified vendor and if the order is not fulfilled on time it takes the necessary steps.

This project is the computerization of the tasks of both the above mentioned departments.A large amount of data has to be captured and processed for the effective utilization of resources and smooth working of the company. Also the information retrieval must be quick and effective.Thus this project will handle the tasks of these systems in an effective way ,better than the

normal procedure to obtain maximum efficiency in the working of these departments.

1.2.NECESSITY THE NEW SYSTEM

The Stores department has to keep track of a wide range of items, how they are utilized,which items is in demand,what is the stock level etc. It also generates the purchase indents for the items needed and sends it to the Purchase department. Where as in the Purchase department the purchase orders has to be generated based on the purchase indents and it has to check the fulfillment of the order.Before placing an order it has to process quotations from various vendors and on the basis of these and the vendors past performance the suitable vendor must be selected.

In all the above tasks and other information retrieval processes, the amount of paperwork and hence the time consumed is huge. Based on the information from various departments the management has to take decisions. For this, the information processing must be precise and quick.

Another aspect that could affect the whole system is the data security. Therefore the limitations of the current manual system can be listed as follows,

* Maintenance of a large amount of data
* Large amount of posting errors
* High information retrieval time
* Large manpower requirement
* Less data security
* High information retrieval time
* Ineffective Information management

Benefits of the Computerized environment :

The computerized environment can yield the following benefits over the existing system,

* Improvement in material handling
* Quick and effective information retrieval
* Better data security
* On-line status of materials
* Less or almost no posting errors

* Effective tracking of status of the Purchase Orders and materials movement inside the system

* Easy and effective analysis of consumption pattern of materials

* Queries that provide On-line information

* Various kind of reports presented in an effective manner

By computerizing the system , it is possible to get accurate and timely information about the materials and other details .This plays the key role in management decision making ,effective utilization of resources and other activities.The need for computerizing both the Stores and Purchase departments will be a fruitful decision.

2. SYSTEM STUDY AND PROBLEM FORMULATION

2.1. ORGANIZATION

CLASSIC APPARELS LTD., is a client of KOVAI COMPUTERS ,Coimbatore, who are a well known organisation developing customised software and especially popular in Tea trade.

CLASSIC APPARELS LTD., is limited concern, which deals in ready-made garment manufacturing and fully export oriented. It converts the yarn into garments through its various departments. It also handles various job orders which are specialised tasks such as Cutting ,Printing etc.

The various departments in the company are Production, Maintenance,Purchase, Stores, Personnel and Security. The Production department has several sub departments of each specialised task such as knitting, printing etc.

2.2. EXISTING SYSTEM STUDY

The Stores department receives the inpass and generates the Goods Received Note(GRN). Then it sends the items either to inspection or to stock. Since some items like stationary need not be inspected they are directly sent to stock. All other items are sent to inspection. After inspection , based on the

Inspection Note, these items are sent into three categories of stock namely good, rejected and usable. Good is the stock that is fine and rejected is the unusable or bad stock. Usable is the stock that can be used with minor processing. The rejected stock is sent back to the Supplier.

Each item in the stores has got a minimum level. If the item stock goes below this level actions are taken to purchase the items.

Any department in need of an item puts a requisition to the stores. If the item is available it is issued to the corresponding department, and if it is not available or the stock after issue goes below minimum level a purchase indent is raised and sent to the Purchase department.

When the Purchase department receives these indents , it puts tenders for the supply of the items. On receiving the Quotations ,it processes them and based on these quotations and the suppliers past performance (if the supplier had supplied in the past) it generates the Purchase Orders and sends it to the Suppliers.

If the order is not fulfilled in time,then a reminder is sent to the supplier and if even after the grace time the order is not fulfilled ,it is cancelled.

2.3. OBJECTIVES OF THE PROPOSED SYSTEM

The main objectives of the proposed system can be listed as follows ;

* To maintain the data and information in an effective way
* To provide on-line information about the status of various entities such as stock , purchase indent ,purchase order etc.
* To aid the management in Decision making by providing necessary information via queries and reports
* To reduce amount of paperwork
* To increase the speed of information retrieval
* Effective utilisation of system's resources
* Reducing posting errors
* Better Data Security

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2.4. HARDWARE AND SOFTWARE ENVIRONMENT

2.4.1. HARDWARE :

The development environment is a LAN with a 486 DX4 ,100 MHz processor based system as the server with the following configuration,

* 32 MB RAM
* 1.2 GB HD
* 16 bit Ethernet card

There are 4 nodes with the following configurations,

* 386 , 40 MHz
* 8 MB RAM
* 530 MB HD
* 1.44 Floppy Drive

One node has a CREATIVE CD-ROM Drive with Sound Blaster card.

There are two printers available ,

* NEC PINWRITER P3300 ,132 column, 24 Pin Dot Matrix Printer
* TVSE *NOVO* 130 , 80 column, 9 Pin Dot Matrix Printer

2.4.2. SOFTWARE :

The software has been developed in the following environment,

Operating Environment : MS-DOS v6.22

Windows for Workgroups 3.11

Development Tool : Delphi 1.0 with Interbase

4.2.3. DELPHI

Delphi is a windows based Rapid Application Development (RAD) tool from Borland. It combines Borland's Compiler and database technology with the powerful Object orientation concept and the Visual Development Environment. Delphi offers a Visual Compiler and the core is the Borland's Object Pascal language.

Delphi contains a broad and ambitious set of features ranging from its form designer to transparent support of all popular database formats.

The Object Pascal language which forms the core of Delphi fully supports the Encapsulation, Inheritance and Polymorphism of objects and data.

The main features of Delphi can be listed as follows

* Reusable and Extendible Components

* VBX Support

* Application and Form templates

* Customisable Integrated Development Environment (IDE)

* Compiled Programs

* Robust data Access Capabilities

* Pass through SQL

* Exception handling

* Windows API Support

* Support for Multimedia applications

* Creation and maintenance of DLLs

* OLE and DDE Support

The various tools provided with Delphi are,

* Database Desktop - Used to create and maintain Databases and Tables

* Integrated Debugger - The debugger Enables to

  * Control the execution of your program

* Monitor the values of variables and items in data structures

* Modify the values of data items while debugging

* Borland Database Engine - Maintaining and Connectivity of Databases

* Image Editor - To create Bitmaps and Icons

* Object Browser - Helps to view the Hierarchy of objects used in the application

* ReportSmith - For creating Reports

* SQL Reference - Provides reference to Interbase SQL

* Visual Query Builder - To create Queries with ease

* WinSight - To track the messages inside Windows Environment

* WinSpector - To examine UAEs and GPFs

* Windows ISQL - Provides a Visual SQL interface with Various RDBM Systems

3.SYSTEM DESIGN AND DEVELOPMENT

3.1.OVERVIEW OF THE SYSTEM

The system consists of two main modules namely Stores and Purchase modules. Both these modules have the following submodules.

* Master Maintenance Module
* Transactions Module
* Information Module
* Utilities Module

The Master maintenance submodule of the Stores module deals with the maintenance of the following details,

* Items
* Item Groups
* Unit of Measurement
* Departments

The Transactions submodule of the Stores module performs actions on the following.

* Purchase Indents
* Goods Received Note (GRN)
* Item issues

* Inspection results

The Stores module's Information submodule deals with the following queries and reports,

* Stock Status (Individual items and overall)

* Item list & Detail Item list

* Item Group list

* Item valuation report

* Item consumption report

* Pending Purchase Indents

* Pending Item Issues

Both the Utils submodule of the Stores & Purchase modules offer an option to change the system password and they provide the means to access the Windows' Calculator and notepad.

The Master maintenance submodule of the Purchase module deals with the maintenance of the following details,

* Suppliers

* Item - Suppliers

* Tenders

* Quotations

* Bankers

* Tax Structures

The Transactions submodule of the Purchase module deals with the generation and maintenance of Purchase Orders.

The Purchase module's Information submodule deals with the following queries and reports,

* View PI

* Supplier List

* Banker List

* Item-Supplier List

* Tender Information

* Quotation Information

* Pending Purchase Orders

* Address Labels

* Reminders

The Appendix MENU and SCREEN FORMATS shows the overview of the system discussed above in picture.

3.2.INPUT-OUTPUT DESIGN

3.2.1. INPUT DESIGN

Input design is very important because it is the means of capturing data needed by the system. Its objective is to achieve the highest possible level of accuracy for the data captured as input. If the data captured is error free then the effectiveness of the system will increase. The erroneous input will lead to unwanted results. The data captured has to be validated extensively to restrain the system from acquiring erroneous data. On each and every piece of data entered into the system appropriate validation has to be done. Also proper help and error messages have to be given at proper places.

3.2.1.1.MASTER MAINTENANCE INPUT DESIGN

The Master maintenance deals with the data that are relatively permanent. Masters has to be created before any transaction pertaining to the information in the master file occurs. The facilities that are provided here are Addition , Modification , Deletion and View.

The data is entered using data entry screens which are easy to use and appropriate validation is done on each piece of data.

3.2.1.2.TRANSACTION INPUT DESIGN

This deals with the everyday operations where the data is frequently updated. These are handled only after the necessary masters are created. The usual facilities are available for the maintenance.

The inputs are received into the system via easy to use data entry screens, with proper validation. Help and error messages appear at necessary places and situations.

The sample screens are shown in the Appendix, 'MENU AND SCREEN FORMATS'.

3.2.2.OUTPUT DESIGN

The Outputs generated in the system can be classified into two broad categories as,

* Query Results

* Reports

The Query results are based on specific conditions on specific items and specific situations. These are mostly screen based and only a small percentage goes into paper. Whereas the Reports are mostly on paper.

The Reports can be classified as follows,

* External Reports

* Internal Reports

External reports go out of the system whereas internal reports stay inside the system. An example of the Internal reports is the Stock status report and Purchase orders are example of External reports.

The reports are required primarily to communicate the results of the processing to the users. They must be clear and concise. They must be eye catchy and provide the needed information in a readable way.

The outputs are based on the various factors such as content, format, frequency and sequence.

All the above points are considered while designing the outputs of the system and they are generated according to the user's needs.

The queries provide the results on the screen. They must be presented effectively. The queries in this system are designed according to the user's needs.

The Appendix 'REPORTS' gives the format of the reports generated in the system.

3.3.PROCESS DESIGN

The completion of the input and output design leads to the design of the procedures that derive the output from the inputs. A computer

procedure is a series of operations designed to manipulate data to produce output from a computer system. The procedures may be a single program or a series of programs.

3.3.1. STORES MODULE

The components of this module are shown in the following figures.

Fig.1 : Master Maintenance

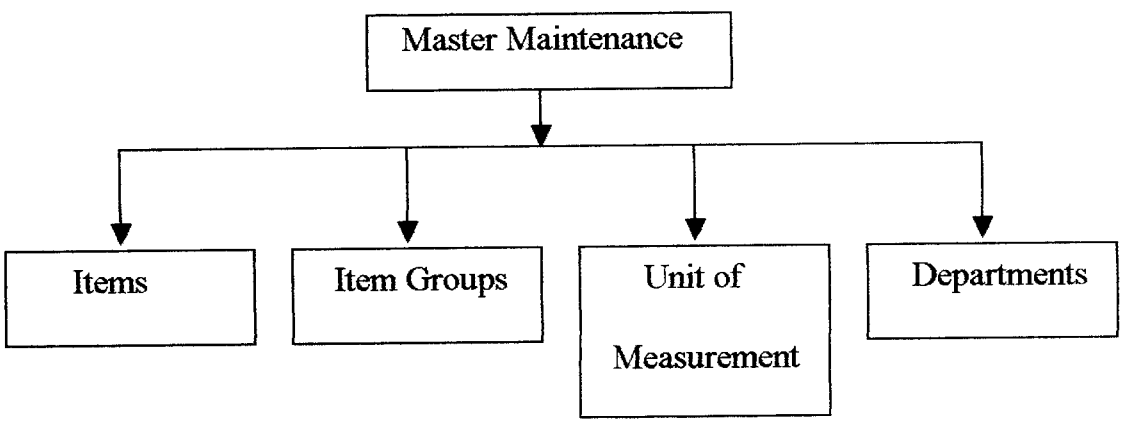


Fig 2: Transactions

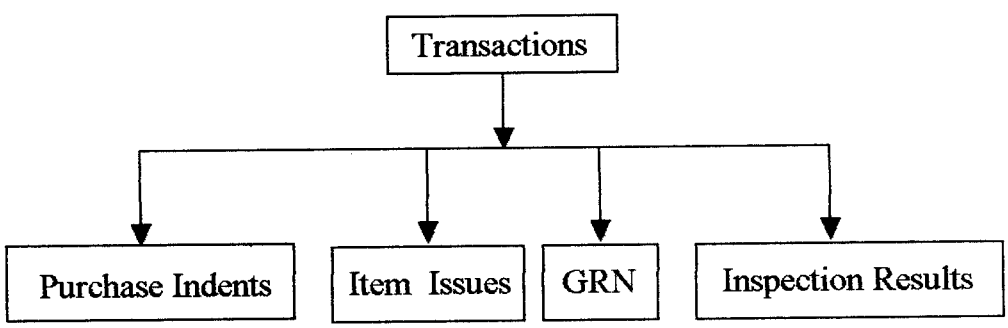
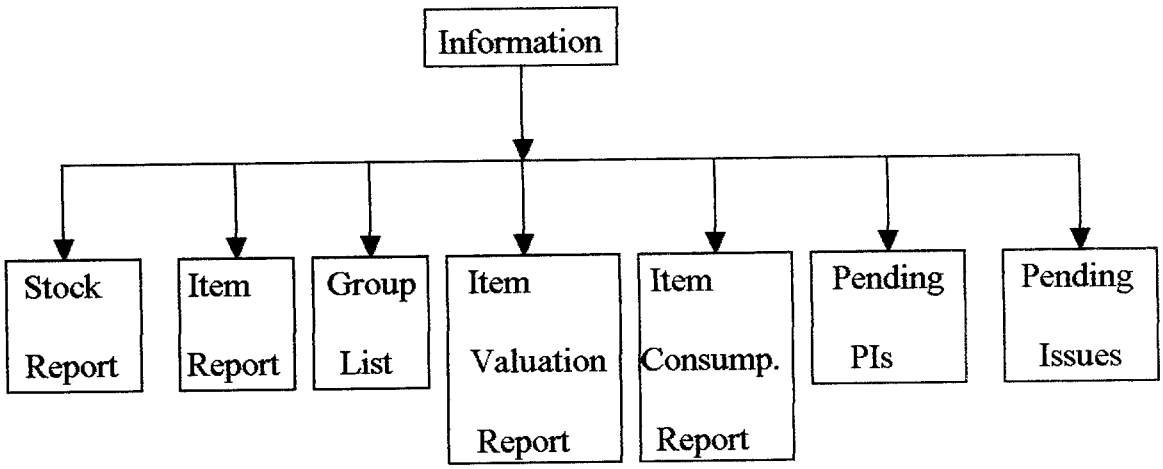


Fig 3: Information



3.3.1.1.MASTER MAINTENANCE

3.3.1.1.1.ITEMS

The inputs to this module are item details. This modules adds new items , modifies existing item details,deletes existing items and it also allows the users to view the existing item details. The 'itemkey' which is transparent to the users is used as the reference to the item details.

3.3.1.1.2.ITEM GROUPS

The inputs to this module are Item Group details. This modules adds new item groups , modifies existing item group details,deletes existing item groups and it also allows the users to view the existing item group details. The 'groupkey' which is transparent to the users is used as the reference to the item details. Each item inside the system must belong to any of the existing groups.

3.3.1.1.3.UNIT OF MEASUREMENT

This is used to store the various Units of measurements so that the data redundancy is reduced. This allows the users to create new units , edit,delete and view existing units. The 'uomkey' is the reference to the units.

3.3.1.1.4.DEPARTMENTS

This is used to maintain the names of departments inside the system and is mainly used to reduce data redundancy. The 'departmentkey' is used to refer this data.

3.3.1.2.TRANSACTIONS

3.3.1.2.1.PURCHASE INDENTS

This module deals with the generation & maintenance of the Purchase Indents. The options provided are new,edit,cancel,view & print. The Purchase indent details are stored in two tables with respect to the normalisation of data.

3.3.1.2.2.ITEM ISSUES

Item issues handles the movement of items from stores to various departments. The options provided are to create,edit,cancel and print issue slips.

3.3.1.2.3.GOODS RECEIVED NOTE

The GRN is auto generated and stores person is allowed only to send the items present in the GRN to the inspection.

3.3.1.2.4.INSPECTION RESULTS

After inspection the inspection note is sent to the stores and based on the inspection note the items are sent into different stock categories. This option allows the user to put the stock into the respective stock based on the inspection note.

3.3.1.3.INFORMATION

3.3.1.3.1.STOCK (SELECTED ITEM)

This option displays individual item stock.

3.3.1.3.2.STOCK (ALL)

This option displays the current overall stock status.

3.3.1.3.3.ITEM LIST

This option provides a list of all items available in the stores.

3.3.1.3.4.ITEM DETAIL LIST

This option provides a detail list of all items available in the stores.

3.3.1.3.5.GROUP LIST

This option provides a list of all Item Groups available in the stores.

3.3.1.3.6.ITEM VALUATION REPORT

This option provides a report on the value of the items inside he stores at present.

3.3.1.3.7.ITEM CONSUMPTION REPORT

This option provides a report on the utilisation of the items by the specified department in the given period.

3.3.1.3.8.PENDING ISSUES

This option provides the list of pending issues.

3.3.1.3.9.PENDING PURCHASE INDENTS

This option provides the list of pending purchase indents (i.e.). purchase indents whose items are not yet purchased.

3.3.2.N PURCHASE MODULE

The components of this module are shown in the following figures.

Fig.1 : Master Maintenance

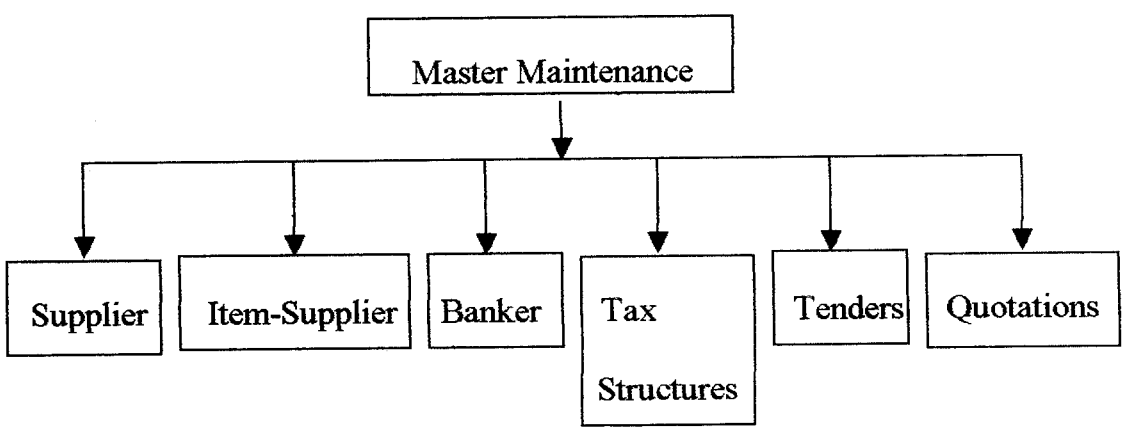


Fig 2: Transactions

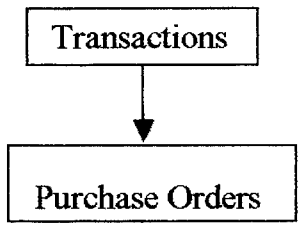
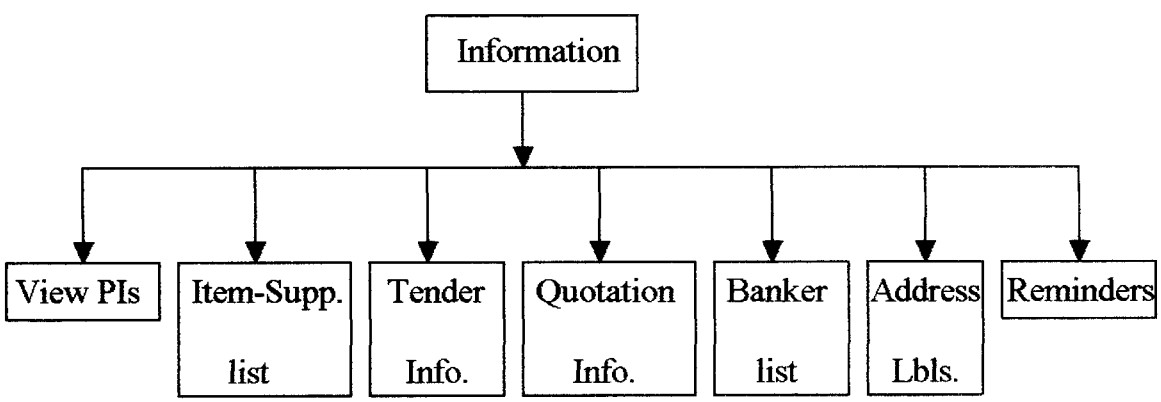


Fig 3: Information



3.3.2.1.MASTER MAINTENANCE

3.3.2.1.1.SUPPLIER

This module deals with the maintenance of supplier details who supply the items to the system. This provides options to add,edit,delete & view supplier details. The 'supplierkey' is the reference to the supplier items.

3.3.2.1.2.ITEM-SUPPLIER

This modules is used to establish the relation between items and suppliers who supply those items. The options provided are to create new relation, to edit ,delete & view existing relations.

3.3.2.1.3.BANKER

This module keeps track of the bankers associated with the system. Options included enable the user to add,edit,delete & view these details. The banker details are accessed via the 'bankerkey'.

3.3.2.1.4.TAX STRUCTURES

This module is to create & maintain standard tax structures used in the transactions. The options provided are creation of new tax structure ,

modification and removal of existing tax structures. Also an option to view the tax structures is provided.

3.3.2.1.5.TENDERS

This is used to create , modify, and print the tenders which are generated for the requisition of quotations for the items to be purchased.

3.3.2.1.6.QUOTATIONS

This enables the user to store the quotations received and view the quotations whenever needed.

3.3.2.2.TRANSACTIONS

3.3.2.2.1.PURCHASE ORDERS

This module deals with the generation & maintenance of the Purchase Orders. The options provided are new, edit, cancel, view & print. The Purchase Order details are stored in two tables with respect to the normalisation of data.

3.3.2.3.INFORMATION

3.3.2.3.1.VIEW PURCHASE INDENTS

This enables the user to view selected purchase indent.

3.3.2.3.2.SUPPLIER LIST

Provides a list of supplier available.

3.3.2.3.3.ITEM-SUPPLIER LIST

3.3.2.3.3.1.SUPPLIERS FOR ITEM

This provides the list of suppliers for a given item.

3.3.2.3.3.2.ITEMS FOR SUPPLIER

This provides the list of items for a given supplier.

3.3.2.3.4.PENDING PURCHASE ORDERS

This provides the list of pending purchase orders.

3.3.2.3.5.TENDER INFORMATION

Provides a list of tenders released for a given period of time.

3.3.2.3.6.QUOTAION INFORMATION

Provides a list of quotations received for a given tender.

3.3.2.3.7.BANKER LIST

Provides the list of banks associated with the system.

3.3.2.3.8.ADDRESS LABELS

3.3.2.3.8.1.SUPPLIERS

Prints the address label for the suppliers.

3.3.2.3.8.2.BANKERS

Prints the address label for the bankers.

3.3.2.3.9.REMINDERS

Prints the reminders to be sent to the suppliers who have not fulfilled the purchase order.

3.3.3. UTILS

This is given in both the Stores & Purchase modules. This provides access to the windows Calculator and Notepad. It also provides an option using which the password can be changed.

3.4.DATABASE DESIGN

The data which is the basic unit of the system is stored in the database. The design of the database is based on the following factors,

* Retrieval time
* Data storage capacity
* Data redundancy
* Data Security

A correctly designed database is a collection of inter-related data stored with minimum redundancy to serve users quickly and efficiently.

The main objective is to make the information access easy ,quick, inexpensive and flexible for the user.

The database used here is based on the relational model in which all the data is stored in tables , which are organised rows and columns. The data is mostly in the third normal form and due to the compromise between access time and storage some of the data is not in the third normal form.

The following steps are followed in the design of database,

* Identifying data elements
* Defining the relation between them
* Grouping the data elements according to the relations
* Normalising data to minimise redundancy
* Providing means for security and consistency

This system has three databases namely Stores,Purchase and General. All the three databases are shred by both Stores & Purchase modules.

The Databases with their tables are shown in the appendix, 'DATABASE'.

4.IMPLEMENTATION

The implementation phase consists of the following three stages .

* System Testing
* User Training
* Changeover

4.1.SYSTEM TESTING

System testing is the stage of implementation which is aimed at ensuring that the system works accurately efficiently before live operation commence. To assure the quality of the system the following are to be considered,

* Scope of Testing
* Tools used
* Test platforms
* Methods used

Here the scope is defined as the whole application including all the modules.No Automated tools are used .The test platform has been varied by changing the processor, amount of main memory and amount of utilisation of the server.The test method used is the hierarchical test method whose root is the application and leaves are the individual data elements.

The system has been tested for the following criteria,

* Validation of inputs for each individual data including,

** Master validation

** Cross reference validation

** Type checking

* Referential integrity tests

* Sequential tests which ensures that the input for current stage is done only after the completion of previous stage.

* Consistency of the application which ensures that the system works properly in the long run.

Each program in the system is tested with random and previous year data.All the Syntax and logical errors are corrected. The system was tested against the results of the manual system and fount that the system meets the objectives.

4.2.USER TRAINING

Before the implementation of the system the users had to be trained to interact with the new system.To achieve the objectives and benefits of the system it is essential for the people who will be involved, to be confident of their

role in the new system.This involves in the understanding of the overall system and its effect on the organization, and in being able to carryout effectively their specific tasks.

The staffs of CLASSIC APPARELS LTD.,has been apprised of the new system, and they were trained to use the system.

4.3.CHANGEOVER

After the successful testing and user training the actual implementation (i.e.) changeover must take place.Before the changeover the needed environment is created by installing required hardware and creating computer files.

The changeover method applied here is the 'Parallel Run' method inwhich both the new and old systems were running until the user is at ease with the new system and then the old system is scraped. The new system has already started functioning and it is expected to change fully to the new system in the very near future.

5.CONCLUSION

The system has been successfully developed and the objectives are achieved with test data as well as real data.This system is a windows based , on-line system. It provides facilities to maintain data , to process data , to retrieve information, to create reports and it is quick & effective.The system makes the information management , Information processing & retrieval a easy task and through its various reports helps in Management's Decision making.

The computerized system is currently under implementation. The implementation is done by the method of 'PARALLEL RUN', and with the initial testing the results are good.

Since the whole system is developed with a high degree of modular cohesiveness and low degree of intermodule coupling which makes the system flexible to new changes.The need for data security is understood and the data is effectively protected from unauthorized accessess.

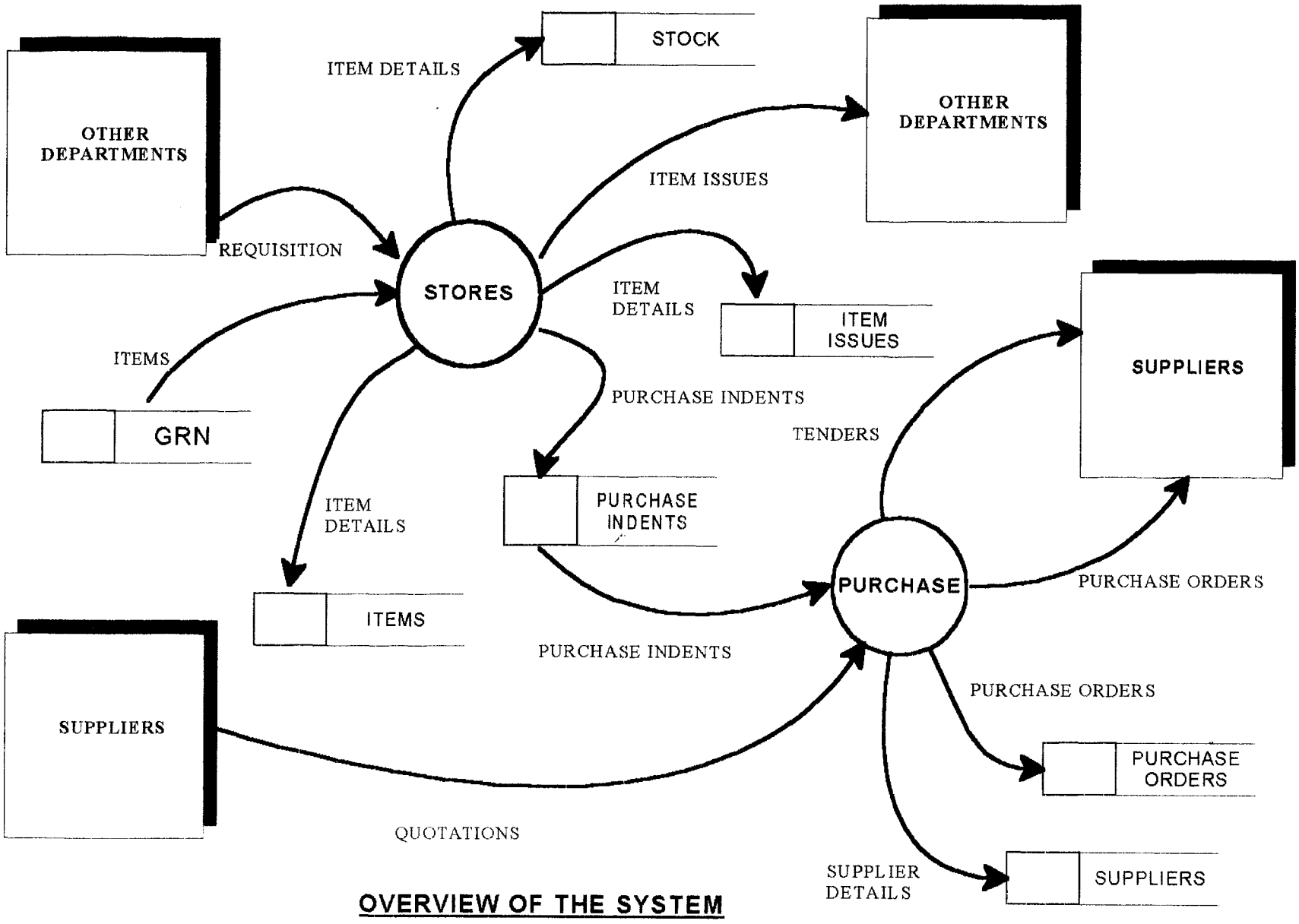
6.SCOPE FOR FUTURE DEVELOPMENT

The whole organization is being computerized and some of them are on-line. The whole system is developed in a modular way and it makes the process of integrating the various modules for different departments. The stores and purchase modules are part of the whole system and they are flexible to incorporate new features in the future.

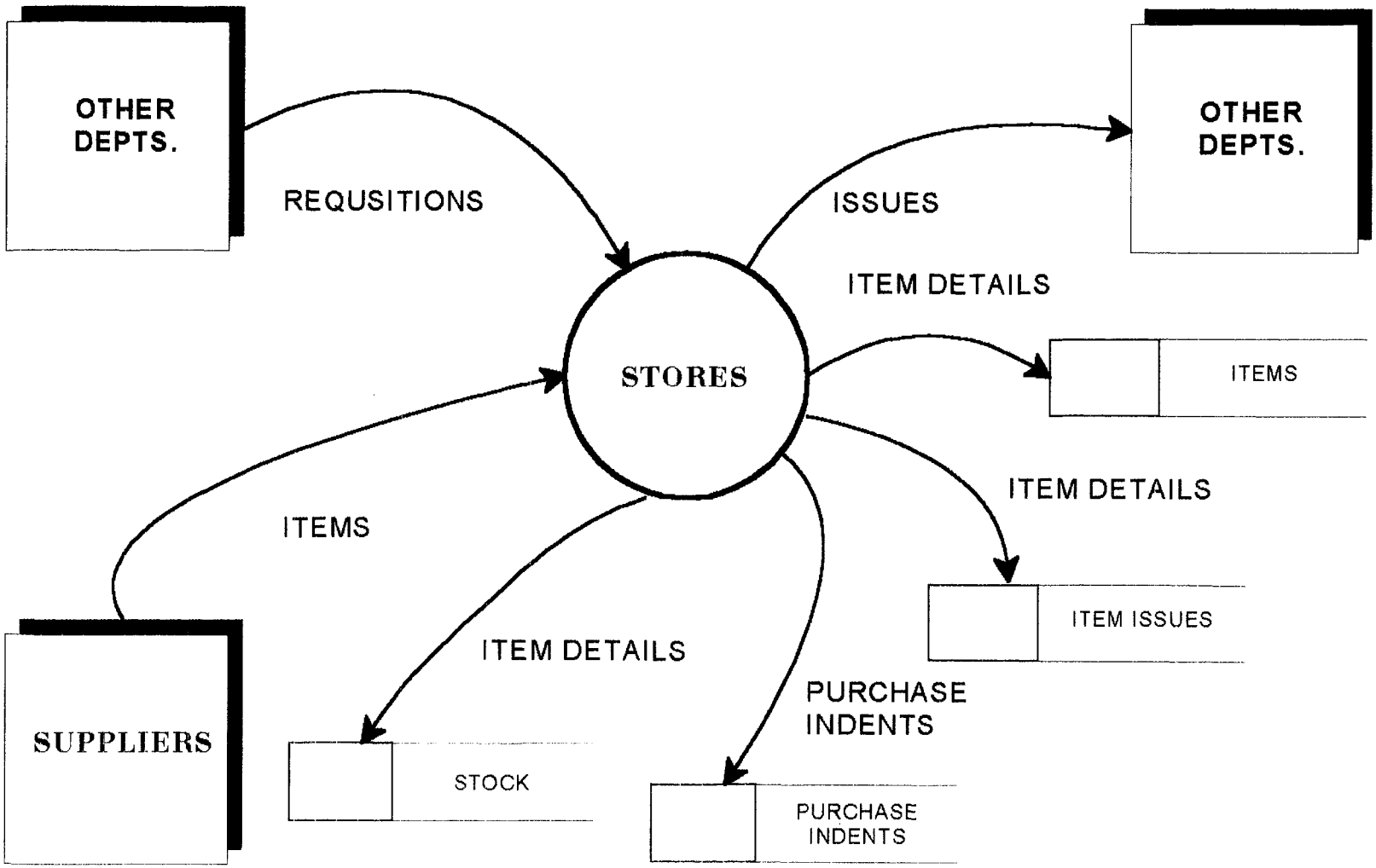
These two modules are designed to be flexible and they are easily integrated into the system. This makes the information flow in the system effective. The stores module can be expanded to include more analysis reports and ad-hoc queries. Also the Purchase module can include several new features like automated quotation analysis report etc. which could help in speeding up the supplier selection.

APPENDIX A

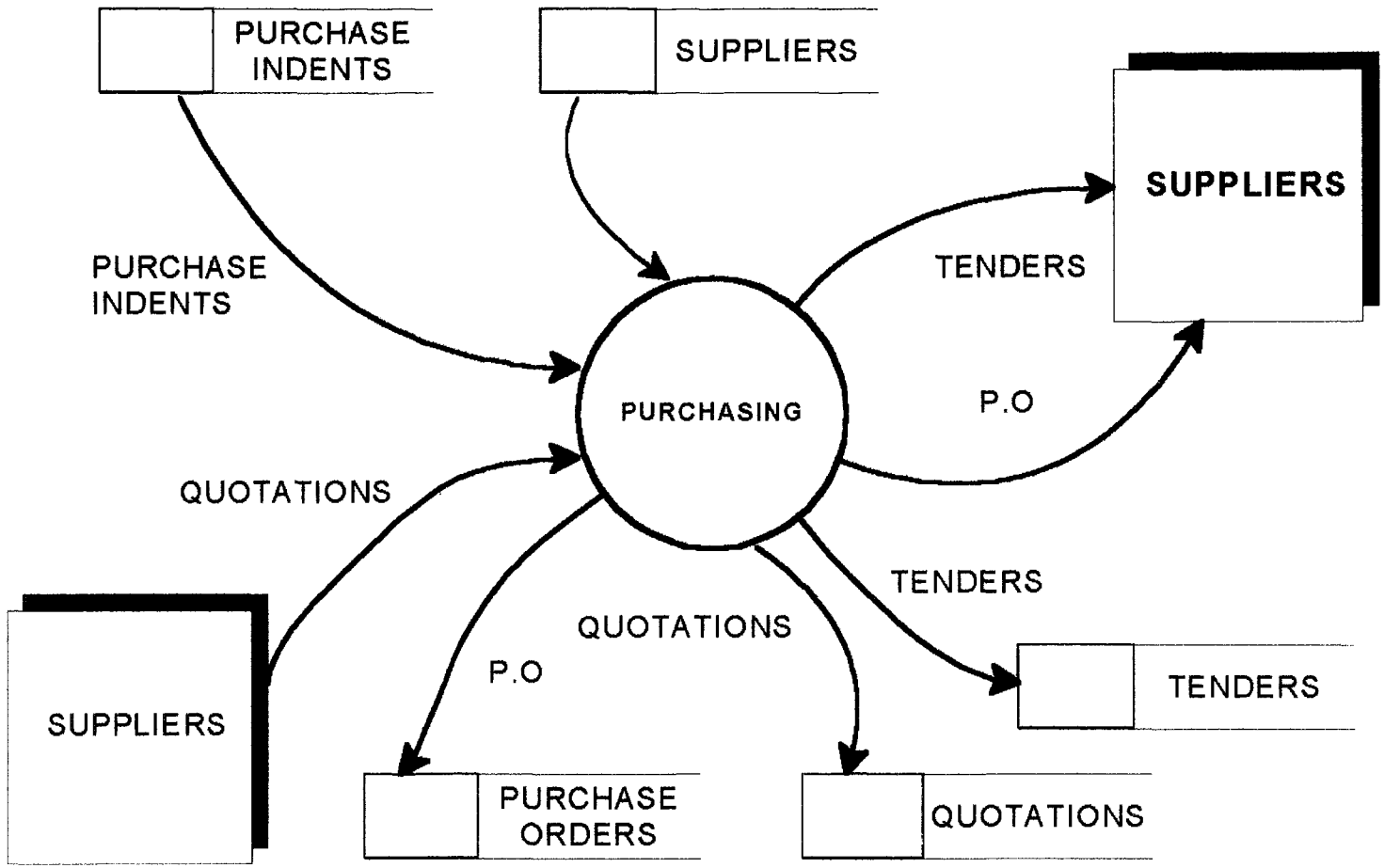
DFD



OVERVIEW OF THE SYSTEM

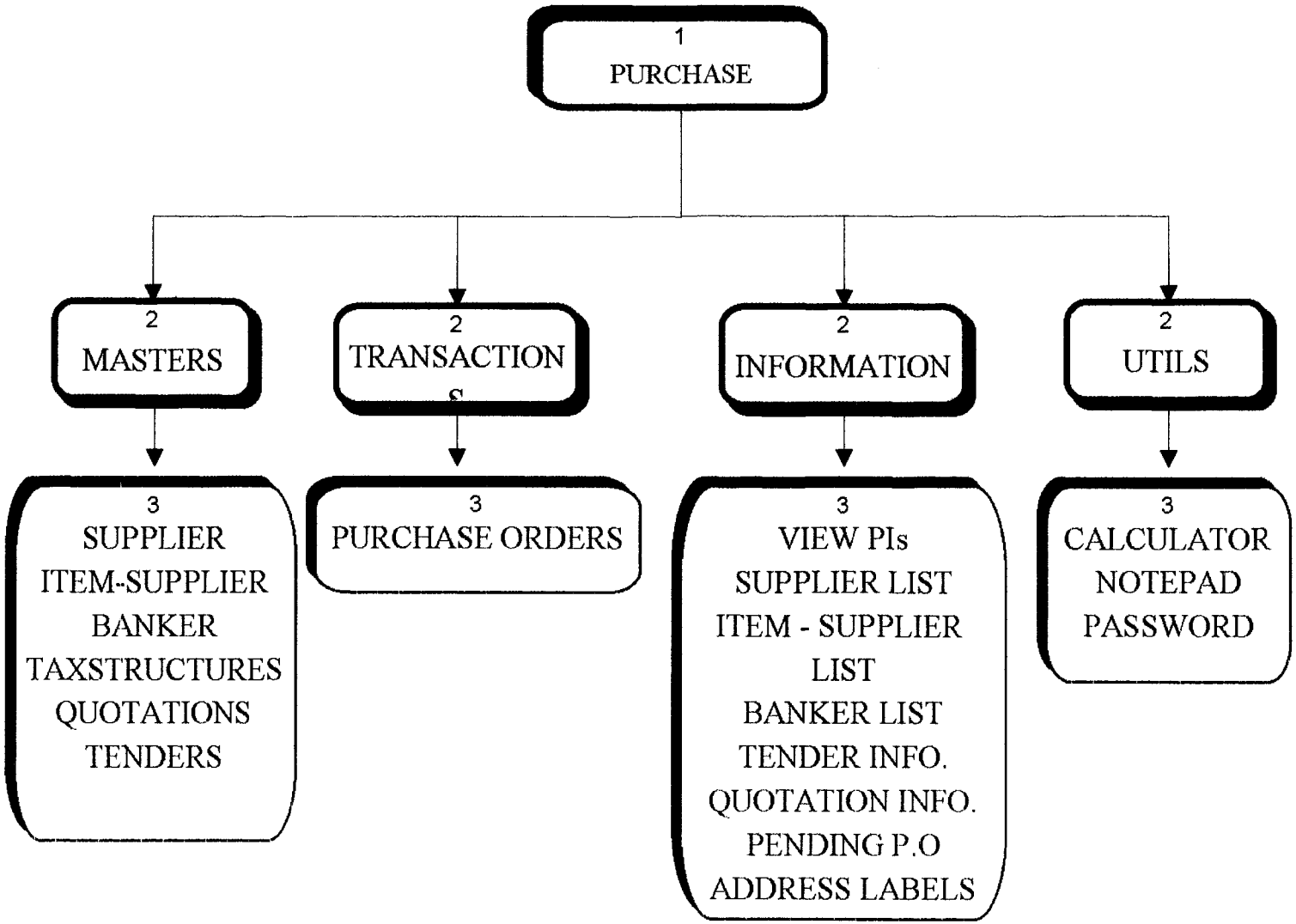


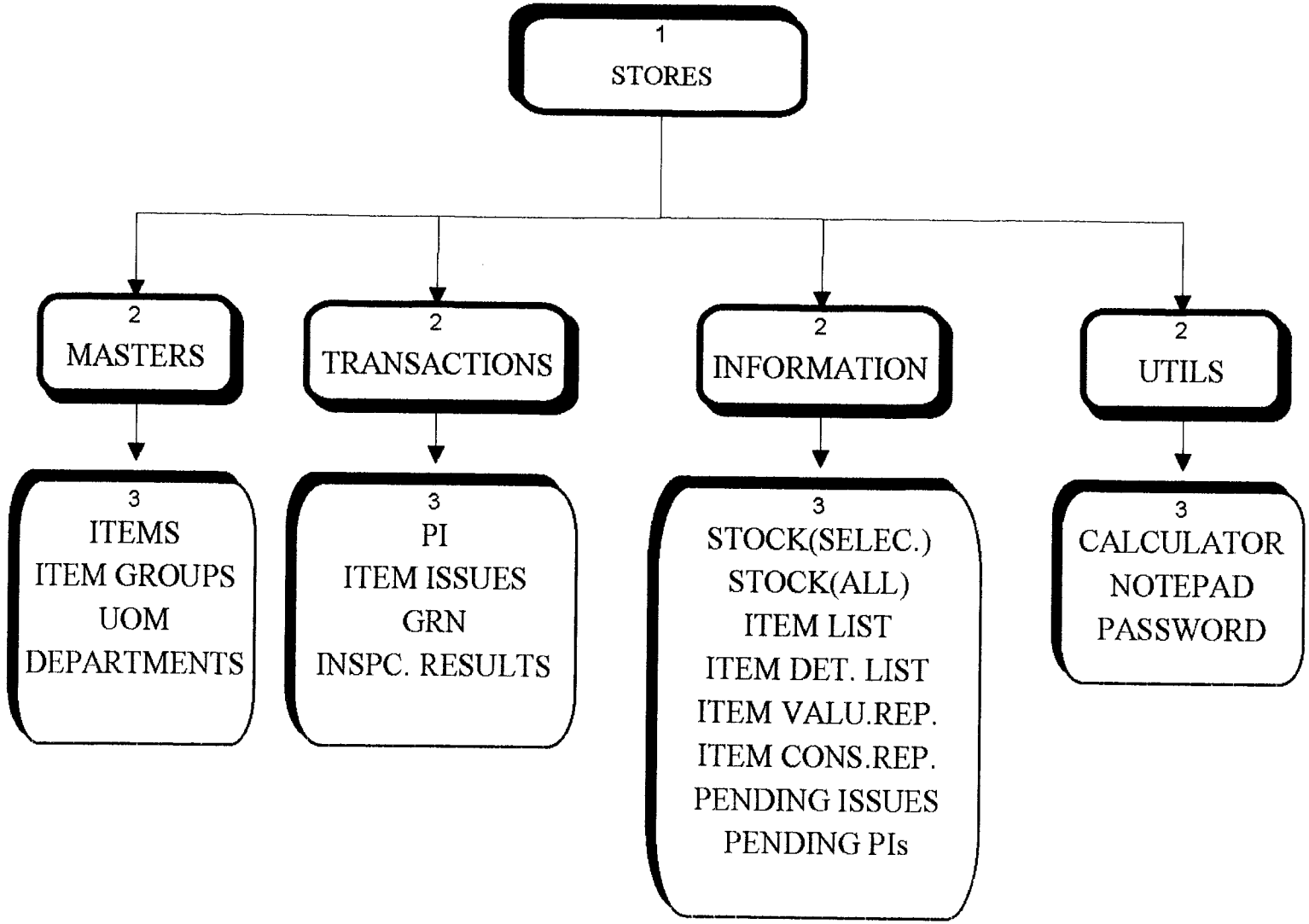
STORES MODULE



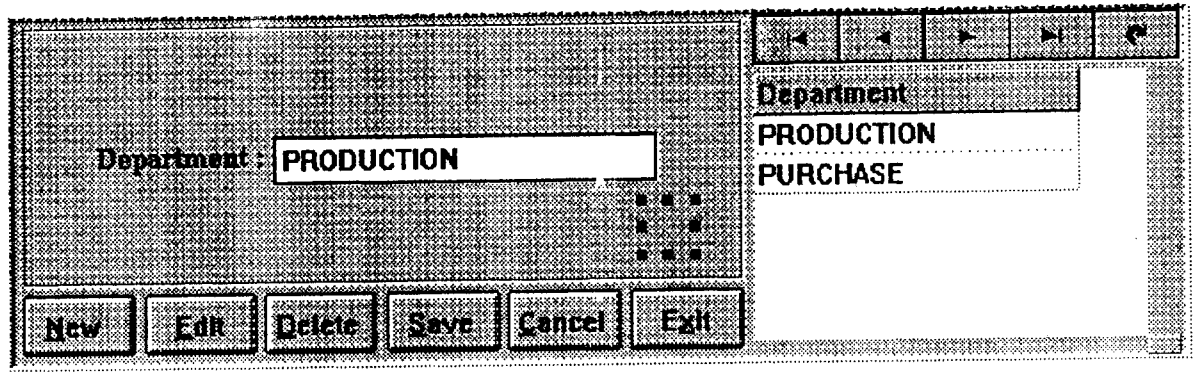
PURCHASE MODULE

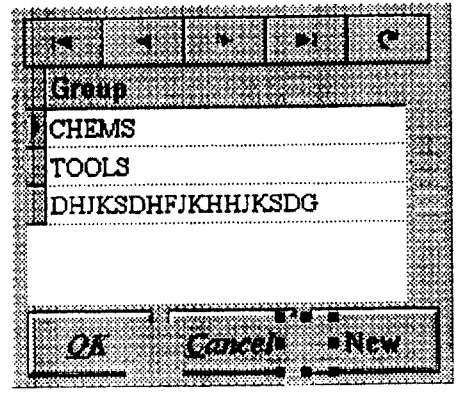
APPENDIX B
MENU AND SCREEN FORMATS

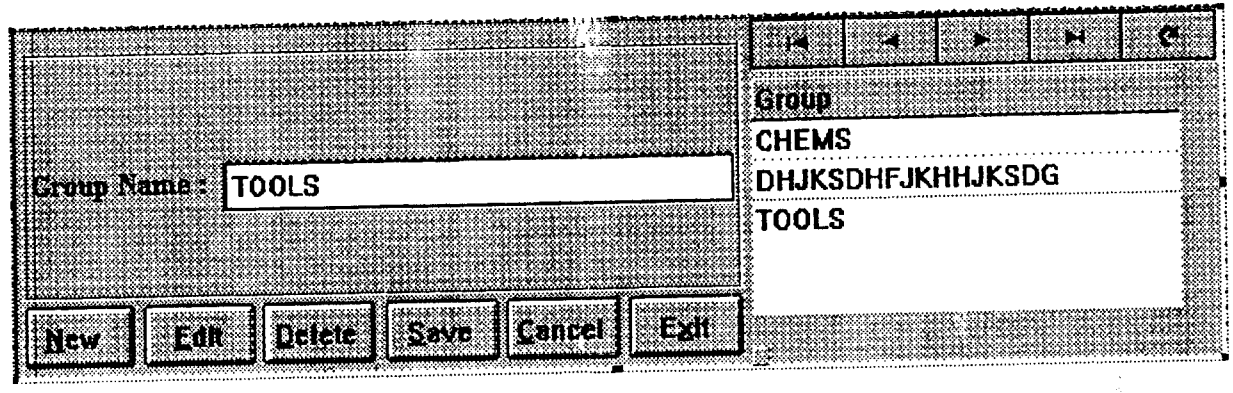

1
PURCHASE
2
MASTERS
2
TRANSACTION
S
2
INFORMATION
2
UTILS
3
SUPPLIER
ITEM-SUPPLIER
BANKER
TAXSTRUCTURES
QUOTATIONS
TENDERS
3
PURCHASE ORDERS
3
VIEW PIs
SUPPLIER LIST
ITEM - SUPPLIER
LIST
BANKER LIST
TENDER INFO.
QUOTATION INFO.
PENDING P.O
ADDRESS LABELS
3
CALCULATOR
NOTEPAD
PASSWORD

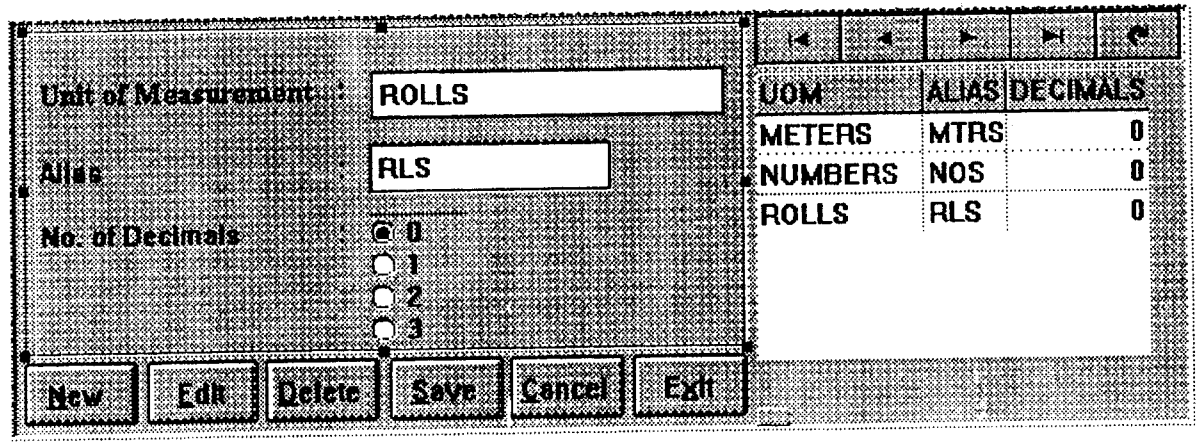

1
STORES
2
MASTERS
2
TRANSACTIONS
2
INFORMATION
2
UTILS
3
ITEMS
ITEM GROUPS
UOM
DEPARTMENTS
3
PI
ITEM ISSUES
GRN
INSPC. RESULTS
3
STOCK(SELEC.)
STOCK(ALL)
ITEM LIST
ITEM DET. LIST
ITEM VALU.REP.
ITEM CONS.REP.
PENDING ISSUES
PENDING PIs
3
CALCULATOR
NOTEPAD
PASSWORD

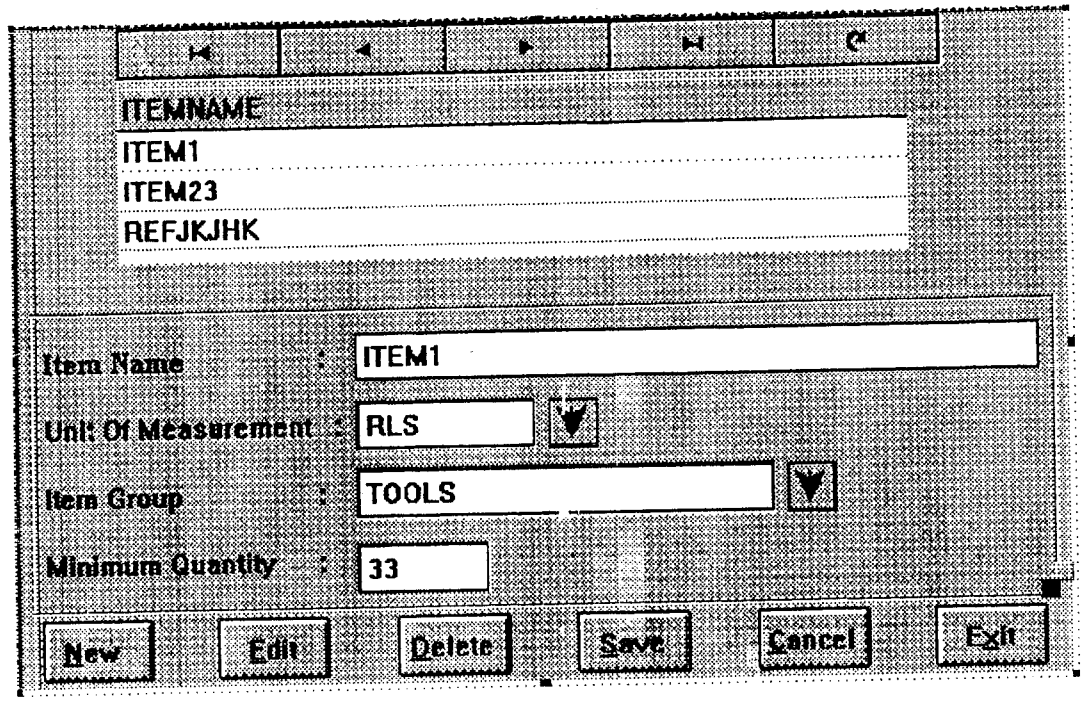

CLASSIC APPARELS LTD.
STORES
Developed by - KOVAI COMPUTERS, Coimbatore-25
23/05/96
10:20:31 AM

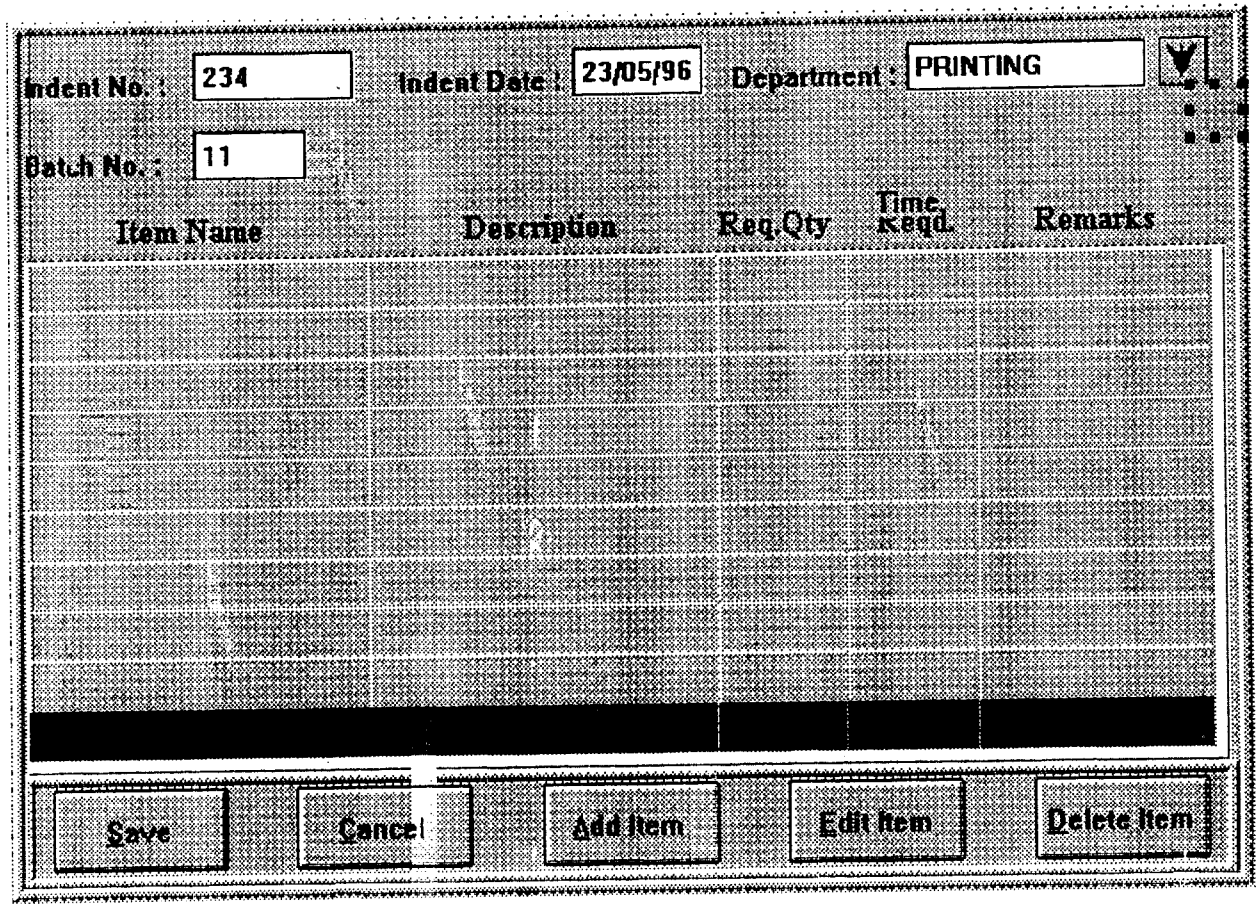

Department :
PRODUCTION
New
Edit
Delete
Save
Cancel
Exit
Department
PRODUCTION
PURCHASE

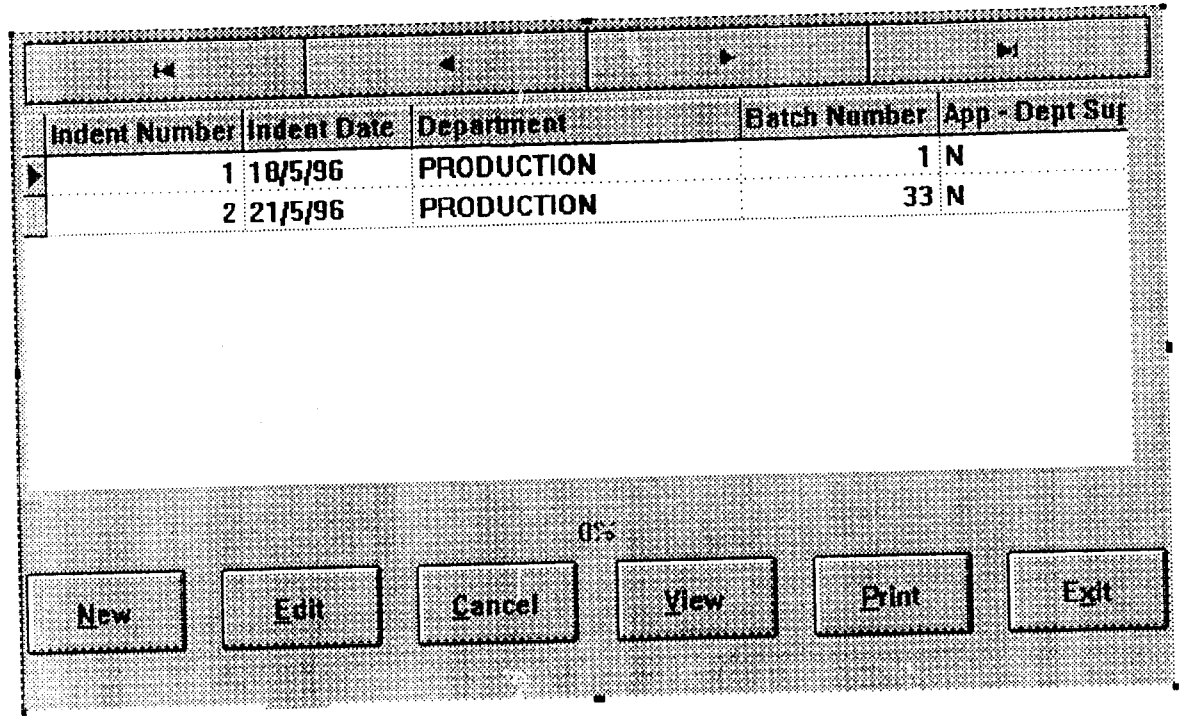

Group
CHEMS
TOOLS
DHJKSDHFJKHHJKSDG
OK
Cancel
New

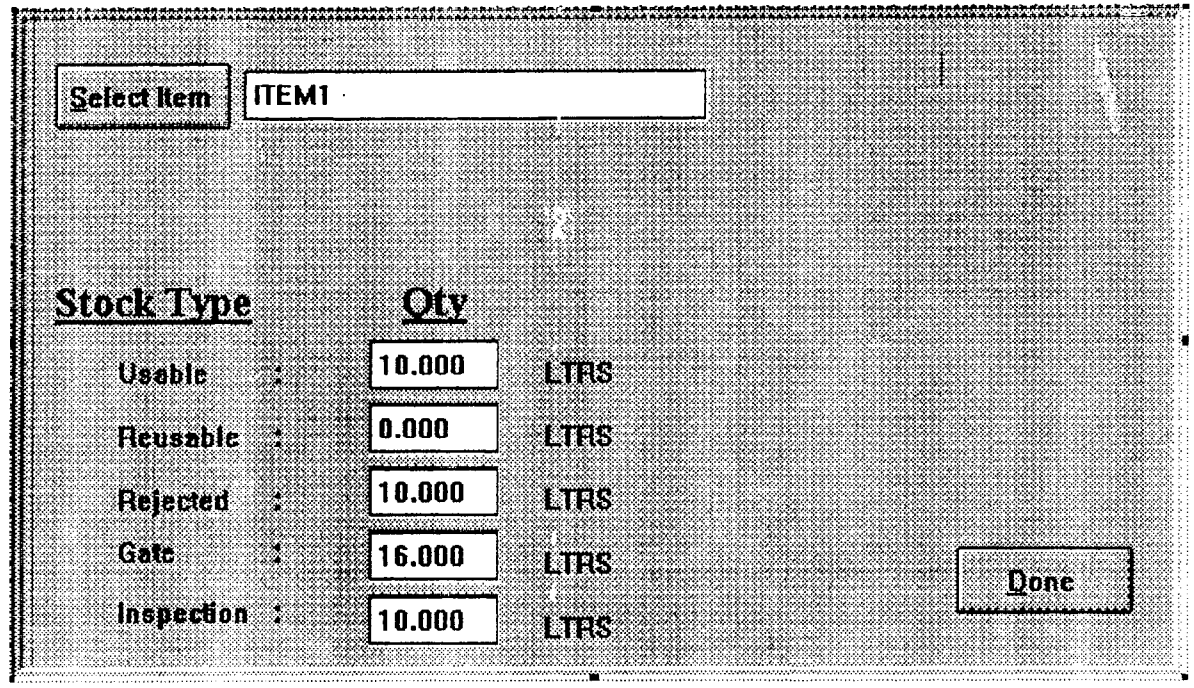

Group Name :
TOOLS
New
Edit
Delete
Save
Cancel
Exit
Group
CHEMS
DHJKSDHFJKHHJKSDG
TOOLS

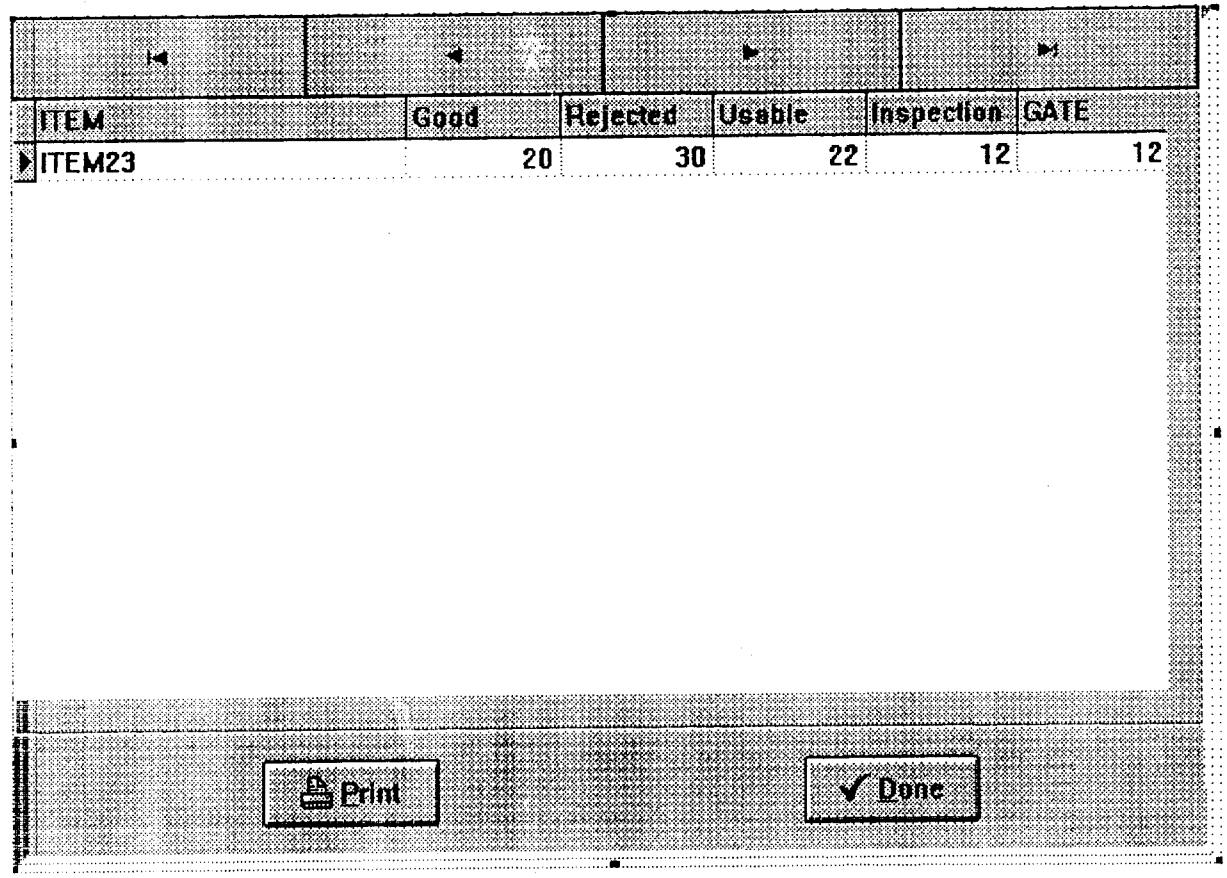

Unit of Measurement :
ROLLS
Alias :
RLS
No. of Decimals
0
1
2
3
New
Edit
Delete
Save
Cancel
Exit
UOM
ALIAS
DECIMALS
METERS
MTRS
0
NUMBERS
NOS
0
ROLLS
RLS
0

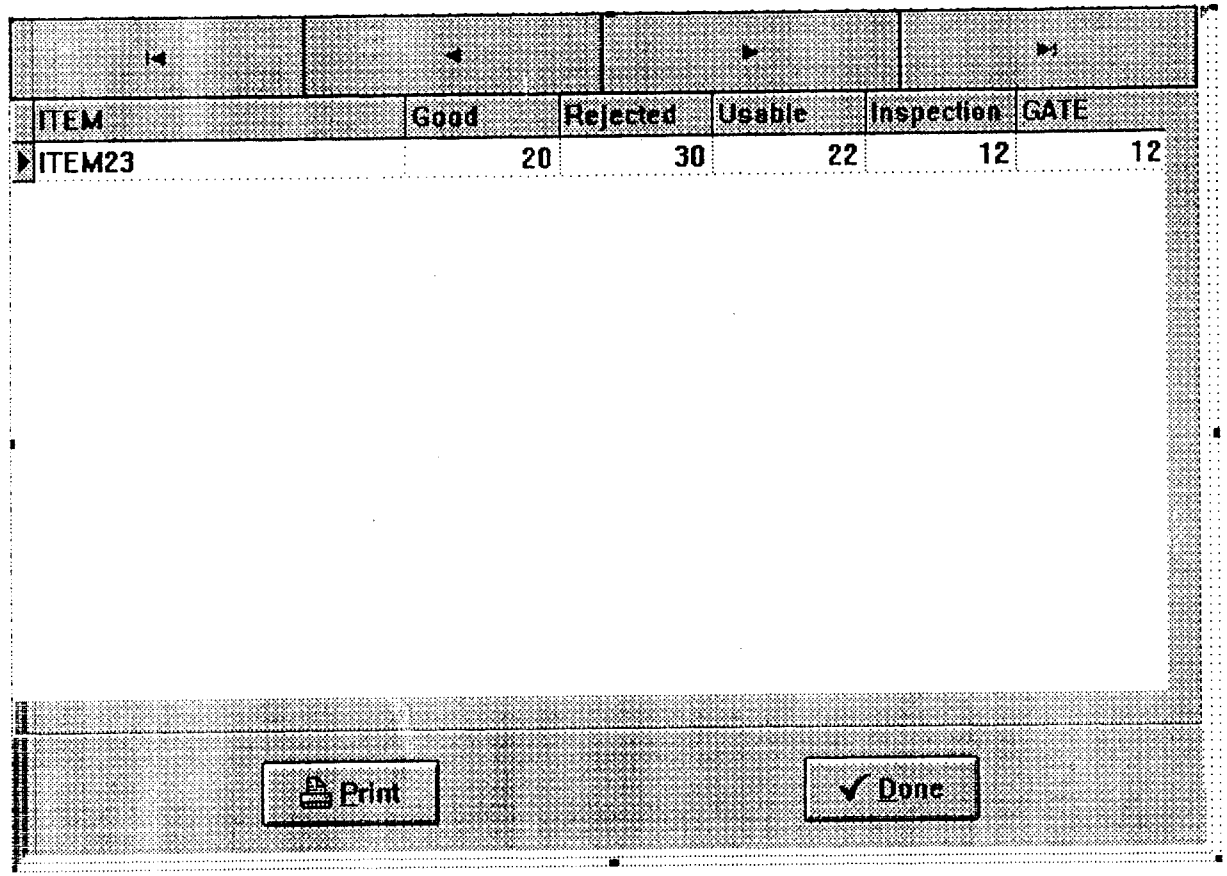

ITEMNAME
ITEM1
ITEM23
REFJKJHK
Item Name : ITEM1
Unit Of Measurement : RLS
Item Group : TOOLS
Minimum Quantity : 33
New
Edit
Delete
Save
Cancel
Exit


Indent No. :
234
Indent Date :
23/05/96
Department :
PRINTING
Batch No. :
11
Item Name
Description
Req.Qty
Time Reqd.
Remarks
Save
Cancel
Add Item
Edit Item
Delete Item

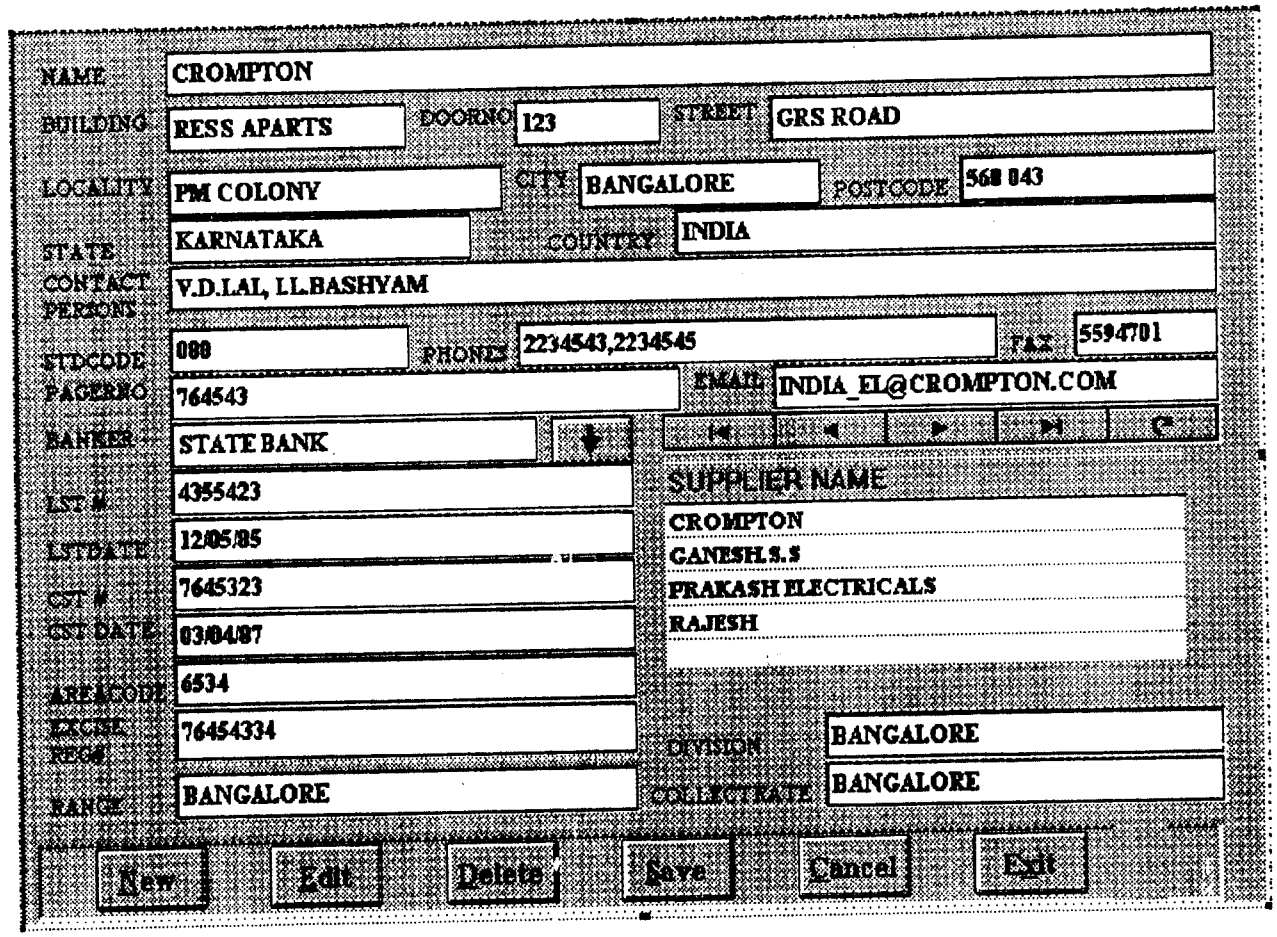

Indent Number
Indent Date
Department
Batch Number
App - Dept Sup
1
18/5/96
PRODUCTION
1
N
2
21/5/96
PRODUCTION
33
N
0%
New
Edit
Cancel
View
Print
Exit

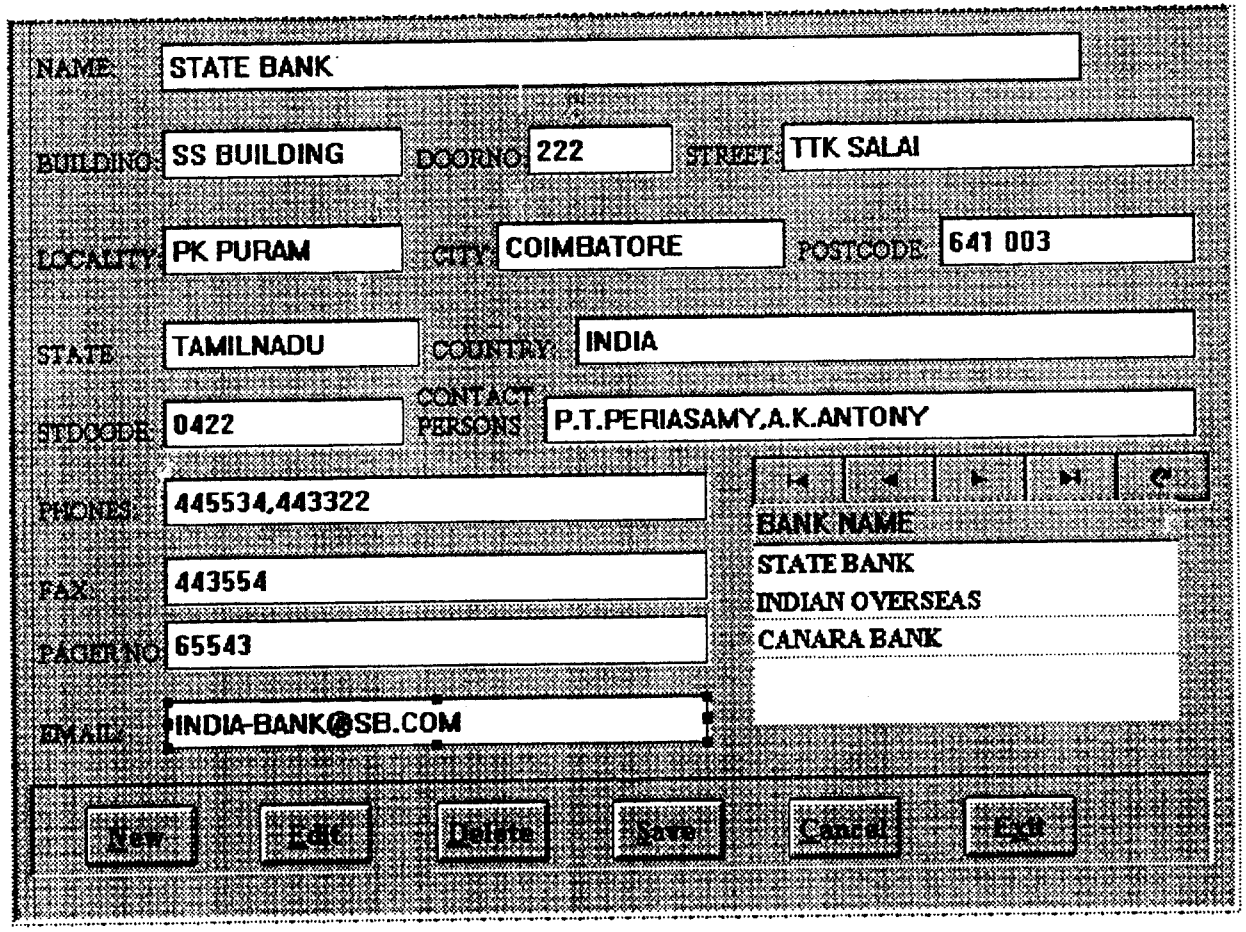

Select Item
ITEM1
Stock Type
Qty
Usable : 10.000 LTRS
Reusable : 0.000 LTRS
Rejected : 10.000 LTRS
Gate : 16.000 LTRS
Inspection : 10.000 LTRS
Done

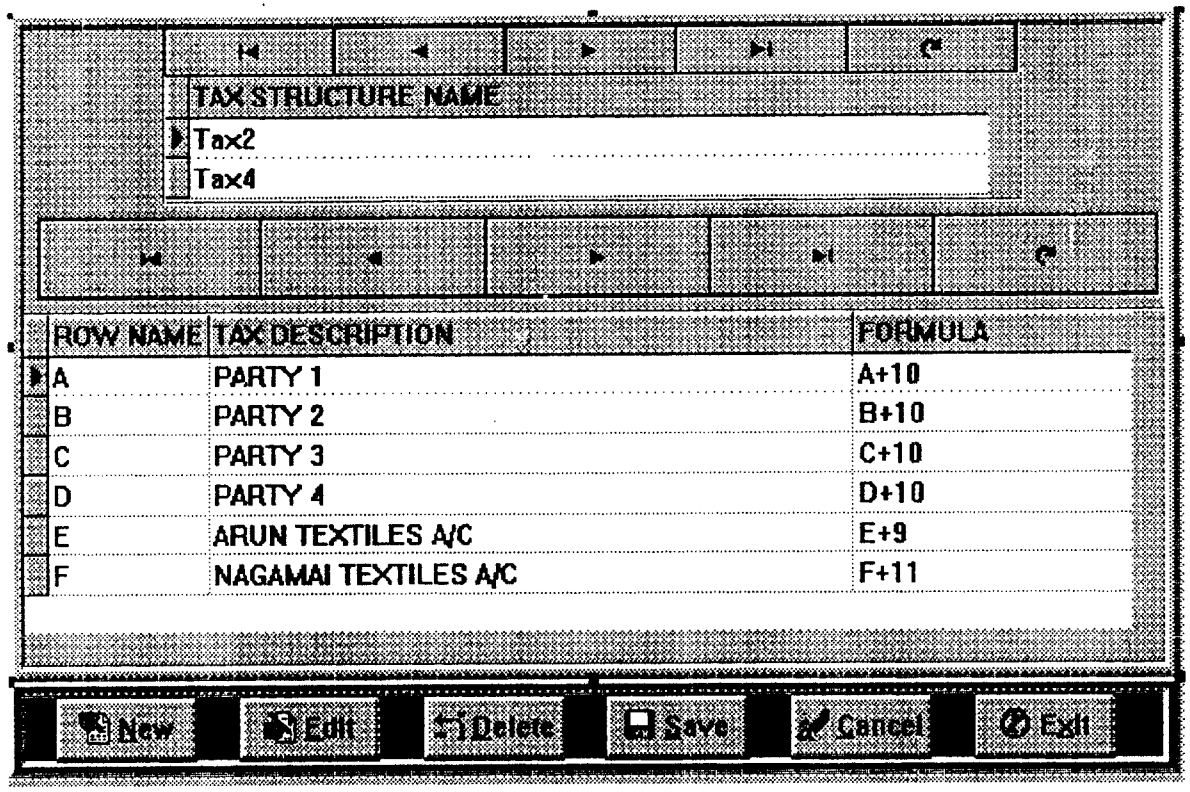

ITEM
Good
Rejected
Usable
Inspection
GATE
ITEM23
20
30
22
12
12
Print
Done

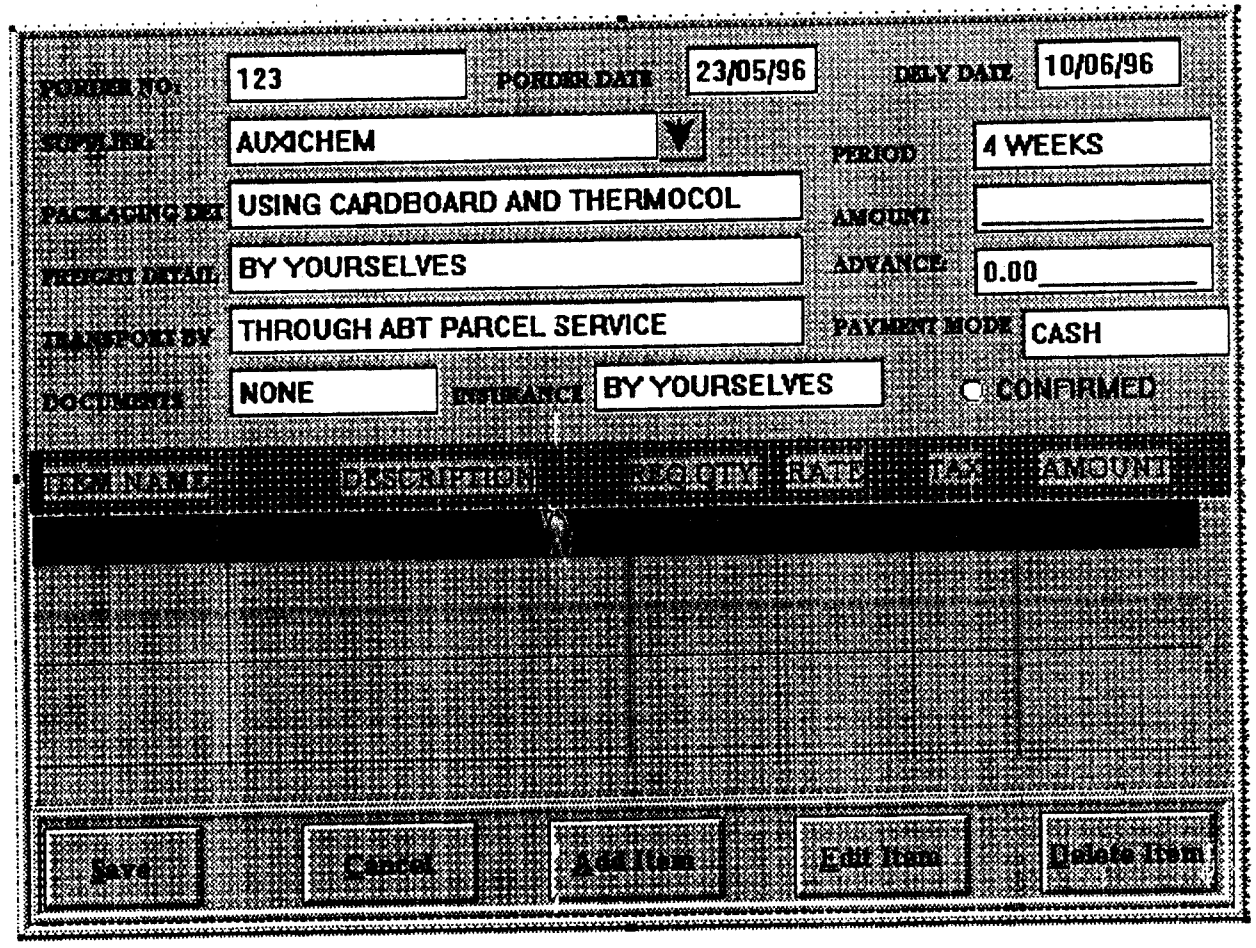

ITEM
Good
Rejected
Usable
Inspection
GATE
ITEM23
20
30
22
12
12
Print
Done

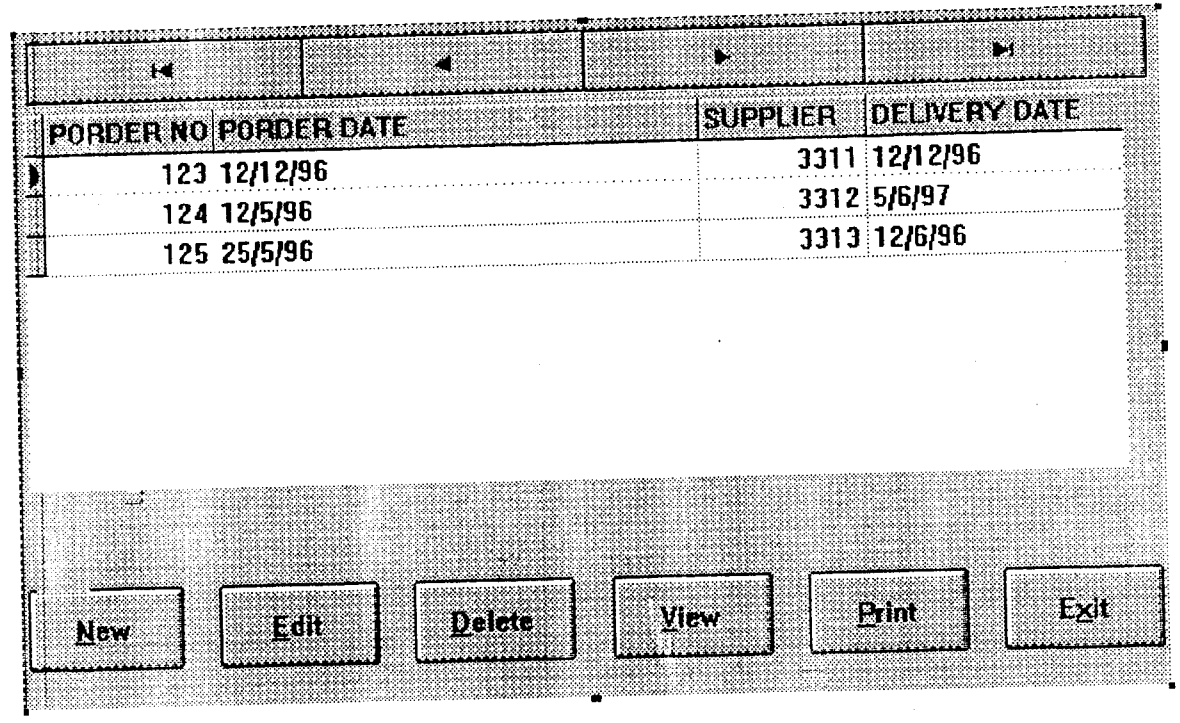
CLASSIC APPARELS LTD PURCHASE


NAME
CROMPTON
BUILDING
RESS APARTS
DOORNO
123
STREET
GRS ROAD
LOCALITY
PM COLONY
CITY
BANGALORE
POSTCODE
560 043
STATE
KARNATAKA
COUNTRY
INDIA
CONTACT PERSONS
V.D.LAL, LL.BASHYAM
STDCODE
080
PHONES
2234543,2234545
FAX
5594701
PAGERNO
764543
EMAIL
INDIA_EL@CROMPTON.COM
BANKER
STATE BANK
LST #
4355423
LSTDATE
12/05/85
CST #
7645323
CST DATE
03/04/87
AREACODE
6534
EXCISE REG#
76454334
RANGE
BANGALORE
SUPPLIER NAME
CROMPTON
GANESH S.S
PRAKASH ELECTRICALS
RAJESH
DIVISION
BANGALORE
COLLECTRATE
BANGALORE
New
Edit
Delete
Save
Cancel
Exit


NAME:
STATE BANK
BUILDING:
SS BUILDING
DOORNO:
222
STREET:
TTK SALAI
LOCALITY:
PK PURAM
CITY:
COIMBATORE
POSTCODE:
641 003
STATE:
TAMILNADU
COUNTRY:
INDIA
STDCODE:
0422
CONTACT PERSONS:
P.T.PERIASAMY,A.K.ANTONY
PHONES:
445534,443322
FAX:
443554
PAGERNO:
65543
EMAIL:
INDIA-BANK@SB.COM
BANK NAME
STATE BANK
INDIAN OVERSEAS
CANARA BANK
New
Edit
Delete
Save
Cancel
Exit


TAX STRUCTURE NAME
Tax2
Tax4
ROW NAME
TAX DESCRIPTION
FORMULA
A
PARTY 1
A+10
B
PARTY 2
B+10
C
PARTY 3
C+10
D
PARTY 4
D+10
E
ARUN TEXTILES A/C
E+9
F
NAGAMAI TEXTILES A/C
F+11
New
Edit
Delete
Save
Cancel
Exit


PORDER NO: 123
PORDER DATE 23/05/96
DELV DATE 10/06/96
SUPPLIER: AUXICHEM
PERIOD 4 WEEKS
PACKAGING DET USING CARDBOARD AND THERMOCOL
AMOUNT
FREIGHT DETAIL BY YOURSELVES
ADVANCE 0.00
TRANSPORT BY THROUGH ABT PARCEL SERVICE
PAYMENT MODE CASH
DOCUMENTS NONE
INSURANCE BY YOURSELVES
CONFIRMED
ITEM NAME
DESCRIPTION
QTY
RATE
TAX
AMOUNT
Save
Cancel
Add Item
Edit Item
Delete Item


PORDER NO
PORDER DATE
SUPPLIER
DELIVERY DATE
123 12/12/96 3311 12/12/96
124 12/5/96 3312 5/6/97
125 25/5/96 3313 12/6/96
New
Edit
Delete
View
Print
Exit

APPENDIX C
DATABASE STRUCTURE

DATABASE DEFINITION

```
/* Extract Database g:\users\cla\dbf\CALDB.gdb */
CREATE DATABASE "g:\users\cla\dbf\CALDB.gdb" PAGE_SIZE 1024 ;


/* Table: BATCH, Owner: CAL */
CREATE TABLE BATCH (TKBATCH INTEGER,
      DCBATCHNO CHAR(10),
      TKORDERNO INTEGER);

/* Table: DEPRTMNT, Owner: CAL */
CREATE TABLE DEPRTMNT (ANDEPT SMALLINT,
      DCDEPTNAME CHAR(20));

/* Table: DETINDNT, Owner: CAL */
CREATE TABLE DETINDNT (MKITEM INTEGER,
      DCDESC CHAR(35),
      DNREQDQTY FLOAT,
      UNPIPEQTY FLOAT,
      UNSTOCKQTY FLOAT,
      DCTIMEREQD CHAR(5),
      DCREMARKS CHAR(20),
      ANINDNTKEY INTEGER,
      ULITMCLSD CHAR(1));

/* Table: GROUPMAS, Owner: CAL */
CREATE TABLE GROUPMAS (ANGROUP SMALLINT,
      DCGRPNAME CHAR(40));

/* Table: INDENTS, Owner: CAL */
CREATE TABLE INDENTS (ANINDENTNO INTEGER,
      MKDEPT SMALLINT,
      TKBATCHNO INTEGER,
      ANINDNTKEY INTEGER,
      DDINDNDATE DATE,
      ULINDCLSD CHAR(1),
      DLARDEPTSUP CHAR(1),
      DLARPLNTENG CHAR(1),
      DLASTRSOFF CHAR(1),
      DLAPURCOFF CHAR(1),
```

```
    DLAFACTMAN CHAR(1),
    DLAMD CHAR(1));

/* Table: INPASSD, Owner: CAL */
CREATE TABLE INPASSD (ANIPNUM DOUBLE PRECISION,
    MKITEMKEY DOUBLE PRECISION,
    ANQAPDC DOUBLE PRECISION,
    ANQAR DOUBLE PRECISION,
    INSPECTION SMALLINT,
    GOODQTY DOUBLE PRECISION,
    REJQTY DOUBLE PRECISION,
    REUSEQTY DOUBLE PRECISION,
    CHECKED SMALLINT);


/* Table: INPASSM, Owner: CAL */
CREATE TABLE INPASSM (ANIPNUM DOUBLE PRECISION,
    DDIPDATE DATE,
    MKSUPL DOUBLE PRECISION,
    MKPOKEY DOUBLE PRECISION,
    DCREMARKS VARCHAR(50));

/* Table: ITEM, Owner: CAL */
CREATE TABLE ITEM (ANITEMKEY INTEGER,
    DCITEMNAME CHAR(50),
    MKUOM SMALLINT,
    MKGROUPKEY SMALLINT,
    DNMINQTY FLOAT);

/* Table: ITEMSUPL, Owner: CAL */
CREATE TABLE ITEMSUPL (MKITEM INTEGER,
    MKSUPPKEY SMALLINT,
    DNRATE FLOAT,
    DMREMARKS BLOB SUB_TYPE TEXT SEGMENT SIZE 80);

/* Table: ITISSUM, Owner: CAL */
CREATE TABLE ITISSUM (ISSUENO INTEGER,
    ISSUEDATE DATE,
    DEPTKEY SMALLINT);

/* Table: KEEPREC, Owner: CAL */
```

```
CREATE TABLE KEEPREC (INDMASTKEY INTEGER,
        ITMMASTKEY INTEGER,
        GRPMASTKEY SMALLINT,
        DEPMASTKEY SMALLINT,
        UOMMASTKEY SMALLINT,
        BATMASTKEY INTEGER,
        TRANKEY INTEGER,
        SMASKEY SMALLINT);

/* Table: PASS, Owner: CAL */
CREATE TABLE PASS (PASSWRD VARCHAR(15));

/* Table: PODETAIL, Owner: CAL */
CREATE TABLE PODETAIL (TKPOKEY INTEGER,
        UNSNO SMALLINT,
        MKITEM INTEGER,
        DNQTY FLOAT,
        DNRATE FLOAT,
        MKTSKEY SMALLINT);

/* Table: PORDER, Owner: CAL */
CREATE TABLE PORDER (ANPOKEY INTEGER,
        ANPONO INTEGER,
        DDPODATE DATE,
        MKSUPPKEY SMALLINT,
        DCDELYDATE DATE,
        DCPNH CHAR(50),
        DCDELYPRD CHAR(50),
        DCFRIEGHT CHAR(50),
        DCADVPAYMT CHAR(30),
        DCDOCS CHAR(30),
        DNAMOUNT FLOAT,
        DCTRANSPRT CHAR(50),
        DCINSURNCE CHAR(50),
        DCPAYMTMOD CHAR(20),
        ONCONFIRM SMALLINT,
        DCCONFDET CHAR(20));

/* Table: STOCK, Owner: CAL */
CREATE TABLE STOCK (ONFLAG SMALLINT,
        MKITEMKEY INTEGER,
```

```
        UNSTOCKQTY FLOAT);

/* Table: SUPPLIER, Owner: CAL */
CREATE TABLE SUPPLIER (MKACHKEY SMALLINT,
        DCNAME CHAR(50),
        DCBLDNG CHAR(20),
        DCDOORNO CHAR(6),
        DCSTREET CHAR(20),
        DCLOCAL CHAR(20),
        DCCITY CHAR(20),
        DCSTATE CHAR(20),
        DCPOSTCODE CHAR(10),
        DCCOUNTRY CHAR(20),
        DCCONTPERS CHAR(50),
        DCSTDCODE CHAR(10),
        DCPHONES CHAR(30),
        DCFAX CHAR(30),
        DCPAGER CHAR(30),
        DCEMAIL CHAR(30),
        DNBANKER SMALLINT,
        DCLST CHAR(30),
        DCCST CHAR(30),
        DCAREACODE CHAR(30),
        DCEXREGNO CHAR(20),
        DCRANGE CHAR(20),
        DCDVSN CHAR(20),
        DDLSTDATE DATE,
        DDCSTDATE DATE,
        DCCOLLECT CHAR(20));

/* Table: TAXSTRUC, Owner: CAL */
CREATE TABLE TAXSTRUC (ANTSKEY SMALLINT,
        DCTSNAME CHAR(50),
        ONPURKEY SMALLINT);

/* Table: TSDETAIL, Owner: CAL */
CREATE TABLE TSDETAIL (MKTSKEY SMALLINT,
        UNROW CHAR(1),
        DCDESC CHAR(40),
        DCFORMULA CHAR(20),
        ONFLAG SMALLINT);
```

```
/* Table: UOM, Owner: CAL */
CREATE TABLE UOM (ANUOM SMALLINT,
      DCUOM CHAR(10),
      DCALIAS CHAR(4),
      ONDECIMALS SMALLINT);

/*  Index definitions for all user tables */
CREATE UNIQUE INDEX INDENTS_INDNO ON
INDENTS(ANINDENTNO);
CREATE INDEX INDENTS_BATNO ON INDENTS(TKBATCHNO);
CREATE INDEX INDENTS_DEPT ON INDENTS(MKDEPT);
CREATE INDEX DETINDNT_ITMKEY ON DETINDNT(MKITEM);
CREATE UNIQUE INDEX DEPRTMNT_DEPTKEY ON
DEPRTMNT(ANDEPT);
CREATE UNIQUE INDEX BATCH_BATKEY ON BATCH(TKBATCH);
CREATE INDEX SUPPLIER_DCNAME ON SUPPLIER(DCNAME);
CREATE UNIQUE INDEX ITEM_ITMKEY ON ITEM(ANITEMKEY);
CREATE UNIQUE INDEX GROUPMAS_GRPKEY ON
GROUPMAS(ANGROUP);
CREATE INDEX STOCK_FLAG ON STOCK(ONFLAG);
CREATE UNIQUE INDEX PORDER_ANPOKEY ON PORDER(ANPOKEY);
CREATE UNIQUE INDEX PORDER_ANPONO ON PORDER(ANPONO);
CREATE INDEX PODETAIL_TKPOKEY ON PODETAIL(TKPOKEY);
CREATE UNIQUE INDEX TAXSTRUC_ANTSKEY ON
TAXSTRUC(ANTSKEY);
CREATE INDEX TSDETAIL_MKTSKEY ON TSDETAIL(MKTSKEY);
CREATE INDEX ITEMSUPL_MKITEM ON ITEMSUPL(MKITEM);
CREATE INDEX ITEMSUPL_MKSUPPKEY ON ITEMSUPL(MKSUPPKEY);
CREATE UNIQUE INDEX SUPPLIER_MKACHKEY ON
SUPPLIER(MKACHKEY);
CREATE INDEX ITEM_ITEMNAME ON ITEM(DCITEMNAME);
CREATE INDEX DEPRTMNT_DEPT ON DEPRTMNT(DCDEPTNAME);
CREATE INDEX TAXSTRUC_TSNAME ON TAXSTRUC(DCTSNAME);
CREATE UNIQUE INDEX UOM_ANUOM ON UOM(ANUOM);
CREATE UNIQUE INDEX UOM_DCUOM ON UOM(DCUOM);
CREATE UNIQUE INDEX UOM_ALIAS ON UOM(DCALIAS);


/* Grant permissions for this database */
```

```
/* Extract Database G:\users\cla\dbf\CALACS.gdb */
CREATE DATABASE "G:\users\cla\dbf\CALACS.gdb" PAGE_SIZE 1024 ;


/* Table: ACCREC, Owner: CAL */
CREATE TABLE ACCREC (ACKEY SMALLINT);

/* Table: ACGROUP, Owner: CAL */
CREATE TABLE ACGROUP (ANACGRPKEY SMALLINT,
    DCACGRPNAM CHAR(50),
    MKPRNTGRP SMALLINT);

/* Table: ACHEAD, Owner: CAL */
CREATE TABLE ACHEAD (ANACHKEY SMALLINT,
    DCACHNAME CHAR(50),
    MKPRNTGRP SMALLINT);

/* Index definitions for all user tables */
CREATE UNIQUE INDEX ACHEAD_ANACHKEY ON
ACHEAD(ANACHKEY);
CREATE INDEX ACHEAD_DCACHNAME ON ACHEAD(DCACHNAME);
CREATE UNIQUE INDEX ACGROUP_DCACGRPKEY ON
ACGROUP(ANACGRPKEY);
CREATE UNIQUE INDEX ACGROUP_DCACGRPNAM ON
ACGROUP(DCACGRPNAM);

/* Grant permissions for this database */


/* Extract Database G:\Users\cla\dbf\CALGEN.gdb */
CREATE DATABASE "G:\Users\cla\dbf\CALGEN.gdb" PAGE_SIZE 1024;

/* Table: BANKERS, Owner: CAL */
CREATE TABLE BANKERS (ANBANKKEY SMALLINT,
    DCNAME CHAR(50),
    DCBLDNG CHAR(20),
    DCDOORNO CHAR(6),
    DCSTREET CHAR(20),
    DCLOCAL CHAR(20),
```

```
        DCCITY CHAR(20),
        DCSTATE CHAR(20),
        DCPOSTCODE CHAR(10),
        DCCOUNTRY CHAR(20),
        DCCONTPERS CHAR(50),
        DCSTDCODE CHAR(10),
        DCPHONES CHAR(30),
        DCFAX CHAR(30),
        DCPAGER CHAR(30),
        DCEMAIL CHAR(30));

/* Table: CLASSIC, Owner: CAL */
CREATE TABLE CLASSIC (ANFIRMKEY SMALLINT,
        DCNAME CHAR(50),
        DCBLDNG CHAR(20),
        DCDOORNO CHAR(6),
        DCSTREET CHAR(20),
        DCLOCAL CHAR(20),
        DCCITY CHAR(20),
        DCSTATE CHAR(20),
        DCPOSTCODE CHAR(10),
        DCCOUNTRY CHAR(20),
        DCCONTPERS CHAR(50),
        DCSTDCODE CHAR(10),
        DCPHONES CHAR(30),
        DCFAX CHAR(30),
        DCPAGER CHAR(30),
        DCEMAIL CHAR(30),
        DNBANKER SMALLINT,
        DCLST CHAR(30),
        DCCST CHAR(30),
        DCAREACODE CHAR(30),
        DCEXREGNO CHAR(20),
        DCRANGE CHAR(20),
        DCDVSN CHAR(20),
        DDLSTDATE DATE,
        DDCSTDATE DATE,
        DCCOLLECT CHAR(20));
```

```
/* Table: SUPPLIER, Owner: CAL */
CREATE TABLE SUPPLIER (MKACHKEY SMALLINT,
      DCNAME CHAR(50),
      DCBLDNG CHAR(20),
      DCDOORNO CHAR(6),
      DCSTREET CHAR(20),
      DCLOCAL CHAR(20),
      DCCITY CHAR(20),
      DCSTATE CHAR(20),
      DCPOSTCODE CHAR(10),
      DCCOUNTRY CHAR(20),
      DCCONTPERS CHAR(50),
      DCSTDCODE CHAR(10),
      DCPHONES CHAR(30),
      DCFAX CHAR(30),
      DCPAGER CHAR(30),
      DCEMAIL CHAR(30),
      DNBANKER SMALLINT,
      DCLST CHAR(30),
      DCCST CHAR(30),
      DCAREACODE CHAR(30),
      DCEXREGNO CHAR(20),
      DCRANGE CHAR(20),
      DCDVSN CHAR(20),
      DDLSTDATE DATE,
      DDCSTDATE DATE,
      DCCOLLECT CHAR(20));

/* Index definitions for all user tables */
CREATE UNIQUE INDEX CLASSIC_ANFIRMKEY ON
CLASSIC(ANFIRMKEY);
CREATE UNIQUE INDEX BANKERS_ANBANKKEY ON
BANKERS(ANBANKKEY);
CREATE INDEX BANKERS_DCNAME ON BANKERS(DCNAME);
CREATE INDEX CLASSIC_DCNAME ON CLASSIC(DCNAME);


/* Grant permissions for this database */
```

APPENDIX D
SAMPLE REPORTS

CLASSIC APPARELS LTD.

POLLACHI - 2.

ITEM CONSUMPTION REPORT

For **KNITTING** Department

On **Monday, 03 June, 1996**

S.No.	Item Name	Qty. Used
1	PROCION MAGENTA MB	7 Ltrs.
2	PROCION BLUE MR	12 Ltrs.
3	PROCION ORANGE HEG	10 Ltrs.
4	YELLOW HEXL	2 Ltrs.
5	SERENE BLACK GRL	13 Ltrs.
6	SUPRA RED RBL	1 Ltrs.

CLASSIC APPARELS LTD.

POLLACHI - 2.

ITEM DETAIL LIST As On **Monday, 03 June, 1996** At **6:59:38 PM**

S.No.	Item Group	Item Name	Qty. In Hand	Min. Qty.
1	CHEMICALS	HYDROGEN PEROXIDE	305 Ltrs.	30 Ltrs.
2	CHEMICALS	ACETIC ACID	115 Ltrs.	25 Ltrs.
3	CHEMICALS	LIME	130 Kgs.	20 Kgs.
4	CHEMICALS	HYDROSOL	012 Ltrs.	05 Ltrs.
5	CHEMICALS	VEEDOL	345 Ltrs.	20 Ltrs.
6	CHEMICALS	OXALIC ACID	305 Ltrs.	30 Ltrs.
7	CHEMICALS	TINOPAL BVN	305 Ltrs.	30 Ltrs.
8	CHEMICALS	IMACOL - C	300 Ltrs.	40 Ltrs.
9	DYES	PROCION MAGENTA MB	125 Ltrs.	32 Ltrs.
10	DYES	PROCION BLUE MR	105 Ltrs.	10 Ltrs.
11	DYES	PROCION ORANGE HEG	305 Ltrs.	30 Ltrs.
12	DYES	YELLOW HEXL	230 Ltrs.	45 Ltrs.
13	DYES	SERENE BLACK GRL	32 Ltrs.	5 Ltrs.
14	DYES	SUPRA RED RBL	123 Ltrs.	10 Ltrs.
15	DYES	BLUE GXLR - HE	305 Ltrs.	30 Ltrs.
16	PRINTING	BLD FILM	305 Rls.	30 Rls.
17	PRINTING	CHALK POWDER	305 Kgs.	30 Kgs.
18	PRINTING	BLACK GREY CLOTH	315 Mtrs.	35 Mtrs.

CLASSIC APPARELS LTD.

POLLACHI - 2.

ITEM LIST As On **Monday, 03 June, 1996** At **7:03:20 PM**

S.No.	Item Name
1	HYDROGEN PEROXIDE
2	ACETIC ACID
3	LIME
4	HYDROSOL
5	VEEDOL
6	OXALIC ACID
7	TINOPAL BVN
8	IMACOL - C
9	PROCION MAGENTA MB
10	PROCION BLUE MR
11	PROCION ORANGE HEG
12	YELLOW HEXL
13	SERENE BLACK GRL
14	SUPRA RED RBL
15	BLUE GXLR - HE
16	BLD FILM
17	CHACK POWDER
18	BLACK GREY CLOTH

CLASSIC APPARELS LTD.

22/05/96

POLLACHI - 2.

Suppliers for HYDROGEN PEROXIDE

S.No.	Supplier Name & Address	Unit Rate (Rs.)
1	AUXICHEM , BOMBAY	230.00
2	SANDOZ INDIA LTD. , COIMBATORE	230.25
3	SEA ROCK ALIGNATES , MADRAS	231.00
4	COLOUR CHEMICALS , TIRUPUR	230.50

CLASSIC APPARELS LTD.

POLLACHI - 2.

ITEM VALUE REPORT As On **Monday, 03 June, 1996** At **7:09:09 PM**

S.No.	Item Name	Qty. on Hand	Rate (Rs.)	Value (Rs.)
1	HYDROGEN PEROXIDE	305 Ltrs.	30.00	9,150.00
2	ACETIC ACID	115 Ltrs.	25.00	2,875.00
3	LIME	130 Kgs.	20.00	2,600.00
4	HYDROSOL	012 Ltrs.	05.00	60.00
5	VEEDOL	345 Ltrs.	20.00	6,900.00
6	OXALIC ACID	305 Ltrs.	30.00	9,150.00
7	TINOPAL BVN	305 Ltrs.	30.00	9,150.00
8	IMACOL - C	300 Ltrs.	40.00	12,000.00
9	PROCION MAGENTA MB	125 Ltrs.	32.00	4,000.00
10	PROCION BLUE MR	105 Ltrs.	10.00	1,050.00
11	PROCION ORANGE HEG	305 Ltrs.	30.00	9,150.00
12	YELLOW HEXL	230 Ltrs.	45.00	3,230.00
13	SERENE BLACK GRL	32 Ltrs.	05.00	175.00
14	SUPRA RED RBL	123 Ltrs.	10.00	1,230.00
15	BLUE GXLR - HE	305 Ltrs.	30.00	9,150.00
16	BLD FILM	305 Rls.	30.00	9,150.00
17	CHALK POWDER	305 Kgs.	30.00	9,150.00
18	BLACK GREY CLOTH	315 Mtrs.	35.00	1,1025.00

CLASSIC APPARELS LTD.

POLLACHI - 2.

PENDING ITEM ISSUES As On **Monday, 03 June, 1996**

Issue slip No.	Reqst. Date	Department	Exp. Issue Dt.
142	12/05/96	KNITTING	03/06/96
156	15/05/96	DYEING	10/06/96
158	16/05/96	PRINTING	12/06/96
174	23/05/96	GARMENTING	05/06/96

CLASSIC APPARELS LTD.

POLLACHI - 2.

PENDING PURCHASE INDENTS As On **Monday, 03 June, 1996**

Indent No.	Indent Date	Department	Time required
122	12/05/96	KNITTING	22/05/96
132	15/05/96	DYEING	17/05/96
153	16/05/96	PRINTING	23/05/96
174	23/05/96	GARMENTING	28/05/96

CLASSIC APPARELS LTD.

POLLACHI - 2.

PENDING PURCHASE ORDERS As On **Monday, 03 June, 1996**

P.O. No.	P.O. Date	Supplier	Expected Date
122	12/05/96	AUXICHEM	22/05/96
132	15/05/96	AUXICHEM	17/05/96
153	16/05/96	SEA ROCK ALIGNATES	23/05/96
174	23/05/96	S.J.C ELECTRICALS	28/05/96

CLASSIC APPARELS LTD.
POLLACHI-2

PURCHASE INDENT

Indent No. : 124

Department : PRINTING

Indent Date : 114/05/96

S.No.	Materials & Description	Qty. Reqd.	Time Reqd.	Remarks
1	SODIUM BICORBONATE	5 Kgs.	22/05/96	
2	HYDROCHLORIC ACID	200 Ltrs.	17/05/96	

Dept Supervisor	Plant Engineer/ Dept.Head.	Store Officer	Purchase officer	Factory Manager	Managing Director

Tel : 04259 25403 24953 24359
Fax : 04259 25313
Telex : 858 - 8730

ORDER FORM

P.O. No. : 132
P.O. Date : 23/05/96
T.N.G.S.T. No. : 2421741

CLASSIC APPARELS LTD.

ACHIPATTI,COIMBATORE ROAD,POLLACHI - 642 002.

C.S.T.No.: 613371

1	2	6

To

SEA ROCK ALIGNATES ,
4,FIRST STREET,V.C.NAGAR EXTN. ,
MADRAS - 20.

S.No.	Item & Description	Qty,	Rate (Rs.)	Amount (Rs.)
1	SODIUM ALIGNATE	600 Kgs.	234.50	1,40,700.00

Advance : --
Delivery Period : 4 weeks
Payment : By Cheque
Mode of Despatch : By Yourselves
Insurance : By yourselves

For CLASSIC APPARELS LTD.

KINDLY ACKNOWLEDGE RECEIPT AND CONFIRM THE ORDER

APPENDIX E
BIBLIOGRAPHY

BIBLIOGRAPHY

SYSTEM DESIGN AND DEVELOPMENT

#1 **A Practical Guide to Structured Systems Design**

- Meilir Page-Jones,YOURDON Press

Prentice-Hall,1980

#2 **Systems Analysis and Design**

- Elias M.Awad, Galgothia Publications

WINDOWS

#1 **PC Magazine Guide to Windows for Workgroups**

- Frank J.Derfler,Jr., & Les Freed,

BPB Publications

#2 **Mastering Windows 3.1 Special Edition**

- Robert Cowart,BPB Publications

#3 **PC Magazine Windows Rapid Application Development**

- David E.Y.Sarna and George J.Febish

BPB Publications

DBMS

#1 **Introduction to Database Management Systems - 3rd Ed.,Vol 1**

- C.J.Date , Narosa Publications,1994

DELPHI

#1 **Foundations of Delphi Application Development**

- Tom Swan,IDG Books,1995

#2 **Delphi Unleashed**

- Charles Calvert ,SAMS Publishing,1995

#3 **Delphi Developers Guide**

- Xavier Pacheco & Steve Teixeira

Borland Press,SAMS Publishing,1995

#4 **Delphi Manuals**

*** Delphi - User's Guide**

*** Local Interbase Server - Users Guide**

*** Delphi - Object Pascal Language Guide**

*** Delphi - Database Application Developer's Guide**

*** ReportSmith for Windows - Creating reports**