ACCOUNTING INFORMATION SYSTEM

PROJECT REPORT P-1074

Submitted in partial fulfillment of the degree requirements
for the award of the degree of

M.SC (APPLIED SCIENCE) SOFTWARE ENGINEERING

of Bharathiar University, Coimbatore

Submitted by

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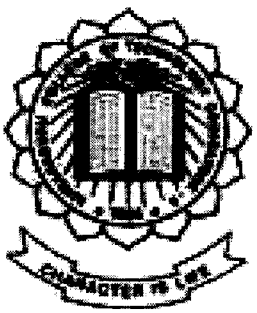

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
KUMARAGURU COLLEGE OF TECHNOLOGY
Coimbatore – 641 006

OCTOBER 2003

Sakthi Sugars Limited

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GA-26/ 3948 /2003

September 23, 2003

C E R T I F I C A T E

This is to certify that Ms.S.NIVITHA, Fourth Year M.Sc.(Software Engineering) student of Kumaraguru College of Technology, Coimbatore has done Project Work on the topic 'Accounting Information System' in EDP Department of our organisation during the period from 27.06.2003 to 20.09.2003.

During the above period, her performance, conduct and character were found to be **GOOD.**

We wish all success in her career.

For SAKTHI SUGARS LIMITED

P.MUTHUVELAPPAN
DY.GENERAL MANAGER-HRD

DECLARATION

I hereby declare that this project work entitled **"ACCOUNTING INFORMATION SYSTEM"** submitted to Kumaraguru College of Technology, Coimbatore (Affiliated to Bharathiar University) is a record of original work done by me under the supervision and guidance of **Mr.Manikandan, MCA,** faculty of Computer Science and Engineering, Kumaraguru College of Technology, Coimbatore. This project work has not farmed the basis of award of any degree / diploma / associateship / fellowship or similar title to any candidate of any university.

Place : Coimbatore

Date :

Signature of the candidate

NIVITHA.S

Staff Incharge

Mr.MANIKANDAN, MCA,

Faculty of Computer Science and Engineering,
Kumaraguru College of Technology,
Coimbatore.

Acknowledgment

ACKNOWLEDGEMENT

Undertaking this project in 'Sakthi Sugars' was definitely a learning experience and provide an insight into what a programmer goes through, the joys, the hurdles, the peculiar respondents, something no text book or manual could provide. It gives me immense pleasure in placing my gratitude to the following people, who have made this experience especially worthwhile.

First and Foremost, I thank my Principal **Dr.K.K.Padmanabhan,** Kumaraguru College of Technology for providing me an opportunity, which was a great practical learning experience.

I express my heartful thanks to **"Sakthi Sugars"** for providing me a project in the organization.

I am deeply indebted to my Course **Co-ordinator** and organization guide **Ms.Nalini, MCA,** Senior Officer, EDP Department, Sakthi Sugars who inspite of often being pre-occupied with heavy load always took time off to help me out.

I express my sincere gratitude to all faculties of Kumaruguru College of Technology especially my Guide **Mr.Manikandan, MCA** and other staff in Sakthi Sugars who have helped me in more ways than I could ever imagine.

My Acknowledgement would be left incomplete if I did not thank the almighty without whose blessings, I know that best of my efforts would end in futile endeavors and of course my family members and friends who have provided me with continuous encouragement and assurance apart from domestic commitments.

I acknowledge the efforts of many more though not mentioned for making this project a great success.

Synopsis

SYNOPSIS

Accounting may be defined as an Information System receiving its input from various financial transactions, processing these transactions and giving the output as financial statements and other reports that will enable the users to make reasoned decisions in the conduct of our dealing with business and economic entities. The need of AIS in an organization is to maintain records of transactions, promote accuracy and reliability of data, to avoid efforts in documentation, to classify various overheads separately to enable ease in usage of AIS.

AIS plays a significant role in decision-making process and helps us to know past, present and future financial status of a company through the Balance sheet [assets/Liabilities].

This AIS for M/S Shakthi Sugars caters to the needs of both Management/Non-Management segment making the process of accounting much easier. The system is user-friendly and very simple and easily understandable. The system is based on various accounting concepts like Entity, Money Management, Dual aspect, Going concern, Accounting period and convention like Consistency, Conservation, Materiality, Disclosure.

The developed AIS are far away from uncertainty and bound to Account standards and principles.

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Introduction

1. INTRODUCTION

1.1 PROJECT OVERVIEW

Accounting department plays the most instrumental role in automating your business. It is the only department central to all other departments. AI S is designed to empower your Accounting department with unprecedented functionality and management control. In fact, most of the accounting entries from system documents is automatically and instantly managed in the background.

- General Ledger
- Additional Features
- Accounts Receivable
- Accounts Payable

AI .S can maintain separate Chart of accounts for each department

The accounts receivable and accounts payable journals provide extensive support for strong. Customer and vendor relationships. For example you can instantly check a customer's real-time accounts receivable aging browser from within the customer's sales quote or order to expedite collection of late receipts. The best time to remind customers for an overdue payment is when they wish to place a new order.

AI 'S features accelerated payment and receipt mechanisms through the powerful multiple payment and multiple receipt options.

Daily check printing tasks, monthly Bank Reconciliation, or multi-tier monthly sales tax audits can be accomplished within minutes.

The project enables to set the customer finance charges, and different discounts for different customer levels or setup special pricing on a per item per customer basis.

Users can print reports for every aspect of the business - from chart of account details to sales commission reports. For example, using your Multilevel chart-of-

accounts, one can get an overall breakup of a general expense category and further zoom in and graph the breakup for each sub-account.

Journal

All transactions are recorded first in chronological order in a book called journal. Journal is also called the book of "prime entry". Journal is the basic accounting record from which the individual accounts are written up in the ledger. The modern tendency is to use loose leaf journal or vouchers.

The first column is for entering the date of transaction followed by transaction and the credit amount and debit amount.

Narration is the explanation of the transaction in a detailed way..

Ledger

Ledger is the book in which all the accounts are maintained. separate folios are allocated in the ledger for each account. Entering of transactions in the account in the ledger from the information found in the journal is known as posting into the ledger. Each account has a title which is written in the top. The account has two sides each with the same details and same number of columns left side is the debit side and right side is the credit side.

Balancing an Account

After the posting has been completed accounts are balanced. That is, the difference in the total of the two sides is ascertained. If the debit side is more than the credit side the difference is known as Debit balance. If the credit side is more than the debit side the difference is known as Credit balance. This technique of finding out the net balance of an account, after considering the totals of both debits and credits appearing in the account is known as "Balancing the Account ".

Trial Balance

Under the double entry system every debit has its corresponding credit and vice-versa. Hence we can say that the total of the debits should equal to the total of the credits. Similarly, we can say that the total of the debit balances must be equal to the total of the credit balances. In fact, all the organizations periodically tabulate the debit and credit balances separately in a statement to verify whether the total of debit balance agree with the total of credit balance or not. Such a statement is known as Trial Balance .A Trial Balance is simply a list of the names and balances of all the accounts in the ledger and cash book and listed in the order in which they appear in the ledger.

If all the transaction is recorded correctly and if the balance of the accounts is arrived accurately, the debit and credit column of the Trial Balance should agree. Thus, a Trial Balance can be prepared on any day. But is usually prepared at regular intervals such as monthly, half-yearly or yearly.

1.2. INDIAN ACCOUNTING STANDARDS

AS1	-	Disclosure of accounting policies
AS2	-	Valuation of inventory
AS3	-	Changes in financial position
AS4	-	Contingencies and events occurring after the Balance Sheet Date
AS5	-	Prior period and extraordinary items and change in accounting policies
AS6	-	Depreciation accounting
AS7	-	Accounting for construction contracts
AS8	-	Accounting for Research and Development
AS9	-	Revenue recognition
AS10	-	Accounting for fixed assets
AS11	-	Accounting for the effects of changes in foreign exchange rates
AS12	-	Accounting for Government Grants
AS13	-	Accounting for Investments
AS14	-	Accounting for Amalgamations
AS15	-	Accounting for Retirement Benefits in the Financial Statements of Employers
AS16	-	Accounting for Borrowing costs
AS17	-	Segment Reporting
AS18	-	Related Party Disclosures
AS19	-	Accounting for Leases
AS20	-	Earnings per share
AS21	-	Consolidated Financial Statements
AS22	-	Accounting or Taxes on Income (Deferred Taxes)

1.3. ORGANISATION PROFILE

'Sakthi Group of companies' are a conglomerate of various entities having interest in various spheres like Sugar, Industrial Alcohol, Textiles, Foundry, Bus Transport, Parcel Service, Finance, Soft Drinks, Soya products, Synthetic Gems manufacture and information system, with a turnover of Rs.2000 Crores by the turn of the century. Sakthi Sugars Limited (hereinafter referred to as SSL) is the flag ship company of the Group.

SSL aims to become World class in serving its customers by continuous improvements, up gradation of human resources. It also maintains a clean and safe environment throughout the organization.

SSL is one of the largest producers of Sugar in India with a crushing capacity of 12,750 tonnes of cane crush per day having two sugar mills in Tamil Nadu and two mills in Orissa State, India.

SSL is the largest exporter of refined crystal sugar in the country and has attained the status of Export House.

Two Distilleries, one each in the States of Tamil Nadu and Orissa, with a total capacity of 37500 kilo litres are owned by SSL.

A division of SSL, Sakthi Soya has one of the best plants in Asia, combining the World's best technology from Switzerland and Germany. It uses the innovative flash desolventising technology to manufacture high-protein soya flour. The plant has a capacity to process 300 tonnes of soya per day.

The Company's High Protein Soya Meal, Soya Flour and Soya Chunks are exported to Srilanka, Thailand, Singapore and Malaysia.

SSL's expansion plan includes setting up of the following facilities:

- A co-generation unit for generation of 32 MW electric power at Sakthinagar, which is expected to commence operation from end September 2003.
- An ethanol plant with a capacity to produce 1250 lakh litres of anhydrous alcohol for mixing with petrol as per latest policy of the Central Government.
- A soft drink bottling plant with 600 bottles per minute capacity in Sivaganga.

Sakthi Auto Component Limited, the wholly owned subsidiary of SSL, has specialized in critical components for passenger cars like steering knuckles, brake drums, etc. The quantum of exports per month ranges between 250 MT to 500 MT. It is likely to grow up to 1000 MT in near future.

The latest technology is leveraged to the hilt people whose inherent strengths lie in the winning attitude and the willingness to thrive on challenges. This forms the foundation of an organization that races into the future with the surging confidence that it would continue to contribute and touch the lives of many more people.

Thus, the group excels in the following sectors : Sugar Unit, Finance, Bus Transport, Parcel Service. Maruthi Sales and Service, Wind mill, Bus Body building, Retreading, Beverages, Diary Division, Textiles, Tea and Coffee Estates.

For Sakthi, Industry is not the be-all and end-all. It has a deep rooted concern for the development of its area in the economic and social spheres. As a keen participant in social commitments, Sakthi Sugars has set up educational institutions and hospitals. It has also made significant contributions to rural development with a variety of social welfare activities and by creating employment opportunities.

The Company's entire accounting, material handling, and reporting systems, and most of the manufacturing facilities are computerized and are supported by an in-house team of computer professionals.

System Study and Analysis

2. SYSTEM STUDY AND ANALYSIS

2.1. EXISTING SYSTEM ENVIRONMENT -LIMITATIONS

Accounting Information System has been computerized by the EDP Department of Sakthi Sugars Pvt Ltd., with Power builder as Front End and Sybase as Back End.

LIMITATIONS

- Complex Graphical User Interface.
- Single User Environment.
- Only the Defined account heads can be used. User cannot define their own account heads.

2.2. PROPOSED SYSTEM

The Primary Entities of any Business are the creditors &debtors. Smooth handling of them makes a business grow well. To concentrate on these two entites, the financial department is broadly classified into

(1) **Purchase A/C department.**

(2) **Sales A/C department.**

(3) **General A/C department.**

The roles and Functions of each department are

1. Purchase A/C Department

The Inventory department raises the purchase order and the stored then receives the goods. The good's are verified and the GRN is sent to the purchase A/C department, and the entries are punched in the creditor ledger. The role of the purchase department is the follow up the transactions of the creditors hereafter. The Purchase A/C Department deals with payment against bills payments against advance, and all related transactions and feedbacks.

The Purchase A/C Department takes cares of the adjustments against bill amounts. If there are excess or short in amount paid the D/N or C/N are sent to the corresponding parties. If the creditors are not prompt in their payments, a certain percentage of amounts area treated as discount and the adjustments are made accordingly, remainder of the balance amount is sent periodically.

2. Sales A/C Department

Sales Department looks after preparing of invoice and collection of amount from the customers. Sales Department keeps track of total goods in the stores. If the goods go below reorder level an order is prepared and sent to purchase department. The Sales A/C Department takes cares of the adjustments against bill amounts. If there are excess or short in amount paid the D/N or C/N are sent to the corresponding customers.

If the customers are not prompt in their payments, a certain percentage of amounts are treated as discount and the adjustments are made accordingly, remainder of the balance amounts is sent periodically.

3. General A/C Department

General A/C Department deals with other **miscellanies transaction** other than creditors or debtors like loan, payment of salaries and general receipts and payments. General A/C Department keeps track of installments of installments of loan and punctually aids in payments of the outstanding amounts. General A/C Department prepares monthly salary payrolls etc. and this department looks after all other incomes and expenditure.

The purpose of the software **"Accounting Information System"** is to automate the operations of Business transactions. A business concern must necessarily keep systematic and correct records of day-to-day happenings. From Financial Accounting one can infer with the condition of the position and viability of the organization.

Objectives of the Proposed System

The main objectives of the proposed system is to

- To make retrieval of information easy.
- To provide user-friendly interface.
- To produce well formatted output display.
- To avoid much human effort and documentation.
- To make the system flexible enough to undergo future enhancement and the user requirements change in the future.

DESCRIPTION OF THE MODULES

Master

- GL Master
- Customer Master
- Supplier Master
- Bank Master
- Advance for expense Master
- Sub-ledger Master
- Branch Master

Transaction

- Bank Receipt
- Bank Payment
- Cash Receipt
- Cash payment

General Journal

- Credit Note
- Debit Note
- Sales Journal

REPORTS

Cash Reports

- Voucher Printing
- Payments
- Receipts
- Cash Book
- Party wise Payment

Bank Reports

- Voucher Printing
- Payments
- Receipts
- Party wise Payment

Journal

- OutStanding
- DayBook
- TrialBalance
- BalanceSheet
- Ledger

MASTER

GL Master

'AIS' allows you to classify accounts by grouping them as you wish. When you 'group' accounts, you place similar accounts together, for example, all your assets being clubbed under the group 'Fixed Assets'. With Groups, you can manage accounts and take reports to any level of detail or summarize them as you wish.

Customer Master

The customer master entry screen, is to provide information about the list of customers of the company.

Supplier Master

The customer master entry screen, is to provide information about the list of suppliers and their product details supplied to the company.

Bank Master

The Bank master entry screen, is to provide information about the list of banks that the company deals with for their transaction.

Advance for expense Master

Each expense that has to be received (yet not received) but audited in the current financial year are given here.

Sub-ledger Master

Each account termed as ledger has to be created under the main group. For example. Cash accounts under the 'Account' Group

Branch Master

The Branch master entry screen, is to provide information about the list of branches that the company has.

TRANSACTION

BANK

Bank Receipt

Bank transactions such as cheque transactions are entered as Bank Receipts or Bank Payments. All the details (Ledger name, Cheque No, Net Amount) of the bank receipts from the party has to be maintained.

Bank Payment

All the details (Ledger name, Cheque No, Net Amount) of the bank payments to the party has to be maintained.

CASH

Cash Receipt

Cash transactions are entered as Cash Receipts or Cash Payments. All the details of the cash sales to the party has to be maintained.

Cash payment

All the details of the cash paid to the party has to be maintained.

GENERAL JOURNAL

Credit Note

All the accounts like cash accounts and bank accounts credit details will be consolidated in this credit note

Debit Note

All the accounts like cash accounts and bank accounts debit details will be consolidated in this debit note.

Sales Journal

Sales made by you have to be accounted for in your accounts. I.e, the sales account has to be debited and the party credited.

REPORTS

CASH REPORTS

Voucher Printing

This is the report generated voucher no wise. I.e the generated report for the given voucher number may either be a payment or be receipt.

Payments

This is a summary of reports for the cash payments that are made for different cash accounts.

Receipts

This is a summary of reports for the cash receipts that are made for different cash accounts

Cash Book

This is the summary of all cash receipts and payments and shows the balance in amount for every cash account.

Party wise Payment

Cash Payment and Receipt report can be generated for given partywise (supplierwise / customerwise)

BANK REPORTS

Voucher Printing

This is the report generated voucher no wise. I.e the generated report for the given voucher number may either be a bank payment or be bank receipt.

Payments

This is a summary of reports for the bank payments that are made for different bank accounts.

Receipts

This is a summary of reports for the bank receipts that are made for different bank accounts

Party wise Payment

Bank Payment and Receipt report can be generated for given partywise (supplierwise / customerwise)

JOURNAL

Out Standing

Outstanding report is the summary of all outstanding payments that are to be made to the suppliers and outstanding receipts that are to be received from the customer.

Day Book

Day Book is a statement for the day-to-day transactions of all the accounts.

Trial Balance

A Trial Balance is a summary of all balances in the Ledger. The Trial Balance displays, the balances in the accounts. The trial Balance will always tally, as all transactions have been given the double effect, with or without your knowledge. The opening Balances difference, in any, will be found in the opening balance control account.

Balance Sheet

A Balance Sheet is a statement of your assets and liabilities. It is a summary of balances of accounts that do not fall in the Profit and Loss Account (but includes the net profit or loss of the period).

Ledger

The Ledger is the fountainhead of all other reports. Ledger contains all the transactions of your accounts. It includes all sales, purchases, banks, cash, revenue and balance sheet accounts, suppliers, customers, suppliers etc. When you take the Ledger, you get complete account-wise information of all accounts, transaction by transaction, arranged by date.

2.3 REQUIREMENTS ON NEW SYSTEM

Analysis is detailed study of the various operations performed by the system and their relationship within and outside the system. Analysis involves the requirement determination and specification. During analysis, data are collected on the available files, decision points and transactions handled. Basically it involves establishing requirements for all system elements and then mapping these requirements to software form. The Issues that were taken into considerations are

- Profile of the people who area working on the system.
- Files on which software requires to work.
- Hardware on which the software requires to work.

Analysis comprises information gathering, fact- finding, and review at written documents, onsite observation, interview and questionnaires facts, fact analysis and determination of feasibility. During analysis a great deal of relatively unstructured data was collected through interview, onsite observation etc. The traditional approach is to organize and to convert data through flowchart, which support future development of the system and simplify communication with the user. The charts bring up the importance of input; output and data flow among key points. But the system flowchart represents a physical system rather than a logical system design. Structured tool is a set of techniques and graphical tool that allows the analyst to develop a new kind of system specifications that are easily understood by users.

PERFORMANCE REQUIREMENTS

Capacity

The application enables the access of many users and the database is capable of handling multiple requests at the same time.

DESIGN CONSTRAINTS

Hardware requirements

- A server with a spec that will run the application.
- Computers and other device for the development.

Software requirements

OS	: Windows 95/98/NT/2000/XP
Server	: Windows NT/2000 running SQL Server 7.0
Client	: Windows 95/98/NT/2000/XP
Development	: Visual Basic 6, SQL Server 7.0, Crystal Reports

Programming Environment

3. PROGRAMMING ENVIRONMENT

3.1. HARDWARE SPECIFICATION

Client side

- Pentium 166 MHz machine
- 32 MB RAM
- Cache memory 256 KB
- Network interface card, TCP/IP

Server side

- Pentium II machine 233 MHz
- 64 MB RAM
- Network Interface card, TCP/IP

Hardware requirements

Processor type	:	Pentium II processor
RAM	:	32 megabytes
C: Hard disk drive	:	2 GB
A: Diskette drive	:	1.44 Megabytes
Keyboard	:	SAMSUNG
Mouse	:	Logitech
Monitor	:	MICROTEK

3.2. SOFTWARE SPECIFICATION

OS Client	:	Microsoft Windows 95
OS Server	:	Windows NT 4.0
Front End	:	Visual Basic 6.0
Back End	:	Micro Soft SQL server 6.5

MICROSOFT SQL SERVER 7.0

The Scalable Database That Helps Your Business Turn Information into Results

Microsoft SQL Server 7.0 brings business advantage and improved decision making to all levels of the organizations—through scalable business solutions, powerful data warehousing, and integration with Microsoft Office 2000.

Scalable Business Solutions

SQL Server 7.0 offers broad availability of tailored solutions for business operations, electronic commerce, and mobile computing. It delivers a single codebase—scaling from a PC to multiprocessor clusters—providing 100 percent application compatibility.

Powerful Data Warehousing

SQL Server 7.0 provides a comprehensive platform that makes it easy to design, build, manage, and use data warehousing solutions, enabling your organization to make effective business decisions based on timely and accurate information.

Integration with Microsoft Office 2000

SQL Server 7.0 provides easy, seamless access to data, enables desktop multidimensional analysis, and increases overall productivity by using your organization's skills and investment in Microsoft Office.

PRODUCT OVERVIEW

Scalable Business Solutions

SQL Server is the best database for the Microsoft Windows® platform and the relational database management system of choice for a broad spectrum of corporate customers and independent software vendors (ISVs). SQL Server delivers a flexible, powerful platform that scales up to terabyte-size databases and down to small business servers and laptop databases; it fits seamlessly with existing applications and provides the most cost-effective environment for customizing and building new applications tailored to unique business needs.

- Scalable from laptop to cluster
- Easy to build, manage, and deploy.
- Designed for mobile computing.
- An ideal platform for commerce.
- Powerful Data Warehousing
- First database with integrated OLAP services.
- First database with integrated DTS.
- Integration with the Microsoft repository.
- Integration with Microsoft Office 2000
- Innovation and Feature Summary for SQL Server 7.0

Scalable Business Solutions: Business Operations

Scalability, Reliability, and Performance

- **New sophisticated, yet simplified on-disk storage architecture** allows scalability from small laptop databases to terabyte-size enterprise databases.
- **Increased page size (8K)** facilitates fast retrieval of data while larger row and column limits allow applications to more efficiently store complex, detailed data.
- **Dynamic row level locking,** for both data and indexes, chooses the optimal level of lock (row, page, multiple pages, or table) for improved concurrency.
- **Enhanced Query Processor** for handling very large databases and complex queries. New features include multiple indexes, new hash and merge join strategies, multiple triggers, and heterogeneous, distributed and parallel queries.
- **New multiphase Query Optimizer** finds the optimum plan for queries to improve performance of complex queries.
- **New auto statistics** extract statistics using fast sampling, enabling the Query Optimizer to use the latest information and increase query efficiency.
- **Native Unicode** improves multilingual support.

Ease of Use and Management

- **Automatic tuning** provides simplified administration and lower total cost of ownership.
- **Dynamic memory management** optimizes use of all available memory while minimizing contention with other resources.
- **Dynamic space management** automatically grows and shrinks database size—SQL Server 7.0 is the first database to provide this capability.
- **New tools and utilities** run much faster and are designed to have less impact on server operations.
- **Microsoft Management Console and new Task Pads, wizards, and utilities** ease database management.
- **New active backup** provides high performance online backup with minimal impact on operational systems.
- **Multisite management** allows centralized management for multiserver distributed environments, including multilingual global implementations.
- **Visual Data Modeler** provides a graphical interface that makes it easy to build and model schema and other database objects.
- **Intelligent Agent technology** provides batch scheduling of multistep jobs with dependencies and central reporting.
- **Embedded install option** allows inclusion of the database for single-step application installation.

Wide Array of Replication Options

- **Multisite update and immediate update** are designed to support distributed business applications.
- **New merge replication** allows users to work freely and independently, then combine their work later—built-in priority-based conflict resolution resolves merge conflicts.
- **Snapshot replication** takes a snapshot of the database for publication.
- **Transactional replication** uses a publisher-subscriber replication model with transaction log-based monitoring of changes to data.

Scalable Business Solutions: Mobile Computing

- **SQL Server Desktop** provides a low-footprint, fully compatible relational database management system (RDBMS) for mobile applications with zero-administration features that facilitate usage without database administrator (DBA) intervention.
- **Advanced replication options** include new Merge Replication, with conflict resolution and anonymous replication for Internet sites.

Scalable Business Solutions: Commerce

- **Dynamic data encryption** for passwords, data, stored procedures, views, and triggers.
- **Full Text Search** supports linguistic search of character data—operating on words and phrases, not just character patterns.
- **Tabular data streams** minimize round-trip traffic and optimize Internet communications with constrained bandwidth.
- **New Web Assistant** makes it easy to publish data on the Web.

Powerful Data Warehousing

- **New integrated OLAP Services** for fast, efficient analysis of complex information essential to reporting, data analysis, decision support, and data modeling.
- **New Data Transformation Services** for importing, exporting, and transforming heterogeneous data.
- **English Query** for submitting English language questions rather than structured queries.
- **Microsoft Repository,** a common infrastructure for sharing information (schema and metadata).
- **Optimized handling** of complex queries and very large databases.
- **Integrated replication,** including multisite update, for maintaining data consistency.
- **PivotTable Service,** a companion to OLAP Services, provides desktop multidimensional analysis for both online and mobile solutions. (Integrated with Office 2000 and Microsoft Excel.)
- **Open integration** with third-party data warehousing products and solutions.

- **Microsoft Data Warehousing Framework** is an open architecture that enables customers to integrate data warehousing tools from multiple vendors built on technologies including the Microsoft Repository, Data Transformation Services, and OLAP Services.

- **The Data Warehousing Alliance** is an organization made up of the industry's top vendors, working together to shape emerging data warehousing standards, APIs, and technologies.

VISUAL BASIC 6.0

Microsoft Visual Basic 6.0 is the faster and easiest way to create applications from Microsoft Windows. Whether you are an experienced professional or brand new to Windows Programming, Visual Basic provides with a complete set of tools simplify Rapid Application Development.

Visual Basic is object-oriented, that is, it revolves around readymade parts. One of the main ideas of object-oriented programming is that all of the data and procedures related to a particular object are kept together with object itself. In Visual Basic an object's data are called properties, while various procedures that can operate on the object are called its methods. Visual Basic is the simplest and easiest to use to programming language for the windows environment, it has grown into with far reaching capabilities and sophistication. Visual Basic is event – driven.

The language makes use of the features of Microsoft Windows including Multiple Document Interface (MDI), Object Linking and Embedding (OLE), Dynamic Data Exchange (DDE), Graphics, Active X Controls etc., Using this we can create powerful and full-featured applications. Visual Basic can be extended

by adding the custom controls and calling procedures in Dynamic Link Libraries (DLL) i.e. specially constructed libraries can be loaded and linked at run time. Multiple applications can share DLLs which saves memory and disk space. Dynamic Linking increases program modularity because you can compile and test DLLs separately.

Visual Basic has a large number of built-in objects, which the user can use with maximum flexibility. The only task for the programmer is to incorporate the built-in objects

to his/her programs. The core of Visual Basic programming is a set of independent pieces of code that are activated by and so respond to only the events they have been told to recognize.

Whether your goal is to create a small utility for yourself or your workgroups, a large enterprise – wide system, or even distributed applications spanning the globe via Internet, Visual Basic has the tools you need.

Data access features allow you to create databases and front – end applications for most popular database formats, including SQL SERVER & ORACLE and other enterprise – level database.

Active X technologies allow you to use the functionally provided by other applications, such as Microsoft Word Processor, Microsoft Excel Spreadsheet, and other Windows Applications. You can even automate applications and objects created using the Professional or Enterprise editions of Visual Basic.

Internet capabilities make it easy to provide access to documents and applications across the Internet from within your applications.

Your finished application is a true exe file that uses a runtime Dynamic Link Library (DLL) that you can freely distribute.

System Design and Development

4. SYSTEM DESIGN AND DEVELOPMENT

4.1. INPUT DESIGN

Processing and output will magnify these errors. Input design is the part of the overall system design, which requires very careful attention. Most expensive part in this the collection of input data in terms of equipments and persons involved. If a data going in to a system is incorrect then

Several stages during input design that are to be carried out are,

- Data recording
- Data verification
- Data correction

The users are provided with screens to enter details of master records and detailed records. Visual Basic has been used as front end and SQL-Server 7.0 acts as the backend.

AI .S allow you to classify accounts by grouping them as you wish. AIMS also come with a few standard Groups already created.

When you 'group' accounts, you place similar accounts together, for example, all your assets being clubbed under the group 'Fixed Assets'.

With Groups, you can manage accounts and take reports to any level of detail or summarize them as you wish.

The employee keys in the accounting data's such as Sales, Purchase, Bank receipts, Bank Payments etc. and he can generate reports like Trial Balance, Ledger, Balance Sheet, Bank Details, Cash Details etc.

Screens

The system provides numerous highly controlled user interfaces some of the users are

Master Entry Screens

GL Master	: used for creating the Ledger Groups
Customer Master	: used to store the customer details
Supplier Master	: used to store the supplier details
Bank Master	: used to store the bank details.
Advance for expense Master	: used to store the outstanding expenses
Sub-ledger Master	: used for creating sub ledger accounts under groups
Branch Master	: used for creating the branches for the main company.

Transaction Entry Screens

Bank

Bank Receipt :	used to enter receipt details like bank account name, cheque number and the Net Amount
Bank Payment :	used to enter Payment details like bank account name, cheque number and the Net Amount Cash
Cash Receipt :	used to enter cash receipt details like cash account name and the Net Amount
Cash payment:	used to enter cash payment details like cash account name and the Net Amount

General Journal

Credit Note :	*to enter the credit accounts details*
Debit Note :	to enter the debit accounts details
Sales Journal :	to enter the sales accounts details

4.2 OUTPUT DESIGN

The output is the most important and direct source of information to the user. Efficient, intelligible output design should improve the systems relationship with the user and help in decision making. A major form of output is a hard copy from the printer. Printouts should be designed around the output requirement to the user. Special emphasis is laid for output layout since the reports of the system will aid an understanding the report generated clearly. The user mostly decides areas of displaying information before building the output. The standards that were maintained for output design are

- Each output is given a specific name or title.
- All the reports to be in clear format.

The objectives of output design are

1. Design output to serve the intended purpose.
2. Design output to fit user.
3. Deliver the appropriate quantity of output.
4. Assure that output is where it is needed
5. Provide output on time
6. Choose the right output method.

4.3. DATABASE DESIGN

CompMast: Table

Table to store Company master information

Field name	Data Type	Description
Compcd	Int	Company Code
Compname	NVarchar	Company Name
Add1	Nvarchar	Company Address1
Add2	Nvarchar	Company Address2
From date	Small Date/Time	Financial year From date
To date	Small Date/Time	Financial year To date
Year	Int	Financial year
FaUpdate	Nvarchar	
SalesCodeGl	Int	Sales Entry Code
DebtorsGrp	Int	Debtors Group Code
CreditorsGrp	Int	Creditors Group Code
TrtLinePckey	Nvarchar	
TrtHeadPcKey	Int	
ExciseKey	Int	
PurchaseCode	Int	Purchase Entry Code

Data Year: Table

Table to store the accounting financial year

Field name	Data Type	Description
Year	Int	Financial Year
F	Nvarchar	Whether this is the financial year?

ARAP: Table

Table for Account Receivables and Payables

Field Name	Data type	Description
Source Key	Int	Reference Key For Groups
Main Ac	Int	Account Code
Amount	Int	Value for that account
Dr Cr	NVarchar	Whether Debit or Credit
RefPcKey	Int	Reference Accounts
Date	Small Date/Time	Date of Receipt / Payment
DocType	NVarchar	Type of Document whether Receipt of Payment
Voucher	NVarchar	Voucher Code

BsRpt: Table
Table For Balance Sheet Report

Field Name	Data Type	Description
GrpName	NVarchar	Group Name
Debit	NVarchar	Debit Value
Credit	NVarchar	Credit Value

Day Book: Table
Table to maintain day to day transactions

Field Name	Data Type	Description
PcKey	Int	Key Code for the type of document
DocNo	NVarchar	Document Int
DocDate	Small Date/Time	Document Date
DocType	NVarchar	Document Type
MainAc	Int	Main.Acc Code
Narration	NVarchar	Description of that transaction
Debit	Int	Debit value
Credit	Int	Credit Value

Day Sum: Table
Table to maintain the summary of transactions daywise

Field Name	Data Type	Description
MainAc	Int	Main.Acc.Code
Date	Small Date/Time	Date
DocType	NVarchar	Type of Document
Debit	Int	Debit Value
Credit	Int	Credit value
Qty	Int	Qty for that account
StkInOut	NVarchar	Stock In / Out (I / O)
CompCd	Int	CompanyCode

DocNos: Table
Table for document master

Field Name	Data Type	Description
CompCd	Int	CompanyCode
ConAc	Int	Account Code
DocType	NVarchar	Type of document
DocmentNo	Int	Document Int

Grps: Table
Table for group master

Field Name	Data Type	Description
Code	Int	Code for the Group
Type	NVarchar	Type of Group
RefCode	Int	Parent GroupCode
Heading	NVarchar	Name of the group
ReservedGrp	NVarchar	Whether group can be deleted or not?

Ledger: Table
Table for Ledger

Field Name	Data Type	Description
Date	NVarchar	Date
DocNo	NVarchar	Document Int
Type	NVarchar	Type of Document
Particulars	NVarchar	Account Details
Debit	NVarchar	Debit Value
Credit	NVarchar	Credit Value
Balance	NVarchar	Difference in Debit / Credit
D/C	NVarchar	Whether Debit / Credit ?

MainAcs :TABLE
Table for Account Master

Field Name	Data Type	Description
MainAc	Int	Account Code
AcHead	NVarchar	AccountName
GrpCode	Int	Group Code
GrpOrInd	NVarchar	Group or Individual Account
IvenCode	Int	Inventory Code if any
OpeningBal	Int	Opening balance
DrCr	NVarchar	Debit or Credit
Stock	Int	Stock in hand
Unit	Int	Unit of measurement
Rate	Int	Rate
CurStock	Int	Current Stock
RefCode	Int	Reference Code
EmptyValue	Int	ReOrder Level

Outstanding: Table
Table for Outstanding Details

Field Name	Data Type	Description
Ledger Name	NVarchar	Account Name
BillAmt	Int	Bill Amount
Paid	Int	Paid Amount
Balance	Int	Balance Amount
CC	Int	Credit Value
CD	Int	Debit Value
CB	Int	Balance Value
Narration	NVarchar	Description

Trial Balance:

Field Name	Data Type	Description
DocNo	NVarchar	Document Int
Date	Small Date/Time	Document Date
Narration	NVarchar	Description
Type	NVarchar	Account Type
Debit	Int	Debit Value
Credit	Int	Credit Value

TrtLine: Table
Table for Purchase/Sales/Purchase Returns/Sales Returns/Receipts/Payments

Field Name	Data Type	Description
LinePcKey	Int	Code
Pckey	Int	Account Type Code
MainAc	Int	Main Account Code
Amount	Int	Value of the Account
DrCr	NVarchar	Debit / Credit
Narration	NVarchar	Description
RefPCkey	Int	Reference Account type
Qty	Int	Quantity
Free	Int	Free Value
Rate	Int	Rate
Voucher	NVarchar	Voucher No
DocType	NVarchar	Document Type

Supplier Master : Table
Table for Supplier Master

Field Name	Data Type	Description
SupplierCode	Int	Supplier Code
SupplierName	NVarchar	Supplier Name
Address1	NVarchar	Address1
Address2	NVarchar	Address2
City	NVarchar	City
Pin	Int	PinNumber
Phone	Int	Phone Number

Supplier Details : Table
Table for Supplier Details

Field Name	Data Type	Description
SupplierCode	Int	Supplier Code
ProductCode	Int	Product Code
ProductName	NVarchar	Product Name
Rate	Int	Product Rate

Customer Master : Table
Table for customer master

Field Name	Data Type	Description
CustomerCode	Int	Customer Code
CustomerName	NVarchar	Customer Name
Address1	NVarchar	Address1
Address2	NVarchar	Address2
City	NVarchar	City
Pin	Int	PinNumber
Phone	Int	Phone Number

4.4. PROCESS DESIGN

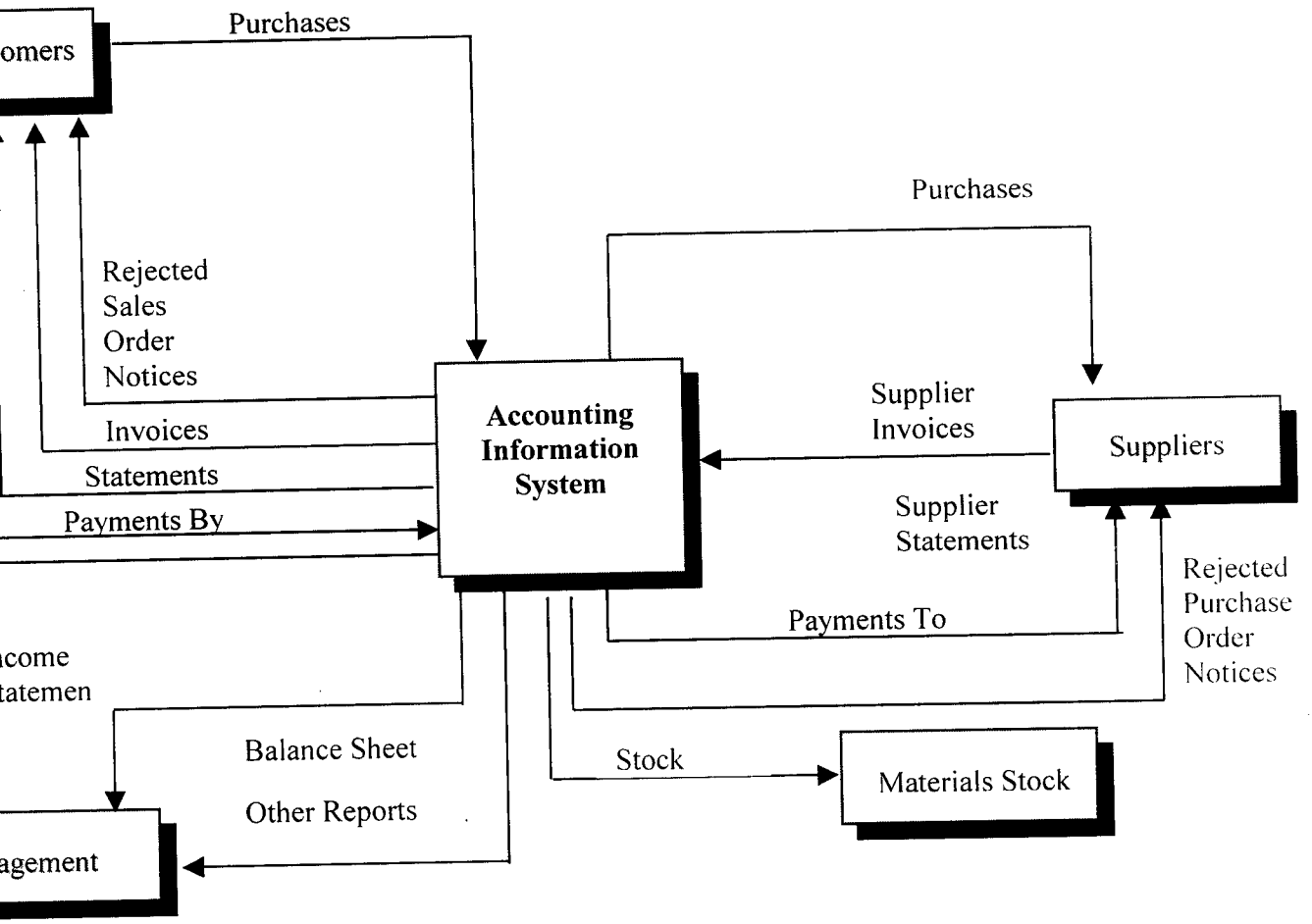
Data Flow Diagram

A Data Flow Diagram is a graphical technique that depicts information flow and transformation that are applied as data move from input to output. In this graph the nodes represent the processing activities and the arcs specify the data items to be transmitted between processing nodes. The DFDs maybe used to represent system software at any level of abstraction.

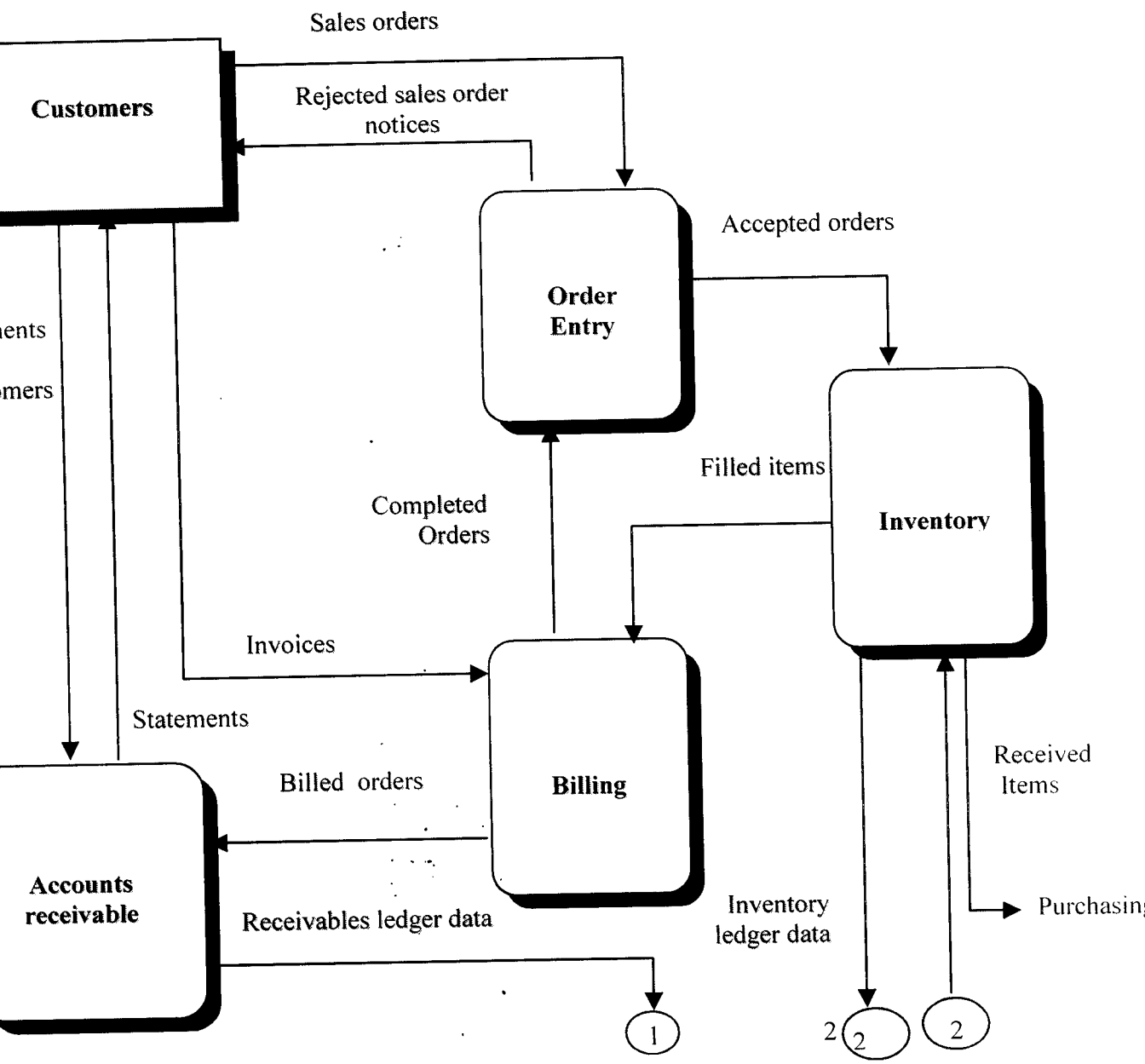
The DFD provides a mechanism for functional modeling as well as information flow modeling. The DFD might represent data flow between concurrent processes or a data flow in a distributed computing system where each node represent a geographically remote processing unit. Unlike flow charts, DFDs do not indicate the decision logic or the conditions under which the various processing nodes in the diagram might be activated. DFD is an excellent means of communicating with the customers during the requirement analysis and they are also useful for representation of external and top level internal design specifications, meaning conventions. Dataflow oriented design is an architectural design method that allows a convenient transition from the analysis model to a design description of program structure.

The design phases mainly concerned with the identifying software components specifying relations among components specifying software structures.

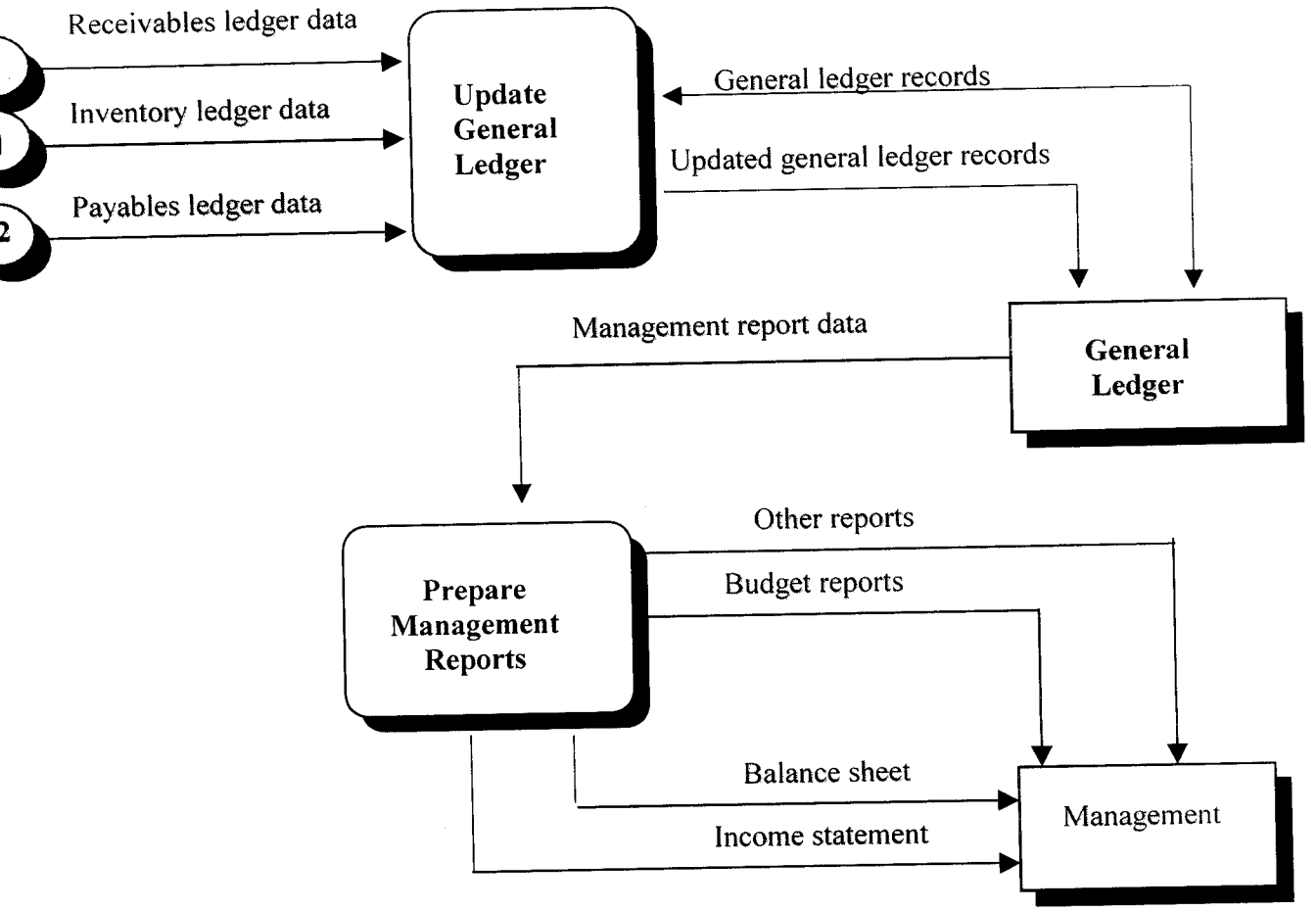
Context Diagram of Accounting Information System



A Figure 1 Diagram of the Systems that Fill Customer Orders



A Figure 2 Diagram of the Systems That Perform General Ledger Processes



Testing and Maintenance

5. TESTING AND MAINTENANCE

5.1. SYSTEM IMPLEMENTATION

The crucial phase in the system development is the successful implementation of the new system. Implementation is the process of converting a new system design into an operational one. This involves creating computer compatible files, training the operating staff, and installing hardwares and network. Conversion is on aspect of implementation review and software maintenance. A critical factor in conversion is not disrupting the functioning of the organization.

The most secure method of converting from old to new system is to run both systems is parallel. Here the user continues to operate old system in the accustomed manner but they also begin the new system. This method also offers the greatest security since the old system can take over if any errors area found or inability to handle certain type of transactions while using the new system.

User Training and Documentation's

User training is crucial for minimizing resistance to change and giving the new system a chance to prove its worth. Training aids such as user friendly manuals, preparations of user and system documentation, conducting user training with demo and hands-on, text run for some period to ensure smooth switching over the new system.

A presentation of the package is made to the user followed by demonstration explaining general implication of software module, the main aim of this training would be to furnish the user with working knowledge at the newly developed system.

The users are trained to use the newly developed functions. User manual describing the procedures for using the functions listed on menu is circulated to the users. Since all efforts have been made to make out any bug through test makes the system work uninterruptedly with out runtime errors. It is confirmed that the system is implemented up to the users need and expectations.

Documentation's

It is extremely important for the developer to provide documentation about the application for the following purpose.

- User to know how to use functions provided in the application.
- Help application maintenance persons in modifying code over a period of time.

Documentation has not been given due importance in many cases. This will commence from the stage of analysis itself and not after completing development of the project.

- **User manual**
- **System manual**

5.2. SYSTEM TESTING

Testing is vital to the success of the system. System Testing makes a logical assumption that if all the parts of the system are correct, the system will be successfully achieved. Inadequate testing or non-testing leads to error that may not appear until months later. This creates the time lag between the cause and the appearance of the problem and the effects of the system errors on files and records within the system. Hence the aim of testing is to create bug free reliable and assured system. The implementation of newly designed package is an important phase in adopting a successful new system. The implementation of the package involves testing, user training, acceptance and changeover.

The objective of testing is to discover errors. To fulfill these objectives of test steps unit test, integration, validation and system test were planned and executed. A program module may function perfectly in isolation but fall when interfaced with other modules. The approach is to test each entity with successively larger ones, up to the system level. System testing consists of following steps:

- Program(s) testing
- String testing
- System testing
- System documentation
- User acceptance testing

PROGRAM TESTING

A program represents the logical element of the system. For a program to run satisfactorily, it must compile and test data correctly and tie in properly with other programs. Achieving error free programs is the responsibility of the programmer. Program testing checks for two types of error: syntax and logical.

When a program is tested, the actual output is concerned with the expected output. When there is a discrepancy, the sequence of instruction must be traced to

determine the problem. Breaking the program down into self-contained portions, each of which can be checked at certain key points, facilities the process.

String Testing

Programs area invariably related to one another and interacts in total system. Each program is tested to see whether it conform to related programs in the system. Each portion of the system is tested against the entire module with both test and live data before the entire system is ready to be used.

System Testing

System testing is designed to uncover weaknesses that were found in earlier tests. This includes forced system failure and its user in operational environment will implement validation of the total system as it. It begins with low volumes of transactions based on live data. The volume was increased until the maximum level for each transaction type is reached. The total system is also tested for recovery and fall back after various major failures to ensure that no data are last during the emergency.

Black box testing

This testing focuses on the functional requirement of the software. Black box testing finds errors in the following functions : Incorrect or missing functions, interface errors, errors in database access, performance errors or initialization or termination errors.

White Box testing

Using the white box testing all the logical decisions on the true and false side of the product are tested. All the loops within the operational bounds are tested. Logical errors and incorrect assumptions are identified and rectified.

User Acceptance Testing

An acceptance test has the objective of selling the user on the validity and reliability of the system. It verifies that the systems procedures operate to system specification and that the integrity of vital data is maintained. Performance of an acceptance test is actually the users show. User motivation and Knowledge are critical for successful performance of the system. The system under consideration is tested for user

acceptance by constantly keeping in touch with the prospective system user at the time of developing and making changes whenever required. This is done in regard to the following points:

- Input screen design
- Output screen deign
- Menu-driven system
- Format of ad-hoc reports and other outputs.

Conclusion

CONCLUSION

With all dynamic efforts I have done the project with heart and soul efforts. The project was a practical learning experience which brought out all necessary qualities of a budding programmer to survive successfully in this competitive world. I apologies the reader for the mistakes that have been done in this project unknowingly and promise to correct the same in future. Preciously it was yet another war between reason and passion.

Scope for Future Enhancement

SCOPE FOR FUTURE ENHANCEMENT

The stage is set, and there is no looking back. Change has become the buzzword, everything is undergoing a dramatic change, and the Accounting Information System is no exception from the race to be the best.

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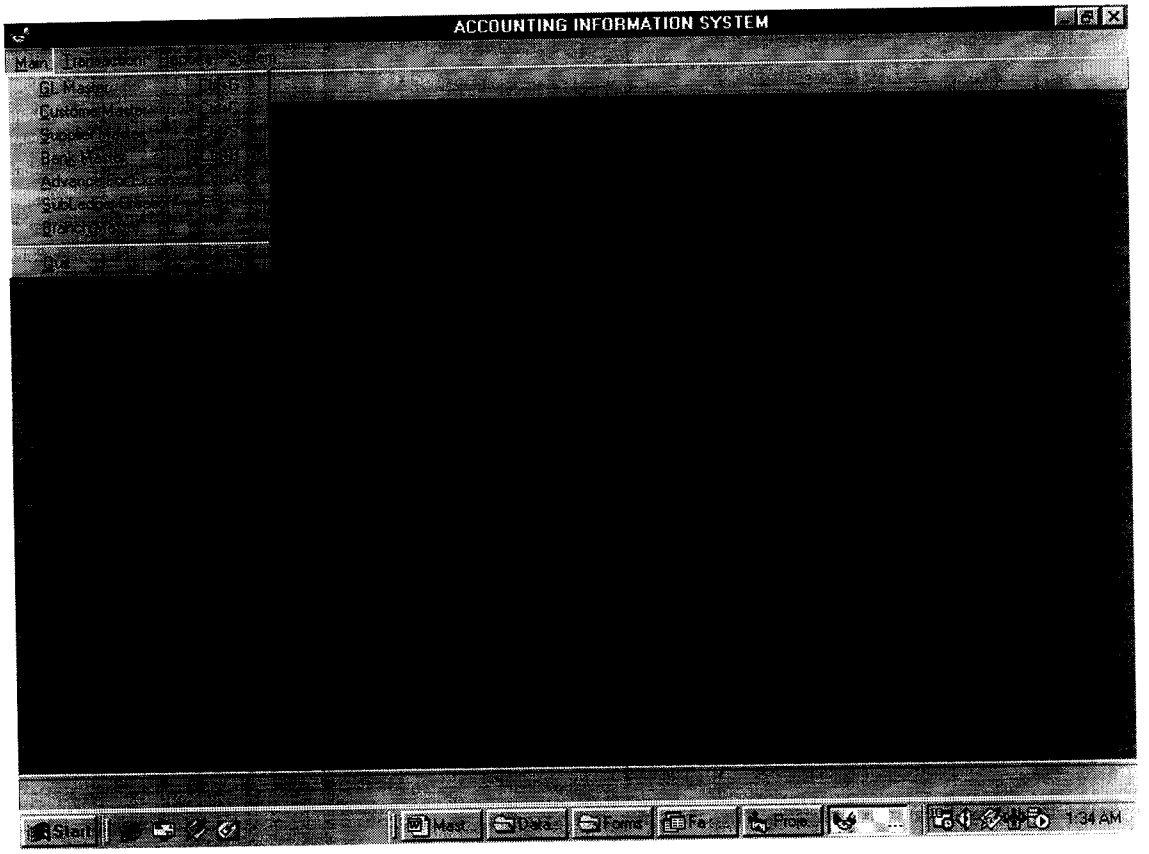
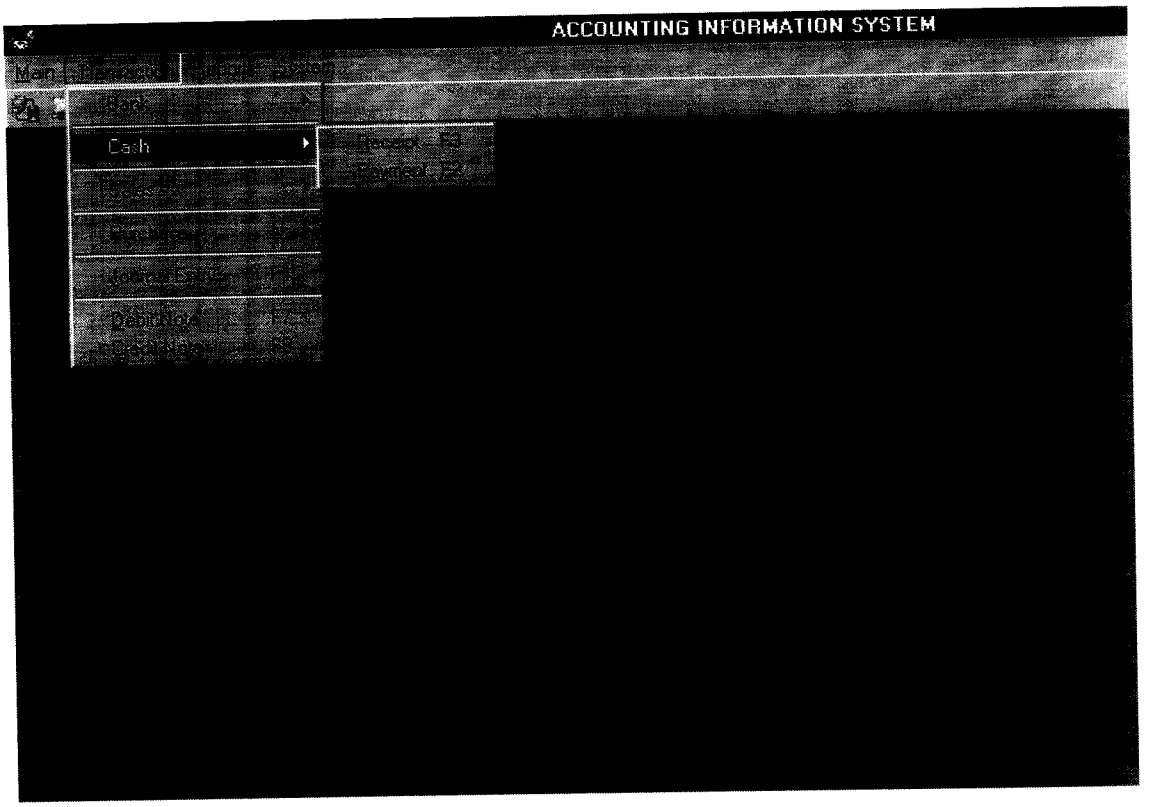
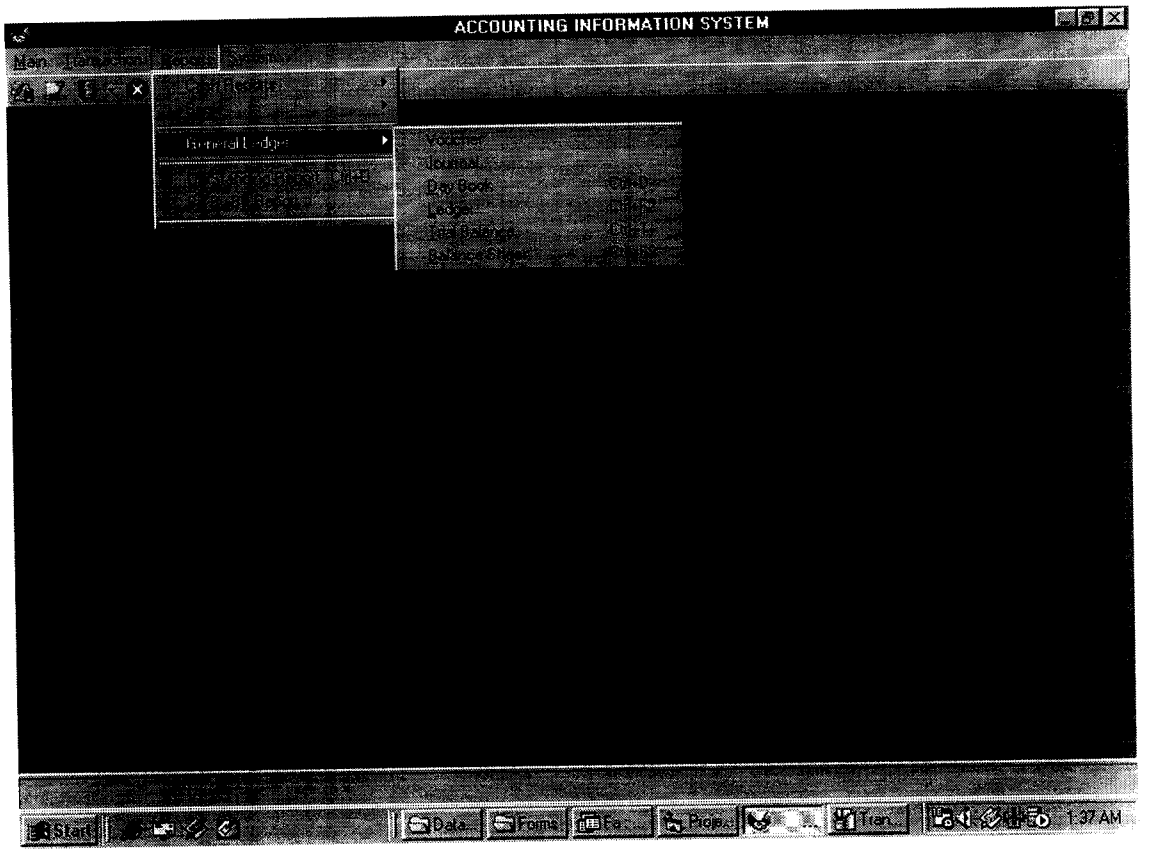
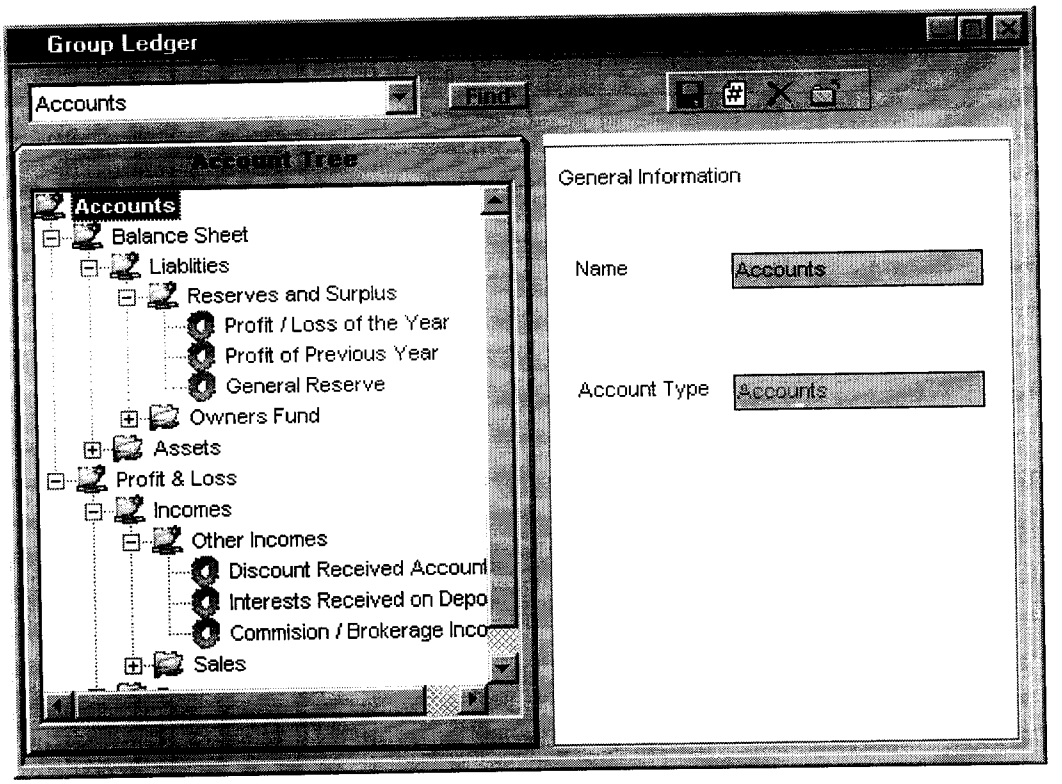
Annexure

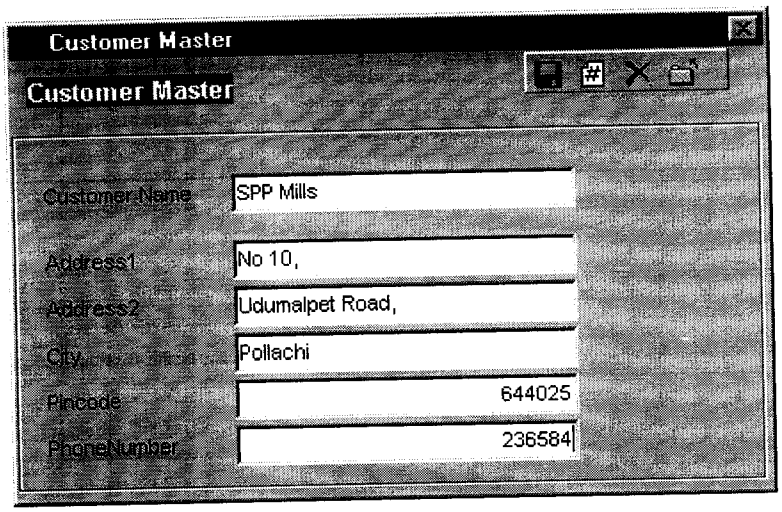
MASTER

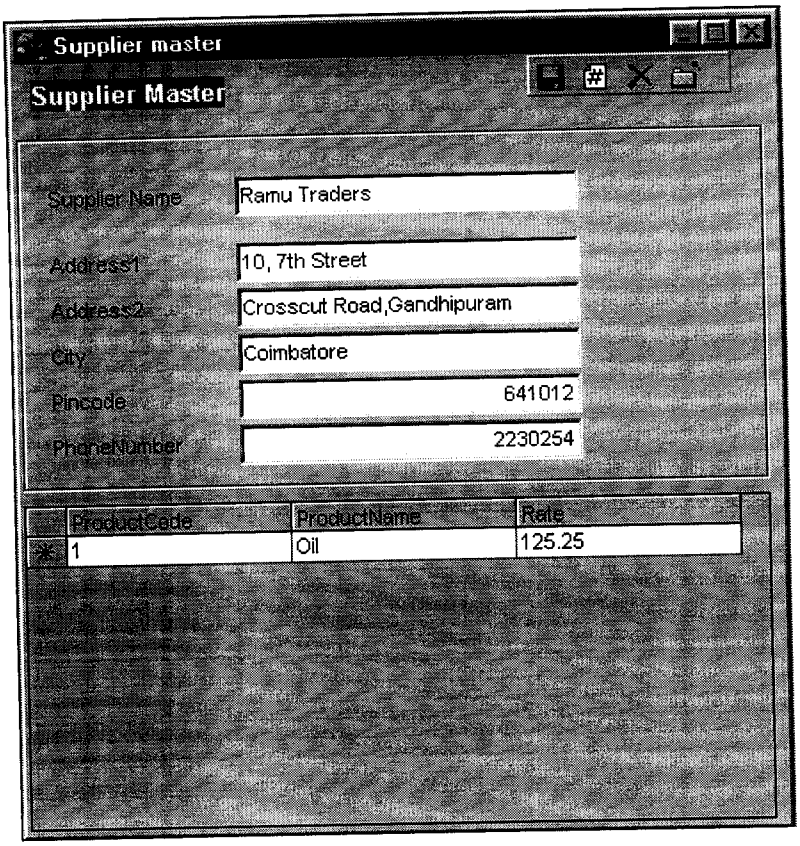

ACCOUNTING INFORMATION SYSTEM
Main
Transaction
GL Master
Start
1:34 AM


ACCOUNTING INFORMATION SYSTEM
Main
Bank
Cash
Receipt F3
Payment F2

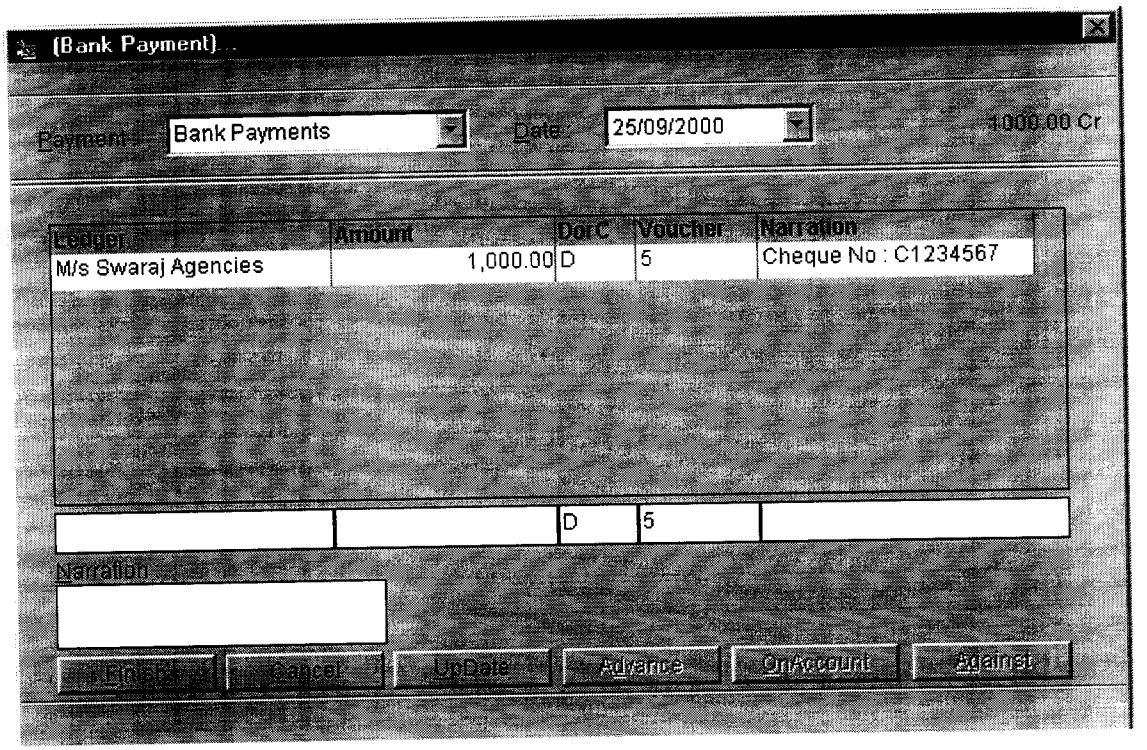

ACCOUNTING INFORMATION SYSTEM
Main
Voucher
Journal
Day Book
Ledger
Trial Balance
Balance Sheet
Data...
Forms
Fo...
Proje...
Tran...
1:37 AM

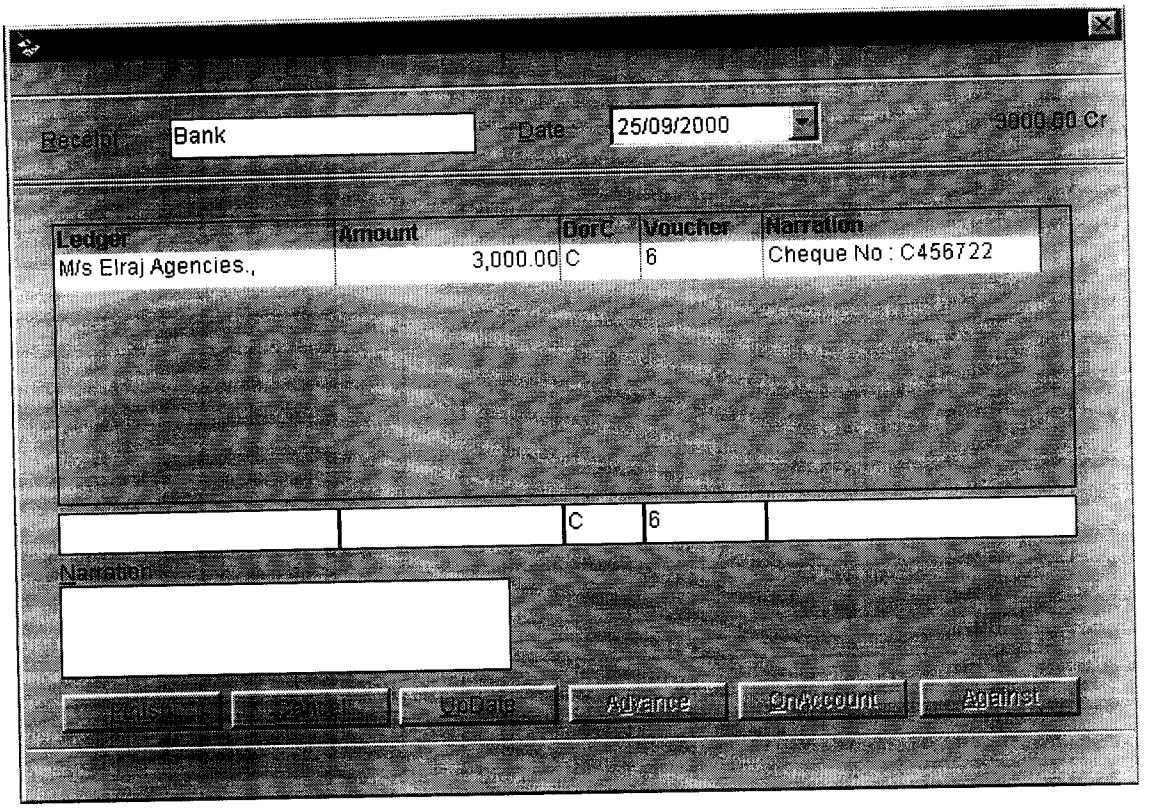

Group Ledger
Accounts
Find
Account Tree
Accounts
Balance Sheet
Liablities
Reserves and Surplus
Profit / Loss of the Year
Profit of Previous Year
General Reserve
Owners Fund
Assets
Profit & Loss
Incomes
Other Incomes
Discount Received Account
Interests Received on Depo
Commision / Brokerage Inco
Sales
General Information
Name
Accounts
Account Type
Accounts

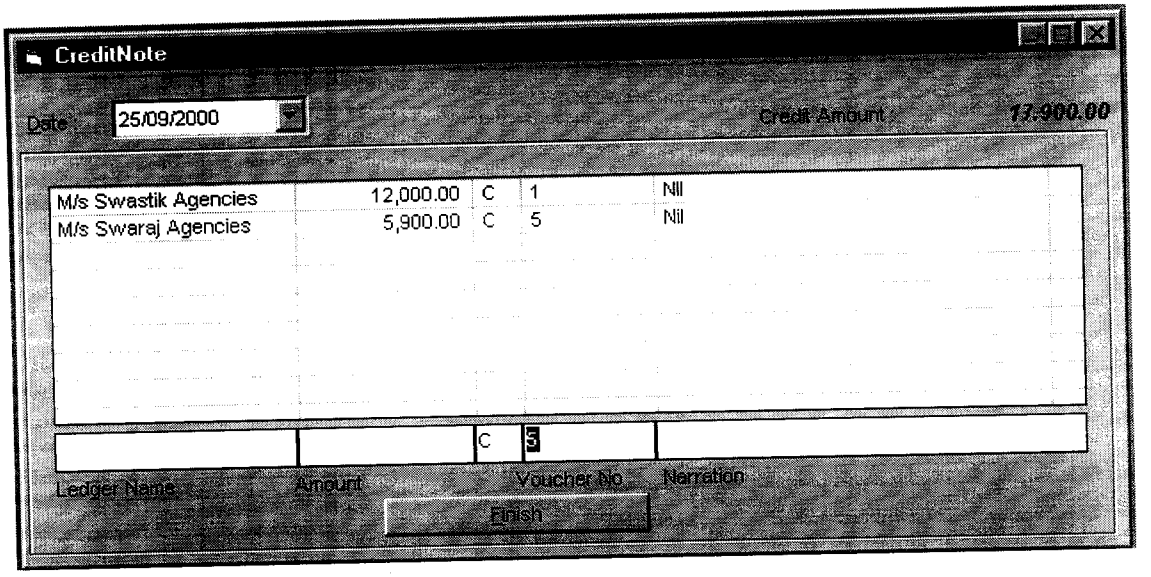

Customer Master
Customer Master
Customer Name
SPP Mills
Address1
No 10,
Address2
Udumalpet Road,
City
Pollachi
Pincode
644025
PhoneNumber
236584

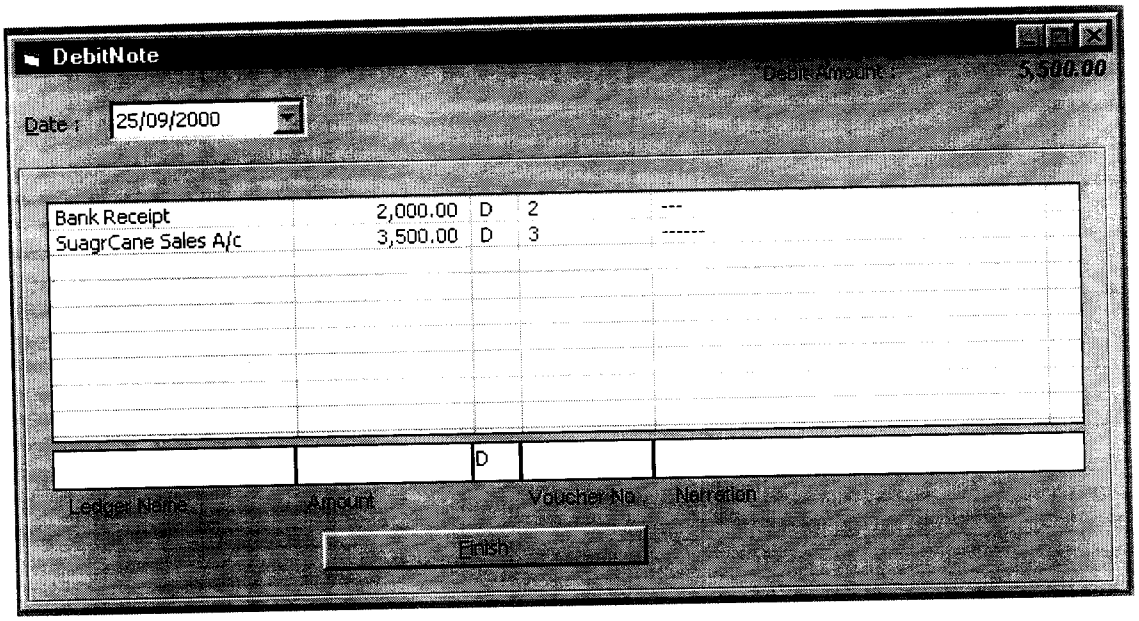

Supplier master
Supplier Master
Supplier Name
Ramu Traders
Address1
10, 7th Street
Address2
Crosscut Road,Gandhipuram
City
Coimbatore
Pincode
641012
PhoneNumber
2230254
ProductCode
ProductName
Rate
1
Oil
125.25

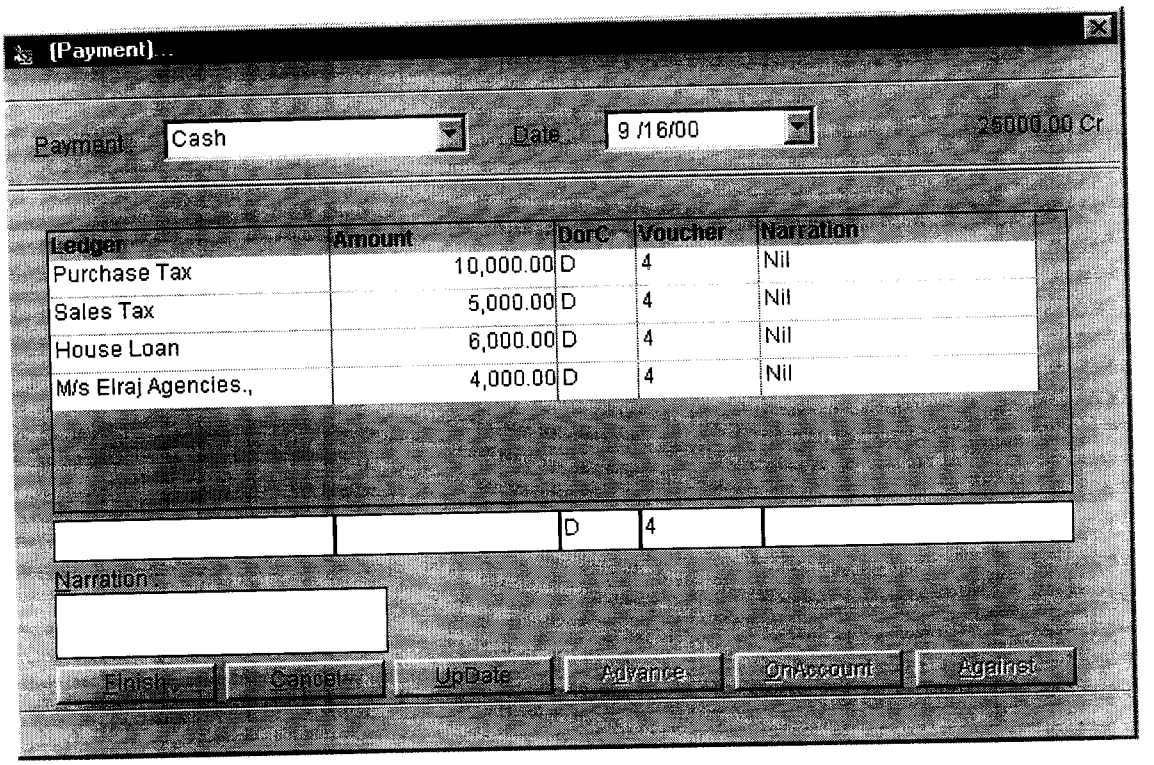
TRANSACTION

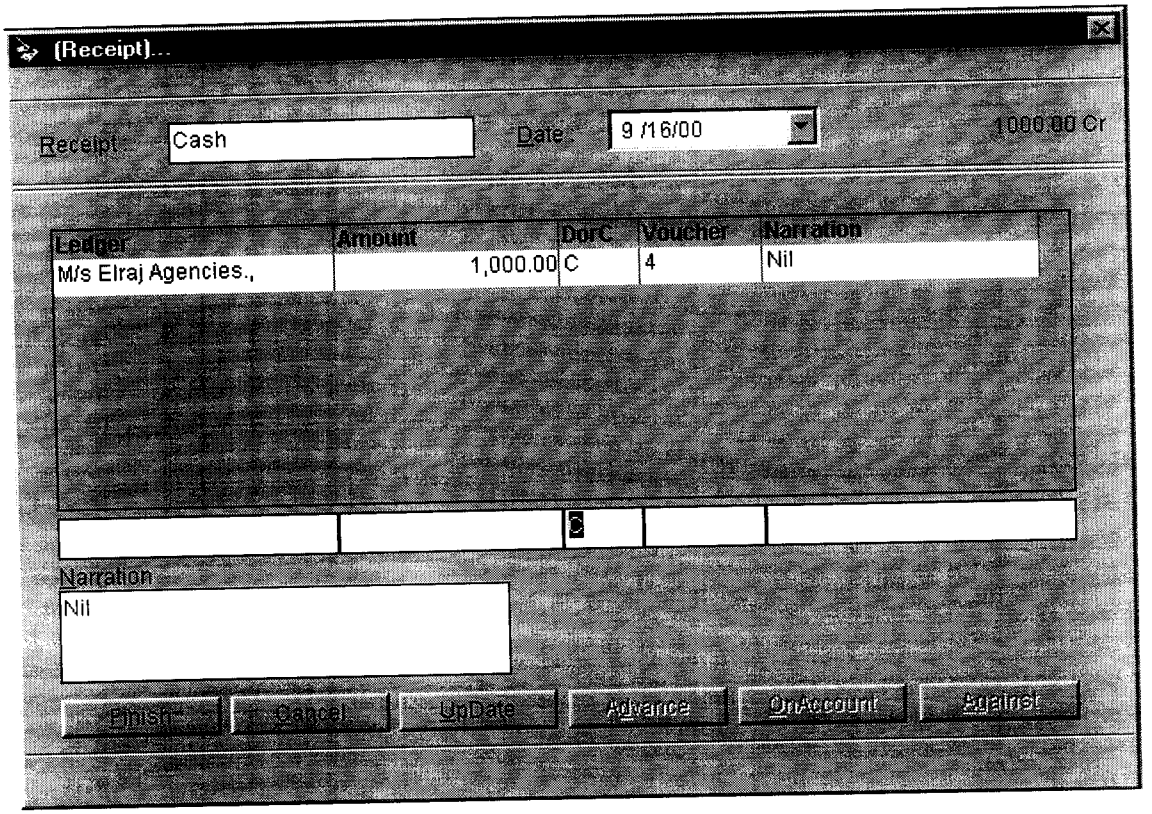



Receipt
Bank
Date
25/09/2000
3000.00 Cr
Ledger
Amount
DorC
Voucher
Narration
M/s Elraj Agencies.,
3,000.00
C
6
Cheque No : C456722
C
6
Narration
UpDate
Advance
On Account
Against


CreditNote
Date
25/09/2000
Credit Amount
17,900.00
M/s Swastik Agencies
12,000.00
C
1
Nil
M/s Swaraj Agencies
5,900.00
C
5
Nil
C
5
Ledger Name
Amount
Voucher No
Narration
Finish

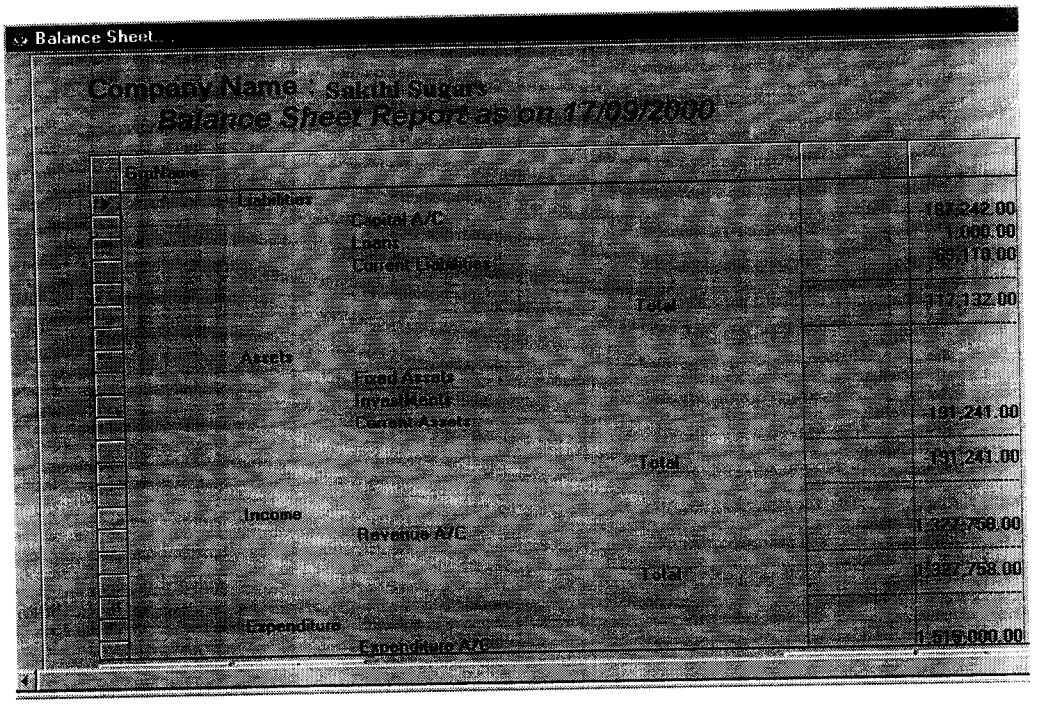

DebitNote
Debit Amount : 5,500.00
Date : 25/09/2000
Bank Receipt 2,000.00 D 2 ---
SuagrCane Sales A/c 3,500.00 D 3 ------
D
Ledger Name
Amount
Voucher No.
Narration
Finish


(Payment)...
Payment: Cash
Date: 9 /16/00
25000.00 Cr
Ledger | Amount | DorC | Voucher | Narration
Purchase Tax | 10,000.00 | D | 4 | Nil
Sales Tax | 5,000.00 | D | 4 | Nil
House Loan | 6,000.00 | D | 4 | Nil
M/s Elraj Agencies., | 4,000.00 | D | 4 | Nil
D | 4
Narration :
Finish
Cancel
UpDate
Advance
OnAccount
Against

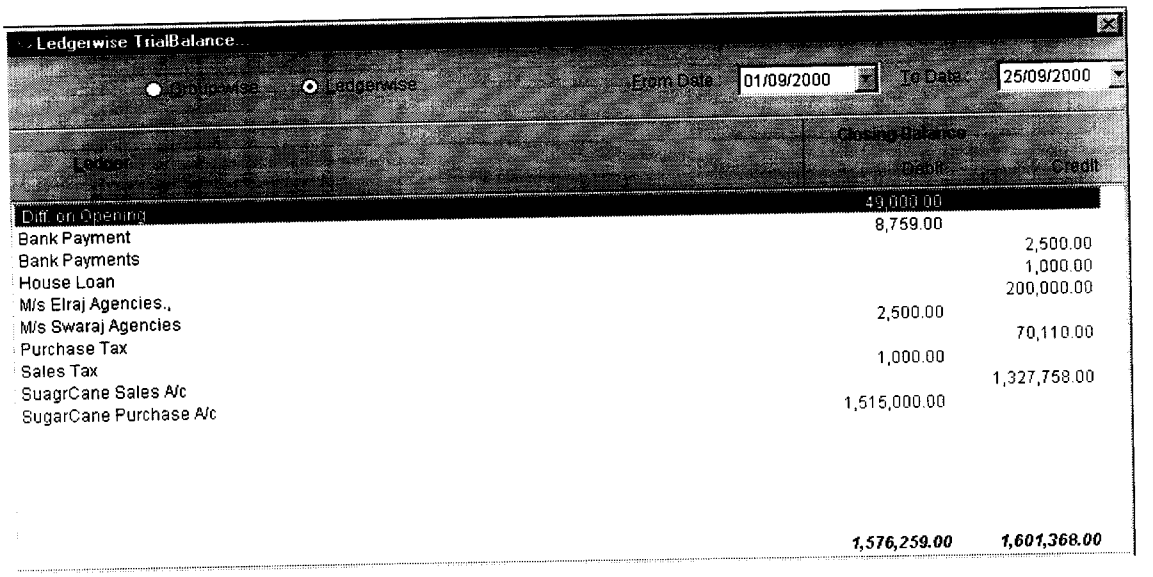

(Receipt)...
Receipt
Cash
Date
9 /16/00
1000.00 Cr
Ledger
Amount
DorC
Voucher
Narration
M/s Elraj Agencies.,
1,000.00
C
4
Nil
Narration
Nil
Finish
Cancel
UpDate
Advance
OnAccount
Against

REPORTS

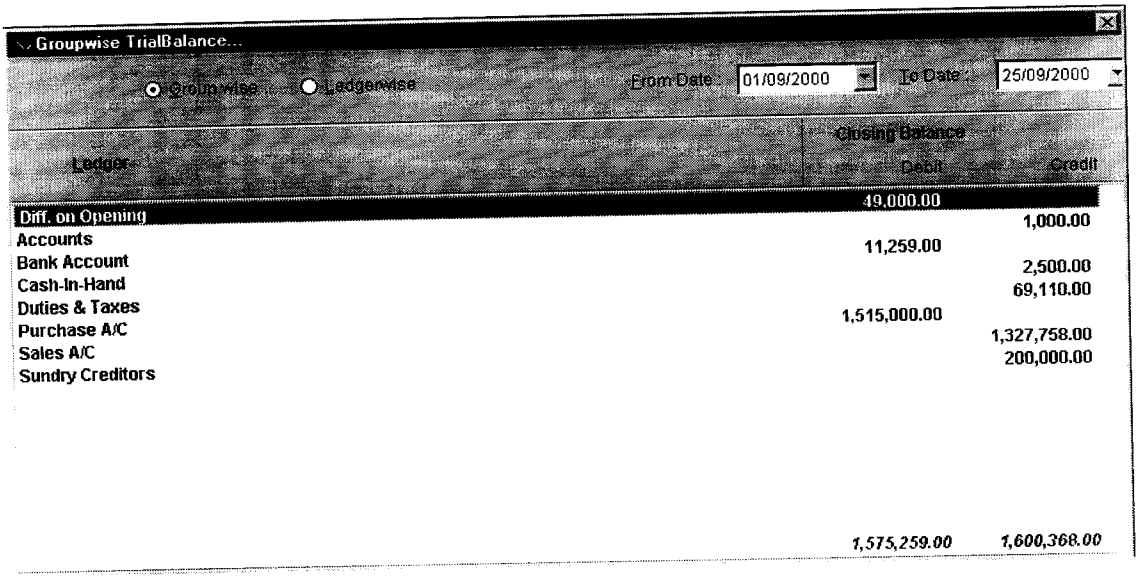
Balance Sheet



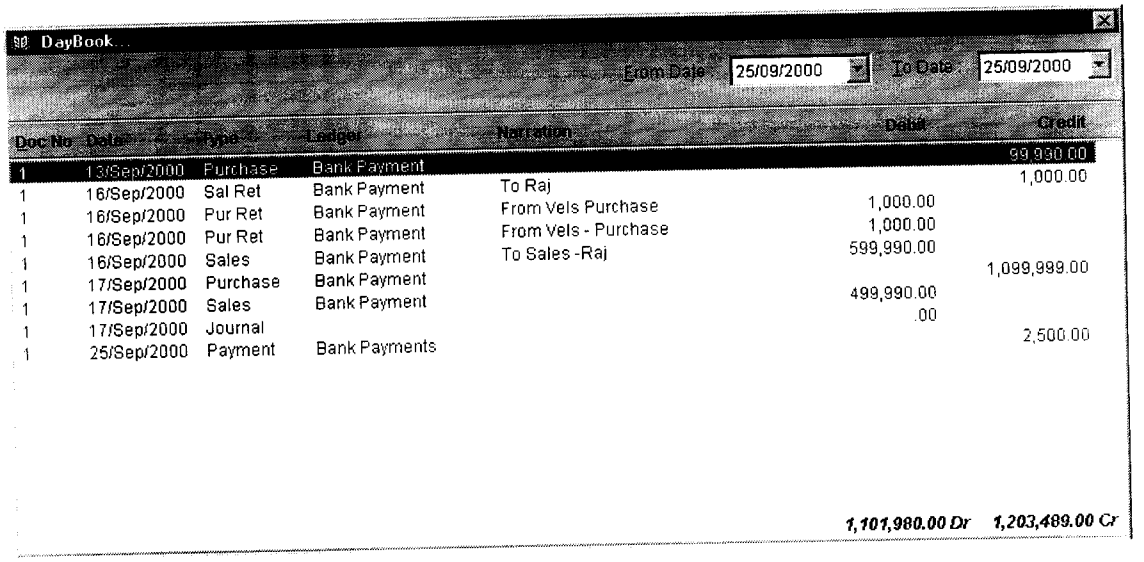
Ledger Report



Trial balance



Day Book



DayBook...

From Date 25/09/2000 To Date 25/09/2000

Doc No	Date	Type	Ledger	Narration	Debit	Credit
1	13/Sep/2000	Purchase	Bank Payment			99,990.00
1	16/Sep/2000	Sal Ret	Bank Payment	To Raj		1,000.00
1	16/Sep/2000	Pur Ret	Bank Payment	From Vels Purchase	1,000.00	
1	16/Sep/2000	Pur Ret	Bank Payment	From Vels - Purchase	1,000.00	
1	16/Sep/2000	Sales	Bank Payment	To Sales -Raj	599,990.00	
1	17/Sep/2000	Purchase	Bank Payment			1,099,999.00
1	17/Sep/2000	Sales	Bank Payment		499,990.00	
1	17/Sep/2000	Journal			.00	
1	25/Sep/2000	Payment	Bank Payments			2,500.00
					1,101,980.00 Dr	*1,203,489.00 Cr*

CreditNote Report

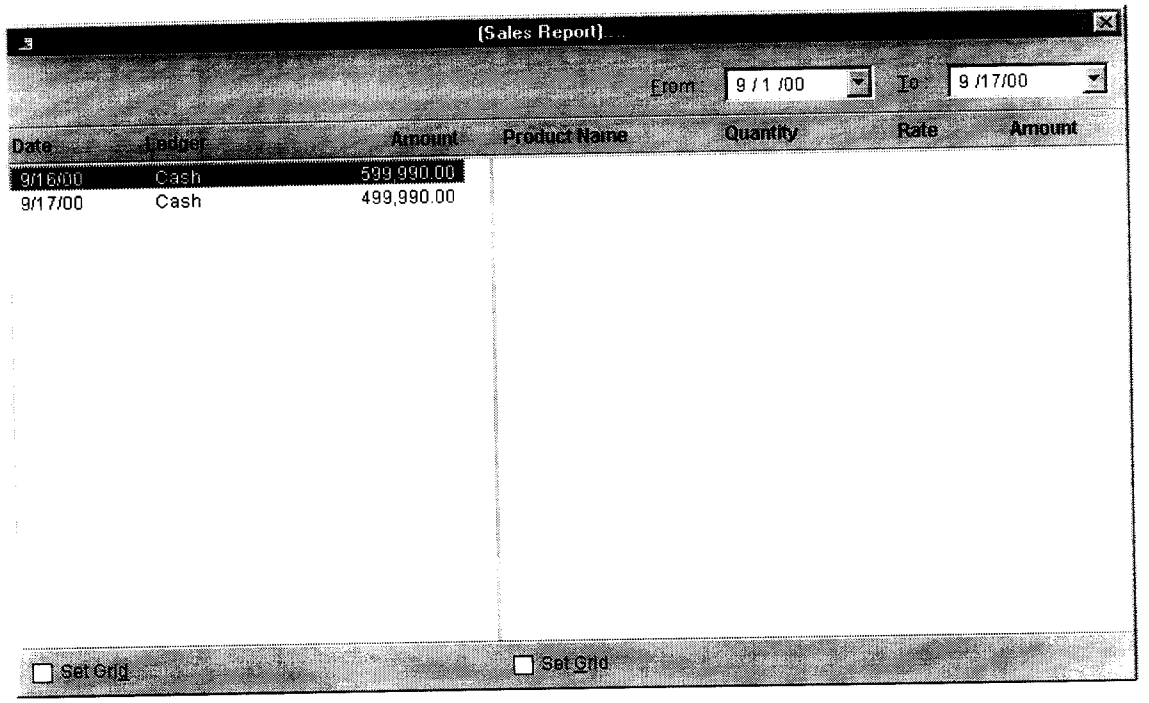
Ledger Name	Net Amount	Account Type	VoucherNo	Narration
M/s Swastik Agencies	12,000.00	Credit	1	Nil
M/S Swaraj Agencies	5900	Credit	5	Nil

DebitNote Report

Ledger Name	Net Amount	Account Type	VoucherNo	Narration
BankReceipt	2000	Debit	2	---
SugarCane Sales A/C	3500	Debit	3	-----

Voucherwise Report For Bank Payments / Receipts

Ledger Name	Net Amount	Account Type	VoucherNo	Narration
M/S Swaraj Agencies	1000	Credit	5	Cheque No: C1234567
M/S Elraj Agencies	3000	Debit	6	Cheque No: C456722


(Sales Report)
From: 9/1/00
To: 9/17/00
Date
Voucher
Amount
9/16/00
Cash
599,990.00
9/17/00
Cash
499,990.00
Product Name
Quantity
Rate
Amount
Set Grid
Set Grid

SAMPLE SOURCE CODE

Account Master Form

```
Dim adoGrprs As ADODB.Recordset, Edt As Integer, ename As String, Code As Integer
Dim ref As Integer, refl As Integer, Tpe As String, flag As Integer, l As Integer, res As
String
Dim adoMain As New ADODB.Recordset ', nl As Integer
Public Sub RefreshList()
On Error GoTo Er

   Dim ADORsMembers As New ADODB.Recordset
   ADORsMembers.Open "SELECT * From grps WHERE code=refcode ORDER BY
Code", db, adOpenDynamic, adLockReadOnly
   Tv.Nodes.clear
   Dim nodx As Node
   Do While Not ADORsMembers.EOF
      Set nodx = Tv.Nodes.Add(, , "I" & CStr(ADORsMembers!Code),
ADORsMembers!heading, 1)
      nodx.ExpandedImage = 2
      nodx.Bold = True: nodx.Expanded = True
      AddChild (ADORsMembers!Code)
      If nodx.Children = 0 Then
         nodx.Image = 3
      End If
      ADORsMembers.MoveNext
   Loop

'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub

Public Sub AddChild(RefId As Long)
"On Error GoTo Er

   Dim nodx As Node
   Dim AdoRsTmp As New ADODB.Recordset
   AdoRsTmp.Open "SELECT * FROM GRPS WHERE code<>RefCode AND
refcode=" & RefId, db, adOpenDynamic, adLockReadOnly
   With AdoRsTmp
```

```
    Do While Not .EOF
       Set nodx = Tv.Nodes.Add("I" & CStr(RefId), tvwChild, "I" &
CStr(AdoRsTmp!Code), AdoRsTmp!heading, 1)
       nodx.ExpandedImage = 2
       AddChild (AdoRsTmp!Code)
       If nodx.Children = 0 Then
          nodx.Image = 3
       End If

       .MoveNext
     Loop
   End With
   Set AdoRsTmp = Nothing

'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub



Private Sub cmdCancel_Click()

'On Error GoTo Er
   Call SetButtons(Me, True)
   Call DisplayRecord(adoGrprs)
   fraMain.Enabled = False
   Dbc.Enabled = True

'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub

Private Sub cmdClose_Click()
   fraList.Visible = False
```

```
   fraMain.Visible = True
   fraAction.Visible = True
End Sub

Private Sub cmdDelete_Click()
'On Error GoTo Er
   adoGrprs.MoveFirst
   adoGrprs.Find "code=" & Code
   If Code = 77 Or Code = 78 Then
      MsgBox "Reserved Group cannot be deleted", vbExclamation, "Deletion Restricted"
      Exit Sub
   End If
   If adoGrprs!originalgrps = "Y" Then
      MsgBox "Reserved Group cannot delete", vbInformation, "Deletion Restricted"
      Exit Sub
   End If
   adoMain.MoveFirst
   adoMain.Find "grpcode=" & Code
   If Not adoMain.EOF Then
      MsgBox "Reserved Group cannot be deleted", vbInformation, "Deleteion
 Restricted..."
      Exit Sub
   End If
   adoGrprs.MoveFirst
   adoGrprs.Find "refcode=" & Code
   If Not adoGrprs.EOF Then
      MsgBox "Group is Already Refered. You cannot delete", vbInformation, "Deletion
 Restricted"
      Exit Sub
   End If
   If MsgBox("Confirm Deletion", vbYesNo + vbQuestion, "Confirmation Message...") =
 vbYes Then
      db.Execute "delete from grps where code=" & Code
   End If
   adoGrprs.Requery
   Call DisplayRecord(adoGrprs)

 '----
 Exit Sub
 Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
 End
```

```
End Sub

Private Sub cmdEdit_Click()
'On Error GoTo Er

Dim adogr As New ADODB.Recordset
   fraMain.Enabled = True
   If adogr.State <> adStateClosed Then adogr.Close
   adogr.Open "Select * From Grps where reservedgrp<>'Y' Order By Heading", db,
adOpenStatic, adLockOptimistic
   Set Dbc.DataSource = adogr
   Set Dbc.RowSource = adogr
   Dbc.ListField = "Heading"
   Dbc.BoundColumn = "Code"
   Call SetButtons(Me, False)
     adoGrprs.MoveFirst
     adoGrprs.Find "heading='" & Trim(txtGrpName) & "'"
   If Not adoGrprs.EOF Then
      If adoGrprs!reservedgrp = "Y" Then
         Dbc.Enabled = False
      Else
         Dbc.Enabled = True
      End If
   End If
   ename = Trim(txtGrpName)
   Edt = 1
'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End

End Sub

Private Sub cmdExit_Click()
'On Error GoTo Er

Unload Me

'----
Exit Sub
Er:
```

```
    frmError.Show vbModal
    If myerr = 1 Then Resume Next
    If myerr = 2 Then Resume
End

End Sub

Private Sub cmdList_Click()
"On Error GoTo Er

    fraList.Visible = True
    fraMain.Visible = False
    fraAction.Visible = False
    Call RefreshList

'----
Exit Sub
Er:

    frmError.Show vbModal
    If myerr = 1 Then Resume Next
    If myerr = 2 Then Resume
End
End Sub

Private Sub cmdNew_Click()
'On Error GoTo Er

    Edt = 0
    fraMain.Enabled = True
    Call SetButtons(Me, False)
    Set Dbc.DataSource = adoGrprs
    Set Dbc.RowSource = adoGrprs
    Dbc.ListField = "Heading"
    Dbc.BoundColumn = "Code"
    txtGrpName = ""
    Dbc = ""
    lblunder.Caption = ""
    Dbc.Enabled = True
    txtGrpName.SetFocus

'----
Exit Sub
Er:

    frmError.Show vbModal
```

```
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub

Private Sub cmdOpen_Click()
'On Error GoTo Er
'----
   fraList.Visible = False
   Dim SD As New ADODB.Recordset
   SD.Open "select * from grps", db, adOpenKeyset
        SD.MoveFirst
        SD.Find "code=" & l
        Call DisplayRecord(SD)
        fraMain.Enabled = False
   SD.Close
 Exit Sub
 Er:

    frmError.Show vbModal
    If myerr = 1 Then Resume Next
    If myerr = 2 Then Resume
 End
 End Sub

 Private Sub cmdSave_Click()
 'On Error GoTo Er

 Dim Head As String
 If Trim(txtGrpName) = "" Then
    MsgBox "fill Group Name ", vbInformation
    txtGrpName.SetFocus
    Exit Sub
 End If
 If Not ename = txtGrpName Then
    adoGrprs.MoveFirst
    adoGrprs.Find "heading='" & txtGrpName & "'"
    If Not adoGrprs.EOF Then
       MsgBox "Group Name already Exist", vbInformation
       txtGrpName.SetFocus
       Exit Sub
    End If
    ename = ""
 End If
 If Trim(Dbc) = "" Then
    MsgBox "Select Heading", vbInformation
```

```
    Dbc.SetFocus
    Exit Sub
End If

adoGrprs.MoveFirst
If Val(Dbc.BoundText) = 0 Then
    adoGrprs.MoveFirst
    adoGrprs.Find "code=" & Code
    If Not adoGrprs.EOF Then
        adoGrprs!heading = txtGrpName
        adoGrprs.Update
        Call SetButtons(Me, True)
        Exit Sub
    End If
End If
adoGrprs.Find "code=" & Dbc.BoundText
    If Not adoGrprs.EOF Then
        ref = adoGrprs!RefCode
        ref1 = adoGrprs!Code
        Tpe = adoGrprs!Type
        flag = adoGrprs!bsplflag
        If adoGrprs!reservedgrp = "Y" Then
            res = adoGrprs!reservedgrp
        Else
            res = "N"
        End If
    End If


  If Edt <> 1 Then
    Dim rs As New ADODB.Recordset, max As Integer
    rs.Open "select max(code) from grps", db, adOpenKeyset
    If IsNull(rs.Fields(0)) = False Then
        max = rs.Fields(0) + 1
    Else
        max = 1
    End If
    rs.Close
    adoGrprs.AddNew
    adoGrprs!Code = max
    adoGrprs!Type = Tpe
    adoGrprs!RefCode = ref1
    adoGrprs!heading = txtGrpName
    adoGrprs!reservedgrp = res
    adoGrprs!bsplflag = flag
    adoGrprs.Update
```

```
Else
   adoGrprs.MoveFirst
   adoGrprs.Find "code=" & Code
   If Not adoGrprs.EOF Then
      adoGrprs!RefCode = ref1
      adoGrprs!heading = txtGrpName
      adoGrprs!reservedgrp = res
      adoGrprs.Update
   End If

End If
   Call SetButtons(Me, True)
   Call DisplayRecord(adoGrprs)

'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub

Private Sub cmdFind_Click()
   For i = 1 To Tv.Nodes.Count

      If Tv.Nodes(i).Text = Dbc.Text Then
         Tv.Nodes(i).Selected = True
         Tv.DropHighlight = Tv.SelectedItem
         Tv.SelectedItem.EnsureVisible
         Exit For
      End If

   Next

   adoGrprs.MoveFirst
   adoGrprs.Find "heading='" & Dbc & "'"
   If Not adoGrprs.EOF Then
      ref = adoGrprs!RefCode
   End If
   adoGrprs.MoveFirst
   adoGrprs.Find "code=" & ref
   txtName.Text = Dbc.Text
   If Not adoGrprs.EOF Then
```

```
      txtAtype.Text = adoGrprs!heading
'      lblunder.Caption = adoGrprs!heading
   End If

'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End

End Sub

Private Sub Dbc_Change()
'On Error GoTo Er

   For i = 1 To Tv.Nodes.Count

      If Tv.Nodes(i).Text = Dbc.Text Then
         Tv.Nodes(i).Selected = True
         Tv.DropHighlight = Tv.SelectedItem
         Tv.SelectedItem.EnsureVisible
         Exit For
      End If

   Next

   adoGrprs.MoveFirst
   adoGrprs.Find "heading='" & Dbc & "'"
   If Not adoGrprs.EOF Then
      ref = adoGrprs!RefCode
   End If
   adoGrprs.MoveFirst
   adoGrprs.Find "code=" & ref
   txtName.Text = Dbc.Text
   If Not adoGrprs.EOF Then

      txtAtype.Text = adoGrprs!heading
'      lblunder.Caption = adoGrprs!heading
   End If

'----
Exit Sub
Er:
```

```
   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub


Private Sub Dbc_KeyDown(KeyCode As Integer, Shift As Integer)
   If KeyCode = 13 Then SendKeys "{Tab}"
End Sub

Private Sub Dbc_LostFocus()
'On Error GoTo Er

   adoGrprs.MoveFirst
   adoGrprs.Find "Heading='" & Trim(Dbc.Text) & "'"
   If adoGrprs.EOF Then
      MsgBox "Entered Group is not found Please Re-enter or Select it", vbInformation
      Dbc.SetFocus
   End If
'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End
End Sub


Private Sub Form_KeyDown(KeyCode As Integer, Shift As Integer)
   If KeyCode = 27 Then
      If MsgBox("Do U want to Exit ( Y/N ) ? ", vbExclamation + vbYesNo,
"Information...") = vbYes Then
         Unload Me
      End If
   End If
End Sub

'Private Sub Form_Click()
'MsgBox "Top= " & Me.Top & "  Height=" & Me.Height & " Width= " & Me.Width & "
Left=" & Me.Left
'
'End Sub
```

```
Private Sub Form_Load()

'On Error GoTo Er

   Me.Top = 0
'  Me.Height = 5600
'  Me.Width = 8535
   Me.Left = 0
   OpenConnection
   RefreshList


   Set adoGrprs = New Recordset
   If adoGrprs.State <> adStateClosed Then adoGrprs.Close
   If adoMain.State <> adStateClosed Then adoMain.Close
   adoGrprs.Open "Select * From Grps Order By Heading", db, adOpenStatic,
adLockOptimistic
   adoMain.Open "select * from mainacs", db, adOpenStatic, adLockOptimistic
   Set Dbc.RowSource = adoGrprs
   Dbc.ListField = "Heading"
   Dbc.BoundColumn = "Code"
   Call DisplayRecord(adoGrprs)

'----
Exit Sub
Er:

   frmError.Show vbModal
   If myerr = 1 Then Resume Next
   If myerr = 2 Then Resume
End

End Sub

Private Sub DisplayRecord(adoGrprs As Recordset)
'On Error GoTo Er

Dim nBmark As Double
Dim nCode As Long
  With adoGrprs
    If Not .EOF Then
      nBmark = .Bookmark
      Code = adoGrprs!Code
      Tpe = adoGrprs!Type
      ref1 = adoGrprs!RefCode
```

```
        txtName.Text = adoGrprs!heading
        nCode = !RefCode
        .MoveFirst
        adoGrprs.Find "Code = " & nCode
        Dbc.Text = !heading
        nCode = !RefCode
        .MoveFirst
        adoGrprs.Find "Code = " & nCode
        'lblunder.Caption = !heading
        .Bookmark = nBmark
        'fraMain.Visible = True
        'fraAction.Visible = True
     End If
   End With
'----
Exit Sub
Er:

'   frmError.Show vbModal
    If myerr = 1 Then Resume Next
    If myerr = 2 Then Resume
End
End Sub




Private Sub tlb_ButtonClick(ByVal Button As MSComctlLib.Button)
Dim Head As String
On Error GoTo Er
Button.Value = tbrUnpressed
Select Case Button.Index
Case 1

        Button.Enabled = True
        If Trim(txtName) = "" Then
           MsgBox "fill Group Name ", vbInformation
           txtName.SetFocus
           Exit Sub
        End If

        If Not ename = txtName Then
           adoGrprs.MoveFirst
```

```
  adoGrprs.Find "heading='" & txtName & "'"
  If Edt = 0 Then
  If Not adoGrprs.EOF Then
     MsgBox "Group Name already Exist", vbInformation
     txtName.SetFocus
     Exit Sub
   End If
   ename = ""
   End If
End If

If Trim(Dbc) = "" Then
   MsgBox "Select Heading", vbInformation
   Dbc.SetFocus
   Exit Sub
End If

adoGrprs.MoveFirst
If Val(Dbc.BoundText) = 0 Then
   adoGrprs.MoveFirst
   adoGrprs.Find "code=" & Code
   If Not adoGrprs.EOF Then
      adoGrprs!heading = txtName
      adoGrprs.Update
      'Call SetButtons(Me, True)
      Exit Sub
   End If
End If


adoGrprs.Find "code=" & Dbc.BoundText
   If Not adoGrprs.EOF Then
      ref = adoGrprs!RefCode
      ref1 = adoGrprs!Code
      Tpe = adoGrprs!Type
      flag = adoGrprs!bsplflag
      If adoGrprs!reservedgrp = "Y" Then
         res = adoGrprs!reservedgrp
      Else
         res = "N"
      End If
   End If

  If Edt <> 1 Then
    Dim rs As New ADODB.Recordset, max As Integer
    rs.Open "select max(code) from grps", db, adOpenKeyset
```

```
        If IsNull(rs.Fields(0)) = False Then
           max = rs.Fields(0) + 1
        Else
           max = 1
        End If
        rs.Close
        adoGrprs.AddNew
        adoGrprs!Code = max
        adoGrprs!Type = Tpe
        adoGrprs!RefCode = ref1
        adoGrprs!heading = txtName
        adoGrprs!reservedgrp = res
        adoGrprs!bsplflag = flag
        adoGrprs.Update
        MsgBox "Account Saved", vbInformation + vbOKOnly, "eMarks"
     Else
        adoGrprs.MoveFirst
        Code = Dbc.BoundText
        adoGrprs.Find "code=" & Code
        If Not adoGrprs.EOF Then
           adoGrprs!RefCode = ref
           adoGrprs!heading = txtName
           adoGrprs!reservedgrp = res
           adoGrprs.Update
        End If
        Edt = 0
        MsgBox "Account Updated", vbInformation + vbOKOnly, "eMarks"
     End If
     RefreshList
Case 2
     Edt = 1
     txtName.SetFocus
     txtName.SelStart = 0
     txtName.SelLength = Len(txtName)
Case 3
     db.Execute "Delete from grps where Code=" & Dbc.BoundText
     MsgBox "Account Deleted", vbInformation + vbOKOnly, "eMarks"
     RefreshList
End Select

        'Call SetButtons(Me, True)
        'Call DisplayRecord(adoGrprs)
'----
Exit Sub
Er:
   MsgBox Err.Description
```

```
    'frmError.Show vbModal
    If myerr = 1 Then Resume Next
    If myerr = 2 Then Resume
'End

End Sub

Private Sub tv_KeyDown(KeyCode As Integer, Shift As Integer)
    If KeyCode = 32 Then Call cmdOpen_Click
End Sub

Private Sub tv_NodeClick(ByVal Node As MSComctlLib.Node)
On Error GoTo Er
    Tv.DropHighlight = Node
    Dbc.Text = Node.Text
    Dbc.BoundText = Val(Mid$(Node.key, 2, Len(Node.key)))
    txtName.Text = Node.Text
    adoGrprs.MoveFirst
    adoGrprs.Find "heading='" & Node.Text & "'"
    If Not adoGrprs.EOF Then
        ref = adoGrprs!RefCode
    End If
    adoGrprs.MoveFirst
    adoGrprs.Find "code=" & ref
    If Not adoGrprs.EOF Then
        txtAtype.Text = adoGrprs!heading
    End If

    MemberSelected = True
    l = Len(Node.key)
    l = Val(Mid$(Node.key, 2, l))
'----
Exit Sub
Er:

    'frmError.Show vbModal
    MsgBox Err.Description
    If myerr = 1 Then Resume Next
    If myerr = 2 Then Resume
'End
End Sub

Private Sub txtGrpName_KeyDown(KeyCode As Integer, Shift As Integer)
    If KeyCode = 13 Then SendKeys "{Tab}"
End Sub
```