REMOTE INSTALLATION AND ADMINISTRATION

Tiara Techtronics, Coimbatore.

PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE AWARD OF THE DEGREE OF

MASTER OF SCIENCE IN APPLIED SCIENCE – SOFTWARE ENGINEERING

OF BHARATHIAR UNIVERSITY, COIMBATORE.

P-944

Submitted by

N.THANGARAJ

9837S0069

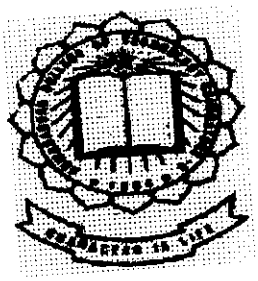
Under the Guidance of

Mr.N.Kannan M.C.A , M.Phil(CS)

Department Of Computer Science and Engineering.

Kumaraguru College Of Technology,

Coimbatore



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE- 641 006

APRIL 2003

CERTIFICATE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE- 641 006

CERTIFICATE

This is to certify that the project work entitled

"REMOTE INSTALLATION AND ADMINISTRATION"

has been submitted by

N.Thangaraj 98SE29

IN PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

MASTER OF SCIENCE IN APPLIED SCIENCE – SOFTWARE ENGINEERING

OF BHARATHIYAR UNIVERSITY, COIMBATORE

DURING THE ACADEMIC YEAR 2002-2003.

S. Thangasamy 25/3/'03

Prof.Dr.S.Thangasamy

Head of the Department

Kannan

Mr.N.Kannan

Internal Guide

Certified that the candidate was examined by us in the Project Work Viva Voce Examination held on 07-04-2003 and the University Register Number was **9837S0069**.

S. Dhanalakshmi

Internal Examiner

External Examiner

Tiara Techtronics
671, NSR Road, Saibaba Colony, Coimbatore - 641 038. ✆ : 437223
Software Development & Consultancy ● Corporate Training ● Web Page Designing

Date :

Date : 15/03/2003

TO WHOMSOEVER IT MAY CONCERN

This is to certify that ***Mr.N.Thangaraj*** Final year ***M.Sc., (Software Engineering)*** student of Kumaraguru College of Technology, Coimbatore has been doing the project work entitled ***"Remote Installation & Administration"*** in our organization from Dec-2002 to till date.

During the tenure his performance, conduct and character are found to be good. I wish him all success in his future endeavor.

For Tiara Techtronics

Saravana Kumaar.V
(Project Manager)

ACKNOWLEDGEMENT

I. ACKNOWLEDGEMENT

I wish to express my sincere and heartfelt gratitude to our esteemed Principal **Mr.K.Padmanabhan**, BSc (Engg), M.Tech, Ph.D., Principal of Kumaraguru College of Technology for giving me the needed encouragement in starting this project and carrying it out successfully.

I take this opportunity to express my sincere thanks and a deep sense of gratitude to our Prof. **Dr.S.Thangasamy** Ph.D., Head of the Department of Computer Science and Engineering for his benevolent attitude to push up this project to its position of success.

I take the privilege of expressing my sincere thanks and gratitude to **Mrs.S.Devaki** B.E.,M.S Assistant Professor, Coordinator M.Sc (Software Engineering) and to my internal guide **Mr.N.Kannan** M.C.A, M.Phil (CS), lecturer for their remarkable guidance and encouragement at every stage of this project work.

I take this opportunity to express my sincere thanks to **Mr.S.Sivaraman, Tiara Techtronics**, Coimbatore for permitting me to under take a software project, to fulfill my course requirement and giving me the opportunity to utilize all the necessary resources and extending helping hands in my long run and encouraging me in difficult situations.

I am thankful to **Mr. V.Saravana Kumaar** M.C.A, Project Leader of tiara Techtronics,Coimbatore, for his valuable guidance, needful suggestions, support and encouragement during the project.

I am also bound to thank other staff and my fellow students for their suggestions and heartfelt gratitude. Last but not the least, my hearty thanks to my parents without whose sustained support, I could not have made my debut in Information Technology.

COMPANY PROFILE

II. COMPANY PROFILE

Tiara Techtronics is established by a group of professionals with extensive industry experience. Tiara Techtronics relishes the keen support from a panel having rich domain expertise and who have worked in several capacities in the industry.

Tiara Techtronics is one such organization with a clear vision of becoming the pioneers in Software Development and Training. Having a team of young, dynamic, dedicated and experienced professionals, the software division renders one stop solution to domestic and offshore projects. Possessing a Software Development Unit, the technical team of Education Division relishes the advantage of exposure to real time projects through which Tiara Techtronics ensures projects centric training.

In view of the Industry requirements for the quality software professionals and their training necessities across the globe, Tiara Techtronics provides focused training on significant areas like C, C++, Java, and Advanced Java and also in cutting edge technologies like EJB and XML.

When it comes to the quality standards in training & development, Tiara Techtronics believes in maintaining high essence in each & every activity performed & services rendered. Achieving the destination with quality infrastructure and latest technological aids has been the flow of methodical work. Tiara Techtronics strongly believes that the genuine assets of the organization are people. The people at Tiara Techtronics are not employees but they are the partners in the business right from the day they embrace to work with us. The efforts has been to ensure that right kind of people have the right kind of responsibilities.

Tiara Techtronics use their expertise and experience to help the clients to anticipate, initiate and manage changes better than others. This Commitment and supportive relationship has helped the clients to win.

Tiara Techtronics believes in recognizing and encouragement the merit of its people as individuals. The environment thus facilitates freethinking, experimentation and innovation. With an emphasis on personal responsibility, Tiara Techtronics provides an atmosphere that support original thinking.

The most striking feature of this growing organization is the commitment of the staffs and project guides, who are always trying to give their best of their knowledge to the students.

SYNOPSIS

III. SYNOPSIS

The title of the project is "**Remote Installation and Administration**". This project is done at Tiara Techtronics, Coimbatore and has been developed using Visual Basic 6.0 as the front end and Oracle as the backend. This project mainly deals with two modules namely

- Developing a Customized Software
- Developing a Software for Remote Installation

Developing a Customized Software:

This Software is developed for a cellular company which deals with the following modules namely

Modules	Highlights
Master Module	⇨ Maintains Details about Dealer. ⇨ Maintains Details about Executive. ⇨ Maintains Details about Plan
Maintenance Module	⇨ Maintenance Of New Customer ⇨ Maintenance of Existing Customer
Billing Module	⇨ Bill Payment Details ⇨ Cheque return Details ⇨ Bill Cancellation
Update Module	⇨ Updating of new scheme if Exists. ⇨ Updating of the monthly Bill details.
Automation Module	⇨ Making Backup of Database

Developing a Software for Remote Installation:

This Software is developed for installing the Customized software to the clients from the main server.

Module	Highlights
Software Installation Module	⇨ Installation of the customized software into the remote system.

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System Requirements

1. SYSTEM REQUIREMENTS

1.1 PRODUCT DEFINITION :

1.1.1 PROBLEM STATEMENT :

The project is concerned with the computerization of the process carried out in the cellular concern such as customer maintenance, Billing, plan maintenance etc. and also providing installation software so that the person who is installing this project into the remote system can install from the main server. The product should have the capability to provide the calculated details or stored information dealt with the operations taking place in the concern.

It should also be provide a user friendly environment so that the person who are using this software can be able to work easily.

1.1.2 FUNCTIONS TO BE PROVIDED:

1. Storing the provided information much efficiently.
2. Retrieval of stored information.
3. Providing the needful reports.

1.1.3 PROPOSED SYSTEM

The proposed system includes computerization of some of the process carried out in the cellular concern.

ADVANTAGES OF THE PROPOSED SYSTEM:

- Validation checks are performed.
- Data redundancy is eliminated.
- Usage of different data entry screens to aid the end user to enter the information.
- User-friendly menu driven programs.
- All necessity reports.
- Facility for future enhancement.
- Multi user system.
- Quick retrieval of information.

OPERATION FEASIBILITY:

There is no barrier for implementing the system. The user has enough time to feed the inputs of system. The system also helps to access the information immediately as on need. Thus the system is found operationally feasible.

TECHNICAL FEASIBILITY:

The hardware and software requirement of the proposed system is already available for Use. The utilities such as Visual Basic 6.0 and Oracle 8.0 which fulfills the Software requirements.

FUNCTIONAL FEASIBILITY:

The existing system resource is enough for implementing the system and also further future Development. In terms of labour and manpower, it is adequate and no extra personal is required.

1.2 PROJECT PLAN

1.2.1 LIFE CYCLE MODEL :

The project is developed based on the prototype model

PROTOTYPE MODEL

The goal of a prototyping based development process is to counter the first two limitations of the waterfall model. The basic idea here is that instead of freezing the requirements before any design or coding can proceed, a throwaway prototype is built to help understand the requirements. This prototype is developed based on the currently known requirements. Development of the prototype undergoes design, coding and testing, but each of these phases is not done very formally. By using this prototype, the client can get an actual feel of the system, because the interactions with the prototype can enable the client to better understand the requirements of the desired system. This results in a more stable requirement that change less frequently.

A development process using throwaway prototyping typically proceeds as follows:

- The development of the prototype typically starts when the preliminary version of the requirement specification document has been developed. At this stage there is a reasonable understanding of the system and its needs and of which needs are unclear or likely to change.

- After the prototype has been developed, the end users and clients are given an opportunity to use the prototype and play with it.

- Based on their experience, they provide feedback to the developers regarding the prototype regarding what is correct and what has to be modified.

- Based on the feedback, the prototype is modified to incorporate some of the suggested changes that can be done easily and then the users and the clients are again allowed to use the system.

- This cycle repeats until, if the prototypes and analysts conclude that further change in the system would outweigh the cost and time involved in making the changes.

- Based on the feedback, the initial requirements are modified to produce the final requirement specification, which is then used to develop the production quality system.

1.2.2 DEVELOPMENT SCHEDULE :

In Order to complete the project in a given time, the development Schedule is framed and based on the time slots, the product is developed

Analysis period : Dec 10th – Dec 21st

During this time period, analysis of the product to be developed was done

Designing period : Dec 22nd - Jan 5th

During this time period, the analyzed part was designed to easily understand the final product.

Coding period : Jan 6th – Feb 20th

During this time period, coding for the analyzed product is carried out

Testing period : Feb 21st - Mar 10th

The developed product is made to undergo various testing techniques during this period.

Maintenance and Updation : Mar 10th – July end

During this period the project is made to test run in the Client's Place and if any error occur or if any Updation needed, the changes are made.

1.2.3 TEAM STRUCTURE:

A team consisting of 6 members does the Project. The members undertake different modules of the project.

Documents to be prepared:

It is suggested that the following documents must be prepared during the time of the project.

- System Definition consisting of a product definition and a project Plan.
- A Software Requirement Specification.
- A Design Document
- A Test Plan
- A properly documented, debugged and tested program.

2.5 MANNER OF DEMONSTRATION:

REVIEWS:

Every Weekend the completed modules are explained to the Project Leader, reviewed and outputs are verified.

DOCUMENTS:

Drafts of every document are reviewed by the Project Leader before it is finalized. If any changes are there in the draft they are incorporated in the document.

PRODUCT:

Demo of each module is shown to the Project Leader when the module is completed. If any changes are there in the draft they are incorporated in the document.

SOFTWARE REQUIREMENT SPECIFICATION

2. SYSTEM REQUIREMENT SPECIFICATION

2.1 PROJECT DESCRIPTION :

This project comprises of 2 sections namely

- Developing a Customized Software
- Developing a Software For Installing the Customized Software in a Remote System.

2.1.1. Developing a Customized Software :

This section has following modules namely :

- Master Module
- Maintenance Module
- Billing Module
- Updation Module
- Automation Module

1. Master Module :

A. Dealer Maintenance

a. Introduction

In this module the details about the dealer will be maintained. The dealer detail is used to get the summary of the particular Dealer.

b. Input

User has to input code, Name of the dealer, Address of the dealer, Phone number and the fax number of the dealer etc.

c. Process

The system will store the information like Details about the dealer such as Name Address of the dealer and give reports on the Dealer's details using dealer code or area code.

d. Output

System will give the following reports with print options. The reports such as the dealer whom are active at present and details of the dealer such as Address, Phone Number Etc.

B. Executive Maintenance

a. Introduction

In this module the details about the executive will be maintained. The executives details is used to track about the work done by each of the executives.

b. Input

User has to input code, Name of the dealer, Address of the dealer, Phone number and of the executive etc.

c. Process

The system will store the information like Details about the Executive such as Name Address of the dealer and give reports on the Executive's details using Executive code or dealer code.

d. Output

System will give the following reports with print options. The reports such as the executive whom are active at present and details of the executives such as Address, Phone Number Etc.

C. Plan Maintenance

a. Introduction

In this module the details about the Schemes available at present will be maintained.

b. Input

User has to code, Scheme Name, Scheme Details such as Payment limits.

c. Process

The system will store the information such as Code, Name and the Payment limits details.

d. Output

The System uses this Plan details for setting payment limits.

2. Maintenance Module

A. New Customer Maintenance :

a. Introduction

In this module the details about the New Customer will be maintained.

b. Input

User has to Name, Address, Scheme details, and the payment details for the corresponding scheme, the dealer name, the executive details who collects the payment and the date of payment etc.

c. Process

The system will store the information given in the input to the database dealer and give the receipt for the payment made by the customer.

d. Output

System will give the following reports with print options.
The reports for the dealer such the number of customers who has got the Connection through that dealer, the collection done by the executives, about the deposit done by the customer etc.

B. Existing Customer Maintenance :

a. Introduction

In this module the details about the Customer who were in the dealer database will be maintained.

b. Input

User has to enter the code for the particular customer and gives input such as Payment according to the scheme mentioned.

c. Process

The system will store the information given in the input to the database and give the receipt for the payment made by the customer.

d. Output

System will give the following reports with print options.
The reports for the dealer such as the number of customers who has got the Connection through that dealer, the collection done by the executives, about the deposit done by the customer etc.

3. Billing Module :

A. Bill Payment Details :

a. Introduction

In this module the details about the Bill payment made by the Customer.

b. Input

User has to enter the code for the particular customer and gives input such as amount to be paid, Which executive collect the amount etc.

c. Process

The system will store the information given in the input to the database and give the receipt for the payment made by the customer.

d. Output

System will give the following reports with print options.
The reports for the dealer such the number of customers who has got the Connection through that dealer, The collection done by the executives, about the deposit done by the customer etc.

B. Cheque return Details :

a. Introduction

In this module the details about the details on the cheque which has been bounced.

b. Input

User has to enter the details such as Cheque number, Description about the Cheque return etc.

c. Process

The system will store the information given in the input to the database.

d. Output

System will give the following reports with print options.
The reports for the Returned Cheque date wise and the month wise will be generated.

C. Bill Cancellation

a. Introduction

In this module the details about the details on the Bill cancelled due to the manual error.

b. Input

User has to enter the details such as Receipt number, description about the Bill cancellation etc.

c. Process

The system will store the information given in the input to the database.

d. Output

System will give the following reports with print options.
The reports for the Bill cancelled date wise and the month wise will be generated.

5. Update Module :

A. New Scheme Update:

a. Introduction

The main office will introduce new scheme and when the new scheme is introduced it will be send to the main office through mail and it is updated in the database.

B. Monthly Bill Details :

a. Introduction

The Monthly bill details of the customer will be send to the dealer through mail and which is updated in the main database.

5. Automation Module :

A. Making Auto Backup of Database.

a. Introduction

In this module the backup for the database, that will be updated daily will be taken backup every day.

2.1.2 Remote Installation Module :

The software installation module invokes installation software over multiple clients in a remote network with static IP address. The project focuses in providing user-friendly environment. It comprises of two programs client program and server program. In Network a main Server system is loaded with this Server application. All the other system is loaded with client program.

By giving the server name or the server IP address we can be able to connect to the system. At the server program all the client that are currently active will be present in a list box. By selecting the client Name the drive will be displayed and the drive will be selected for which the program must be installed. A log file is generated during the creation of SETUP files. By giving install, with reference to the LOG file generated during the SETUP creation, the current program will be copied in the client and the registry will be updated so that the installed program runs correctly.

2.2 PROCESSING ENVIRONMENT:

2.2.1 HARDWARE REQUIREMENTS:

MINIMUM SERVER CONFIGURATION

Platform - NT Server

System Processor – Pentium III 866 MHz

Hard disk – 20 GB

RAM – 128 MB

Auxiliary Memory

1.44 MB Floppy disk

SVGA Color Monitor

52x CD ROM drive

Mouse and Windows Keyboard.

Printer - Desk jet printer or Ink jet printer.

MINIMUM NODE CONFIGURATION

Platform – Windows 98

System Processor – Pentium II 433 MHz

Hard disk – 10 GB

RAM – 64 MB

Auxiliary Memory

SVGA Color Monitor

Mouse and Windows Keyboard.

2.2.2 SOFTWARE REQUIREMENTS.

Operating system – Windows 95/Windows98

Networking tool – Windows NT

GUI Front end – Microsoft Visual Basic 6.0

Backend – Oracle 8.0

2.2.3 PROGRAMMING AND DEVELOPMENT TOOLS :

FEATURES OF VISUAL BASIC 6.0 :

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

Visual Basic is object-oriented, that is, it revolves around readymade objects. 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 the object itself. In Visual Basic an object's data are called properties, while the 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), Graphics, ActiveX Controls, etc. Using this we can create powerful and full-featured applications. Adding the custom controls can extend Visual Basic 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 workgroup, 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.
- ActiveX technologies allow you to use the functionality provided by other applications, such as Microsoft Word Processor, Microsoft Excel spreadsheet, and other Windows Applications.
- Your finished application is a true exe file that uses a runtime Dynamic Link Library (DLL) that you can freely distribute.

FEATURES OF WINDOWS SOCKET:

As a part of the project deals with networks, the program includes the usage of sockets. A "Socket" is an endpoint of communication – an object through which our application communicates with other Windows Sockets application across a network. It provides mechanism to send and receive data.

The socket allows creating and maintaining a connection to a remote computer. Using the connection both the computers can stream data between themselves.

If we creating a clients application you must know the server computer's name or IP address (Remote Host Property),as well as port (Remote Port Property) on which it will be "Listening". Then invoke the Connect method.

If we are creating a server application, set a port (Local Port Property) on which to listen and invoke the Listen Method. When a client computer requests a connection, the connection request event will occur. To complete the connection, invoke Accept method within the Connection request event.

Once a connection has been made, either computer can send the data and receive the data. To send the data invoke the Send Data Method. Whenever data is received, the Data Arrival event occurs. Invoke the Getdata method within the Data arrival event to retrieve the data.

FEATURES OF ORACLE 8:

Database applications at work in networked environment can often benefit from distributing data as well as processing tasks. A distributed database is a collection of databases that appears to an application as a single, local database. Some features of Oracle 8 are as follows

Oracle 8 can improve throughput performance when replicating data. Oracle 8 reduces the amount of replicated data propagated over the network.

1. Oracle's replication manager makes it easier to configure advanced replication systems that use multi – master replication and update snapshots.

2. Data Replication: Data Replication can improve the performance of an application and a distributed database system's network. This is because the application can access replicate data in a local database rather than data in a remote database that is available across the network. Data Replications can increase the availability of an application because replicate data exists at several locations. If one location becomes inaccessible due to a system or network failure alternate data access option exists. Data Replication is useful to distribute copies of useful information. Oracle's Replication features can be used to periodically copy data from a transaction-processing database to data warehouse.

3. Security :Oracle 8 provides security for client-server systems especially when they encompass multiple databases.

4. Password Management Enhancements: The new enhancement feature Offered for Password Management in Oracle 8 includes locking and expiration.

5. Backup and Recovery: Oracle 8 and its companion management tool.

Oracle Enterprise Manager include several new features to make data base backup and recovery more automated, easier to use and faster.

2.2.4 REASONS FOR SELECTION OF THIS SOFTWARE:

VISUAL BASIC 6.0:

- This is the ideal programming Language for developing sophisticated professional application for MS Windows.
- It makes use of Graphical User Interface for creating robust and powerful applications.
- The Graphical User Interface uses illustrations for text, which enable users to interact with an application. This feature makes it easier to comprehend things in a quicker and easier way.
- Features such as easier comprehension, user friendliness, faster application development and many other aspects such as introduction to ActiveX technology and Internet features makes Visual Basic an interesting tool.
- Generation of Reports can be done easily using this software.

ORACLE 8:

Oracle 8 is chosen for developing the database. The reason is behind the choice of Oracle as the backend in this project are as follows:

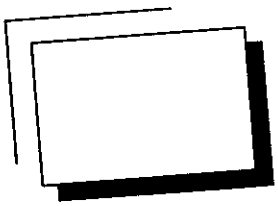
- For the optimum design of the Database.
- To have a better response time.
- To avoid Data Redundancy.
- To maintain the security of the Database.

DESIGN DOCUMENT

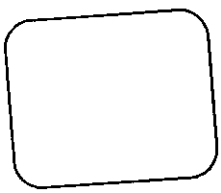
ta Flow Diagram :

This is one of the various methods to show the flow of data within the module and is a ful and intuitive way of describing a system. It describes about end-to-end processing, that is, flow of processing from when data enters the system to where it leaves the system can be ced. This Data flow diagram shows how data flows through a system and how the output is rived from the input through a sequence of functional transactions.

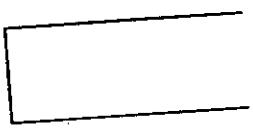
The various symbols used in the Data flow diagrams are as follows:



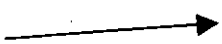
- Source or Destination of Data



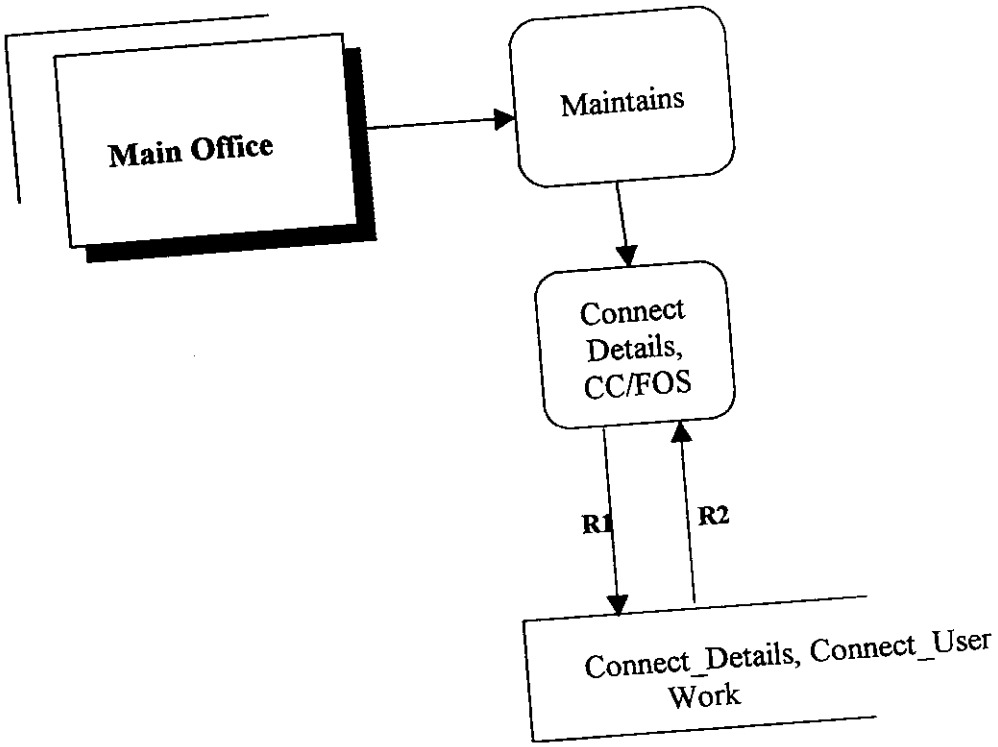
- A Process:
  Process transfers flow of data



- A Data store or a Database



- A Data flow



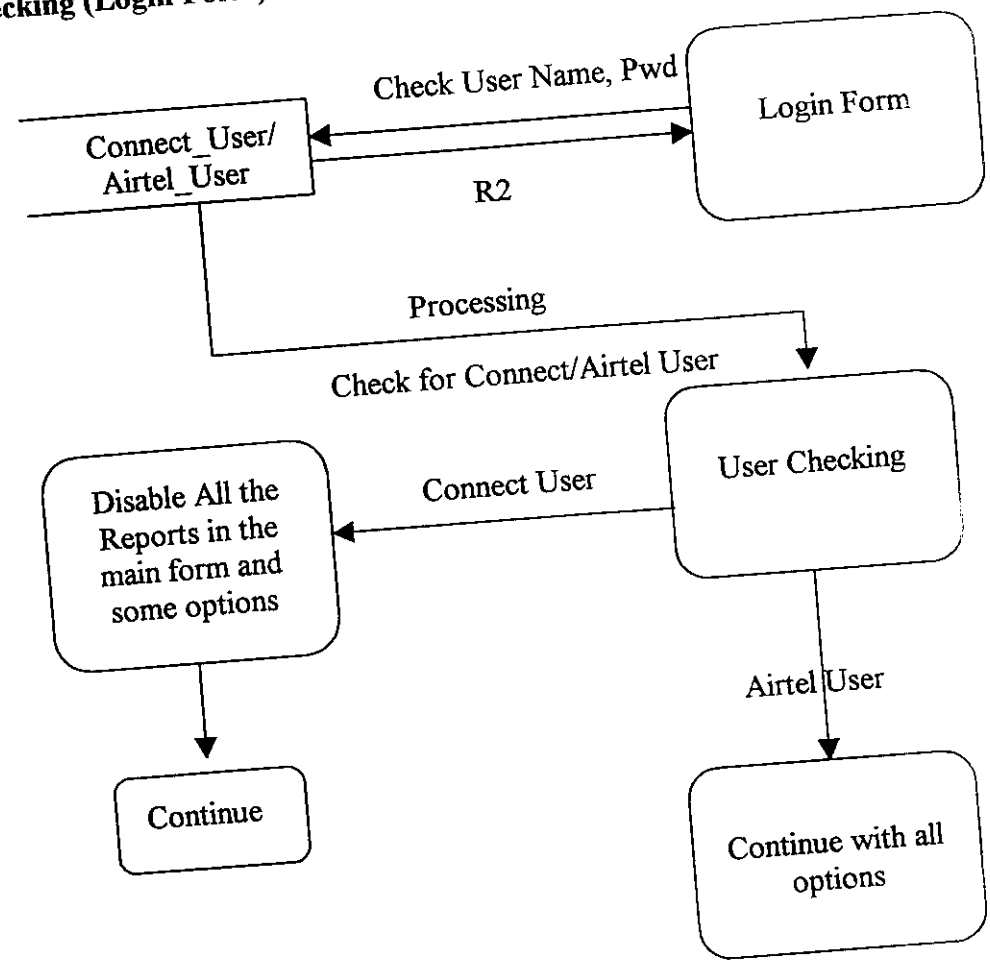
R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

Description:

The main office maintains the details about all the clients or the connect details alo with their user name and password which is used to access the database, details about the perso working in the connect.

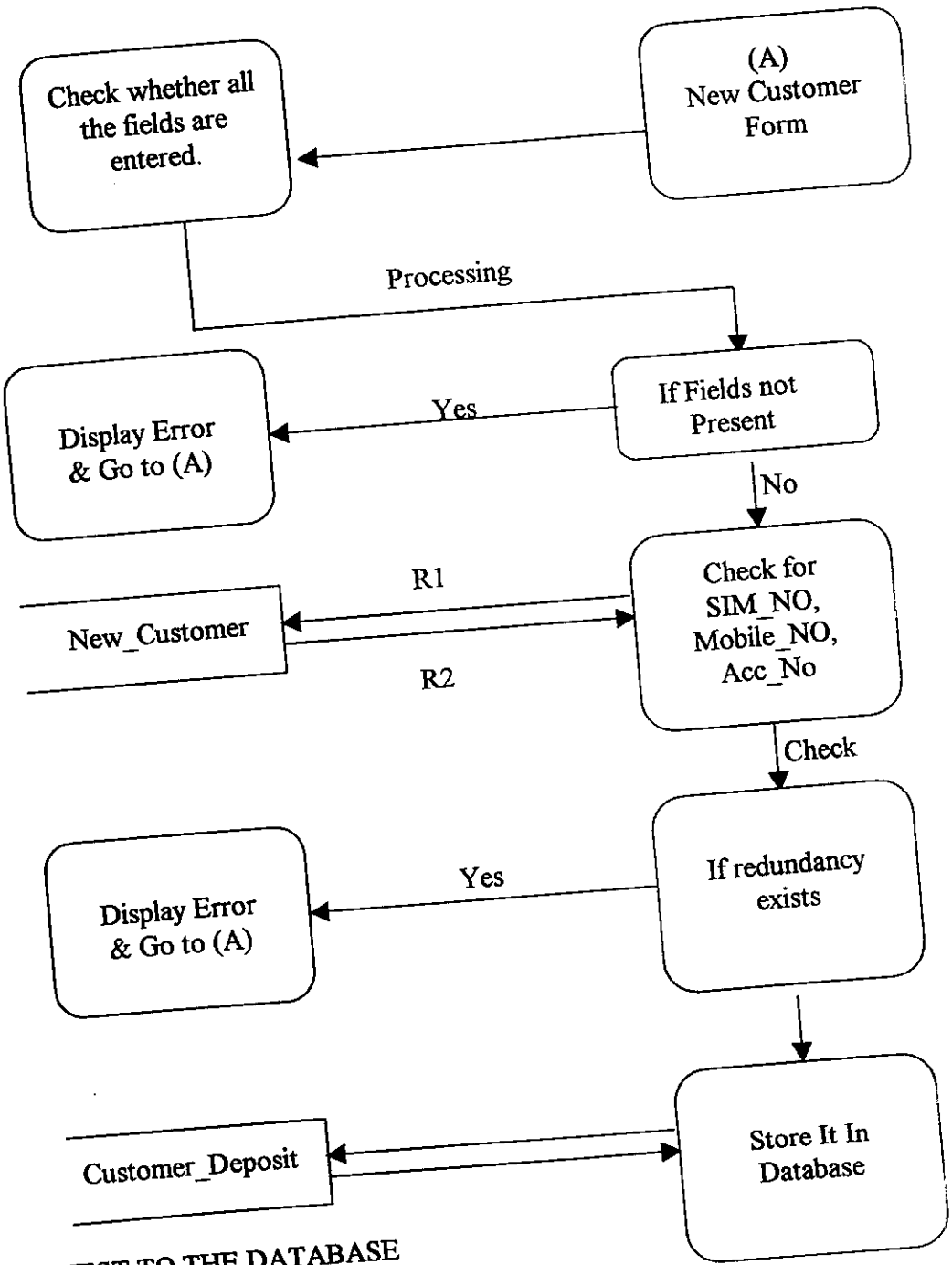
Password Checking (Login Form) :



R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

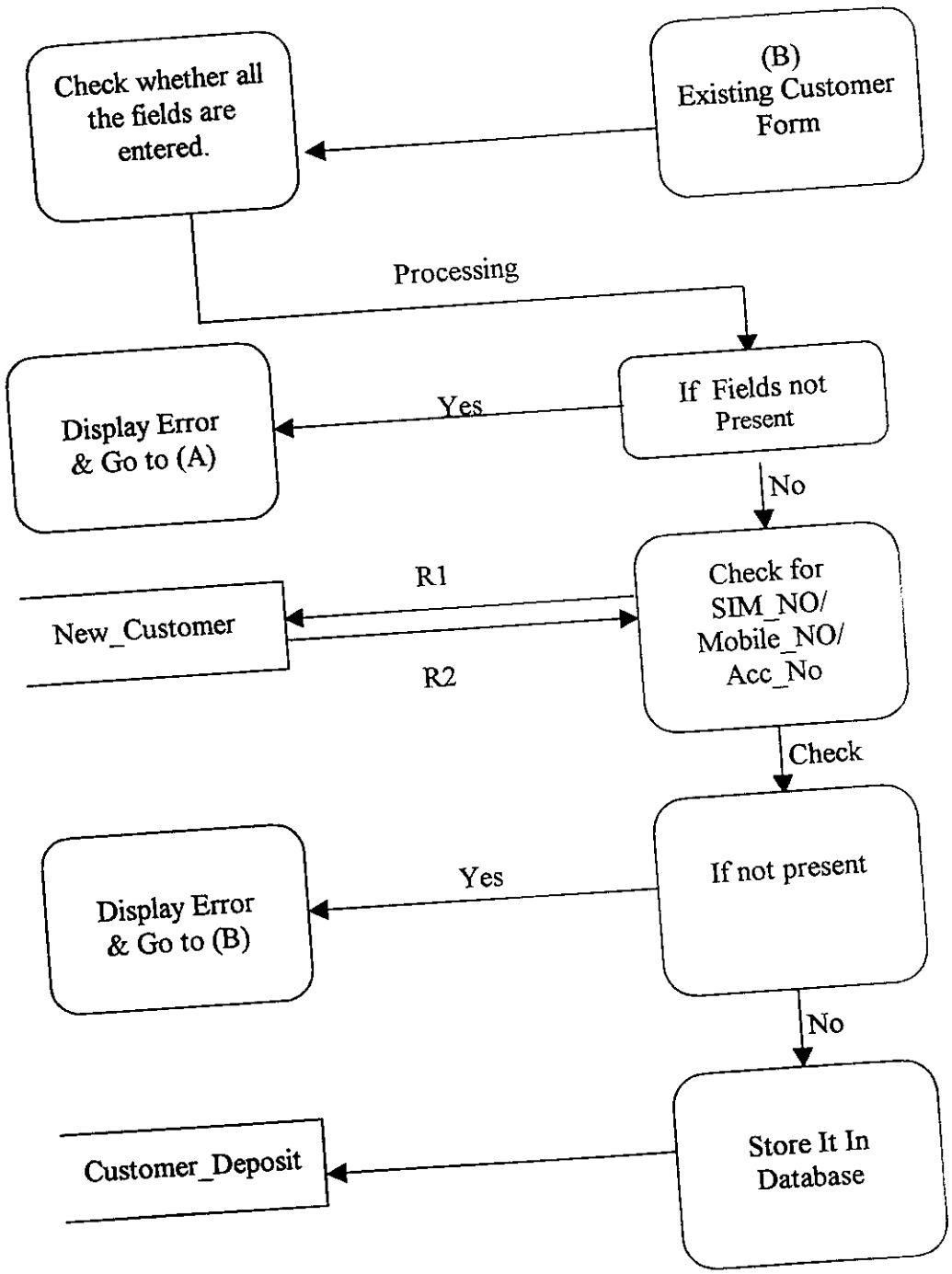
New Customer Details:



R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

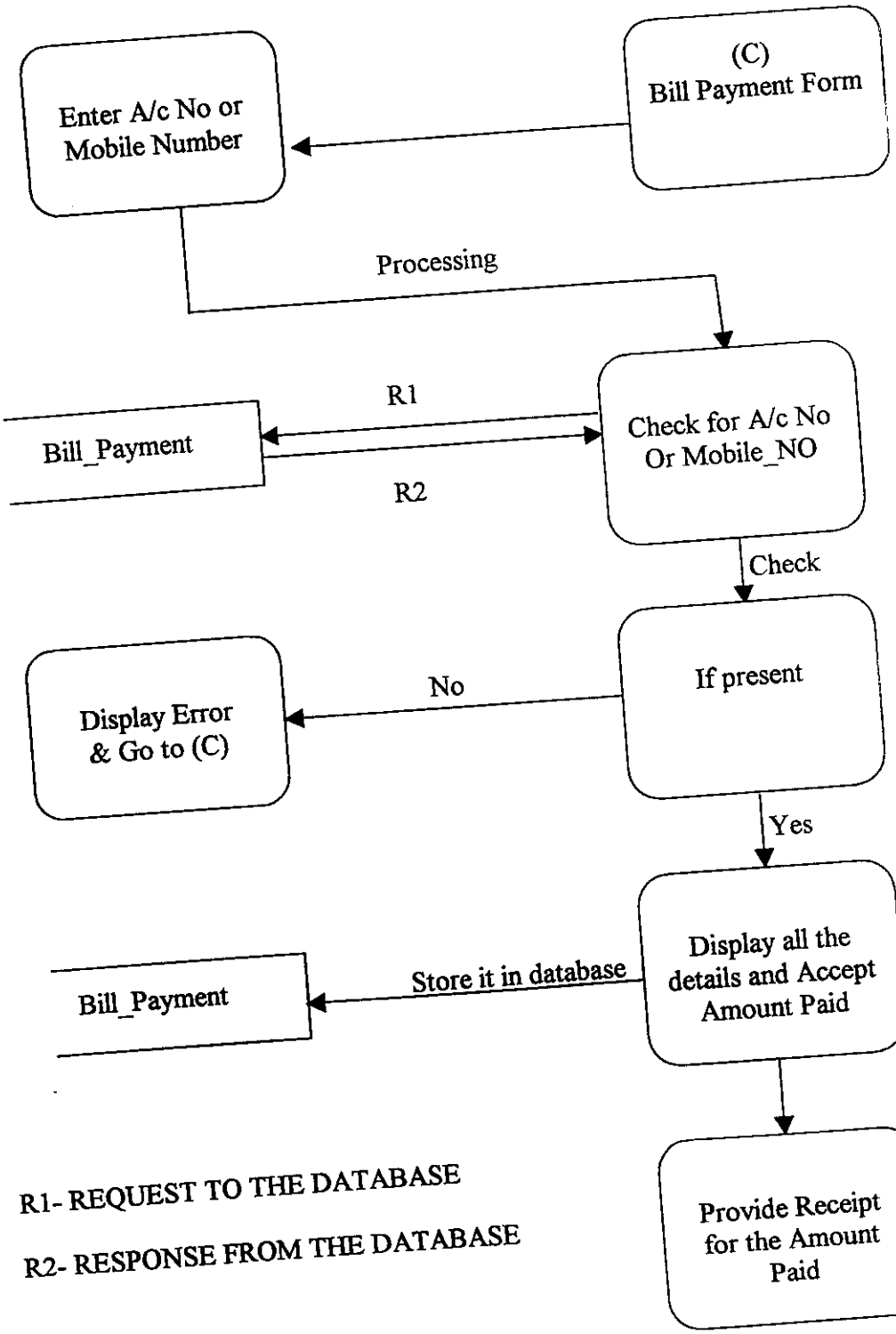
Existing Customer Additional deposit Details:



R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

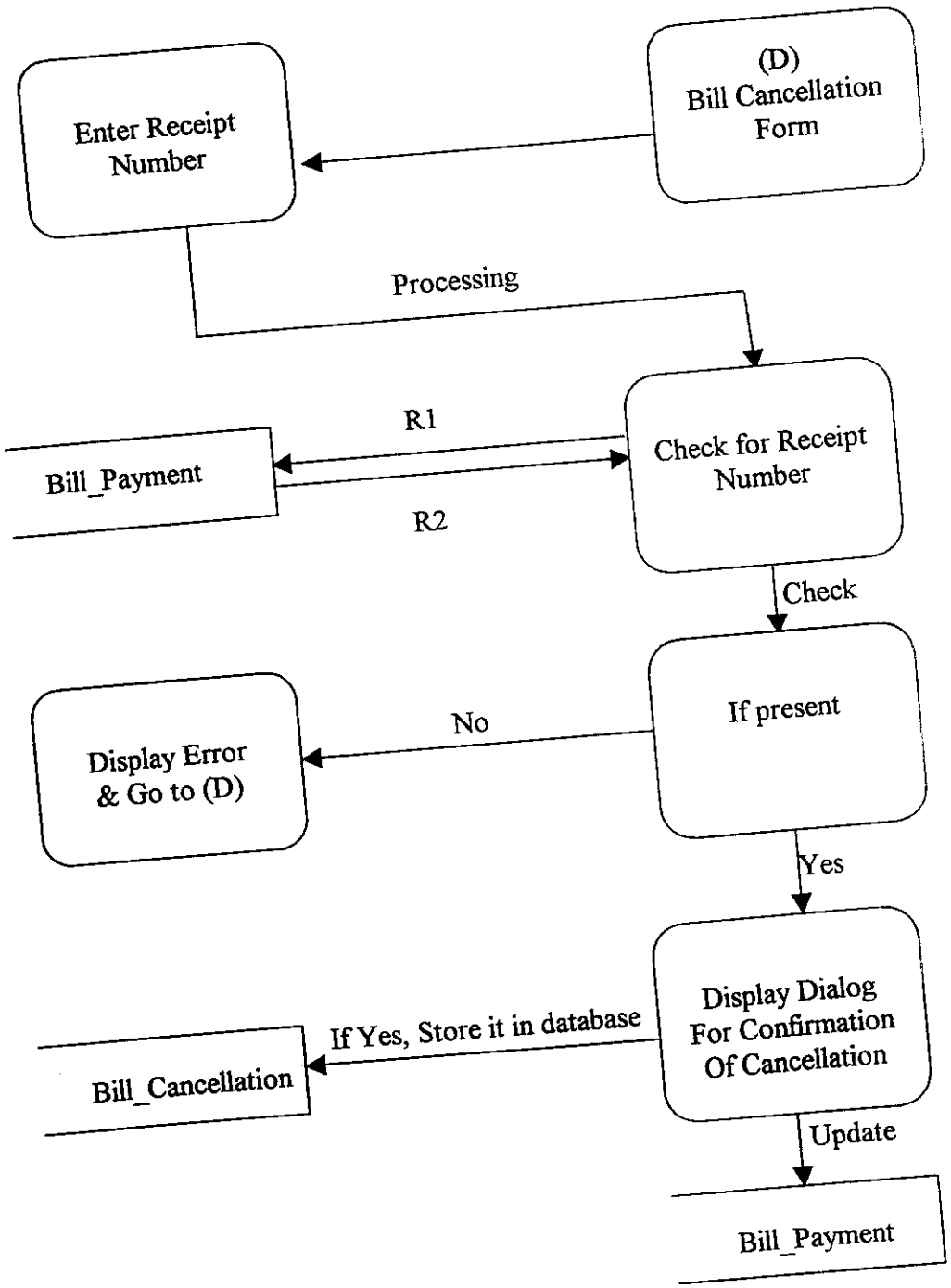
Bill Payment Details:



R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

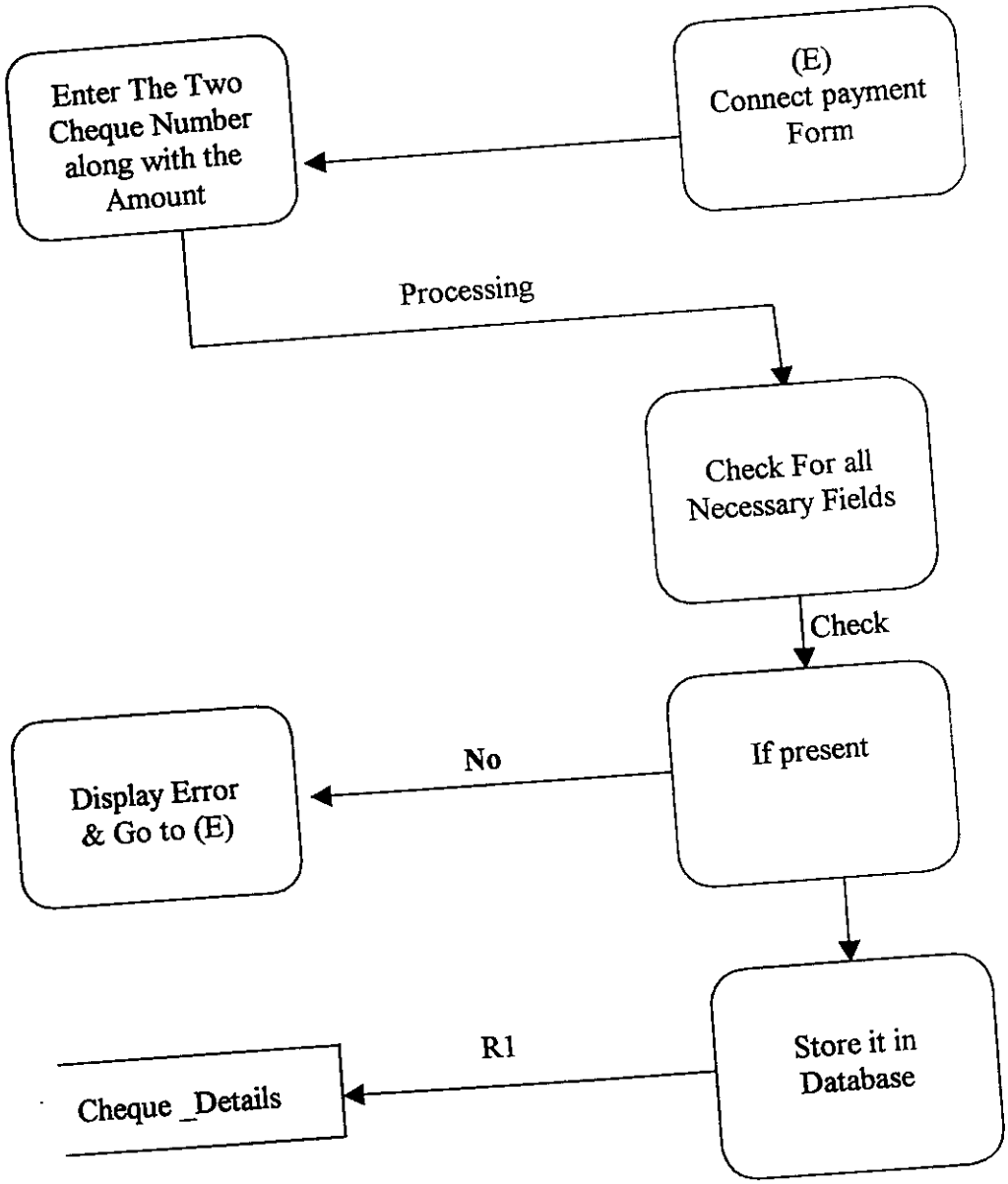
Bill Cancellation Details:



R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

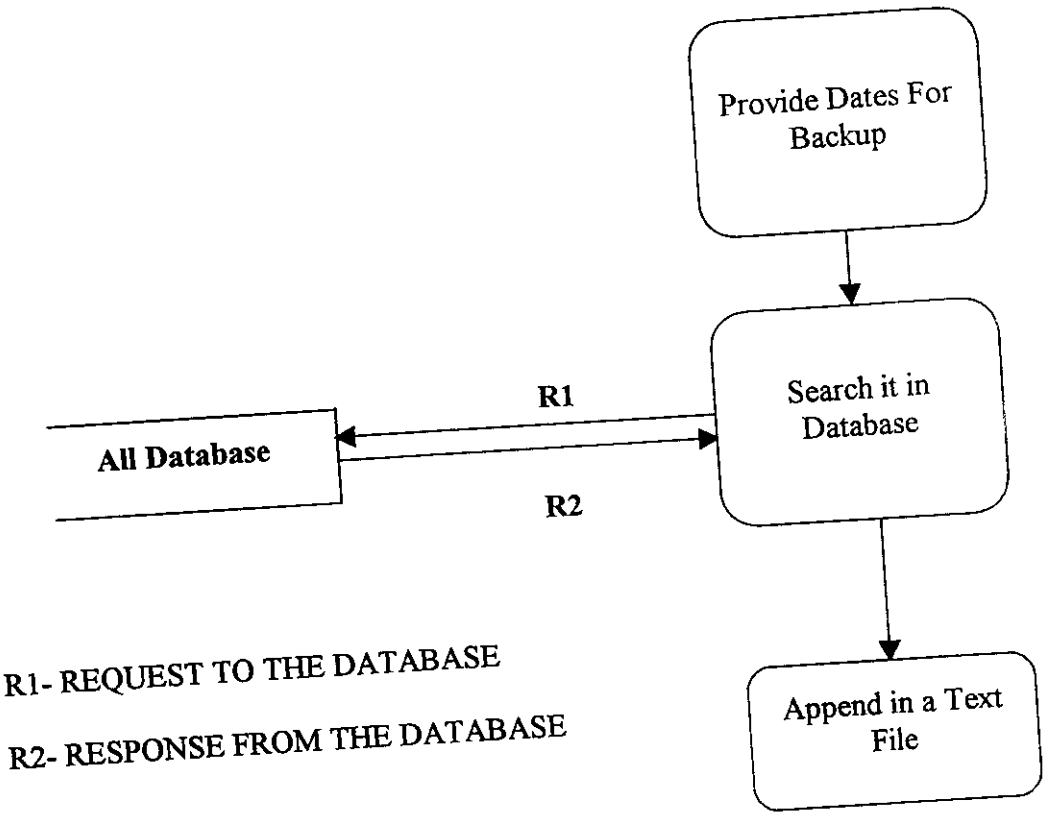
Connect Payment Details :



R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

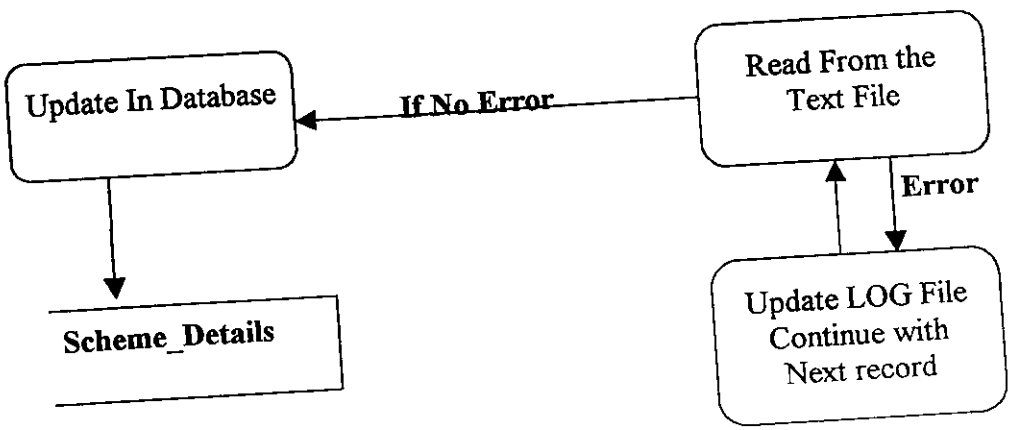
Backup Process:



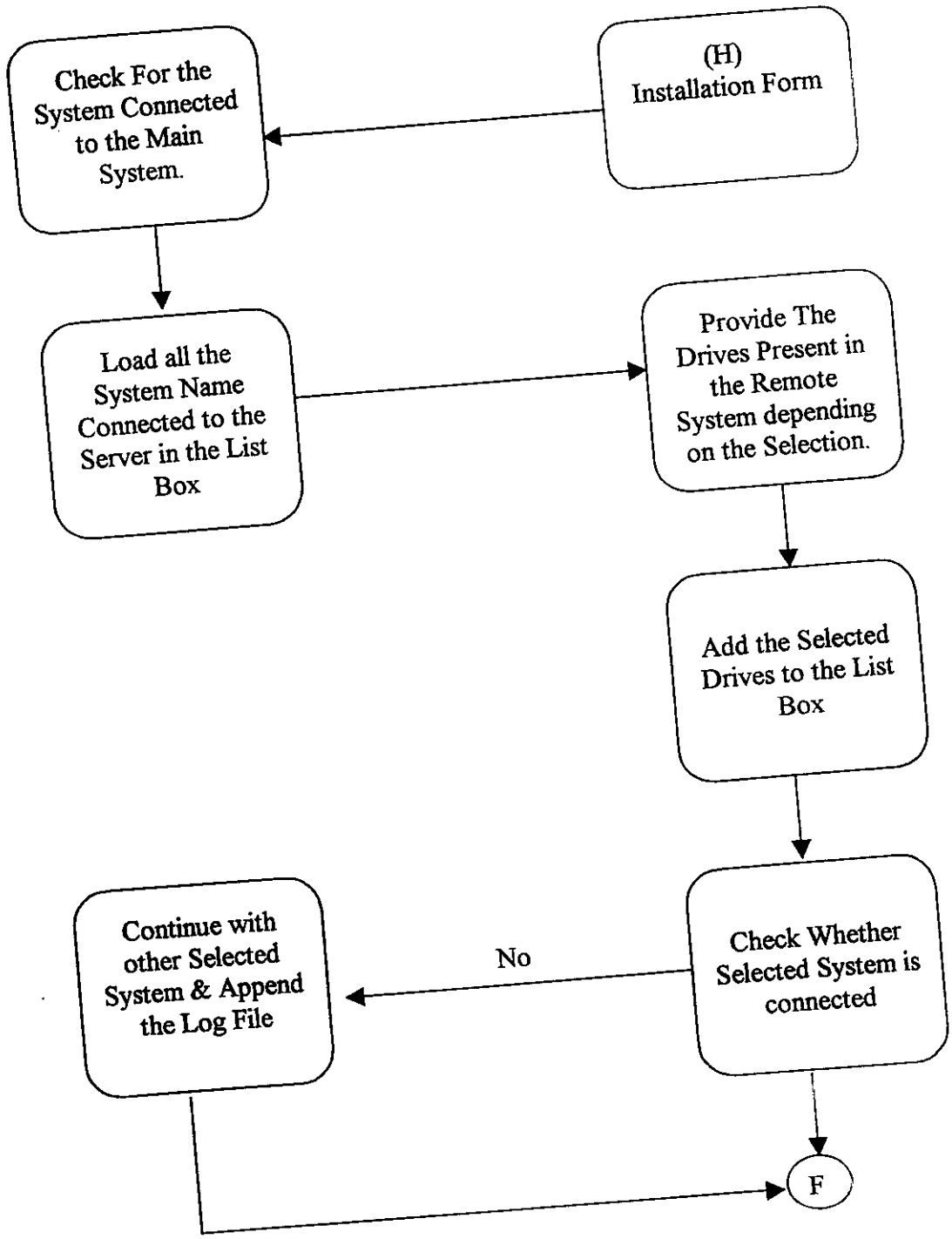
R1- REQUEST TO THE DATABASE

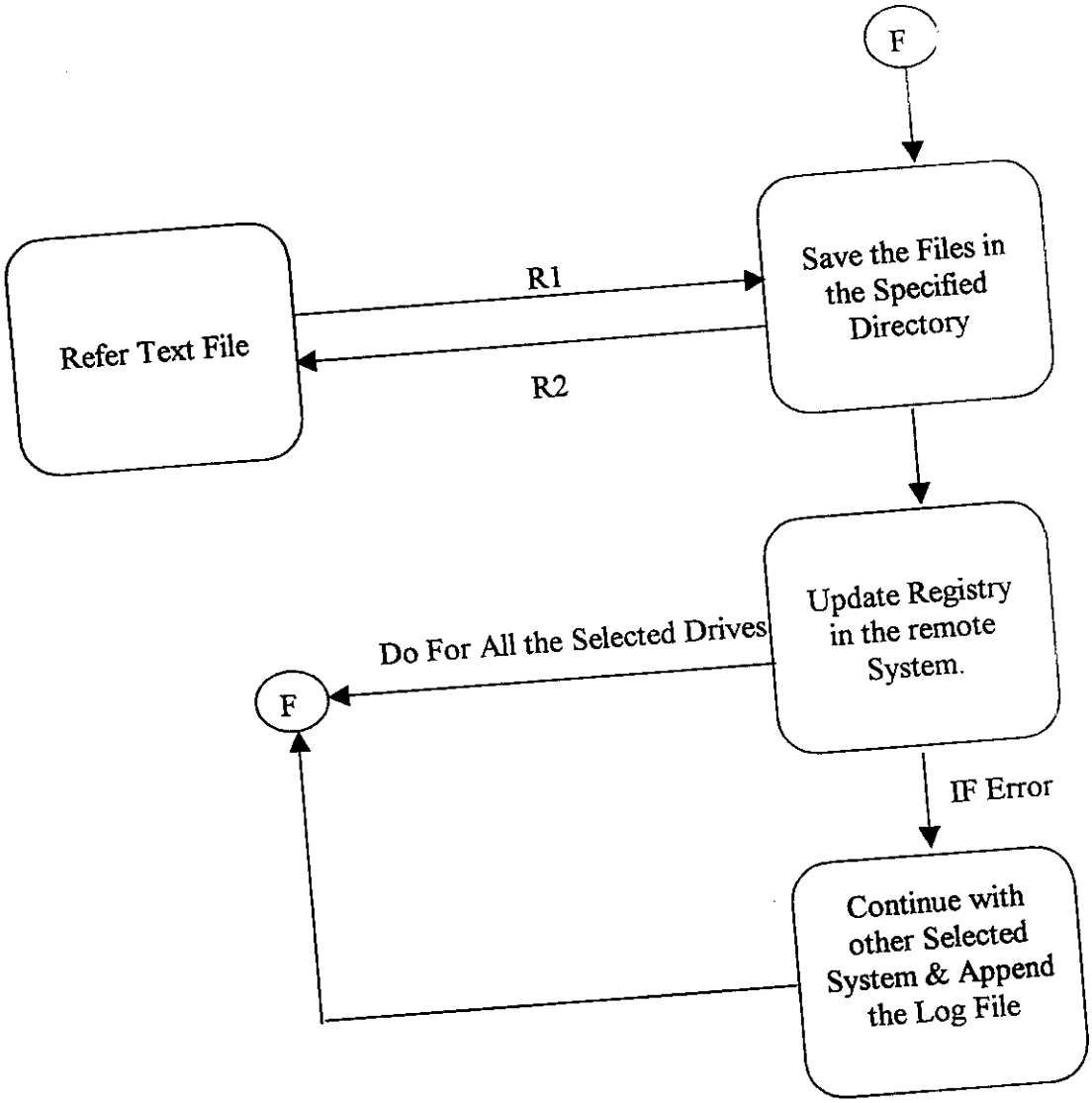
R2- RESPONSE FROM THE DATABASE

Scheme Updation Process :



Remote Installation Module :





R1- REQUEST TO THE DATABASE

R2- RESPONSE FROM THE DATABASE

DATABASE DESIGN

DATABASE DESIGN

AIRTEL_USERS TABLE:

This table contains the head office user details.

NAME	CONSTRAINT	TYPE
AIRTEL_USER_ID	PRIMARY	VARCHAR2(20)
AIRTEL_USERNAME	NOT NULL	VARCHAR2(20)
AIRTEL_PASSWORD	NOT NULL	VARCHAR2(20)

CONNECT_USERS TABLE:

This table contains the Branch office or connects user details.

NAME	CONSTRAINT	TYPE
CONNECT_ID	FOREIGN KEY(CONNECT_ DETIALS)	VARCHAR2(20)
CONNECT_USERNAME	NOT NULL	VARCHAR2(20)
CONNECT_PASSWORD	NOT NULL	VARCHAR2(20)

CONNECT_DETAILS TABLE:

This table contains the complete details about the Connect

NAME	CONSTRAINT	TYPE
CONNECT_ID	PRIMARY KEY	VARCHAR2(20)
CONNECT_CODE	UNIQUE	VARCHAR2(10)
CONNECT_NAME	NOT NULL	VARCHAR2(30)
ADDRESS1	NOT NULL	VARCHAR2(30)
ADDRESS2		VARCHAR2(30)
ADDRESS3		VARCHAR2(30)
ADDRESS4		VARCHAR2(30)
PHONE		VARCHAR2(15)
FAX		VARCHAR2(15)
SHORTNAME	NOT NULL	VARCHAR2(50)

WORK TABLE (CC/FOS) :

This Table gives the details about the customer care and field officer service who are working in Connect.

NAME	CONSTRAINT	TYPE
CODE	PRIMARY KEY	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(10)
ADDRESS1	NOT NULL	VARCHAR2(30)
ADDRESS2		VARCHAR2(30)
ADDRESS3		VARCHAR2(30)
ADDRESS4		VARCHAR2(30)
PHONE		VARCHAR2(15)
ACTIVE_STATUS		VARCHAR2(15)
CONNECT_ID	FOREIGN KEY(CONNECT_ DETAILS)	VARCHAR2(20)
WORK	NOT NULL	VARCHAR2(10)

PLAN_MASTER TABLE :

This Table gives the details about the Plan or Scheme Available

NAME	CONSTRAINT	TYPE
PLAN_ID	PRIMARY KEY	VARCHAR2(10)
PLAN_NAME	UNIQUE	VARCHAR2(50)
ACTIVATION_FEES	NOT NULL	NUMBER(12,5)
SIM_CHARGES	NOT NULL	NUMBER(12,5)
LOCALDEPOSIT	NOT NULL	NUMBER(12,5)
STDDEPOSIT	NOT NULL	NUMBER(12,5)
ISDDEPOSIT	NOT NULL	NUMBER(12,5)
NATIONALROAMING	NOT NULL	NUMBER(12,5)
INTERNATIONAL ROAMING	NOT NULL	NUMBER(12,5)
EFF_FROM	NOT NULL	DATE

NEWCUSTOMER_DETAILS TABLE :

This Table gives complete details about the customer.

NAME	CONSTRAINT	TYPE
CUST_ID	PRIMARY KEY	VARCHAR2(10)
SIM_NO	UNIQUE	VARCHAR2(10)
ACCOUNT_NO	UNIQUE	VARCHAR2(20)
MOBILE_NO	UNIQUE	VARCHAR2(30)
NAME	NOT NULL	VARCHAR2(30)
SEF_NO	UNIQUE	VARCHAR2(30)
CATEGORY	NOT NULL	VARCHAR2(15)
ACTIVATION_DATE	NOT NULL	DATE
PLAN_ID	FOREIGN KEY(PLAN_MASTER)	VARCHAR2(10)
WAIVER	NOT NULL	VARCHAR2(10)
W_REMARKS		VARCHAR2(50)

CUSTOMER_DEPOSIT_DETAILS TABLE :

This table gives the details about the existing customer deposits.

NAME	CONSTRAINT	TYPE
ACCOUNT_NO	FOREIGN KEY(NEW CUSTOMER_ DETAILS)	VARCHAR2(20)
DEPOSIT_DATE	NOT NULL	DATE
ACTIVATION_FEES	NOT NULL	NUMBER(12,2)
SIMCARD_CHARGES	NOT NULL	NUMBER(12,2)
LOCAL_DEPOSIT	NOT NULL	NUMBER(12,2)
STD_DEPOSIT		NUMBER(12,2)
ISD_DEPOSIT		NUMBER(12,2)
NATIONALROAMING		NUMBER(12,2)
INTERNATIONAL ROAMING		NUMBER(12,2)
SECURITY_DEPOSIT		NUMBER(12,2)
PN_CHARGES		NUMBER(12,2)
CUSTODY_CHARGES		NUMBER(12,2)

SIMCARD_CHANGE		NUMBER(12,2)
MOBILENOCHARGES		NUMBER(12,2)
OTHERS		NUMBER(12,2)
O_REMARKS		VARCHAR2(50)
MOP		VARCHAR2(50)
BANK_NAME		VARCHAR2(20)
CHEQUE_NO		VARCHAR2(20)
ENTERED_BY	NOT NULL	VARCHAR2(50)
PURPOSE	NOT NULL	VARCHAR2(50)
RECEIPT_NO	UNIQUE	VARCHAR2(50)

BILL_PAYMENT TABLE ;

This table gives details about the total due in bill payments.

NAME	CONSTRAINT	TYPE
ACCOUNT_NO	FOREIGN KEY(NEW CUSTOMER_ DETAILS)	VARCHAR2 (20)
TOTAL_DUE		NUMBER(15,2)

CHEQUE_DETAILS TABLE :

This table gives the details about the Cheque given to the main office by connect.

NAME	CONSTRAINT	TYPE
BANKNAME1	NOT NULL	VARCHAR2(20)
BANKNAME2	NOT NULL	VARCHAR2(20)
CHEQUE_NO1	NOT NULL	VARCHAR2(20)
CHEQUE_NO2	NOT NULL	VARCHAR2(20)
DATE1	NOT NULL	DATE
DATE2	NOT NULL	DATE
AMOUNT1	NOT NULL	NUMBER(12,2)
AMOUNT2	NOT NULL	NUMBER(12,2)
CONNECT_CODE	FOREIGN KEY(CONNECT_ DETAILS)	VARCHAR2(10)
ENTERED_DATE	NOT NULL	DATE

INVOICE_DETAILS TABLE :

This table gives details about when the bill payments is made and the related details.

NAME	CONSTRAINT	TYPE
INV_NO	NOT NULL	VARCHAR2(20)
ACCOUNT_NO	NOT NULL	VARCHAR2(20)
INV_DATE	NOT NULL	DATE
INV_AMT	NOT NULL	NUMBER(12,2)
MOP	NOT NULL	VARCHAR2(20)
BANK_NAME		VARCHAR2(20)
CHEQUE_NO		VARCHAR2(20)
REMARKS		VARCHAR2(20)
AMT_PAID	NOT NULL	NUMBER(12,2)
ENTERED_BY	NOT NULL	VARCHAR2(20)
CONNECT_NAME	NOT NULL	VARCHAR2(10)
RECIEPT_NO	NOT NULL	VARCHAR2(20)
RECEIPT_DATE	NOT NULL	DATE
CANCEL_BY		VARCHAR2(20)
CANCEL_DATE		DATE
C_REMARKS		VARCHAR2(20)

Sample Form And Report

FORM DESIGN

FIG 1. LOGIN FORM

Only authorized users are allowed to access the system . The user name and the password is maintained in the database which can be modified only by the administrator.

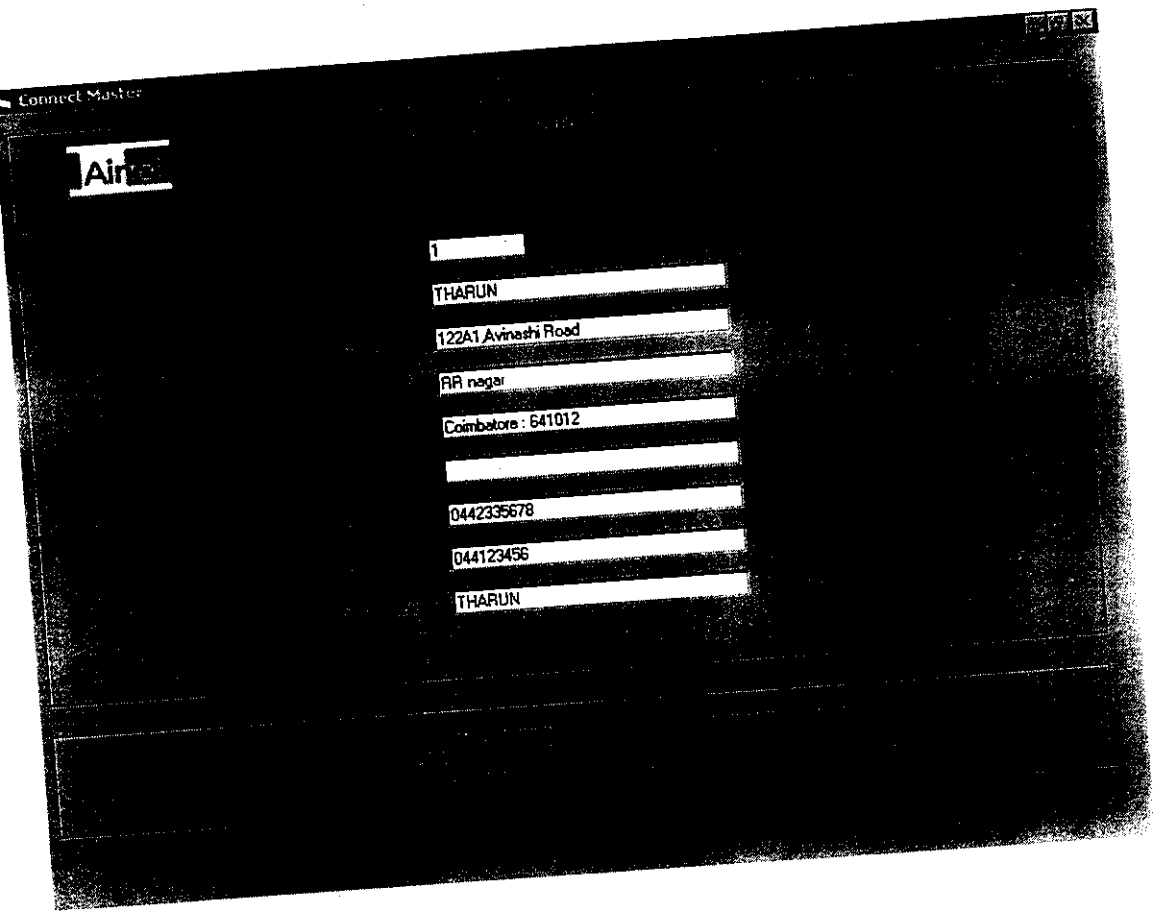


FIG 2. FORM SHOWING INFORMATION REGARDING CONNECT

In this form the information regarding the connect can be obtained. The existing information can be easily updated when needed

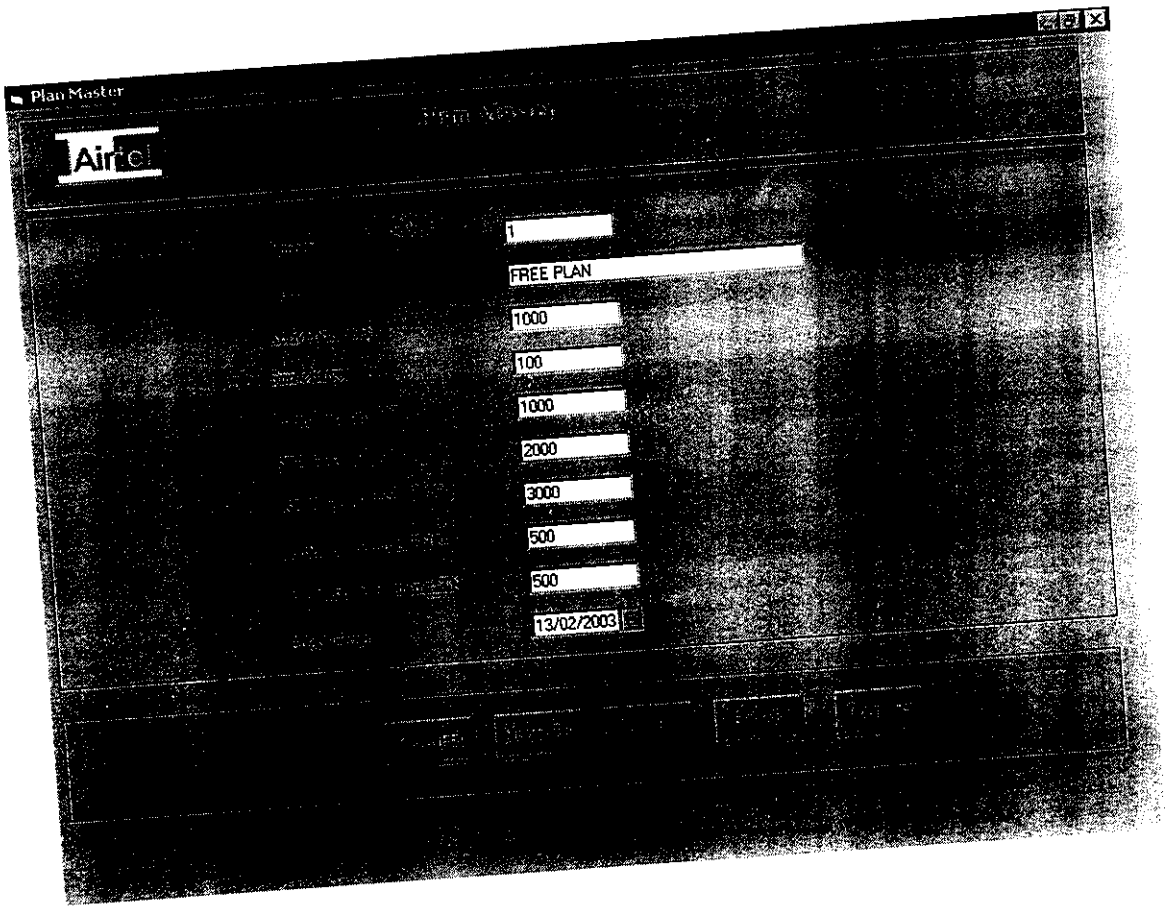


FIG 3. PLAN MASTER

The information regarding the plan available can be obtained using this form.

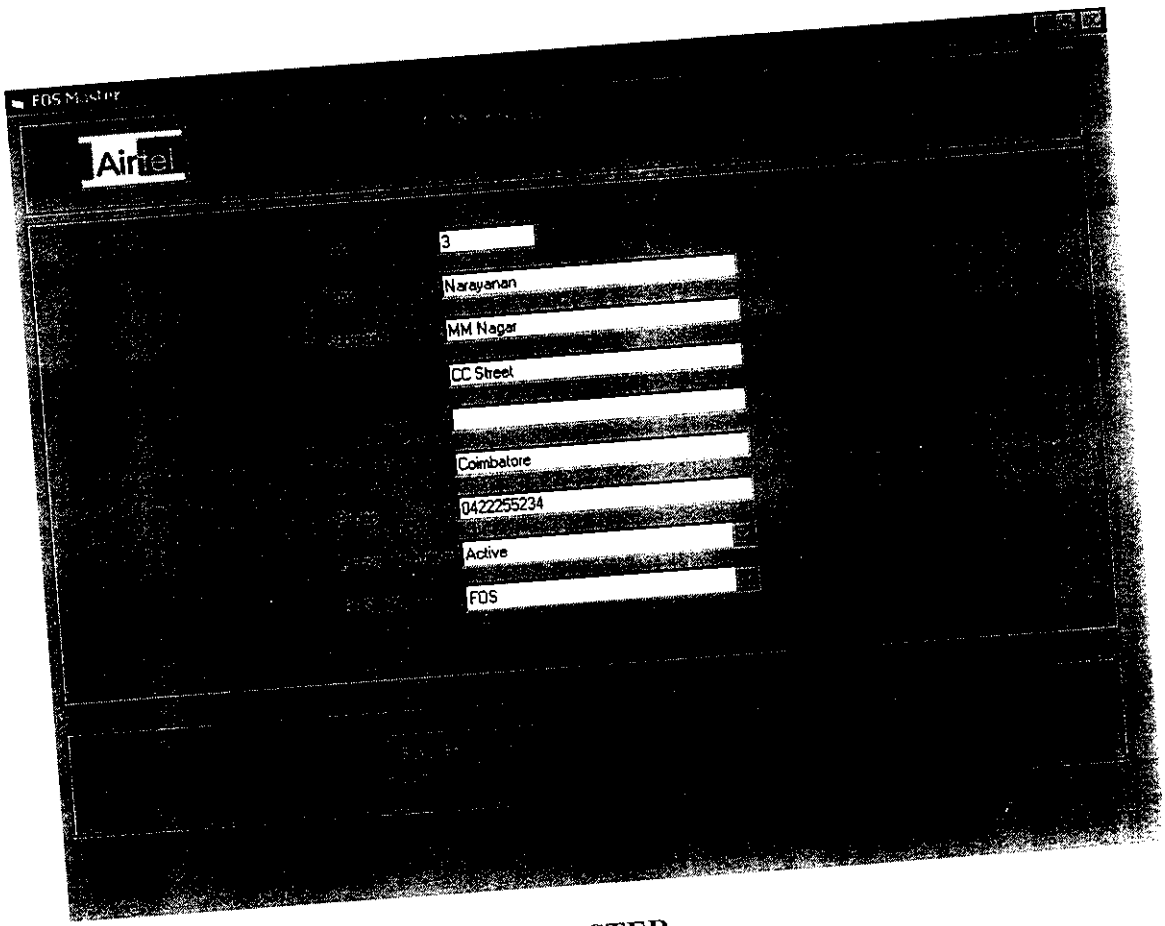


FIG 4: FOS/CC MASTER

The Information regarding the FOS/CC Who are working in the connect or dealer can be obtained and can be found whether he is active or not.

FIG 5: FORM SHOWING THE MENU FOR MAINTENANCE

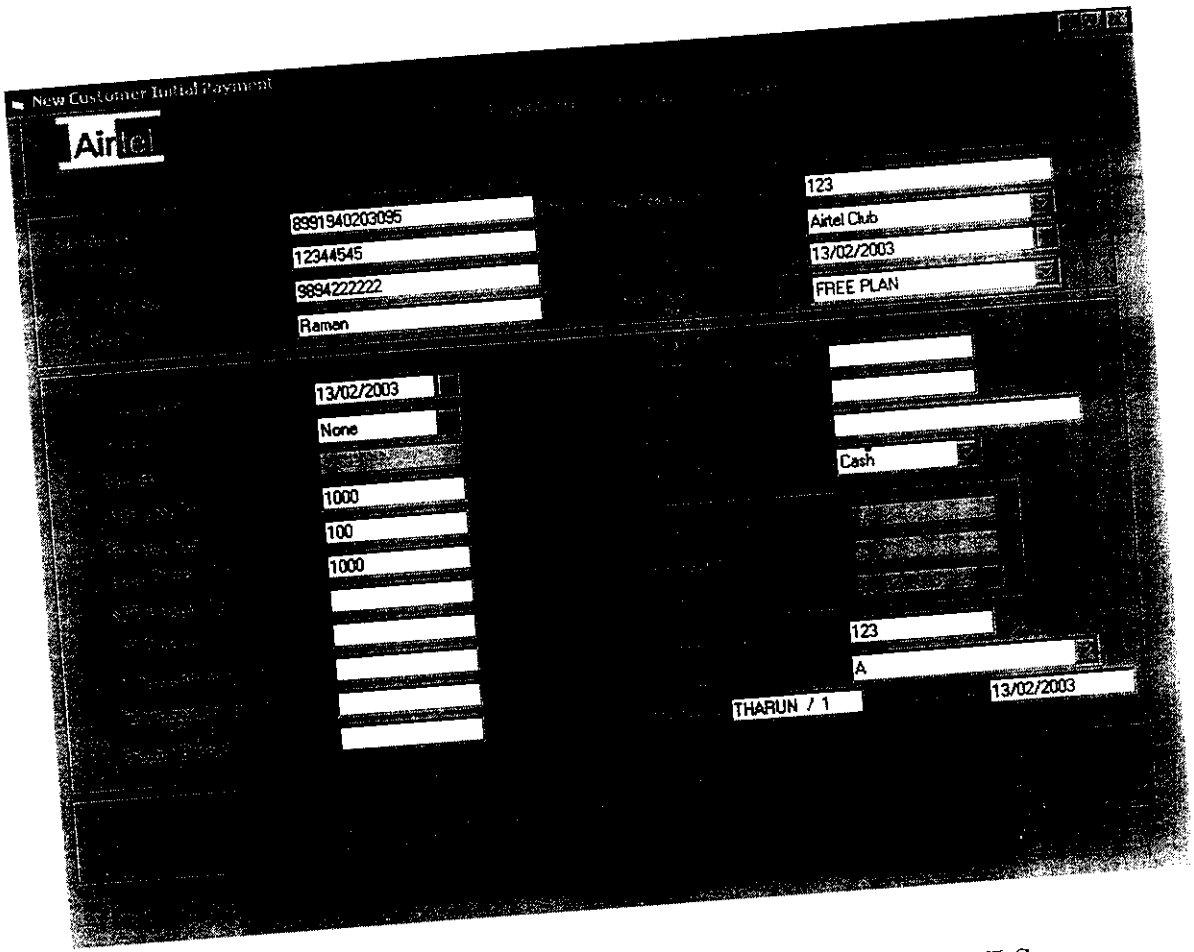


FIG 6: FORM SHOWING NEW CUSTOMER DETAILS

This form gives the details about the existing customer which can be also updated when needed and new customer can be added.

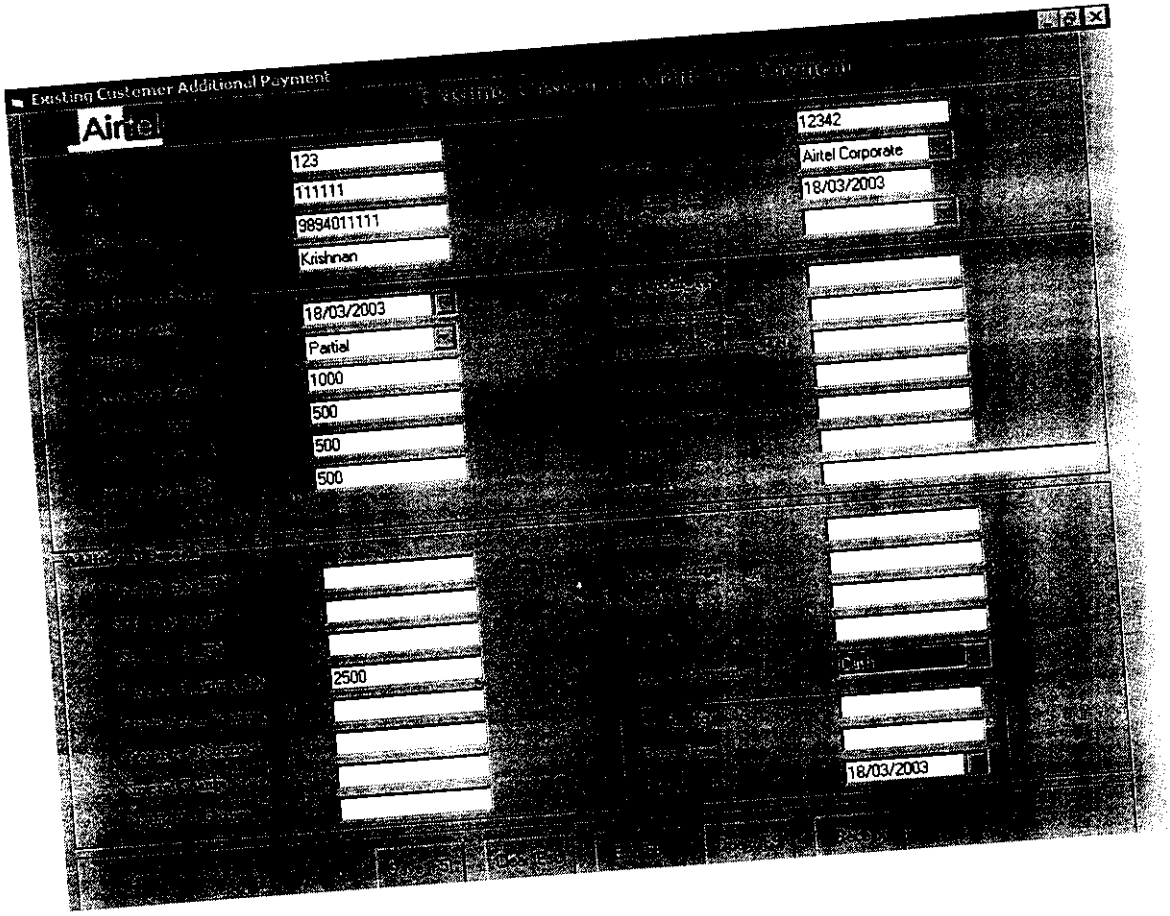


FIG 7: FORM SHOWING DEPOSIT FOR EXISTING CUSTOMER DETAILS

This form gives the details about the existing customer deposit which can be also viewed when needed and deposit for that customer can be updated.

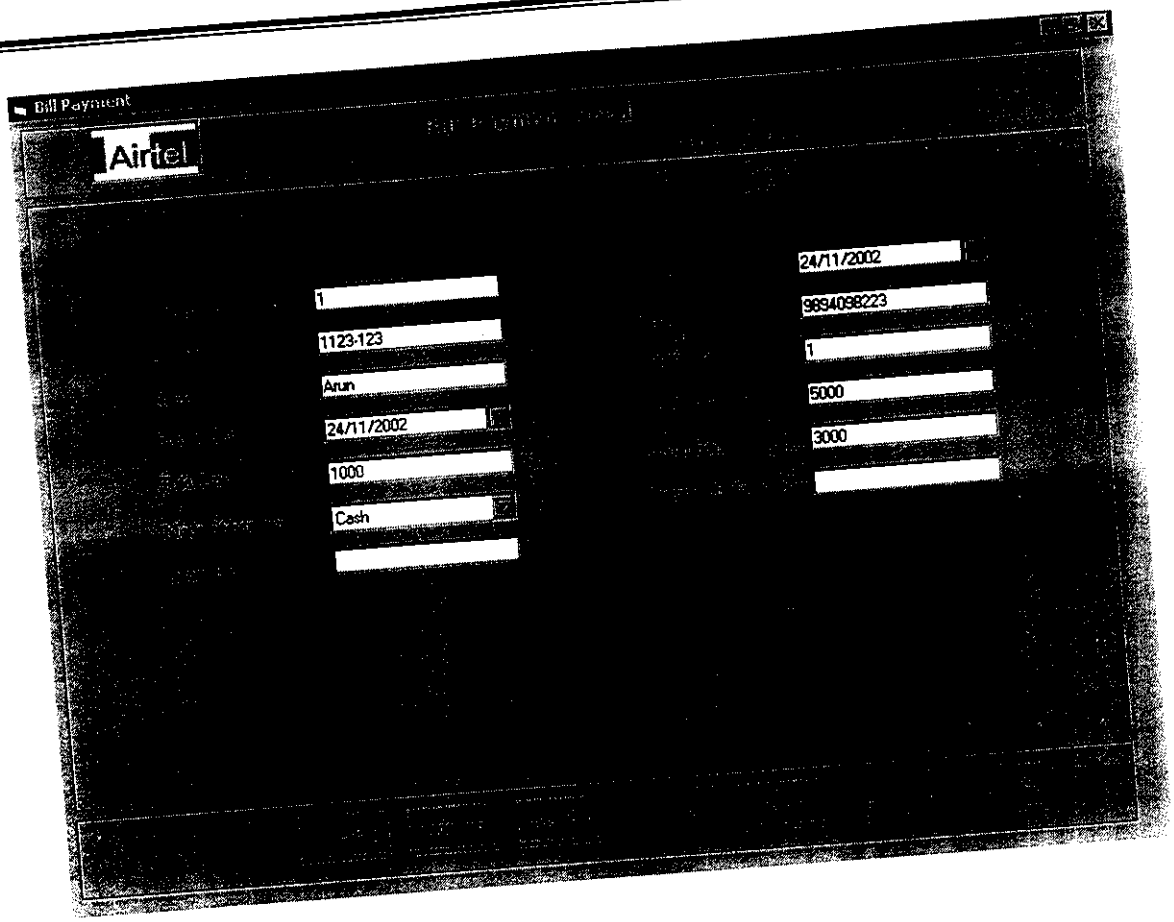


FIG 8: FORM SHOWING BILL PAYMENT

This form gives the details about the bill payment for the existing customer which can be also updated when the customer pay his bill.

FIG 9: FORM SHOWING CHEQUE RETURN DETAILS

If the cheque given by the customer is invalid then the details about the cheque return is maintained in this form and the bill payment is updated.

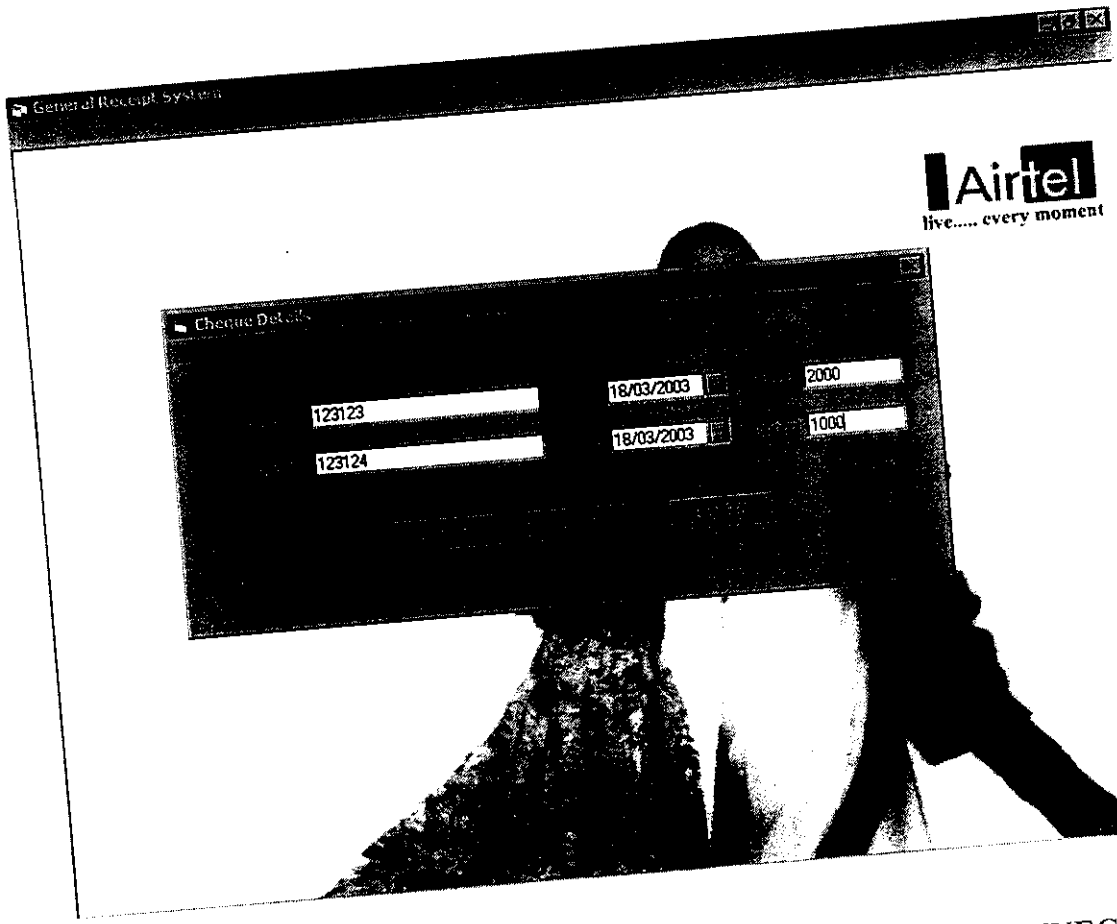


FIG 10: FORM SHOWING CHEQUE DETAILS GIVEN BY THE CONNECT TO MAIN OFFICE

The connect will pay the weekly collection through two cheques.the details of the cheque is maintained in this form

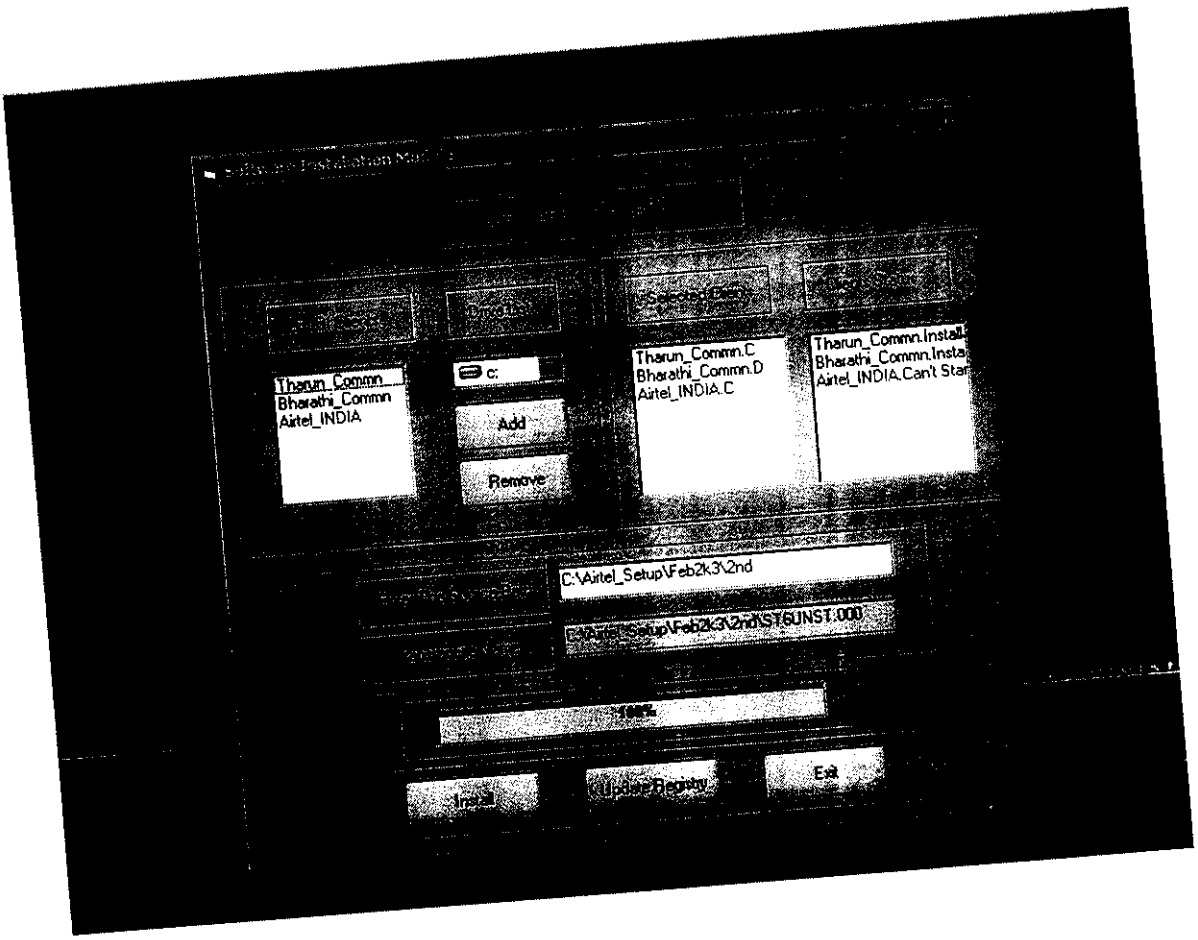


FIG 11: FORM FOR INSTALLING THE DEVELOPED SOFTWARE IN A REMOTE SYSTEM.

The customized software, which is developed, is installed to the clients through this form. The Clients connected to the system are displayed and after installation the status is whether the software is installed without any error is displayed.

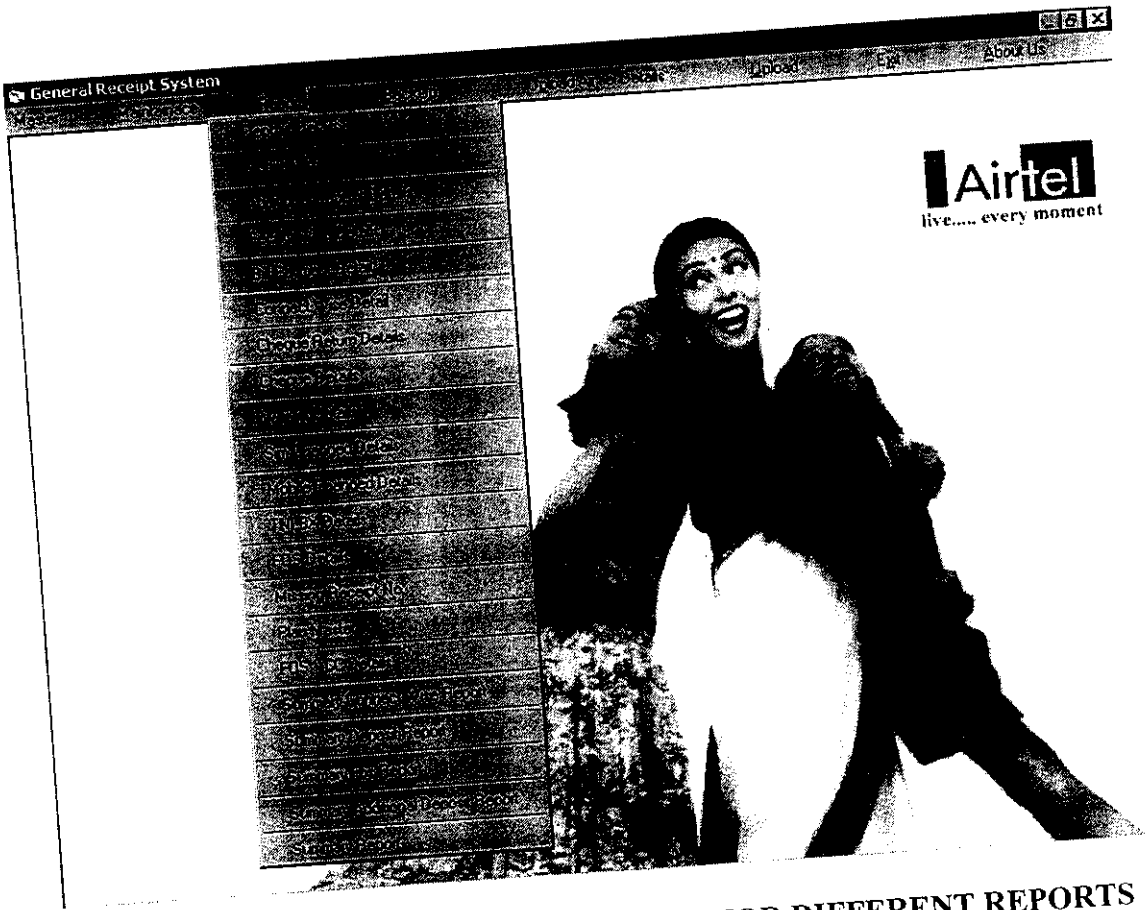


FIG 12 : FORM SHOWING THE SHORTCUT FOR DIFFERENT REPORTS

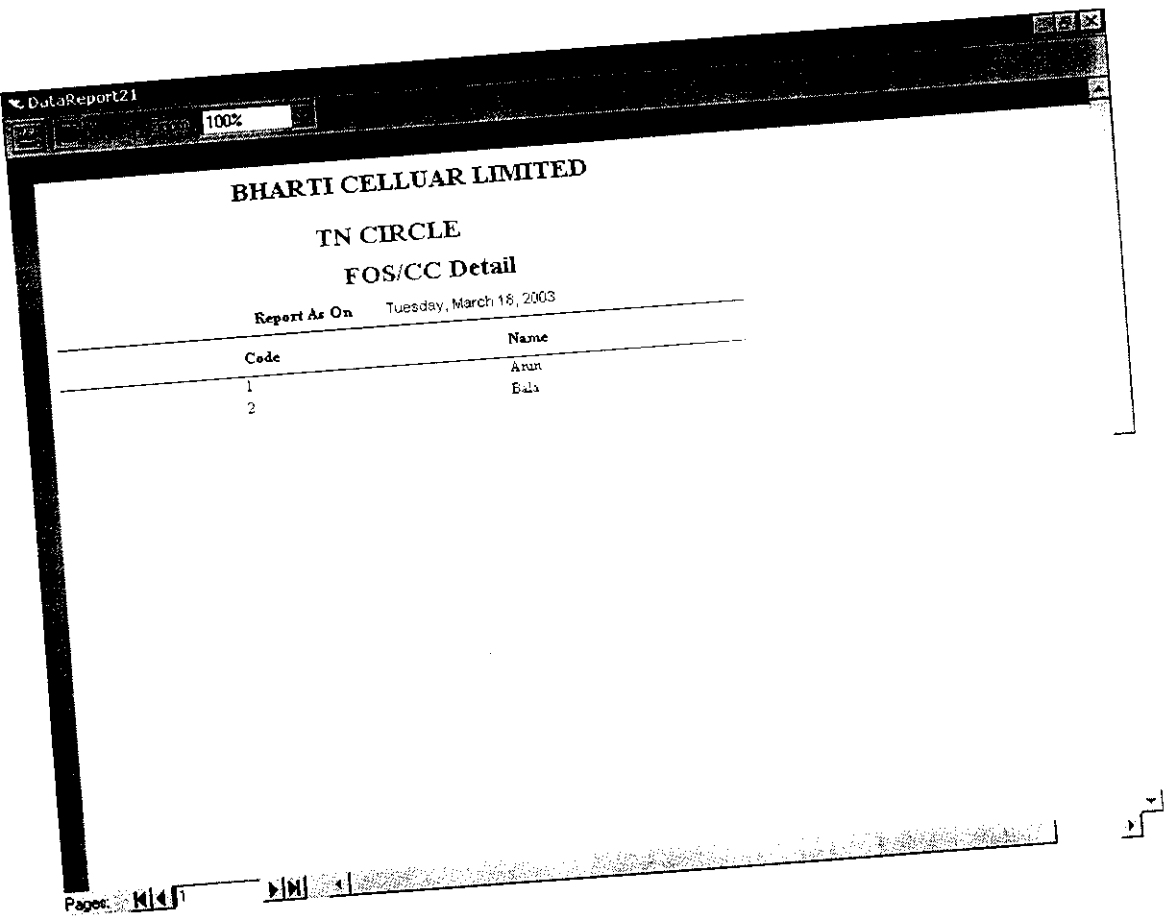


FIG 13 : REPORT SHOWING THE FOS/CC DETAILS

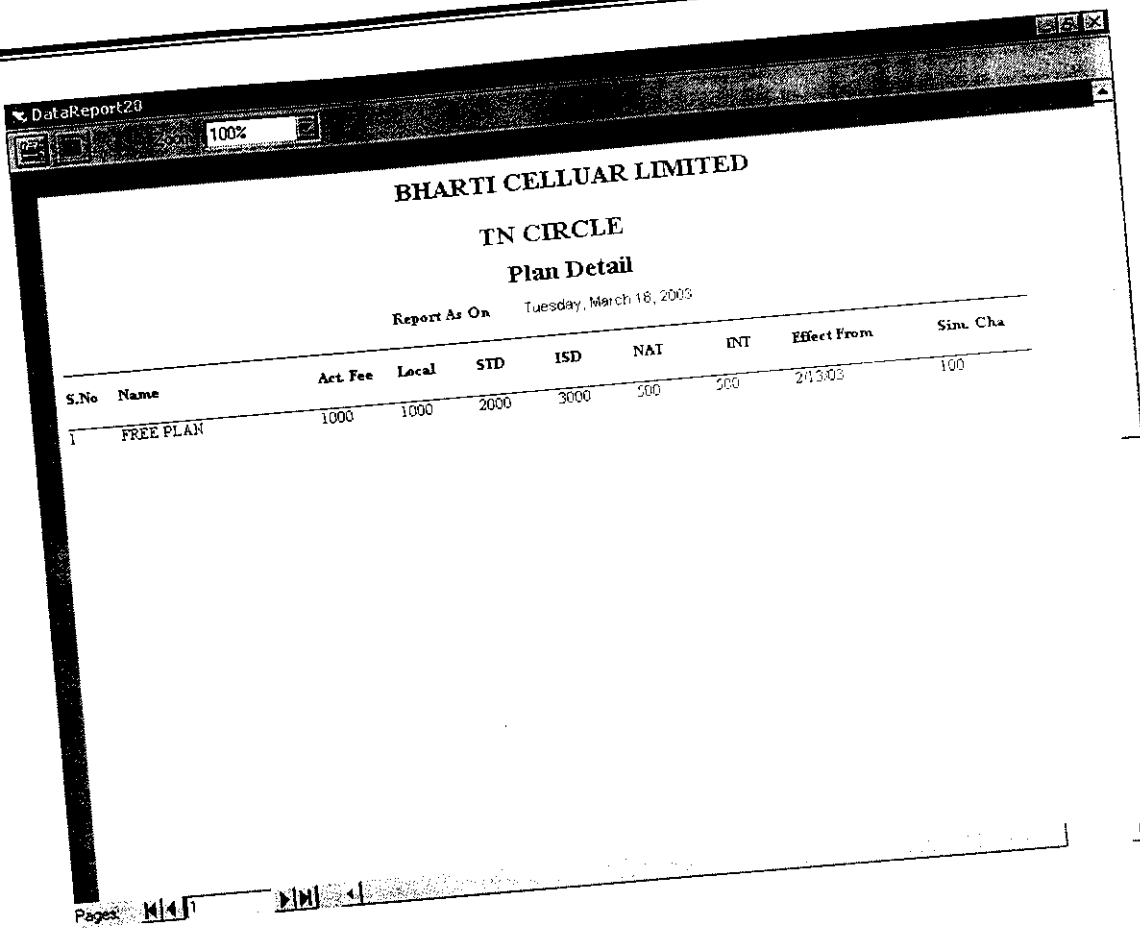


FIG 14 : REPORT SHOWING THE PLAN DETAILS

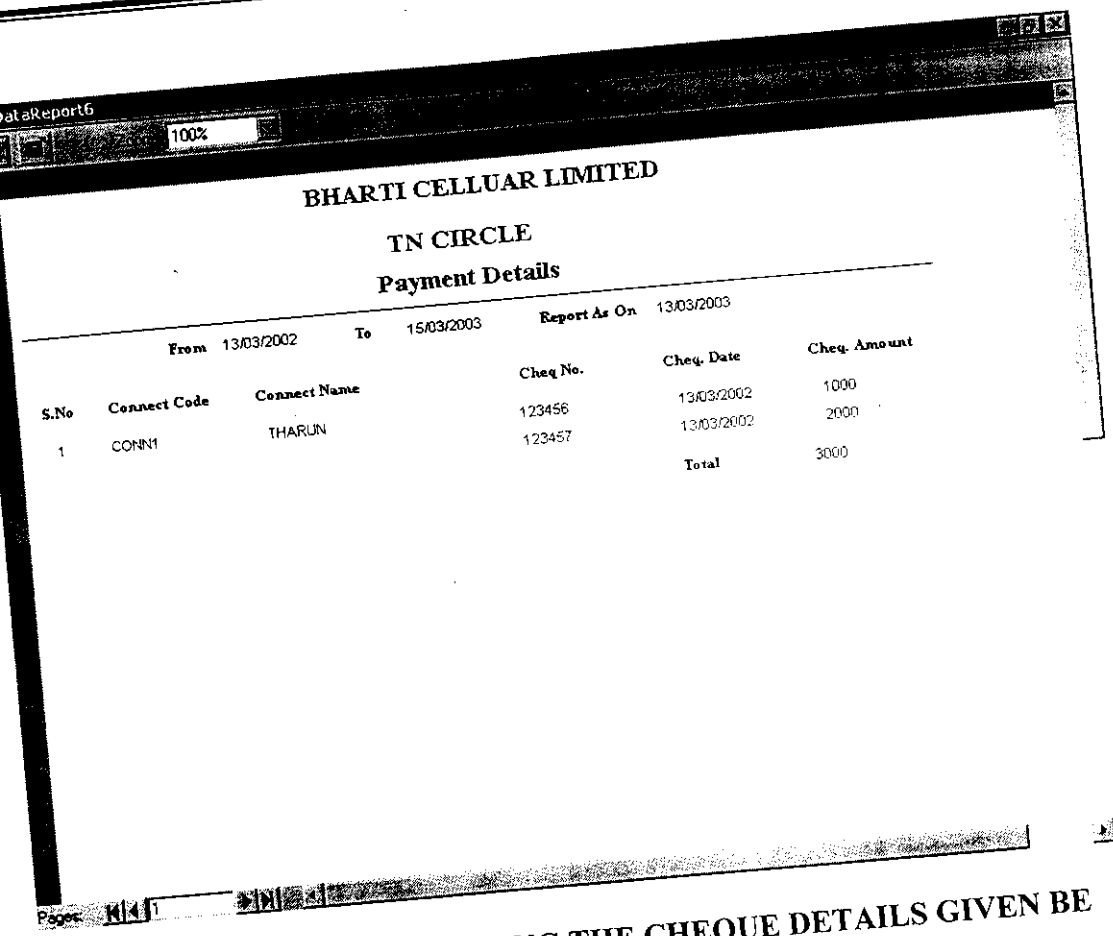


FIG 15 : REPORT SHOWING THE CHEQUE DETAILS GIVEN BE CONNECT TO HEAD OFFICE

TEST PLAN

4. TEST PLAN

4.1 OBJECTIVES OF TESTING:

The Objectives of testing are as follows:

i. Testing is a process of executing a program with the intent of finding an error.

ii. A good test is one that has a high probability of finding an undiscovered error.

iii. A successful test is one that uncovers an as-yet undiscovered error.

4.2 TESTING

The Project "Remote Installation And Administration" has been tested and currently being used by the organization. The test was carried out in three phases.

PHASE – I

During this phase, the codes written are checked for all syntax and programming errors. The system is checked to see whether it has been developed according to the specification given. Sample data are given as input and are checked. This avoids loss of actual data. A review is conducted before implementation by having discussions with the higher officials of the company.

PHASE – II

During the phase all the subsystem are integrated with the main menu. During this test checking is done whether the integrated modules support the objectives of the system. Reviews are conducted with the end users and their suggestions for improvements are taken into account.

PHASE – III

During this phase users will test run the integrated modules with ready data. The problems encountered are recorded and are cleared. Here the management suggestions are welcomed and necessary modifications are being made.

Implementation & Maintenance

5. IMPLEMENTATION AND MAINTENANCE

After testing the modules successfully, the necessary privileges are given to users. All the users are requested to handle the system properly. The real time problems that occur are successfully solved. The objective is to put the tested system into operation. It consists of

1. Testing the developed program with sample data.
2. Detection and corrections of errors.
3. Making necessary changes in the system.
4. Checking of reports.
5. Creating computer compatible files
6. Installation of hardware and software utilities

EDUCATION AND TRAINING

The users need training to utilize this system more efficiently. The following things are explained clearly to the users.

- How to get the screen?
- How to add, modify and view the requisitions?
- What are the function keys?
- Which field has the list of value option?
- How to edit field lastly entered?
- How to come out of the screen?
- How to find the requisition status by screen?
- How to take the hardcopy of the requisition?
- How to take the reports?

Other than these things users are showed practically how to use the system. During the training users doubts are cleared and suggestions are taken to account for further up gradation.

FUTURE SCOPE

6. FUTURE SCOPE

This Product "Remote Installation and Administration" has been developed according to the specifications obtained. In future this system can be modified to suit the new requirements.

CONCLUSION

7. CONCLUSION

The system has been designed, developed and implemented after tedious testing and debugging. The goals of the system have reached in such a manner that the system is flexible for any change in the near future. The coding has been done cautiously so that any developer can follow the programs easily with the knowledge of the convention followed hence it is easy to be maintained. Testing has been completed and a third person, with little knowledge of coding that the system is user friendly and simple has verified the system.

REFERENCES

8. REFERENCES

"Software Engineering Concepts" – Richard E. Fairley 1997

"VB 6.0 Interactive Course" - Mark Spenix, Pierre Boutquin, David Jung. 1995

"Advanced Visual Basic 6.0" -Wallace Wang 1997

"Oracle & Visual Basic Course Material Of SSI"