

# TELECOM CONNECTION SYSTEM

*A Project Report Submitted to the Acharya Nagarjuna University, Guntur*



*For the partial fulfillment of requirements for the Award of the*

*Graduation*

*Bachelor of Science*

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**CERTIFICATE**

This is to certify that it is a bonafide work entitles **“TELECOM  
CONNECTION SYSTEM”** have done by **“P. MADHAVI  
(Y193016063)”**, In the academic year 2021 – 2022 in partial fulfillment of the requirements for the award of degree of **Bachelor of Sciences** in the Department of **Computer Science**.

  
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This Project is a proud presentation of my work to the greatness of our professors and friends who have encouraged me all through the duration of project.

P. Madhavi

**P. MADHAVI**

**(Y193016063)**

## **DECLARATION**

This is to state that the dissertation titled **“TELECOM CONNECTION SYSTEM”** carried out at the Department of Computer Science, Y.A. Govt. Degree College for Women, Chirala is based on the original work carried by me under the guidance of Sri. Asst. Professor towards the partial fulfillment of requirements for award of B.Sc., This Project work has not been submitted to any other University or Institution either in part or full towards any other degree up to my knowledge and belief.

**Date:** 22/6/2022

**Place:** chirala

P. Madhavi

**Project Associates:**

**P. MADHAVI**

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## **ABSTRACT**

The project entitled “Telecom connection system” deals with fully automated system used by the Telecom department.

Telecom industry is one of the major sectors, which provides so many services to their customers such as request for a new connection, change of number, billing etc. Maintaining all these services manually is complicated process.

The main objective of this project is to automate the services provided by telecom system, by which customer can use all the services online.

The project has been divided into four modules.

Applications

Entries

Enquiries

Complaints

The **Applications** module provides following services.

- A customer can apply for a new telephone connection by filling the form.
- He can request for transferring phone connection to another location.
- He can modify the mode of bill payment details.
- He can also cancel his phone connection.

The **Entries** module provides following services.

- If the customer requested for change of telephone number, here if we enter the old number, it will display the new number.
- The **Enquiries** module provides following services.
- The customer can make a request about his bill.
- He can also know the information about changed numbers.
- He can also ask about the status of his applications.

The **Complaints** module provides following services.

- The customers can complaint regarding the service and all other issues.

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## CHAPTER-1

### 1. INTRODUCTION

The project entitled “Telecom connection system” deals with fully automated system used by the Telecom department.

Telecom industry is one of the major sectors, which provides so many services to their customers such as request for a new connection, change of number, billing etc. Maintaining all these services manually is complicated process.

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- Complaints

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## Technologies

Soft wares	:	Servlets, JSP, JDBC
Databases	:	Oracle
Web Server	:	Apache Tomcat 4.1
Operating System	:	Windows 98/NT/2000

## CHAPTER-2

### SYSTEM ANALYSIS

System analysis is first stage according to System Development Life Cycle model. This System Analysis is a process that starts with the analyst.

Analysis is a detailed study of the various operations performed by a system and their relationships within and outside the system. One aspect of analysis is defining the boundaries of the system and determining whether or not a candidate should consider other related systems. During analysis, data is collected from the available files, decision points, and transactions handled by the present system.

Logical system models and tools are used in analysis. Training, experience, and common sense are required for collection of the information needed to do the analysis.

#### 2.1 Existing System

The existing system is a manual one where the entrant has to go to the Telecom Connection System and get details of the company for getting the new connection. Here it is getting a tedious one for the user to go and manually register with it. And in the process only a few users are take the connection. To over come this they have proposed for the online Connection.

#### 2.2 Problem Statement

The previous system was an manual system. So, the system is not available to all globally. To make the system available globally, it is now proposed to be web enabled.

In the existing manual process entrants can not get the information of all the telecom system where by registering with Telecom Connection System they can get the updated share values and also since the registration process is automized, participation in Connection is easy to the entrants.

#### 2.3 Proposed System

The proposed system is the online registration of the entrants with the company. By atomizing this Connection process, the entrants enjoy the facility to participate from anywhere. Entrants can also get the information online about all the telecom system. By this process the user can get all the information of the Connection process from where ever he wants as there is

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no need for him to come to the office and register for Connection. Thus the proposed system is efficient all the way.

The project has been divided into four modules.

1. Applications
2. Entries
3. Enquiries
4. Complaints

The administrator is responsible for the Connection process and he maintains all the information about the telecom system that are offering the Connection process for different participants. He is also responsible for the registration of different users that are going to take the Connection process. The administrator will only offer the Connection process and maintain the bill details and everything for the users as well as the telecom system who are already registered at the Connection system

In the User Module a new user or an user who is already registered with the company may be going for Connection and these persons will keep their connections by taking the connection on telecom system. A user can offer to take new connection, enquiry, complaints and bill details and every thing on the connection system. The user can get for the Connection only for the registered telecom system at the administrator only.

In Enquiry module user can know the details from telecom system regarding his requirements and another module in user side is complaints i.e He can make complaint to the office if any connection is corrupted. And if he want to know the bill status . These telecom system has to be registered at the administrator only because he is responsible for all the Connection process at the different users. **2.4 REQUIEIMENTS ANALYSIS**

The requirement phase basically consists of three activities:

Requirement Analysis

Requirement Specification

Requirement Validation

## **Requirement Analysis:**

Requirement Analysis is a software engineering task that bridges the gap between system level software allocation and software design. It provides the system engineer to specify software

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function and performance indicate software's interface with the other system elements and establish constraints that software must meet.

The basic aim of this stage is to obtain a clear picture of the needs and requirements of the end-user and also the organization. Analysis involves interaction between the clients and the analysis. Usually analysts research a problem from any questions asked and reading existing documents. The analysts have to uncover the real needs of the user even if they don't know them clearly. During analysis it is essential that a complete and consistent set of specifications emerge for the system. Here it is essential to resolve the contradictions that could emerge from information got from various parties.

This is essential to ensure that the final specifications are consistent. It may be divided into 5 areas of effort.

- Problem recognition
- Evaluation and synthesis
- Modeling
- Specification
- Review

Each Requirement analysis method has a unique point of view. However all analysis methods are related by a set of operational principles. They are

- The information domain of the problem must be represented and understood.
- The functions that the software is to perform must be defined.
- The behavior of the software as a consequence of external events must be defined.
- The models that depict information function and behavior must be partitioned in a hierarchical or layered fashion.
- The analysis process must move from essential information to implementation detail.

### **2.5 REQUIREMENTS SPECIFICATION**

#### **Specification Principles:**

Software Requirements Specification plays an important role in creating quality software solutions. Specification is basically a representation process. Requirements are represented in a manner that ultimately leads to successful software implementation.

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Requirements may be specified in a variety of ways. However there are some guidelines worth following:

- Representation format and content should be relevant to the problem
- Information contained within the specification should be nested
- Diagrams and other notational forms should be restricted in number and consistent in use.
- Representations should be revisable.

## **Software Requirements Specifications:**

The software requirements specification is produced at the culmination of the analysis task. The function and performance allocated to the software as a part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, and indication of performance requirements and design constraints, appropriate validation criteria and other data pertinent to requirements.

### **An outline of the Software Requirements Specification:**

A simplified outline can be given for the framework of the specifications. This is according to the IEEE Standards.

## **2.6 FEASIBILITY STUDY**

All projects are feasible, given unlimited resources and infinite time. But the development of software is plagued by the scarcity of resources and difficult delivery rates. It is both necessary and prudent to evaluate the feasibility of a project at the earliest possible time.

Three key considerations are involved in the feasibility analysis.

### **Economic Feasibility:**

This procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. Otherwise, further justification or alterations in proposed system will have to be made if it is to have a chance of being approved. This is an ongoing effort that improves in accuracy at each phase of the system life cycle.

### **Technical Feasibility:**

Technical feasibility centers on the existing computer system (hardware, software, etc..) and to what extent it can support the proposed addition. If the budget is a serious constraint, then the project is judged not feasible.

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## **Operational Feasibility:**

People are inherently resistant to change, and computers have been known to facilitate change. It is understandable that the introduction of a candidate system requires special effort to educate, sell, and train the staff on new ways of conducting business.

## **Technical Feasibility**

Technical feasibility speaks about the existing hardware and the software that we are using and the deviations that we have to make from the existing one, as we are developing the application using java there is no change in the hardware that the we are using. So we an say that this application is technically feasible as there is no change in the configuration more over it is cost effective.

## **Economic Feasibility**

Economic feasibility talks about the benefits that which we get from this project. Here with the introduction of this online process we are not only reducing the time take for the registration of the entrants we even reduce the burden on the administrator. As this project is not only reducing the time but also the work burden of the user we say that this product is economically feasible.

## **Operational Feasibility**

As this project is a user friendly version there is not much training required for the people to use. This product is not only making the task of the administrator easy but it is reducing the time that is taken otherwise. So we say that this product is operationally feasible.

## CHAPTER-3

### SYSTEM DESIGN

The most creative and challenging phase of the life cycle is system design. The term design describes a final system and the process by which it is developed. It refers to the technical specifications that will be applied in implementations of the candidate system. The design may be defined as “the process of applying various techniques and principles for the purpose of defining a device, a process or a system with sufficient details to permit its physical realization”.

The designer’s goal is how the output is to be produced and in what format. Samples of the output and input are also presented. Second input data and database files have to be designed to meet the requirements of the proposed output. The processing phases are handled through the program Construction and Testing. Finally, details related to justification of the system and an estimate of the impact of the candidate system on the user and the organization are documented and evaluated by management as a step toward implementation.

The importance of software design can be stated in a single word “*Quality*”. Design provides us with representations of software that can be assessed for quality. Design is the only way where we can accurately translate a customer’s requirements into a complete software product or system. Without design we risk building an unstable system, that might fail if small changes are made. It may as well be difficult to test, or could be one who’s quality can’t be tested. So it is an essential phase in the development of a software product.

### 3.1 PROJECT MODULES

The project has been divided into four modules.

1. Applications
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3. Enquiries
4. Complaints

The **Applications** module provides following services.

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## DICTIONARY

The logical characteristics of current systems data stores, including name, description, aliases, contents, and organization, identifies processes where the data are used and where immediate access to information required, Serves as the basis for identifying database requirements during system design.

### Uses of Data Dictionary:

- To manage the detail in large systems
- To communicate a common meaning for all system elements
- To Document the features of the system
- To facilitate analysis of the details in order to evaluate characteristics and determine where system changes should be made.
- To locate errors and omissions in the system.

### **3.2 DATA TABLE NAME:** Telecom Connection System

Telecom Login Table:

Field name	Type	Constraint
USERID	VARCHAR2(25)	NOT NULL
PASSWORD	VARCHAR2(10)	NOT NULL

Bill Details Table:

Field name	Type	Constraint
Phone_no	Number	Not null
Bill_no	Number	
amount	Number(13,2)	

## TELECOM CONNECTION SYSTEM

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Changed Numbers Table:

Field name	Type	Constraint
Old_no	Number	
New_no	number	

Complaints table:

Field name	Type	Constraint
Complaint_id	Number	Not null
Subject	Varchar2(40)	
Phone_no	Number	
Client_name	Varchar2(40)	
message	Varchar2(150)	

Complaints\_Solution table:

Field name	Type	Constraint
Complaint_id	Number	
Customer_name	Varchar2(25)	
Phone_no	Varchar2(15)	
Complaint_given_date	Varchar2(25)	
Solution_sending_date	Varchar2(25)	
Solution	Varchar2(100)	
conntype	Varchar2(25)	

ConConfirm\_details Table:

Field name	Type	Constraint
reqid	Number	Not null
Cname	Varchar2(25)	
contype	Varchar2(15)	
Conconfirmdate	Varchar2(25)	
conreqdate	Varchar2(25)	
Solution	Varchar2(100)	
conntype	Varchar2(25)	

## TELECOM CONNECTION SYSTEM

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Demand\_Draft\_Details:

Field name	Type	Constraint
Dd_id	Number	Not null
Name	Varchar2(30)	
Branch	Varchar2(25)	
Dd_date	Varchar2(20)	
Amount	Number(7,2)	
Draft_no	Varchar2(30)	

Phone\_cancellation Details:

Field name	Type	Constraint
Cancel_id	Number	Not null
Req_id	Number	
Phone_no	Number	

Phone\_transfer\_request Table:

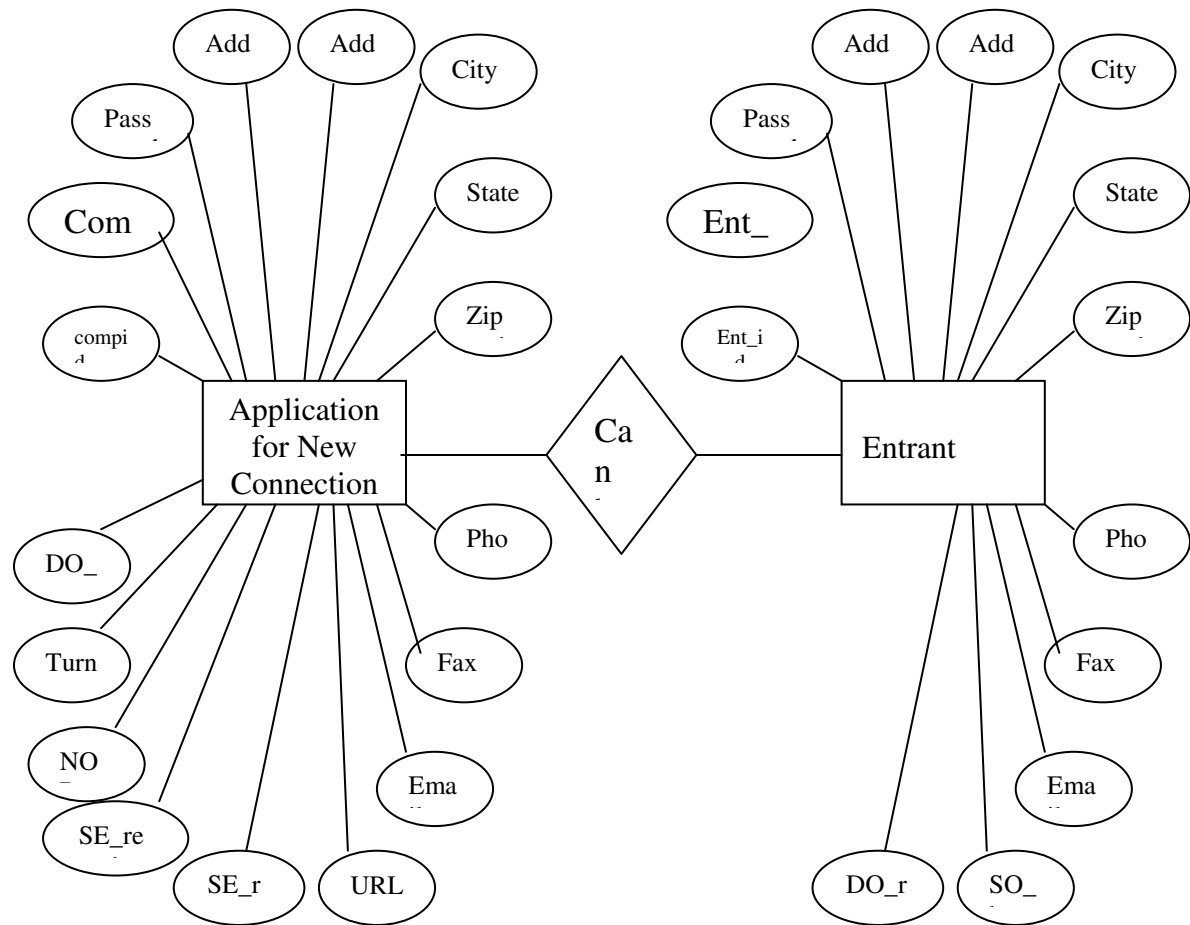
Field name	Type	Constraint
Req_id	Number	Not null
Phone_no	Number	
Name	Varchar2(50)	
Present_address	Varchar2(50)	
New_address	Varchar2(50)	
Bank_details_id	Number	
Status	Varchar2(50)	

### **3.3 Entity-Relationship Diagrams**

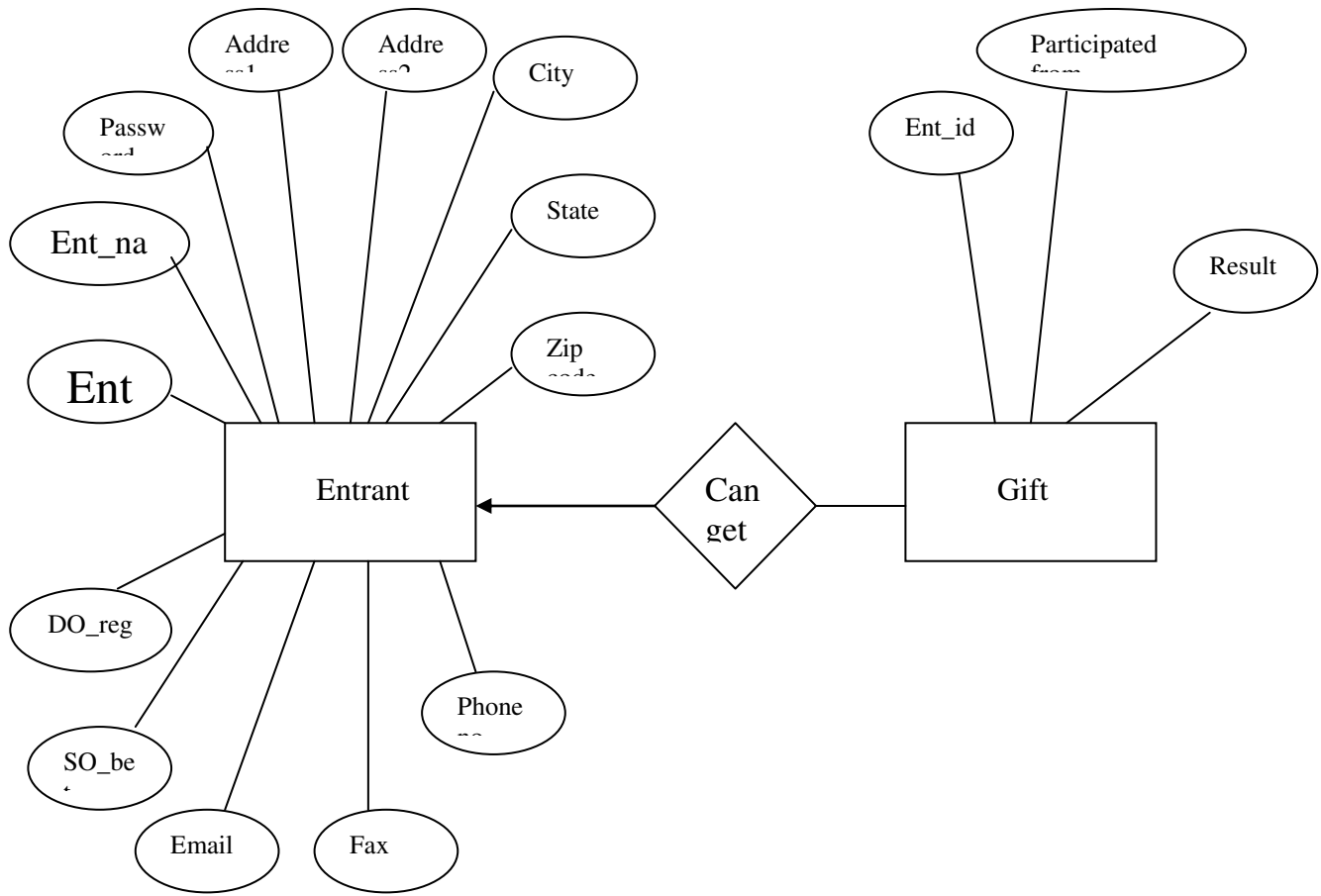
The over all logical structure of a database can be expressed graphically by an *E-R diagram*. The relative simplicity and pictorial clarity of this diagramming technique may well account in large part for the widespread use of the E-R model. Such a diagram consists of the following major components:

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## E-R DIAGRAMS



# TELECOM CONNECTION SYSTEM



## **3.4 DATA FLOW DIAGRAMS**

A graphical tool used to describe and analyze the movement of data through a system manual or automated including the process, stores of data, and delays in the system. Data Flow Diagrams are the central tool and the basis from which other components are developed. The transformation of data from input to output, through processes, may be described logically and independently of the physical components associated with the system. The DFD is also known as a data flow graph or a bubble chart.

### **Context Diagram:**

The top-level diagram is often called a “*context diagram*”. It contains a single process, but it plays a very important role in studying the current system. The context diagram defines the system that will be studied in the sense that it determines the boundaries. Anything that is not inside the process identified in the context diagram will not be part of the system study. It represents the entire software element as a single bubble with input and output data indicated by incoming and outgoing arrows respectively.

### **Types of data flow diagrams**

DFDs are two types

#### **1. Physical DFD**

Structured analysis states that the current system should be first understood correctly. The physical DFD is the model of the current system and is used to ensure that the current system has been clearly understood. Physical DFDs show actual devices, departments, people etc., involved in the current system

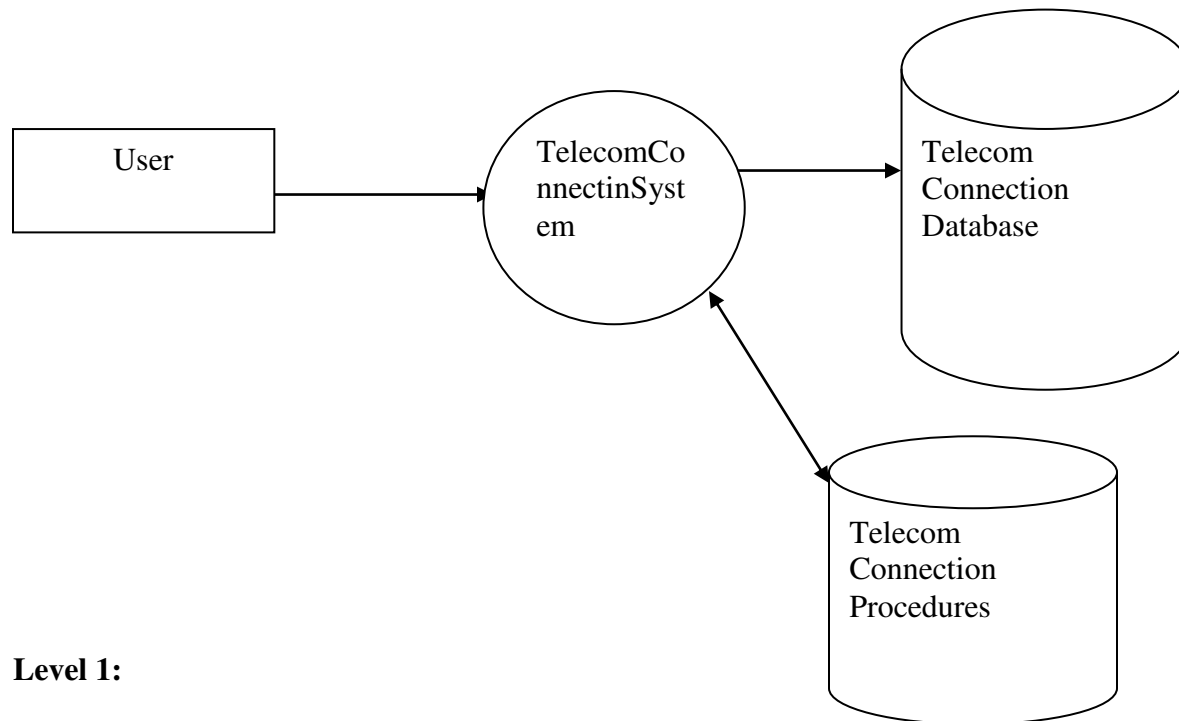
#### **2. Logical DFD**

Logical DFDs are the model of the proposed system. They clearly should show the requirements on which the new system should be built. Later during design activity this is taken as the basis for drawing the system's structure charts.

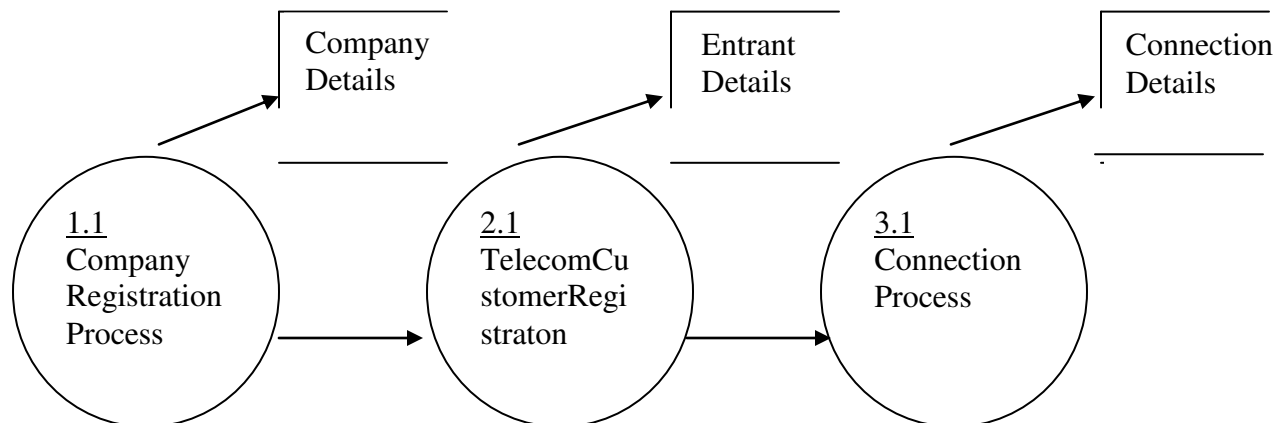
# TELECOM CONNECTION SYSTEM

## DATA FLOW DIAGRAM

Context level:



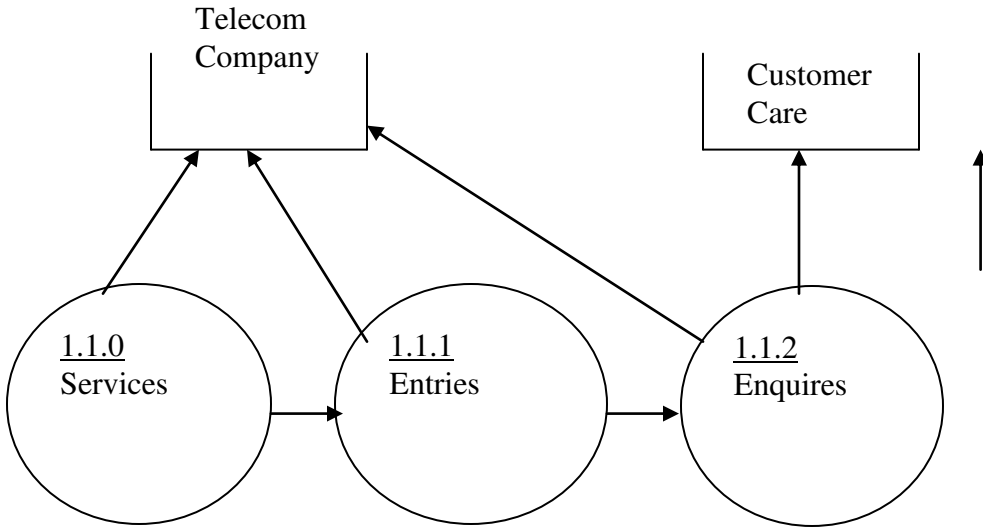
Level 1:



# TELECOM CONNECTION SYSTEM

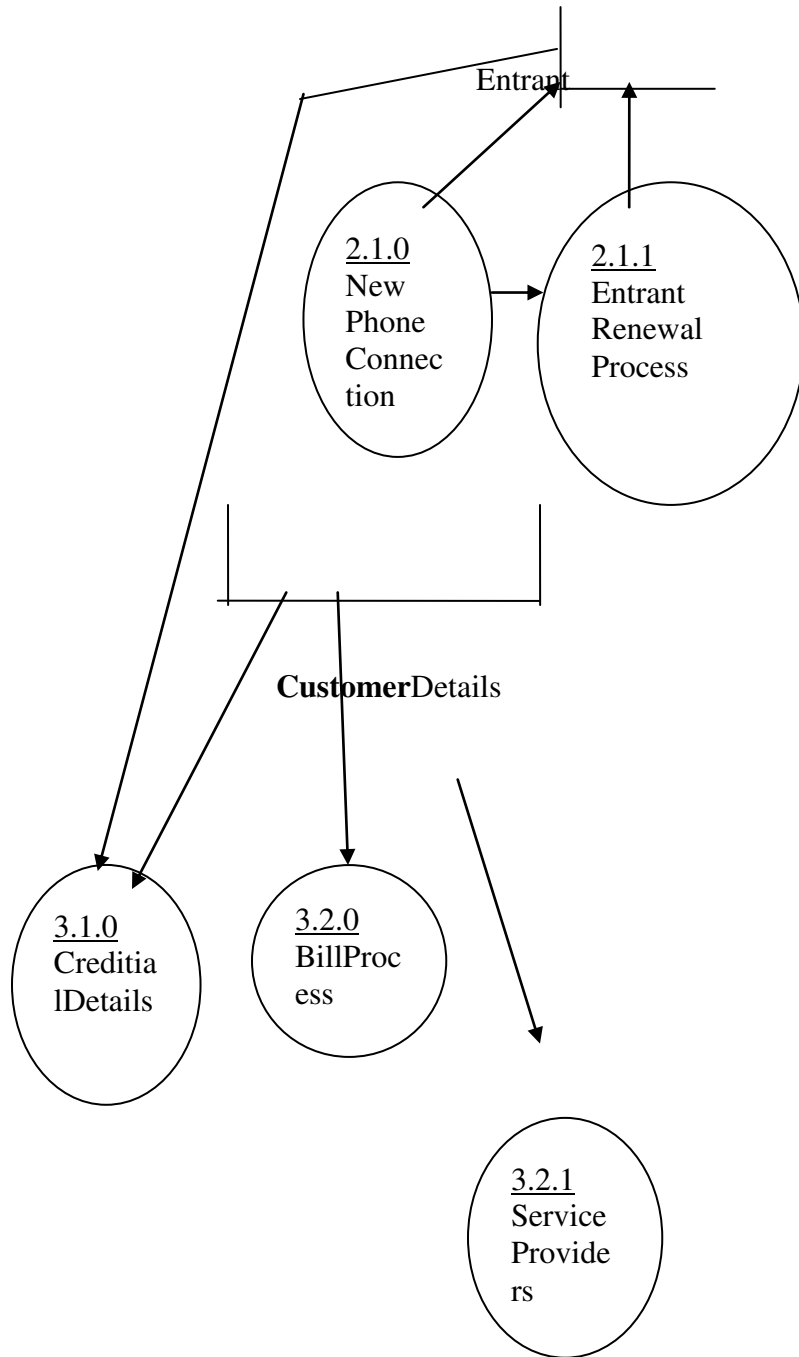
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## Level 2:



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## Level 3:



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## **3.5 HARDWARE AND SOFTWARE REQUIREMENTS**

### **Hard ware Specification:**

<b>Processor</b>	:	Intel P-III based system
<b>Processor Speed</b>	:	250 MHz to 833MHz
<b>RAM</b>	:	64MB to 256MB
<b>Hard Disk</b>	:	2GB to 30GB
<b>Key Board</b>	:	104 keys

### **Software Specification:**

<b>Language</b>	:	JDK 1.2
<b>Database</b>	:	ORACLE
<b>Operating System</b>	:	Windows2000

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## LIFE CYCLE MODELS

The stage of planning and development process involves defining, developing, testing, delivering, operating, and maintaining a software product. Different lifecycle models emphasize different aspects and no single lifecycle model is suitable for all software products. A lifecycle model that is understood and accepted improves project communication and enhances project manageability, resource allocation, cost control, and product quality.

### **The Phased Life Cycle Model**

The phased lifecycle model represents software lifecycle as a series of successive activities. This phase requires well-defined input information, processes and results in well-defined products. The phased lifecycle model consists of following phases.

### **Analysis, Design, Implementation, System Testing and Maintenance**

This model is sometimes called the Waterfall Model, the products cascade from one level to another in smooth progression.

Analysis	Design	Implementation	System Testing	Maintenance
Planning, User needs Definition	Design Details	Code, debug and Test	Integration & Acceptance	Enhance, Fix Adapt

The **Analysis Stage** consists of Planning and Requirements definition.

A feasibility study, developing a recommended solution strategy, determining the acceptance criteria and planning development process. The products of planning are a System definition and a project plan.

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The **Software Design** follows analysis. Design is concerned with its software components, specifying relationships among components specifying some structure, maintaining a record of design decisions and providing blueprint implementation phase. Design consists of detailed design and Architectural design.

The **implementation** phase of software development involves translation of design specification into source code, and debugging, documenting and unit testing the source code. To enhance the quality of the software the methods are structured control constructs, built in and user defined data types, secure type checking, flexible scope rules exception handling mechanism, concurrency constructs and separates compilation modules.

**System Testing** involves two kinds of testing integration testing and acceptance testing. Developing a strategy for integrating the components of a software system into a functioning requires careful planning so that modules are available for integration when needed. Acceptance testing involves planning and execution of various tests in order to demonstrate that the implemented system satisfies the requirement document.

The **Maintenance** phase comes after the acceptance of the product by the customer and release of the system for production work. Maintenance activities include enhancements of capabilities, adaptation of software to new processing environments, and correction of software bugs.

**This project** follows the Phased Life Cycle Model or the Water Fall model to a large extent. The analysis stage consisted of listening to the needs and requirements of the examination department obtaining the required format of the system as desired by them, taking the required data to be stored for future use etc., In the design stage the structure of the system was designed and all the required screens were formatted. This was then shown to the officer's approval and the system was built. Implementation phase was done at PRITHVI INFORMATICS as they provided a computer with all the required software and with required configuration. The coding and debugging was done. Even after this stage certain changes were made as requested by the guide. The testing was done to check for any errors or bugs or unwanted behavior in the system. Individual modules as well as the whole system were tested separately.

## **CHAPTER-4**

### **SOFTWARE TESTING**

Software Testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding, Testing presents an interesting anomaly for the software engineer.

#### **Testing Objectives include:**

- Testing is a process of executing a program with the intent of finding an error
- A good test case is one that has a probability of finding an as yet undiscovered error
- A successful test is one that uncovers an undiscovered error

#### **Testing Principles:**

- All tests should be traceable to end user requirements
- Tests should be planned long before testing begins
- Testing should begin on a small scale and progress towards testing in large
- Exhaustive testing is not possible
- To be most effective testing should be conducted by a independent third party

### **TESTING STRATEGIES**

A Strategy for software testing integrates software test cases into a series of well planned steps that result in the successful construction of software. Software testing is a broader topic for what is referred to as Verification and Validation. Verification refers to the set of activities that ensure that the software correctly implements a specific function. Validation refers he set of activities that ensure that the software that has been built is traceable to customer's requirements

#### **Unit Testing:**

Unit testing focuses verification effort on the smallest unit of software design that is the module. Using procedural design description as a guide, important control paths are tested to uncover errors within the boundaries of the module. The unit test is normally white box testing oriented and the step can be conducted in parallel for multiple modules.

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## **Integration Testing:**

Integration testing is a systematic technique for constructing the program structure, while conducting test to uncover errors associated with the interface. The objective is to take unit tested methods and build a program structure that has been dictated by design.

## **Top-down Integration:**

Top down integrations is an incremental approach for construction of program structure. Modules are integrated by moving downward through the control hierarchy, beginning with the main control program. Modules subordinate to the main program are incorporated in the structure either in the breath-first or depth-first manner.

## **Bottom-up Integration:**

This method as the name suggests, begins construction and testing with atomic modules i.e., modules at the lowest level. Because the modules are integrated in the bottom up manner the processing required for the modules subordinate to a given level is always available and the need for stubs is eliminated.

## **Validation Testing:**

At the end of integration testing software is completely assembled as a package. Validation testing is the next stage, which can be defined as successful when the software functions in the manner reasonably expected by the customer. Reasonable expectations are those defined in the software requirements specifications. Information contained in those sections form a basis for validation testing approach.

## **System Testing:**

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. Although each test has a different purpose, all work to verify that all system elements have been properly integrated to perform allocated functions.

## **Security Testing:**

Attempts to verify the protection mechanisms built into the system.

## **Performance Testing:**

This method is designed to test runtime performance of software within the context of an integrated system..

## CHAPTER-5

### WALK THROUGH

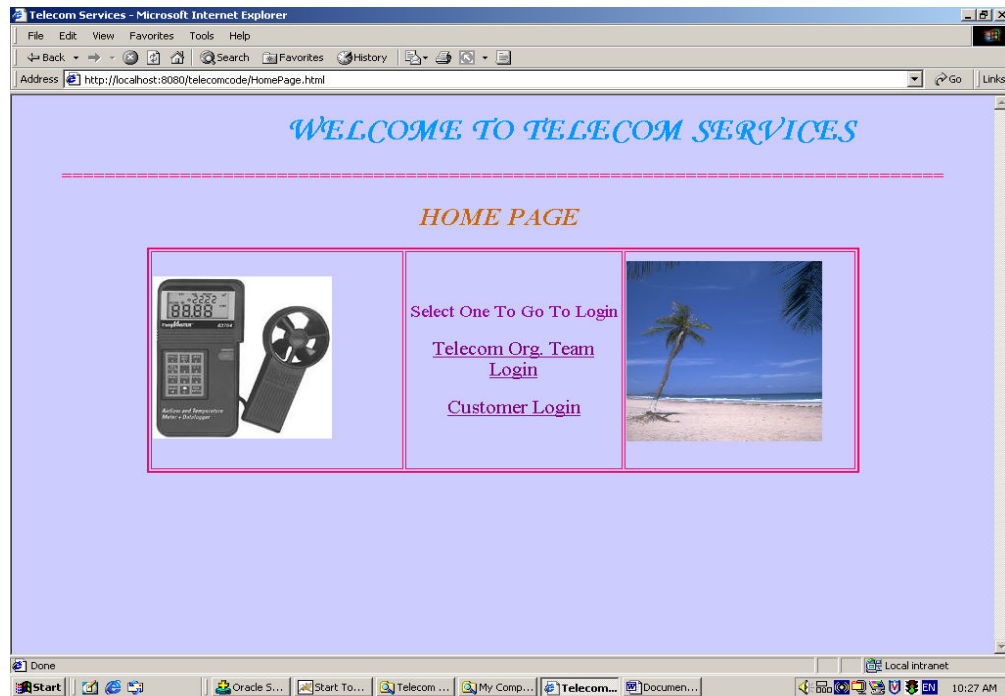


Fig:5.1.1 HOME PAGE



FIG: APPLICATION HOME

# TELECOM CONNECTION SYSTEM

The screenshot shows a web browser window titled "Related Links - Microsoft Internet Explorer" with the address bar displaying "http://localhost:8080/telecomcode/PhoneTransfer.jsp". The page features a blue header with the text "Telecom Services" and a navigation menu with links for "Home", "Applications", "Entries", "Enquiries", "Complaints", and "About US". Below the navigation is a white box containing the heading "Application for Phone Transfer" and the instruction "Enter the following details for Phone Transfer". The form includes the following fields: "Req ID" (text input), "Name" (text input), "Phone No" (text input with "(With STD Code)" label), "Present Address" (text area), "New Address" (text area), "Demand Draft Details" section with "Bank Name" (text input), "Branch & City" (text input), "Date of Issue" (Year, Month, Day dropdowns), and "Amount" (text input).

FIG: APPLICATION FOR PHONE TRANSFER

The screenshot shows a web browser window titled "Related Links - Microsoft Internet Explorer" with the address bar displaying "http://localhost:8080/telecomcode/Modifications.jsp". The page features a blue header with the text "Telecom Services" and a navigation menu with links for "Home", "Applications", "Entries", "Enquiries", "Complaints", and "About US". Below the navigation is a white box containing the heading "Application Modifications" and the instruction "Enter the following details for Phone Modifications". The form includes the following fields: "ReqID" (text input), "Name" (text input), "Request Date" (Year, Month, Day dropdowns), "Phone No" (text input with "(With STD Code)" label), "Modification Fee Details" section with "BankName" (text input), "Amount" (text input), "DDNo" (text input), "DD Issue Date" (Year, Month, Day dropdowns), "Branch&City" (text input), and "Reason for Modification" (dropdown menu). At the bottom of the form are "Submit" and "Reset" buttons.

FIG: APPLICATION MODIFICATION

# TELECOM CONNECTION SYSTEM

The screenshot shows a web browser window titled "Related Links - Microsoft Internet Explorer". The address bar displays "http://localhost:8080/telecomcode/PhoneCancellation.jsp". The page features a blue header with the text "Telecom Services" in purple. Below the header is a navigation menu with buttons for "Home", "Applications", "Entries", "Enquiries", "Complaints", and "About US". The main content area is titled "Application for Cancellation" and contains the instruction "Enter the following details for Phone Cancellation". The form includes the following fields: "ReqId" (text input), "Name" (text input), "Date Of Request" (with "Year", "Month", and "Day" dropdown menus), "Connection Type" (dropdown menu with "select one" selected), "Phone No" (text input with "(With STD Code)" label), and "Reason For Cancellation" (text area). There are "Submit" and "Reset" buttons at the bottom of the form. A footer contains a navigation menu: "Home • Applications • Entries • Enquiries • Complaints • About US".

FIG:APPLICATION FOR CANCELLATIONS

The screenshot shows a web browser window titled "Telecom Services (Enquiries) - Microsoft Internet Explorer". The address bar displays "http://localhost:8080/telecomcode/ChangedNumberEntry.jsp". The page features a blue header with the text "Telecom Services" in purple. Below the header is a navigation menu with buttons for "Home", "Applications", "Entries", "Enquiries", "Complaints", and "About US". The main content area is titled "Changed Numbers Entry" and contains the instruction "Changed Numbers Entry". The form includes the following fields: "Old Telephone No" (text input with "[with STD/ISD code]" label) and "New Telephone No" (text input with "[with STD/ISD code]" label). There are "Submit" and "Reset" buttons at the bottom of the form. A "Logout Here:" link with a small icon is located in the top right corner of the form area. A footer contains a navigation menu: "Home • Applications • Entries • Enquiries • Complaints • About US".

FIG: CHANGED NUMBERS ENTRY

# TELECOM CONNECTION SYSTEM



FIG: BILL ENQUIRY

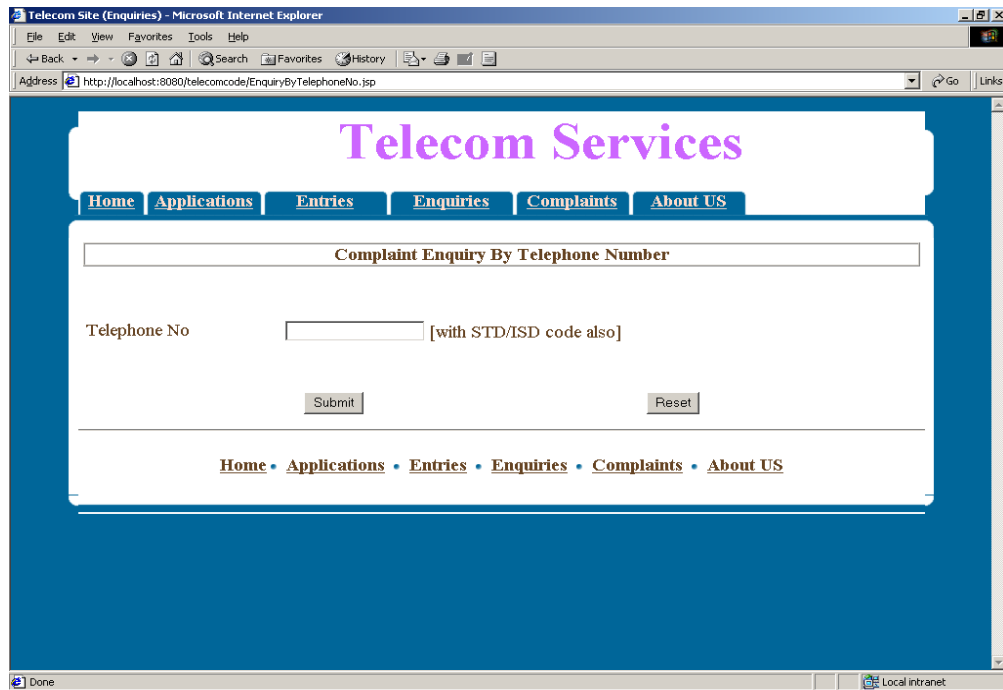


FIG: COMPLAINT BY TELEPHONE NUMBER

# TELECOM CONNECTION SYSTEM



FIG: APPLICATION ENQUIRIES HOME

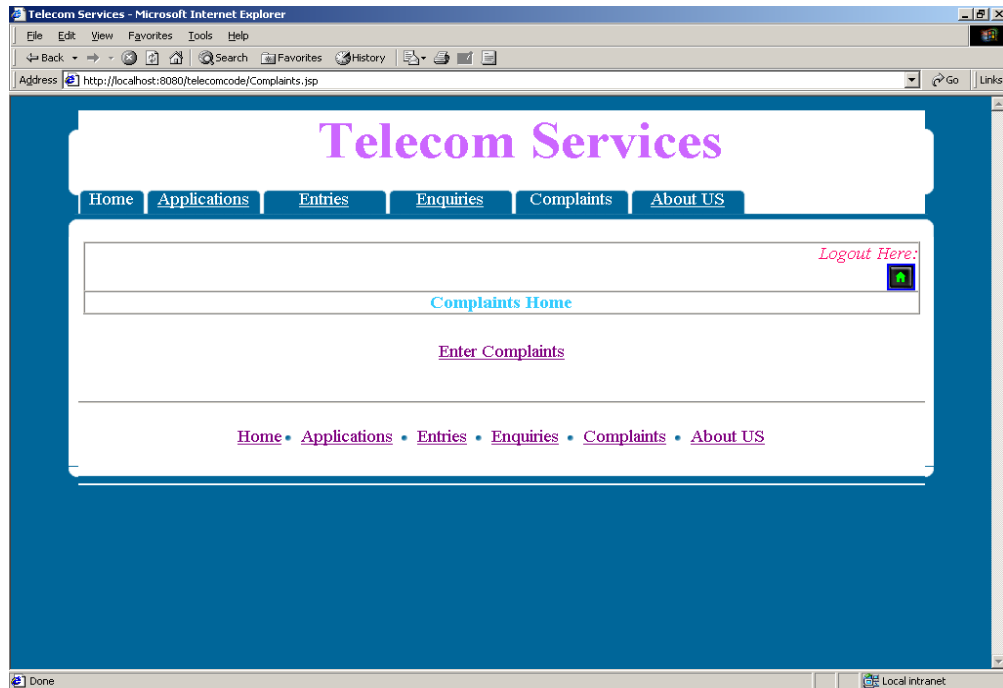


FIG: COMPLAINTS HOME

# TELECOM CONNECTION SYSTEM

The screenshot shows a web browser window titled "Telecom Services - Microsoft Internet Explorer". The address bar shows the URL "http://localhost:8080/telecomcode/EnterComplaints.jsp". The page features a blue header with the title "Telecom Services" and a navigation menu with links for "Home", "Applications", "Entries", "Enquiries", "Complaints", and "About US". Below the navigation menu is a form titled "Enter Complaints". The form contains the following fields: "Subject" (text input), "Customer Name" (text input), "Complaint Date" (with dropdowns for Year, Month, and Day), "Connection Type" (dropdown menu with "select one" selected), "Phone No" (text input with a note "[with STD/ISD code also]"), and "Message" (text area). At the bottom of the form are "Submit" and "Reset" buttons. A footer at the bottom of the page contains a breadcrumb trail: "Home • Applications • Entries • Enquiries • Complaints • About US".

FIG: ENTER COMPLAINTS

The screenshot shows a web browser window titled "Telecom Services (Enquiries) - Microsoft Internet Explorer". The address bar shows the URL "http://localhost:8080/telecomcode/AboutUS.jsp". The page features a blue header with the title "Telecom Services" and a navigation menu with links for "Home", "Applications", "Entries", "Enquiries", "Complaints", and "About US". Below the navigation menu is a form titled "AboutUS". The form contains the following text: "Logout Here:" with a green arrow icon, "The whole system is computerized. So, each and every transaction takes less time to complete. Whenever customer requires any information, the searching process also takes less time and it is easy to search particular customer information from a file.", "Click Here to Know Rules&Regulations For Tele Phone Connection:=> [R&R Details](#)", and a list of four points: "1. A fast and more efficient service to all customers. As there are thousands of customer records; Searching process is an easy task.", "2. Saving in staff time in entering and manipulating data.", "3. Easy input, deletion and manipulation of lot, customer details.", "4. Capable of printing both full and selected information." At the bottom of the page is a footer with the URL "http://localhost:8080/telecomcode/AboutUS.jsp".

FIG: ABOUT US

# TELECOM CONNECTION SYSTEM

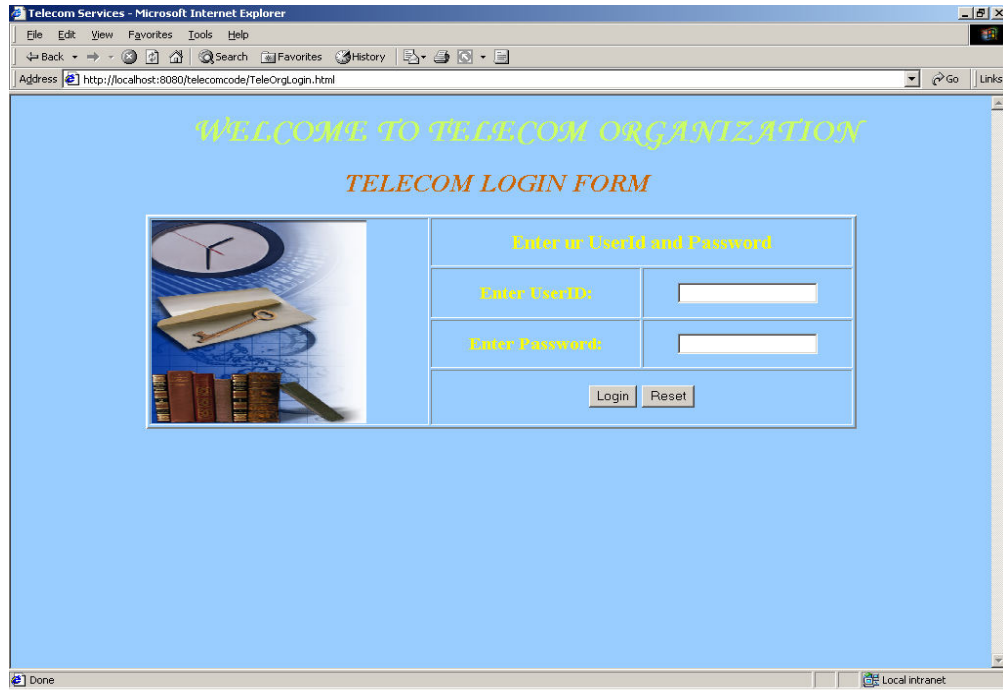


FIG: TELECOM LOGIN FORM

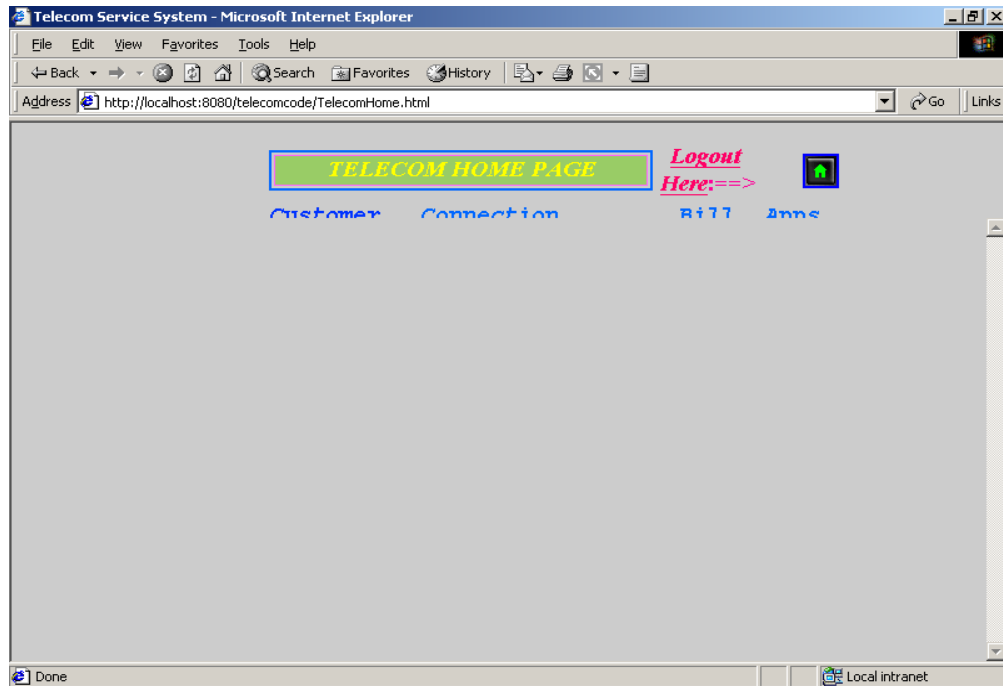


FIG: TELECOM HOME PAGE

# TELECOM CONNECTION SYSTEM

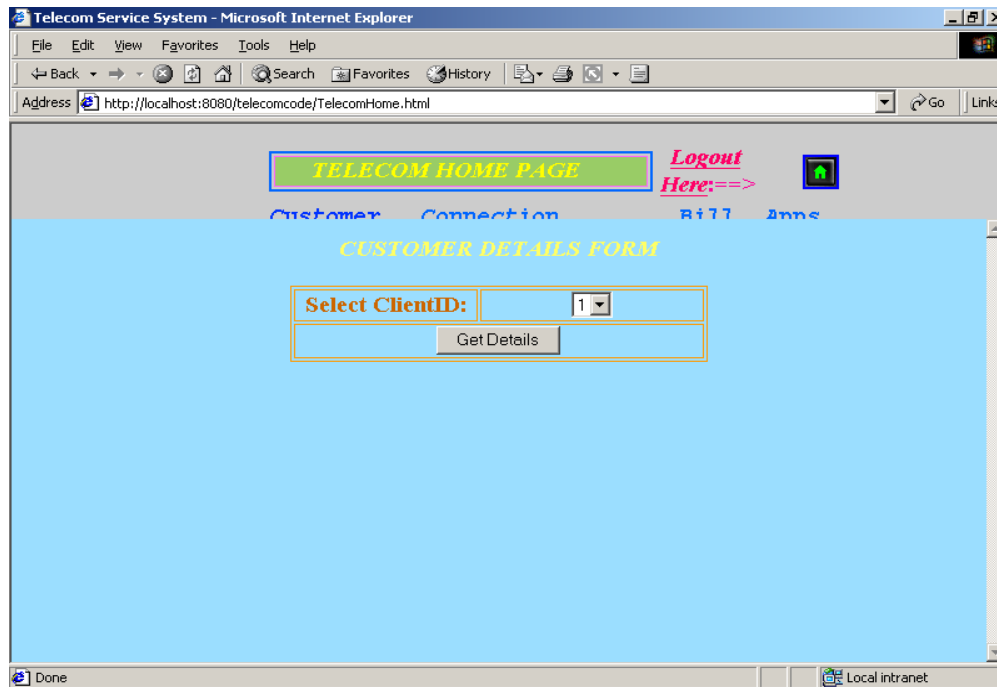


FIG: CUSTOMER DETAILS FORM

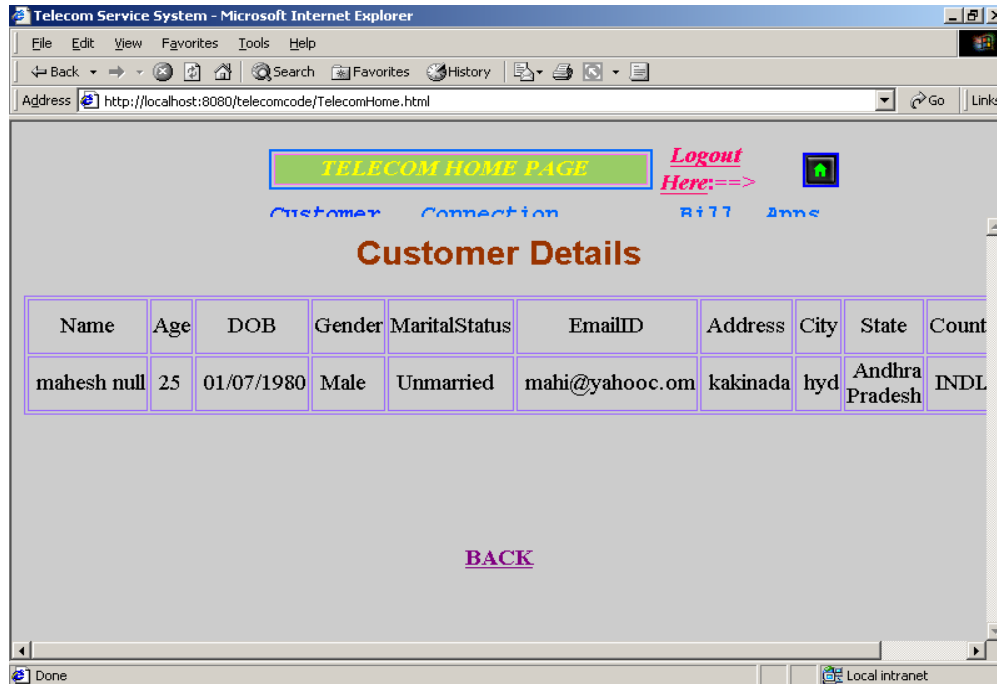


FIG: CUSTOMER DETAILS

# TELECOM CONNECTION SYSTEM

The screenshot shows a web browser window titled "Telecom Service System - Microsoft Internet Explorer". The address bar displays "http://localhost:8080/telecomcode/TelecomHome.html". The page header includes a green button labeled "TELECOM HOME PAGE", a "Logout Here:==>" link, and a home icon. Below the header, there are navigation links for "Customer", "Connection", "Bill", and "Ann". The main content area is titled "Enter Connection Confirmation Details" and contains a form with the following fields:

- Select ReqId: [Dropdown menu]
- Customer Name: [Text input field containing "mahesh"]
- Conn Type: [Dropdown menu set to "Permanant"]
- Confirmation Date: [Year: 2006, Month: 01, Day: 01]
- Connection ReqDate: [Year: 2005, Month: 10, Day: 03]
- Phone No: [Text input field containing "040234575"]
- Status: [Dropdown menu set to "Completed"]

At the bottom of the form are four buttons: "Confirm", "Update", "Delete", and "Reset".

FIG: ENTER CONNECTION CONFIRMATION DETAILS

The screenshot shows the same web browser window as above. The main content area is titled "Enter Telephone Bill Details" and contains a form with the following fields:

- Select ReqId: [Dropdown menu]
- Enter Bill No: [Text input field]
- Select Phone No: [Dropdown menu]
- Enter Amount: [Text input field]
- Entering Date: [Year, Month, Day dropdown menus]
- Last Date Without Fine: [Year, Month, Day dropdown menus]
- Conn Close Date: [Year, Month, Day dropdown menus]
- Connection Type: [Dropdown menu set to "Permanant"]

At the bottom of the form are four buttons: "Send", "Update", "Delete", and "Clear".

FIG: ENTER TELEPHONE BILL DETAILS

# TELECOM CONNECTION SYSTEM

The screenshot shows a Microsoft Internet Explorer browser window titled "Telecom Service System - Microsoft Internet Explorer". The address bar displays "http://localhost:8080/telecomcode/TelecomHome.html". The page content includes a navigation menu with "Customer", "Connection", "Bill", and "Apps". A "Logout Here:==>" link is visible in the top right. The main form area is titled "Enter Applications Response Details" and contains the following fields:

- Select ReqId**: A dropdown menu.
- Select Old PhoneNo**: A dropdown menu.
- Enter New Phone No**: A text input field.
- Select Ph Transfer Status**: A dropdown menu with "In Processing" selected.
- Select Ph Modification Status**: A dropdown menu with "In Processing" selected.
- Select Ph Cancellation Status**: A dropdown menu with "In Processing" selected.
- Application Req Date**: Three dropdown menus for Year, Month, and Day.
- Connection Given Date**: Three dropdown menus for Year, Month, and Day.
- Status Confirm Date**: Three dropdown menus for Year, Month, and Day.
- Connection Type**: A dropdown menu with "Permanant" selected.

At the bottom of the form are four buttons: "Send", "Update", "Delete", and "Clear". The browser's status bar at the bottom shows "Done" and "Local intranet".

FIG: ENTER APPLICATIONS RESPONSE DETAILS

**CHAPTER-6**

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