

STUDENT COUNSELLING SYSTEM

A PROJECT REPORT

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Requirements for the Degree of**

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**Under the Supervision of
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Submitted to

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DECLARATION

I hereby declare that the work presented in this report entitled “JOB PORTAL”, was carried out by me. I have not submitted the matter embodied in this report for the award of any other degree or diploma of any other University or Institute.

I have given due credit to the original authors/sources for all the words, ideas, diagrams, graphics, computer programs, experiments, results, that are not my original contribution. I have used quotation marks to identify verbatim sentences and given credit to the original authors/sources.

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ABSTRACT

The emergence of technology has paved the way for innovative solutions to traditional problems. One of the major areas that have benefited from technological advancements is mental health care. Student counseling systems have become increasingly popular as a convenient and accessible way to seek counseling services. The student counseling system provides individuals with the opportunity to connect with licensed and qualified counselors, psychologists, or therapists via a virtual platform. This system aims to address the challenges of traditional in-person counseling services, such as distance, time constraints, and social stigma.

The student counseling system project typically consists of a website or mobile application that offers a range of counseling services, including individual, family, and group counseling. The system also provides users with a range of communication options, such as chat, audio, and video calls, to ensure flexibility and convenience for users. The online counseling system project is designed to ensure the privacy, security, and confidentiality of user information and communication.

The scope of an student counseling system project includes user registration and profile creation, counseling session scheduling and management, secure messaging and file sharing, audio and video call functionality, payment processing and management, access to counseling resources and materials, user feedback and ratings, and administrative tools for managing the system and user data.

Overall, an student counseling system provides a modern solution to the challenges of traditional in-person counseling services. It offers accessible, convenient, and confidential mental health care services to individuals who may be unable to access traditional in-person counseling services. The student counseling system project has the potential to make mental health care more accessible and convenient for individuals, and it is an innovative solution to the challenges of traditional in-person counseling services.

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

An student counseling system project is a software application that provides counseling services to individuals through a virtual platform. The project aims to make counseling more accessible and convenient for individuals who may not be able to attend in-person sessions due to various reasons such as distance, time, or social stigma.

The student counseling system project typically consists of a website or mobile application that allows users to connect with licensed counselors, psychologists, or therapists via chat, audio, or video calls. The system may also include features such as scheduling appointments, secure messaging, file sharing, and payment processing.

The student counseling system project is designed to ensure privacy, security, and confidentiality for users, with data protection measures in place to ensure that personal information and communication remain confidential. This project has gained popularity in recent years due to the ease and accessibility it provides to individuals seeking counseling services, especially during the COVID-19 pandemic when many people are unable to attend in-person sessions.

Overall, an student counseling system project has the potential to make mental health care more accessible and convenient for individuals, and it is an innovative solution to the challenges of traditional in-person counseling services.

1.2 PROJECT OBJECTIVE

The objectives of an online counseling system are to provide accessible, convenient, and confidential mental health care services to individuals who may be unable to access traditional in-person counseling services due to various reasons. The following are some specific objectives of an online counseling system project:

- To provide users with easy access to licensed and qualified counselors, psychologists, or therapists.
- To offer users a range of counseling services, including individual, family, and group counseling.
- To ensure that communication between users and counselors is secure and confidential.
- To provide users with flexible scheduling options for counseling sessions.
- To offer a range of communication options, such as chat, audio, and video calls.
- To provide users with affordable counseling services compared to traditional in-person sessions.
- To ensure that the online counseling system is user-friendly and easy to navigate.

The scope of an online counseling system project may vary depending on the specific requirements and goals of the project. However, the following are some areas that are typically included in the scope of an online counseling system:

- User registration and profile creation
- Counseling session scheduling and management
- Secure messaging and file sharing between users and counselors
- Audio and video call functionality
- Payment processing and management
- Access to counseling resources and materials
- User feedback and ratings for counselors
- Administrative tools for managing the system and user data.

1.3 TECHNOLOGY USED

- **HTML** : Page layout has been designed in HTML.
- **CSS** : CSS has been used for all the designing part.
- **JavaScript** : All the validation task and animations has been developed by JavaScript.
- **PHP** : All the business and frontend logic has been implemented in PHP.
- **MySQL** : MySQL database has been used as database for the project.

1.3.1 Hardware Requirements:

- Pentium dual core and Above
- 2ghz DDRAM or More
- 500 GB HDD
- Printer
- Power Backup
- Internet Connection

1.3.2 Software Requirements:

- Wins 2000 windows 10
- Php
- Apache
- Mysql

CHAPTER 2

EVALUATION OF EXISTING SYSTEM

2.1 EXISTING SYSTEM

Present system or Existing system of “Counseling Management System” working manually or computerized in a building. Therefore all types works are maintain in building. So maintain all the counseling procedure very difficult. If we are reporting, then we need go to the University and get a form for reporting and fill the form and submit in the queue conditions. Then verify there form by the university and maintain the record in computer or register.

The system is mainly related to online counseling management system. Which is developing an online web based application system, it is necessary to make a thorough study of the existing system .There is no online Counseling Management System .The all the information not maintains globally. Therefore to maintain all the information of university is very difficult.

2.2 LIMITATIONS OF EXISTING SYSTEM

The maintenance of various records and procedure of reporting are being done manually by the counseling department. This leads to many drawbacks some of which are:

- It is a time consuming process.
- Proper arrangements should be made before and after the examination -which is both money spending and time consuming.
- As the number of student's increases counseling process becomes more and more difficult.
- Not globally maintain the information
- Evaluating of answer sheets also consumes heavy amount of time.
- Difficult to management the all types of information of college or university
- Further more, manual evaluation is prone to errors.

CHAPTER 3

PROPOSED SYSTEM

3.1 INTRODUCTION

In proposed system at first reduce the problem, which is faced in Existing System. So In the proposed system, “Online Counseling System” will provide the on line facility for reporting/registration or access any type of information about the college/university and globally maintain all the information by the university and this project consist fallowing modules are:-

3.1.1 Institute Record

Provide the fallowing types of facilities using different options: -

Insert:- This part allow any new institute, if we want to participate in counseling then enter its details regarding the institute - Institute Code ,Name of the institute, Name of the city, Category wise total number of seats i.e. General Seats, OBC Seats, SC/ST seats.

Search: - It provides Searching for any institute details.

- On the basis of its code.
- On the basis of its name.

Delete: - If any institute Withdraw from counseling then this part will help in deleting that institute record.

Display: - It will help in displaying complete information about institute code name, city, and total seats according to category.

3.1.2 Student record

This module has two parts: -

Search: - This will provide help in searching record of any student who is allotted seats in an institute during counseling procedure.

Delete: - This will allow to deleting record of any student after counseling. The deletion can be on the basis of Roll no, Name.

3.1.3 Counseling

This is the third and important module .It is divided into category wise counseling. So there are three modes of counseling.

- **General counseling:-**

Candidates in General Category enter in this counseling then he is allotted to see the status of vacant and occupied general seats in every institute the process “STATUS” if the satisfied he is allotted seats .In this procedure candidate fill the complete form which includes details– Name, Roll No, Rank, Sex, Category, etc. But any Student want to withdraw after allotted the seats then can be withdraw with the help in deleting the student record.

- **OBC counseling:-**

Candidates in OBC Category enter in this counseling then he is allotted to see the status of vacant and occupied general seats in every institute the process “STATUS” if the satisfied he is allotted seats . In this procedure candidate fill the complete form which includes details- Name, Roll No, Rank, Sex, Category, etc. But any Student want to withdraw after allotted the seats then can be withdraw with the help in deleting the student record..

- **SC/ST Counseling:-**

Candidates in SC/ST Category enter in this counseling then he is allotted to see the status of vacant and occupied general seats in every institute the process “STATUS” if the satisfied he is allotted seats .In this procedure candidate fill the complete form which includes details- Name, Roll no,Rank,Sex,Category,etc.

But any Student want to withdraw after allotted the seats then can be withdraw with the help in deleting the student record.

3.2 FEATURES OF THE PROPOSED SYSTEM

The proposed system will aim to automate all the activities and eliminate all the drawbacks that the existing system of manual operation faces. The important features of functionality of the proposed system are listed below-

- The proposed system will save significant amount of time and effort invested by the university every year.
- The System fully works as an online.
- Centralized maintain all information.

- It helps the university to dynamically add records to the database.
- Easy to Searching the information about college or university.
- Easy to managing whole counseling procedure.

CHAPTER 4

SCOPE OF THE PROJECT

Types of information Online, and Efficient and systematic maintenance of the huge Database, speeding up queries and faster processing are also be factor for going for this project.

This system is applicable for any other university /Institute, which is work as an online .The package will require data to be entered in user-friendly forms. This system provide the scope of online working using the internet such as- Student reporting ,counseling, Institute registration for counseling, searching the information of counseling procedure and total Seats of college etc.

There are fallowing modules and forms are used-

- Institute Record.
- Student Record.
- Counseling.
- Category's selection form.
- Reporting, Withdraw.

CHAPTER 5

SYSTEM ANALYSIS

5.1 INTRODUCTION

System Analysis is a detailed study of the various operations performed by a system and their relationship within and outside the system .It is a systematic technique that defines goals and objectives the goal of the development is to deliver the system in the line with the user's requirements, and analysis is this process.

System study has been conducted with the following objectives in mind: -

- Identify the client's need.
- Evaluate the system concept for feasibility.
- Perform economical and technical analysis.
- Allocate functional to hardware, software, people, database and other system elements
- Establish cost and schedule constraints.

Both hardware and software expertise is required to successfully attain the objectives.

5.2 REQUIREMENT ANALYSIS

Information gathering is usually the first phase of the software development project. The purpose of this phase is to identify and document the exact requirements for the system. The user's request identifies the need for a new information system and on investigation re-defined the new problem to be based on MIS, which supports management. The objective is to determine whether the request is valid and feasible before a recommendation is made to build a new or existing manual system continues.

The major steps are –

- Defining the user requirements.
- Studying the present system to verify the problem.
- Defining the performance expected by the candidate to use requirements.

5.2.1 Introduction To Java

Java is a high level, third-generation programming language, like C, FORTRAN, Perl and many others. It is a platform for distributed computing – a development and run-time environment that contains built-in support for the World Wide Web.

5.2.2 History Of Java

Java development began at Sun Microsystems in 1991, the same year the World Wide Web was conceived. Java's creator, James Gosling did not design java for the Internet. His Objective was to create a common development environment for consumer electronic devices which was easily portable from one device to another. This effort evolved into a language, code named Oak and later renamed Java that retains much of the syntax and power of c++, but is simpler and more platforms independent.

5.2.3 Java Features

Some of the important features of Java are as follows: -

- Simplicity
- Object oriented
- Platform Independence
- Security
- Robust
- High Performance
- Multi Threading
- Dynamic linking.
- Garbage Collection

One of the most important features of Java is Platform Independence which makes it famous and suitable language for World Wide Web.

5.2.4 Why Java Is Platform Independent?

Java is Platform Independent because of Java Virtual Machine (JVM).

5.2.5 Java Virtual Machine (JVM)

The client application or operating system must have a java byte-code interpreter to execute byte-code instructions. The interpreter is a part of a larger program called the JVM. The JVM interprets the byte code into native code and is available on platforms that support java.

When the user runs a Java program, it is unto the JVM to load, possibly

verify, and then execute it. The JVM can perform this function from within a browser or any other container program or directly on top of the operating system.

When a browser invokes the JVM to run a Java program, the JVM does a number of things:

- It validates the requested byte-codes, verifying that they pass various formatting and security checks.
- It allocates memory for the incoming Java class files and guarantees that the security of JVM is not violated. This is known as the class loader.
- It interprets the byte code instructions found in the class files to execute the program.

Servlets / JSP are middleware technologies which are used in web based projects because they use:-

- HTTP Protocol to handle Request and Response.
- They are invoked through Browser.
- They give output in HTML format.
- They need Browser Support.

We have designed web based forms using Servlets and JSP in which we have defined business logic.

5.2.6 About HTML

Hypertext Markup Language (HTML) is a language for describing how pages of text, graphics, and other information are organized. Hypertext means text stored in electronic form with cross-reference links between pages. An HTML page contains HTML tags, which are embedded commands that supply information about the page's structure, appearance, and contents. Web browsers use this information to determine how to display the page.

5.2.7 About ORACLE 8i: -

Oracle 8i contains all the features of previous version. It also supports some new features & enhancement to some existing features. Oracle servers provide effective solution for the major features.

- **Large Database & Space Management Control**

Oracle supports the largest database potential hundreds of Giga Bytes in size. To make efficient use of expensive devices, it allows full control of space

usage.

- **Many Concurrent Database Performances**

It supports large no of concurrent users executing a variety of database Applications operation on the same data. It minimizes data connection & guarantees data concurrency.

- **High Transaction Processing Performance**

Oracle maintains the processing features with a high degree of overall system performance. Database user doesn't suffer from slow processing performance.

- **High Availability**

At some sets Oracle works 24 Hours per day with no downtime or limit database throughput. Normal system operation such as database backup & partial completion system failure don't interrupt database use.

- **Controlled Availability**

Oracle can selectively control the availability of data at the database level & sub Database level. Eg- an administrator can disallow use of a specific application .Data can be reloaded without affecting other application.

- **Manageable Security**

To protect against unauthorized database aspects & users .Oracle provides failsafe security features to limit & monitor the data area. The system makes it easy to manage even the most completed designs for data assets.

- **Database Enforced Integrity**

Oracle enforces data integrity "Business rules" that dictates the standards for applicable data. As result the cost of coding & managing checks in many database applications are eliminated.

- **Distributed Database System**

Distributed systems have same degree of user transparency & data consistency as non-distributed systems. Yet receives the advantages of local database management.

- **Portability**

Oracle software is compatible to work under different operating system &

same on all system. Application developed on Oracle can be used on virtually any system with little or no more modification.

- **Compatibility**

Oracle software is compatible with industry standards, including most industry standards operating systems. Application developed on Oracle can be used on virtually any system with little or no modification.

- **Connectivity**

Oracle software allows different types of computers & operating system to share information networks.

5.3 FEASIBILITY STUDY

Feasibility study is the process of determination of whether or not a project is worth doing. Feasibility studies are undertaken within tight time constraints and normally culminate in a written and oral feasibility report. I have taken two weeks in feasibility study with my co-developer. The contents and recommendations of this feasibility study helped us as a sound basis for deciding how to precede the project. It helped in taking decisions such as which software to use, hardware combinations, etc.

The following is the process diagram for feasibility analysis. In the diagram, the feasibility analysis starts with the user set of requirements. With this, the existing system is also observed. The next step is to check for the deficiencies in the existing system. By evaluating the above points a fresh idea is conceived to define and quantify the required goals. The user consent is very important for the new plan. Along with, for implementing the new system, the ability of the organization is also checked. Besides that, a set of alternatives and their feasibility is also considered in case of any failure in the proposed system. Thus, feasibility study is an important part in software development.

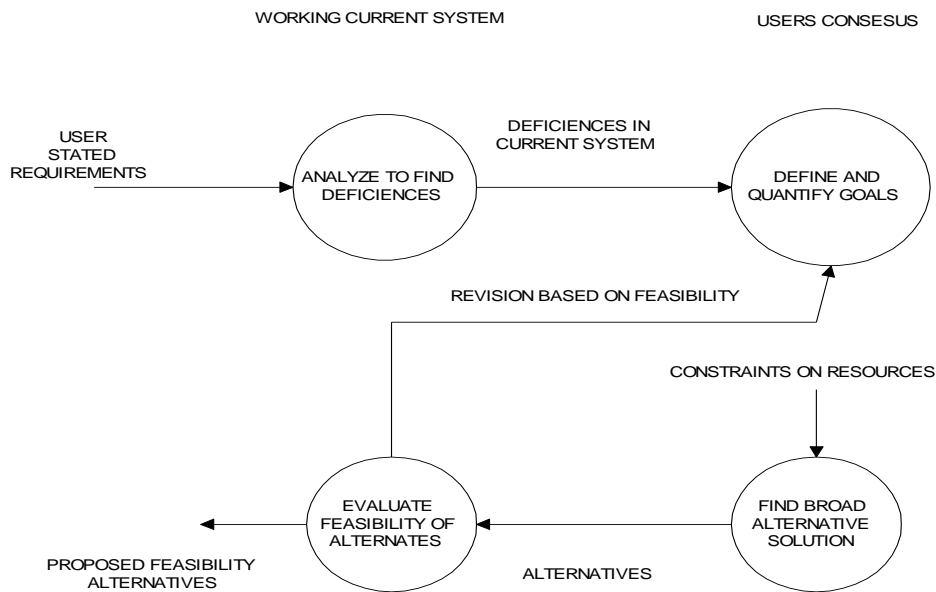


Fig 5.3 : Process Diagram for Feasibility Analysis

In the SDLC (Systems Development Life Cycle) of our project we maintained a number of feasibility checkpoints between the two phases of the SDLC.

These checkpoints indicate that the management decision to be made after a phase is complete. The feasibility checkpoints in our project were as follows:

- Survey phase checkpoint
- Study phase checkpoint
- Selection phase checkpoint
- Acquisition phase checkpoint
- Design phase checkpoint

We together started measuring project feasibility, which lasted two week. During this period we have had consultation with our guide Mr. Ajay Kumar (project leader of Gnix Infosoft) and the management of the organization. In this course we conducted three tests for Project feasibility namely, Technical, Economical, and Operational feasibilities.

5.3.1 Technical Feasibility

Technical feasibility determines whether the work for the project can be done with the existing equipment, software technology and available personnel. Technical feasibility is concerned with specifying equipment and software that will satisfy the user requirement.

This project is feasible on technical remarks also, as the proposed system is more beneficiary in terms of having a sound proof system with new technical components installed on the system. The proposed system can run on any machines supporting **Windows** and **Internet** services and works on the best software and hardware that had been used while designing the system so it would be feasible in all technical terms of feasibility.

5.3.2 Economical Feasibility

Economical feasibility determines whether there are sufficient benefits in creating to make the cost acceptable, or is the cost of the system too high. As this signifies cost benefit analysis and savings. On the behalf of the cost-benefit analysis, the proposed system is feasible and is economical regarding its pre-assumed cost for making a system.

During the economical feasibility test we maintained the balance between the Operational and Economical feasibilities, as the two were the conflicting. For example the solution that provides the best operational impact for the end-users may also be the most expensive and, therefore, the least economically feasible.

We classified the costs of Online Counseling according to the phase in which they occur. As we know that the system development costs are usually one-time costs that will not recur after the project has been completed. For calculating the Development costs we evaluated certain cost categories viz.

- Personnel costs
- Computer usage
- Training
- Supply and equipments costs
- Cost of any new computer equipments and software

In order to test whether the Proposed System is cost-effective or not we evaluated it through three techniques viz.

- Payback analysis
- Return on Investment:
- Net Present value

5.3.3 Operational Feasibility

Operational feasibility criteria measure the urgency of the problem (survey and study phases) or the acceptability of a solution (selection, acquisition and design phases). How do you measure operational feasibility? There are two aspects of operational feasibility to be considered:

(a) Is the problem worth solving or will the solution to the problem work?

There are certain measures, which decide, the effectiveness of the system. These measures can be collectively called as **PIECES**.

P (Performance)

The online Counseling System provides adequate throughput and response time.

I (Information)

The online Counseling System provides Student and Staff with timely, pertinent, accurate, and usefully formatted information.

E (Economy)

The online Counseling System of reduce the cost of the Counseling or Student reporting (selection).

C (Control)

The online Counseling System offer globally controls to protect against fraud and to guarantee the accuracy and security of the data and information.

E (Efficiency)

The online Counseling System makes maximum use of available resources and minimum processing delays.

S (Services)

The online Counseling System provides desirable and reliable service to those who need it. The online Counseling System is flexible and expandable.

(b) How do the students and staff feel about the problem (Solution)?

It is not only important to evaluate whether a system can work. We must

also evaluate whether a system will work. A workable solution might fail because of Students, Staff resistance.

In case of our project Online Counseling System we have examined all the concerns that can further affect its operational feasibility. The following points will explore those concerns.

The Online Counseling System has complete support of the Student/Staff as an online reporting and access the information.

The Online Counseling System has made the role of Student easiest one. The Student /Staff feel comfortable and upgraded with this system.

5.4 SOFTWARE ENGINEERING PARADIGM APPLIED

The development strategy that encompasses the process, methods, and tools and the generic phases is called Software Engineering Paradigm. The s/w paradigm for software is chosen based on the nature of the project and application, the method and tools to be used, and the controls and deliverables that are required. All software development can be characterized as a problem-solving loops (fig. 2) in which four distinct stages are encountered: - status quo, problem definition, technical development, and solution integration.

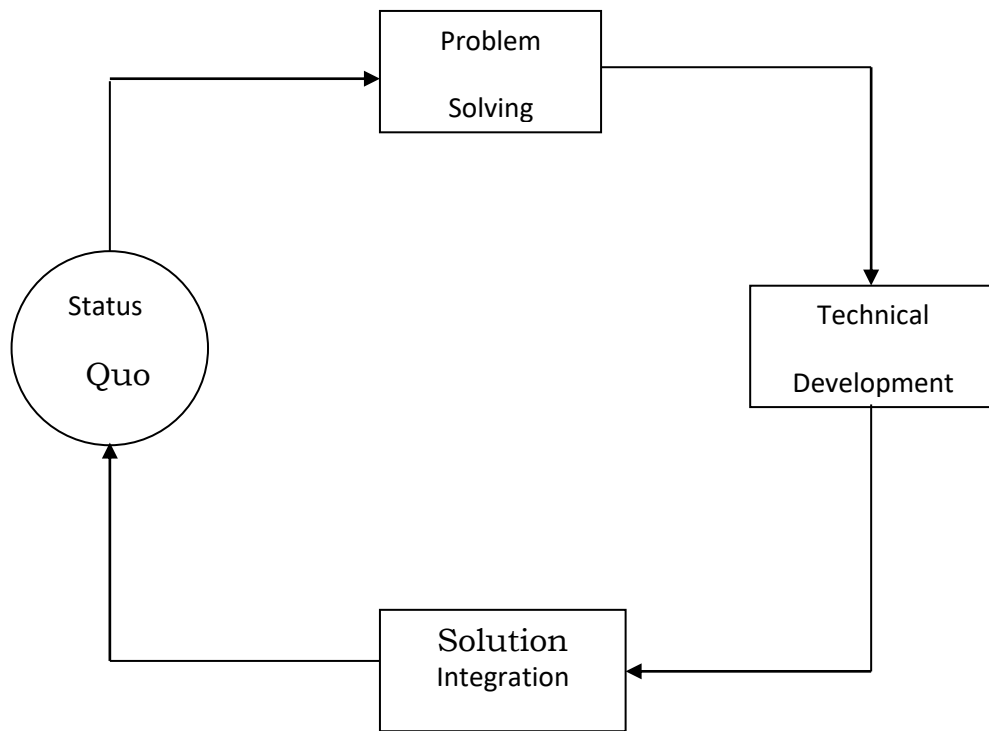


Fig 5.4 : Problem Solving Loop

Status quo represents the current state of affairs, Problem definition identifies the specific problem to be solved, technical development solves the problem through the application of some technology, and solution integration delivers the results to those who requested the solution in the first place.

There are various software paradigms, but we used **Waterfall model** (the linear sequential model), which states that the phases are organized in a linear order.

The Waterfall model suggests a systematic, sequential approach to s/w development that begins at the system level and progresses through analysis, design, coding, testing, and maintenance and support as shown in below fig.3.

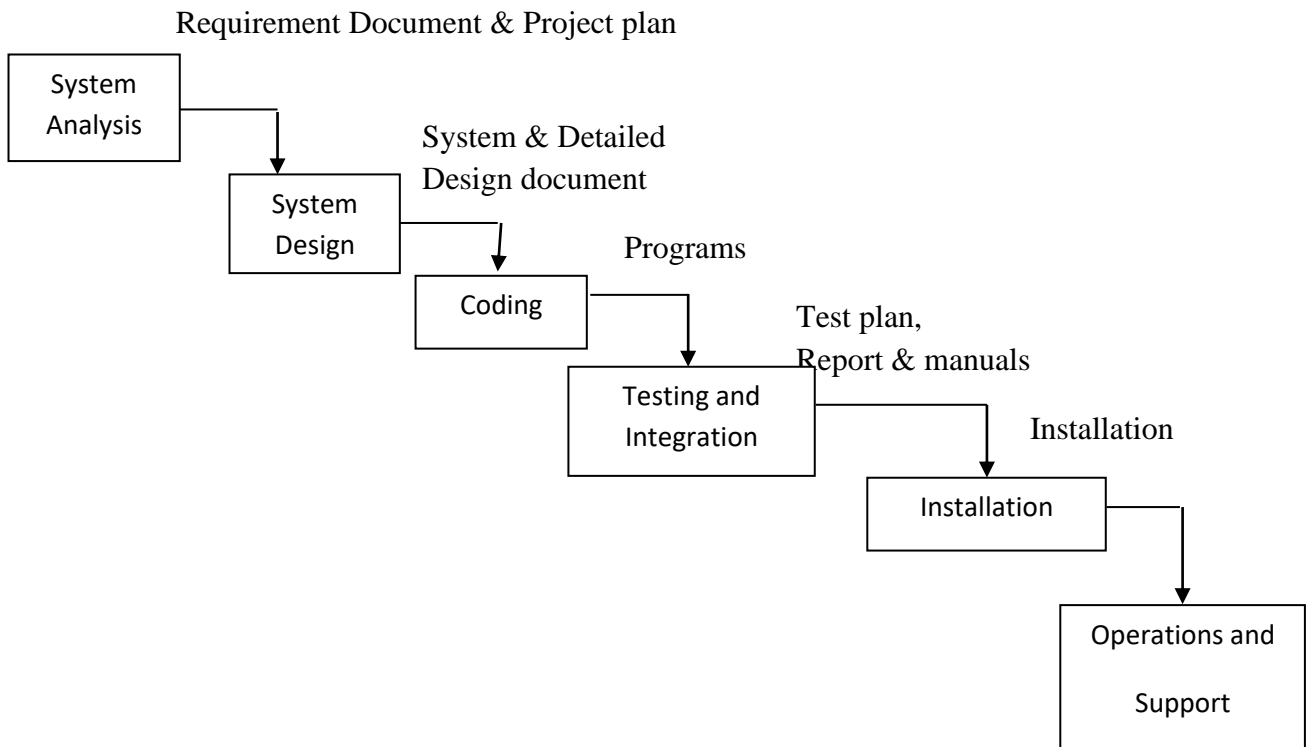


Fig 5.5 : Waterfall model

The sequence of activities performed in a software development project with the Waterfall model is: system analysis, system design, coding, testing & integration, installation, and maintenance. For a successful project resulting in a successful product, all phases listed in the waterfall model must be performed. Any different ordering of the phases will result in a less successful software product.

There are a number of project outputs in waterfall model that is produced to produce a successful product:

- Requirement documents and project plan
- System and detailed design
- Programs (code)
- Test plan, test reports and manuals
- Installation reports

5.5 LIMITATIONS OF WATERFALL MODEL

- The waterfall model assumes that the requirements of a system can be

baseline before the design begins. This is possible for system designed to automate an existing manual system. For our system, (Online Counseling System) this is a new system, determining the requirement is difficult, as the user does not even know the requirements.

- Freezing the requirements usually requires choosing the hardware.
- The waterfall model stipulates that the requirements be completely specified before the rest of the development can proceed.
- It is a document driven process that requires formal documents at the end of each phase. This approach tends to make the process documentation-heavy and is not suitable for many applications (interactive applications).

CHAPTER 6

SYSTEM DESIGN

6.1 INTRODUCTION

The objective of the system design is to deliver the requirements as specified in the feasibility report. System design involves first logical design (logical design) and then physical construction (detailed design) of the system. The logical design describes the structure and characteristics of features, such as the outputs, inputs, files, databases, and procedures. The physical construction produces actual program software, files, and a working system.

System design goes through two phases of development: -

1. Logical Design
2. Physical Design

Logical Design

We know that a data flow diagram shows the logical flow of a system and defines the boundaries of the system. Logical design specifies the user need at a level of details that virtually determine the information flow into and out of the system and the required data resources. Logical design describes the inputs, outputs, database and procedures .All in a format that meets the user's requirements.

Physical Design

It provides the working system by defining the design specification that tells programmers exactly what that candidate system must do. In short it can state that physical design is the implementation of the logical design.

Physical system design consists of the following-

1. Design the physical system
 - (i) Specify input, output media
 - (ii) Design the database and specify backup procedures.
 - (iii) Design physical information flow through the system and a physical design walkthrough.
2. Plan system implementation

6.2 MODULE DESCRIPTION

Online Counseling System with the following modules: -

1. Counseling – Helps in Category wise counseling
2. Institute record –covering Details regarding Institute
3. Student record - covering Details regarding Students

6.3 DATAFLOW DIAGRAM

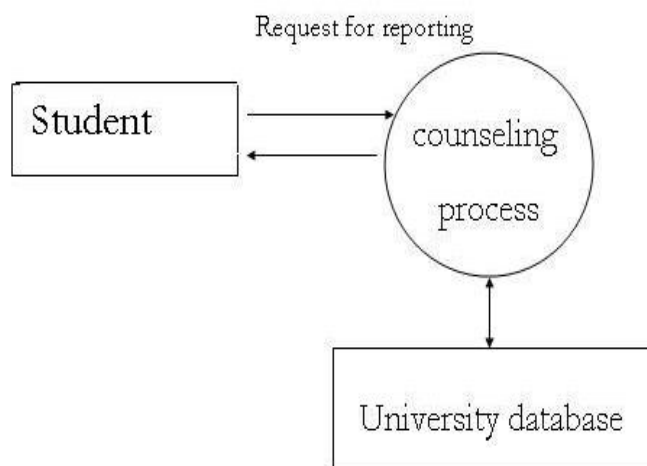


Fig 6.1 : Zero - Level DFD of Counseling Module

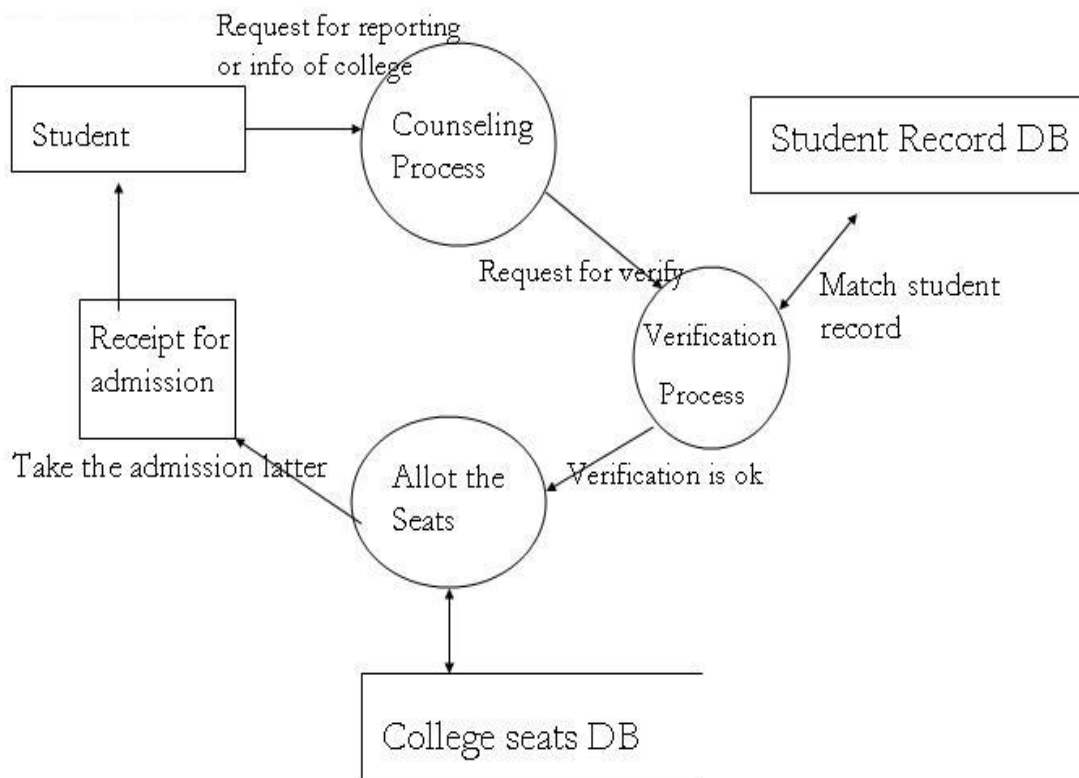


Fig 6.2 : Level-1 DFD of Counseling Module

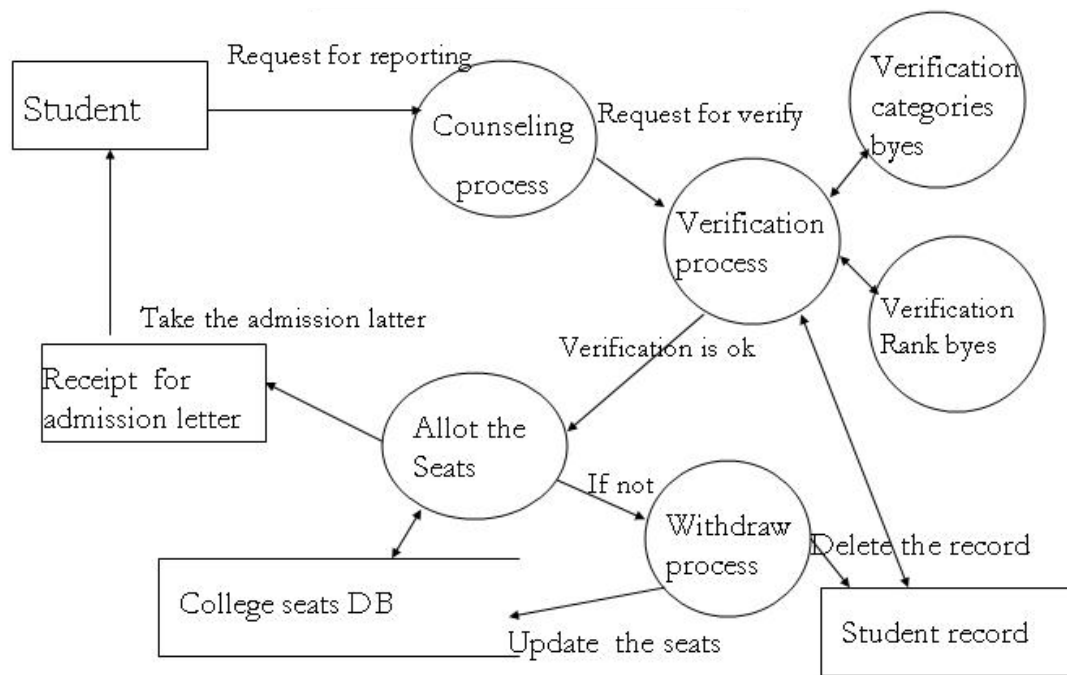


Fig 6.3 : Level - 2 DFD of Counseling Module

6.4 ENTITY-RELATIONSHIP DIAGRAM

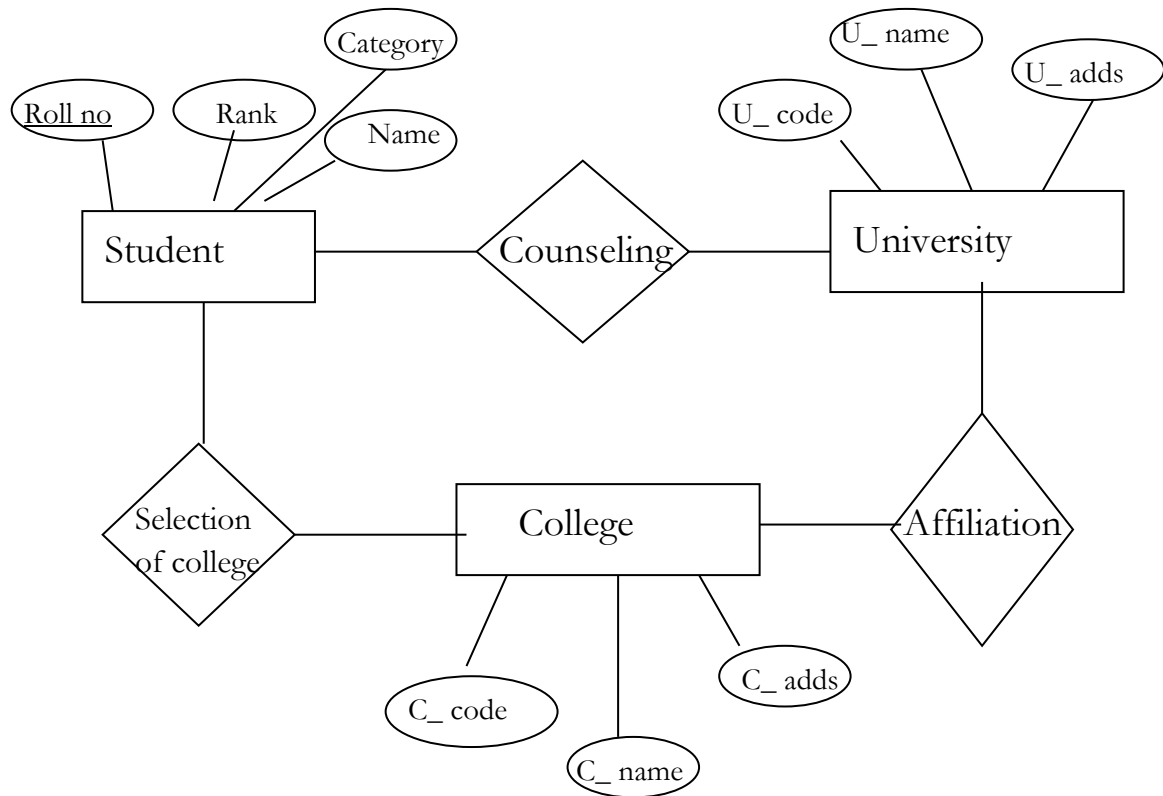


Fig 6.4 : E - R Diagram of Counseling Module

6.5 DATABASE DESIGN

Usually, a collection of interrelated data is referring to as database. The database contains information about one particular enterprise. Database system is designed to shear and manage large volume of information. The management of data involves both the manipulation of information. In addition, the database system must provide for safety information storage in the database, despite system crashes or unauthorized access.

1. Table Name: STUDENT RECORD

Field Name	Data Type	Size	Constraints	Description
ROLL_NO	VARCHAR2	15	Primary Key	STUDENT ROLL NO.
NAME	VARCHAR2	30		STUDENT NAME
CATEGORY	VARCHAR2	5		STUDENT CATEGORY
RANK	VARCHAR2	5		STUDENT RANK
INSTITUTE_CODE	VARCHAR2	25		STUDENT GIVEN INSTITUTE
SEX	VARCHAR2	1		STUDENT SEX DETAIL
CCODE	VARCHAR2(10)			

2. Table Name: INSTITUTE RECORD

Field Name	Data Type	Size	Constraints	DESCRIPTION
INSITUTE_CODE	VARCHAR2	25	Primary Key	CODE OF THE INSTITUTE
INSTITUTE_NAME	VARCHAR2	50		NAME OF THE INSTITUTE
CITY_NAME	VARCHAR2	25		INSTITUTE CITY NAME
GENERAL_SEATS	NUMBER	2		GENERAL SEATS
OBC_SEATS	NUMBER	2		OBC SEATS
SC_SEATS	NUMBER	2		SC SEATS
ST_SEATS	NUMBER	2		ST SEATS
TOTAL SEATS	NUMVER	3		TOTAL SEATS IN INSTITUTE

3. Table Name: TOTAL SEATS

FLIEDNAME	DATATYPE	SIZE	CONSTRAINTS	DESCRIPTION
INST_CODE	VARCHAR2	25	REFERENCES INSTITUTE	INSTITUTE CODE
GENERAL_VACSEATS	NUMBER	2	CHECK (GENERAL_VACSEATS)<46	GENERAL VACANT SEATS OF THE INSTITUTE
GENERAL_OCCSEATS	NUMBER	2	CHECK (GENERAL_OCCSEATS<46)	GENERAL OCCUPIED SEATS OF THE INSTITUTE
GENERAL_TOTALSEATS	NUMBER	2	CHECK (GENERAL_TOTALSEATS<46)	GENERAL TOTAL SEATS OF THE INSTITUTE
SC_VACSEATS	NUMBER	2	CHECK (SC_VACSEATS<19)	SC VACANT SEATS OF THE INSTITUTE
SC_OCCSEATS	NUMBER	2	CHECK (SC_OCCSEATS<19)	SC OCCUPIED SEATS OF THE INSTITUTE
SC_TOTALSEATS	NUMBER	2	CHECK (SC_TOTALSEATS<19)	SC TOTAL SEATS OF THE INSTITUTE
ST_VACSEATS	NUMBER	2	CHECK (ST_VACSEATS<2)	ST VACANT SEATS OF THE INSTITUTE
ST_OCCSEATS	NUMBER	2	CHECK (ST_OCCSEATS<2)	ST OCCUPIED

)	SEATS OF THE INSTITUT E
ST_TOTALSEATS	NUMBE R	2	CHECK (SC_TOTALSEATS <2)	ST TOTAL SEATS OF THE INSTITUT E
OBC_VACSEATS	NUMBE R	2	CHECK (OBC_VACSEATS <25)	OBC VACANT SEATS OF THE INSTITUT E
OBC_OCCSEATS	NUMBE R	2	CHECK (OBC_OCCSEATS <25)	OBC OCCUPIED SEATS OF THE INSTITUT E
OBC_TOTALSEAT S	NUMBE R	2	CHECK (OBC_TOTALSEA TS<25)	OBC TOTAL SEATS OF THE INSTITUT E
COMBINED_TOT ALSEATS	NUMBE R	2	CHECK (COMBINED_TOT ALSEATS<100)	COMBINE D TOTAL SEATS OF THE INSTITUT E

4. Table Name: STUDENT REPORT

Field Name	Data Type	Size	Constraints	Description
ROLL_NO	VARCHAR2	15	REFERENC ES STUDENT RECORD	STUDENT ROLL NO.
C_DATE	DATE	10		COUNSELING DATE
F_NAME	VARCHAR2	20		FATHER NAME
P_ADDS	VARCHAR2	30		PERMANENT ADDS
P_CITY	VARCHAR2	10		PERMANENT

				CITY
P_STATE	VARCHAR2	10		PERMANENT STATE
P_PIN	VARCHAR2	10		PERMANENT PIN
C_ADDS	VARCHAR2	25		ALTERNATE ADDS
C_CITY	VARCHAR2	20		ALTERNATE CITY
C_PIN	NUMBER	8		ALTERNATE PIN
PH_NO	NUMBER	11		PHON NO.
M_NO	NUMBER	11		MOBILE NO.
EMAIL	VARCHAR2	20		E-MAIL ADDS
I_CODE1	VARCHAR2	10		INSTITUTE CODE 1
I_CODE2	VARCHAR2	10		INSTITUTE CODE 2
I_CODE3	VARCHAR2	10		INSTITUTE CODE 3
INAME1	VARCHAR2	20		INSTITUTE NAME 1
INAME2	VARCHAR2	20		INSTITUTE NAME 2
INAME3	VARCHAR2	20		INSTITUTE NAME 3
ILOCATION1	VARCHAR2	15		INST. LOCATION 1
ILOCATION2	VARCHAR2	15		INST. LOCATION 2
ILOCATION3	VARCHAR2	15		INST. LOCATION 3
QUALIFICATI ON1	VARCHAR2	10		QUALIFICATI ON 1
QUALIFICATI ON2	VARCHAR2	10		QUALIFICATI ON 2
QUALIFICATI ON3	VARCHAR2	10		QUALIFICATI ON 3
UNIVERSITY1	VARCHAR2	15		UNIVERSITY 1
UNIVERSITY2	VARCHAR2	15		UNIVERSITY 2
UNIVERSITY3	VARCHAR2	15		UNIVERSITY 3
PYEAR1	NUMBER	4		PASSING YEAR 1
PYEAR2	NUMBER	4		PASSING PYEAR 2
PYEAR3	NUMBER	4		PASSING PYEAR 3

PMARKS1	VARCHAR2	4.2		PASSING MARKS 1
PMARKS2	VARCHAR2	4.2		PASSING MARKS 2
PMARKS3	VARCHAR2	4.2		PASSING MARKS 3

6.6 INPUT-OUTPUT DESIGN

- **Input Design**

The input design is a crucial part of any system errors. Inaccurate input data are the most common cause of the errors in the processing. Data entry errors can be controlled by input design. Input design is the process of converting user-oriented inputs to computer –based formats .the goal of designing input data is to make data entry as easy, logical and free from errors as possible.

- **Output Design**

Computer output is the most important and direct source of information to the users. Efficient intelligible output design should improve the system's relationship with the user and help in decision making. A major form of output is a hard copy from the printer. In the system under consideration, the output is in two forms, hard copy from the printer and output to the CRT screen in predefined format.

6.7 HOME PAGE



Fig 6.7 : Home page

6.8 LOGIN PAGE

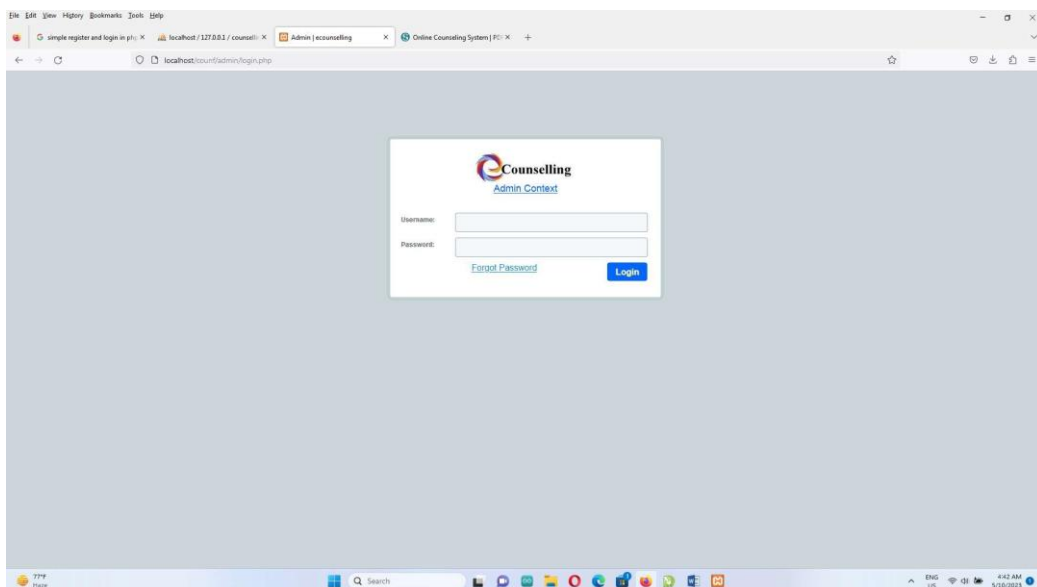


Fig 6.8 : Login Page

6.9 ADMIN PAGE

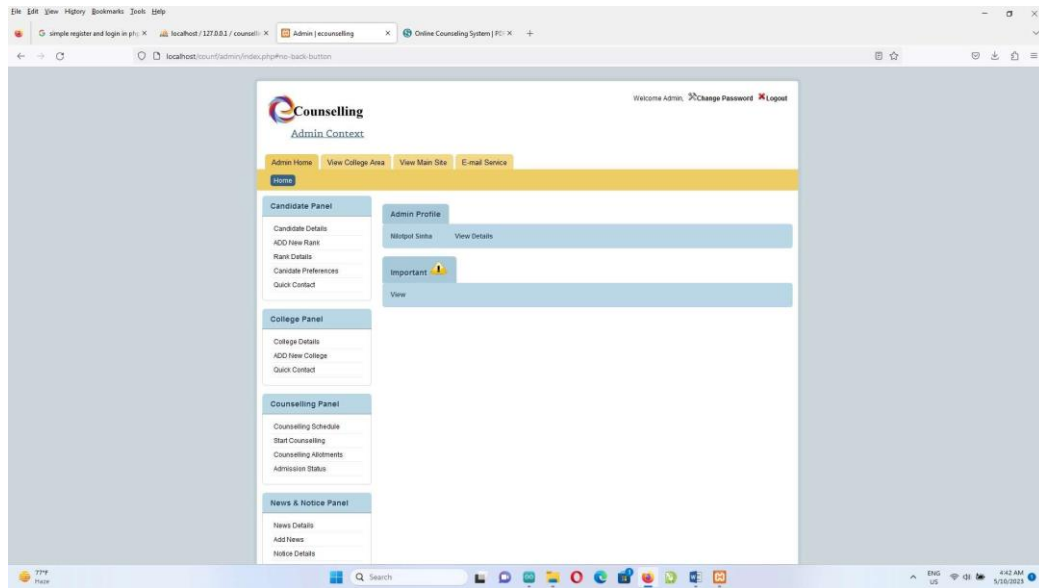


Fig 6.9 : Admin page

CHAPTER 7

CODE DESIGN

Code design for the system follows the following pattern. The java programs for the accessing the database server consists of functions that retrieve data and return that data in the required format. These java functions are put into classes. These classes are identified by the module which they service. The classes are all part of a package. This package is used in the JSP scripting to declare objects of a particular class. Once the objects have been declared, the functions of that object can be easily accessed by a normal “objectName.functionName” kind of call to it. The function performs the necessary tasks and then returns the data to the JSP script. The web server then processes these data and prepares an HTML file to be displayed to the user. This process is depicted in the figure.

Figure: - Code Design

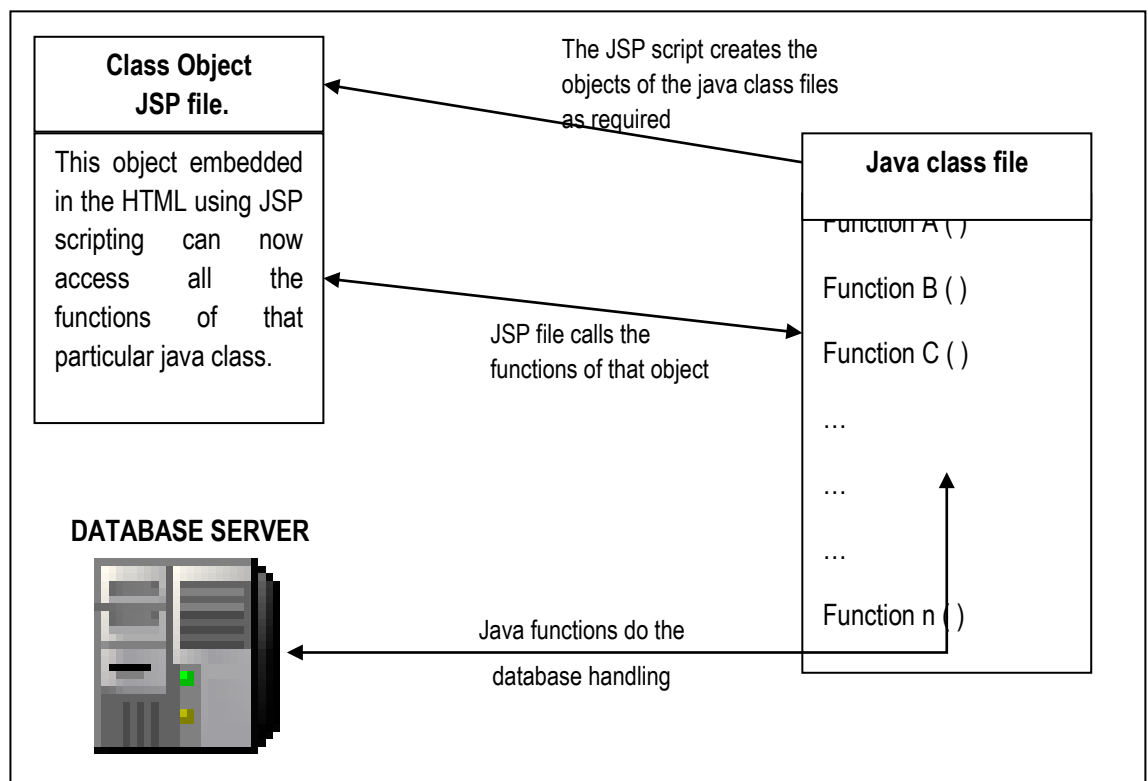


Fig 7.1 : Code Design

CHAPTER 8

CODING

8.1 INDEX.PHP

```
<?php
if(!empty($_GET['error']))
{
    $error="invalidlogin";
}
else
{
    $error="";
}
?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="EN" lang="EN" dir="ltr">
<head profile="http://gmpg.org/xfn/11">
<title>MCA Online Counselling</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<meta http-equiv="imagetoolbar" content="no" />
<link rel="stylesheet" href="styles/layout.css" type="text/css" />
<link rel="stylesheet" href="styles/mycss.css" type="text/css" />
<link rel="stylesheet" href="styles/mybuttons.css" type="text/css" />
<link rel="stylesheet" href="styles/style.css" type="text/css" />
<script type="text/javascript" src="scripts/jquery-1.8.2.min.js"></script>
<script src="//ajax.googleapis.com/ajax/libs/jquery/2.0.3/jquery.min.js"></script>
<script type="text/javascript" src="scrolleffect_home.js"></script>
<script type="text/javascript" src="scripts/jquery.leanModal.min.js"></script>
<script type="text/javascript" src="scripts/ajaxpageload.js"></script>
<script type="text/javascript" src="scripts/loginajax.js"></script>
<script type="text/javascript">
$(document).ready(function(){
    $("#add_err").css('display', 'none', 'important');
    $("#add_succ").css('display', 'none', 'important');
    $("#loginbtn").click(function(){
        username=$("#username").val();
        password=$("#password").val();
```

```

$.ajax({
  type: "POST",
  url: "check_login.php",
  data: "email="+username+"&pwd="+password,
  success: function(html){
    if(html=='true') {
      //$("#add_err").html("right username or password");
      window.location="candidate_home.php";
    }
    else {
      $("#add_succ").hide();
      $("#add_err").css('display', 'inline', 'important');
      $("#add_err").html("<img src='images/xxmarks.jpg'
align='center'/>Wrong username or password");
      $("#add_succ").hide();
    }
  },
  beforeSend:function()
  {
    $("#add_err").hide();
    $("#add_succ").delay(15000);
    $("#add_succ").css('display', 'inline', 'important', 'delay:25s');
    $("#add_succ").html("<img src='images/loading.gif' /> Validating...");

  }
});
return false;

});
</script>
<script type="text/javascript">
$(document).ready(function(e) {
  $('#msg').fadeIn(3000).delay(3000).fadeOut(3000);
  var name = GetParameterValues('name');
  if(name != ""){
    $('#modaltrigger').leanModal({ top: 110, overlay: 0.45, closeButton:
".hidemodal" });
  }
});
</script>
<script type="text/javascript">
$(function () {
  $('#loginform').submit(function (e) {
    return false;
  });
});

```

```

        $('#modaltrigger').leanModal({ top: 110, overlay: 0.45, closeButton: ".hidemodal" });
    });

    function GetParameterValues(param) {
    var url = window.location.href.slice(window.location.href.indexOf('?') + 1).split('&');
    for (var i = 0; i < url.length; i++) {
    var urlparam = url[i].split('=');
    if (urlparam[0] == param) {
    return urlparam[1];
    }
    }
    }
</script>
<!-- liteAccordion is Homepage Only -->
<link rel="stylesheet" href="scripts/liteaccordion-v2.2/css/liteaccordion.css" type="text/css"
/>
</head>
<body id="top">
<div class="wrapper row1">
    <div id="header" class="clear" >
        <div class="fl_left" style="margin:-14px 0 0 0">
            <h1><a href="index.php"></a></h1>
        </div>

    </div>

</div>

<!--
#####
##### -->
<div class="wrapper row2" style="margin:-20px 0 0 0">
    <div id="topnav">
        <ul>
            <li class="active"><a href="index.php">Homepage</a></li>
            <li><a href="#" onclick="javascript:void
window.open('static/counselling_overview.html','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Over View</a></li>
            <li><a href="#" onclick="javascript:void
window.open('static/counselling_rules.html','1389728149356',

```

```

'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Counselling Rules</a></li>
    <li><a href="#">Participating Institutions</a>
    <ul>
        <li><a href="#" onclick="javascript:void
window.open('static/govt_college.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Government Institutions</a></li>
            <li><a href="#" onclick="javascript:void
window.open('static/semi_govt_college.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Semi Government Institutions</a></li>
                <li><a href="#" onclick="javascript:void
window.open('static/self_finance_college.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Self-Financed Institutions</a></li>
            </ul>
        </li>
        <li><a href="#" onclick="javascript:void
window.open('counselling_schedule.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Counselling Schedules</a></li>
            <li class="last"><a href="gallery.php">Demo Counselling</a></li>
        </ul>
        <div class="clear"></div>
    </div>
</div>
<!--
#####
##### -->
<div class="wrapper row3">
    <div id="featured_slide">
        <!--
#####
##### -->
        <ol>
            <li>
                <h2><span>Welcome</span></h2>
                <div></div>
            </li>

```

```

</li>
  <h2><span>Upcomming Counsellings</span></h2>
  <div></div>
</li>
<li>
  <h2><span>Admission</span></h2>
  <div></div>
</li>
<li>
  <h2><span>Completely Reliable</span></h2>
  <div></div>
</li>
<li>
  <h2><span>Your Preference</span></h2>
  <div></div>
</li>
</ol>
<!--
#####
##### -->
</div>
</div>
<!--
#####
##### -->
<div class="wrapper row4">
  <div id="container" class="clear">
    <?php
    if($error=="invalidlogin")
    {
      echo "<div id='msg' align='center' style='color:#C00; font-size:18px'>! Sorry Login
Invalid !</div>";
    }
    ?>
    <!--
#####
##### -->
    <div id="homepage" class="clear">
      <div class="fl_left">
        <h2 class="title">Quick Links</h2>
        <div id="hpage_quicklinks">
          <ul class="clear">
            <li><a href="#" onclick="javascript:void
window.open('static/counselling_process.php','1389728149356',

```

```

'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Counselling Process</a></li>
    <li><a href="#" onclick="javascript:void
window.open('static/eligibility_criteria.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Eligibility Criteria</a></li>
    <li><a href="#" onclick="javascript:void
window.open('static/fees_payment.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Fees & Payments</a></li>
    <li><a href="#" onclick="javascript:void
window.open('static/document_required.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Document Information</a></li>
    <li><a href="#" onclick="javascript:void
window.open('static/allotment_process.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Allotment Process</a></li>
    <li><a href="#" onclick="javascript:void
window.open('static/faq.php','1389728149356',
'width=1480,height=1020,toolbar=0,menubar=0,location=0,status=1,scrollbars=1,resizable=0,
left=0,top=0'
);return false;">Frequently Asked Questions</a></li>
</ul>
</div>
<h2 class="title">Latest News</h2>
<div id="hpage_gallery">
    <ul class="clear">
        <marquee id="mark" scrollamount="2" direction="up">
            <?php
                include "connect.inc.php";
                //include "dbcon.php";
                $sql_news="SELECT * FROM notice order by id DESC";
                $result=mysql_query($sql_news);
                while($row=mysql_fetch_array($result))
                {
                    echo "<p><a href='$row[6]>$row[1]<img src='images/new.gif'></a></p>";
                }

            ?>

```

```

        </marquee>

    </ul>
</div>
<div class="myline">
</div>
</div>
<!-- ##### -->

<div class="fl_right">

    <h2 class="title">ABOUT E-COUNSELLING SYSTEM </h2>

    <p align="justify">The West Bengal Joint Entrance Examinations Board was formed in
the year 1962 for the purpose of holding Common Entrance Examinations for the
Undergraduate Level Engineering Courses in the State of West Bengal . This year, the Board
has stepped into its Golden Jubilee year. Since last year, the endeavour of the Board has been
to enhance the standard of transparency in conducting Common Entrance Examinations for
various professional Undergraduate and Postgraduate level courses in the State through
effective state-of-the-art technology. Admission through e-Counselling was successfully
implemented to admit candidates in the undergraduate level courses in the Engineering &
Technological Institutes of the State for the academic year 2012 - 2013.
For the 2013 - 2014 academic session, the Board will conduct the Common Entrance
Examination along with counselling for admission to Undergraduate Courses in Engineering
& Technology, Pharmacy and Architecture in Universities, Govt. Colleges and Self-Financed
Institutes in the State.
The Office of the Board functions from AQ-13/1, Sector-V, Salt Lake City, Kolkata-700
091.More Information..</p>

</div>
</div>
<!--
#####
##### -->
<?php
    require "connect.inc.php";
    $sql_d="select * from seat_allotments";
    $res_d=mysql_query($sql_d);
    $coun_d=mysql_num_rows($res_d);

?>
<div id="extream_right">
    <h2 class="title">Login Section</h2>
<div id="logins">

```



```

<div class="box">
  <marquee id="mark" scrollamount="2" direction="up">
    <?php
      include "connect.inc.php";

      $sql_event_time="SELECT * FROM counselling_date";
      $result=mysql_query($sql_event_time);
      while($row=mysql_fetch_row($result))
      {
        echo "<h3 style='font-size:14px'> ".$row[1]. " ".$row[2]. "</h3>". "<br>";
      }

    ?>
  </marquee>
</div>

</li>
<li>
  <div class="myline">
</div>
  </li>
</ul>
</div>
<!--
#####
##### -->

</div>
</div>
<!--
#####
##### -->
<div class="wrapper row5">
  <div id="footer" class="clear">
    <!--
#####
##### -->
    <div class="foot_contact">
      <h2>e-Counselling System</h2>
      <address>
        D<br />
      <br />
      <br />
      </address>
    <ul>

```

```

<li><strong>Tel:</strong> 90909090909090</li>

<li class="last"><strong>Email:</strong> <a href="#">info@ecounselling.tk</a></li>
</ul>
</div>
<div class="footbox">
<h2>Administration</h2>
<ul>
<li><a href="http://admin.ecounselling.tk" target="new">Login</a></li>
<li><a href="#">Freedom of Information</a></li>
<li><a href="#">Website Privacy</a></li>
</ul>
</div>
<div class="footbox">
<h2>Institute Area</h2>
<ul>
<li><a href="http://ecounselling.tk/collegearea" target="new">Universities and
Colleges</a></li>
<li><a href="http://ecounselling.tk/collegearea" target="new">Institute Login</a></li>
<li><a href="#">Counselling Activities</a></li>
<li class="last"><a href="http://admin.ecounselling.tk" target="new">Council
Area</a></li>
</ul>
</div>
<!--
#####
##### -->
</div>
</div>
<!--
#####
##### -->
<div class="wrapper">
<div id="copyright" class="clear">
<p class="fl_left">Copyright &copy; 2023 - All Rights Reserved - <a href="#">E-
Counselling</a></p>
<p class="fl_right">Design and Devoloped By KIET TEAM <a href="#" title="Free
Website Templates">&nbsp; &nbsp;</a></p>
</div>
</div>
<!-- liteAccordion is Homepage Only -->
<script type="text/javascript" src="scripts/liteaccordion-
v2.2/js/liteaccordion.jquery.min.js"></script>
<script type="text/javascript">
$("##featured_slide").liteAccordion({

```

```

theme: "os-tpl",

containerWidth: 960, // fixed (px)
containerHeight: 360, // fixed (px) - overall height of the slider
headerWidth: 48, // fixed (px) - slide spine title

firstSlide: 1, // displays slide (n) on page load
    activateOn: "click", // click or mouseover
autoPlay: false, // automatically cycle through slides
pauseOnHover: true, // pause slides on hover
rounded: false, // square or rounded corners
enumerateSlides: true, // put numbers on slides

slideSpeed: 800, // slide animation speed
cycleSpeed: 6000, // time between slide cycles
});
</script>
</body>
</html>

```

8.2 LOGIN.PHP

```

<?php
require 'connect.inc.php';
include 'session.php';
if(isset($_GET['username']) && !empty($_GET['username']) && isset($_GET['password'])
&& !empty($_GET['password']))
{
    $email = $_GET['username'];
    $password = $_GET['password'];
    $hashpass = md5($password);

    $query = "select `email`, `password` from `candidate_reg_log_check` where `email` =
'$email' and `password` = '$hashpass'";
    if($query_run = mysql_query($query))
    {
        $query_chk_flg = "select `chk_flg` from `candidate_reg_log_check`
where `email` = '$email' and `password` = '$hashpass'";

        if($query_chk_flg_run = mysql_query($query_chk_flg))
        {
            if(mysql_num_rows($query_chk_flg_run) == 1)
            {

```

```

$flag = mysql_result($query_chk_flg_run, 0,
'chk_flg');

if($flag == 1)
{
    $session_query = "select * from
`candidate_details` where `email` = '$email'";

    if($session_query_run =
mysql_query($session_query))
    {
        if(mysql_num_rows($session_query_run) == 1)
        {
            $row=mysql_fetch_array($session_query_run);

            $name = $row['candidate_name'];

            $_SESSION['name'] = $name;

            $_SESSION['email']= $email;

            $date = date_default_timezone_set('Asia/Kolkata');

            $today = date("F j, Y, g:i A");

            $_SESSION['last_login_time']= $row["last_login"];

            //echo $row['last_login'];

            $sql_update_time="update candidate_details set last_login='$today' where
email='$email'";

            mysql_query($sql_update_time);

            header("Location: candidate_home.php");
        }
    }
}
else

```

```

        {
            echo "invalid login";

            //header("Location:index.php?error=invalidlogin");
        }
    }
    else
    {
        echo "invalid login";
        //
        header("Location:index.php?error=invalidlogin");
    }
}

}

//header("Location: index.php");
?>

```

6.3 Admission_Status.php

```

<?php
if (isset($_GET['pageno']))
{
    $pageno = $_GET['pageno'];
}
else
{
    $pageno = 1;
}

?>

<?php
require "connect.inc.php";
$query = "SELECT * FROM seat_allotments order by rank ASC";
$result = mysql_query($query);
$numrows = mysql_num_rows($result);

$rows_per_page = 10;
$lastpage = ceil($numrows/$rows_per_page);

$pageno = (int)$pageno;
if ($pageno > $lastpage)
{
    $pageno = $lastpage;
}

```

```

if ($pageno < 1)
{
    $pageno = 1;
}
?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>Admin | ecounselling</title>
<link rel="stylesheet" type="text/css" href="css/style.css" />
<!-- jQuery file -->
<script src="js/jquery.min.js"></script>
<script src="js/jquery.tabify.js" type="text/javascript" charset="utf-8"></script>
<script type="text/javascript">
var $ = jQuery.noConflict();
$(function() {
$('#tabsmenu').tabify();
$(".toggle_container").hide();
$(".trigger").click(function(){
    $(this).toggleClass("active").next().slideToggle("slow");
    return false;
});
});
</script>

<script type="text/javascript" src="required/js/ajaxcall.js">
</script>
</head>
<body>

    <div class="center_content">
<?php
require "connect.inc.php";
$limit = 'LIMIT ' . ($pageno - 1) * $rows_per_page . ',' . $rows_per_page;
$query1 = "SELECT * FROM seat_allotments order by rank ASC $limit";
$result1 = mysql_query($query1);
?>
    <h2>Candidate Admission status</h2>

<table id="rounded-corner">

```

```

<thead>
    <tr>

        <th>Rank</th>
        <th>Name</th>
        <th>Alloted College</th>

        <th>Preference No</th>
        <th>Status</th>
    </tr>
</thead>

<tbody>
<?php
    while($row=mysql_fetch_array($result1))
    {
        echo "<tr class='even'>";
        echo "<td>".$row['rank'].</td>";
            $query2 = "SELECT * FROM rank_details where rank=$row[rank]";
            $result2 = mysql_query($query2);
            $row2=mysql_fetch_array($result2);
            echo "<td>".$row2['candidate_name'].</td>";
            $query3 = "SELECT * FROM college_details where
college_cuid=$row[allot_clg_id]";
            $result3 = mysql_query($query3);
            $row3=mysql_fetch_array($result3);
            echo "<td>".$row3['college_name'].</td>";
            $query4 = "SELECT * FROM college_details where
college_cuid=$row[pref_clg]";

            echo "<td>".$row['pref_clg'].</td>";
            if($row['admitted']=='Y')
            {
                $status="Admitted";
            }
            else
            {
                if($row['upgrd_sts']=='Y')
                {
                    $status="Upgraded";
                }
                else
                {
                    $status="NIL";
                }
            }
        }
    }

```



```

        }
        echo "<td>".$status."</td>";

    echo "</tr>";
    }
?>

</tbody>
<tfoot>
    <tr align="center">
        <td colspan="5" style="font-size:14px">
            <?php
if ($pageno == 1)
    {
        echo " FIRST PREV ";
    }
else
    {
        echo " <a href='#' onclick='admissionstatus(1)'>FIRST</a> ";
        $prevpage = $pageno-1;
        echo " <a href='#' onclick='admissionstatus($prevpage)'>PREV</a> ";
    }

    echo " ( Page $pageno of $lastpage ) ";

if ($pageno == $lastpage)
    {
        echo " NEXT LAST ";
    }
else
    {
        $nextpage = $pageno+1;
        echo " <a href='#' onclick='admissionstatus($nextpage)'>NEXT</a> ";
        echo " <a href='#' onclick='admissionstatus($lastpage)'>LAST</a> ";
    }
?>
    </td>
    </tr>
</tfoot>
</table>

</div>

</body>

```

</html>

6.4 Candidate_Preference.php

```
<?php
if (isset($_GET['pageno']))
{
    $pageno = $_GET['pageno'];
}
else
{
    $pageno = 1;
}
?>
<?php
require "connect.inc.php";
$query = "SELECT * FROM candidate_preferences order by rank ASC";
$result = mysql_query($query);
$numrows = mysql_num_rows($result);

$rows_per_page = 10;
$lastpage = ceil($numrows/$rows_per_page);

$pageno = (int)$pageno;
if ($pageno > $lastpage)
{
    $pageno = $lastpage;
}
if ($pageno < 1)
{
    $pageno = 1;
}
?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>Admin | ecounselling</title>
<link rel="stylesheet" type="text/css" href="css/style.css" />
<link href='http://fonts.googleapis.com/css?family=Belgrano' rel='stylesheet' type='text/css'>
<style>
.loader {
    position: fixed;
    left: 0px;
```

```

        top: 0px;
        width: 100%;
        height: 100%;
        z-index: 9999;
        background: url('images/loadingAnimation.gif') 50% 50% no-repeat rgb(249,249,249);
    }
</style>
<!-- jQuery file -->
<script src="js/jquery.min.js"></script>
<script src="js/jquery.tabify.js" type="text/javascript" charset="utf-8"></script>
<script type="text/javascript">
var $ = jQuery.noConflict();
$(function() {
$('#tabsmenu').tabify();
$(".toggle_container").hide();
$(".trigger").click(function(){
    $(this).toggleClass("active").next().slideToggle("slow");
    return false;
});
$(window).load(function() {
    $(".loader").delay(1000).fadeOut("slow");
})
});
</script>
<script type="text/javascript" src="required/js/ajaxcall.js">
</script>
</head>
<body>

```

```

        <div class="center_content">
<?php
require "connect.inc.php";
$limit = 'LIMIT ' . ($pageno - 1) * $rows_per_page . ',' . $rows_per_page;
$query1 = "SELECT * FROM candidate_preferences order by rank ASC $limit";
$result1 = mysql_query($query1);
?>

```

```

        <h2>Candidate College Preference</h2>

```

```

<table id="rounded-corner">
    <thead>
        <tr>

            <th>Rank</th>

```

```

        <th>Name</th>
        <th>Preference 1</th>
        <th>Preference 2</th>
        <th>Preference 3</th>
    </tr>
</thead>

<tbody>
<?php
    while($row=mysql_fetch_array($result1))
    {
        echo "<tr class='even'>";
        echo "<td>".$row['rank'].</td>";
        $query2 = "SELECT * FROM rank_details where rank=$row[rank]";
        $result2 = mysql_query($query2);
        $row2=mysql_fetch_array($result2);
        echo "<td>".$row2['candidate_name'].</td>";
        $query3 = "SELECT * FROM college_details where
college_cuid=$row[pref_1]";
        $result3 = mysql_query($query3);
        $row3=mysql_fetch_array($result3);
        echo "<td>".$row3['college_name'].<td>".$row3['college_name'].</td>";

        $query4 = "SELECT * FROM college_details where
college_cuid=$row[pref_2]";
        $result4 = mysql_query($query4);
        $row4=mysql_fetch_array($result4);
        echo "<td>".$row4['college_name'].<td>".$row4['college_name'].</td>";

        $query5 = "SELECT * FROM college_details where
college_cuid=$row[pref_3]";
        $result5 = mysql_query($query5);
        $row5=mysql_fetch_array($result5);
        echo "<td>".$row5['college_name'].<td>".$row5['college_name'].</td>";

        echo "</tr>";
    }
?>

</tbody>
<tfoot>
    <tr align="center">
        <td colspan="5" style="font-size:14px">
            <?php
if ($pageno == 1)

```

```

        {
            echo " FIRST PREV ";
        }
else
    {
        echo " <a href='#' onclick='candpref(1)'>FIRST</a> ";
        $prevpage = $pageno-1;
        echo " <a href='#' onclick='candpref($prevpage)'>PREV</a> ";
    }

    echo " ( Page $pageno of $lastpage ) ";

if ($pageno == $lastpage)
    {
        echo " NEXT LAST ";
    }
else
    {
        $nextpage = $pageno+1;
        echo " <a href='#' onclick='candpref($nextpage)'>NEXT</a> ";
        echo " <a href='#' onclick='candpref($lastpage)'>LAST</a> ";
    }
?>
    </td>
</tr>
</tfoot>
</table>

</div>

</body>
</html>

```

8.3 STYLE.CSS

```

color: #535E66;
background: #dde8f0; text-shadow: 1px 1px #F2F8FC;
}
#rounded-corner tr.odd td
{
padding: 8px;
background: #f4f9fd;
border-top: 1px solid #fff;

```

```

color: #669;
}
#rounded-corner tr.even td
{
padding: 8px;
background: #fcfdfe;
border-top: 1px solid #fff;
color: #669;
}
#rounded-corner tfoot td
{
background: #dde8f0; font-size: 11px; padding: 8px 8px 8px 15px;
-moz-border-radius-bottomleft: 6px; -webkit-border-bottom-left-radius: 6px; -khtml-border-
bottom-left-radius: 6px; border-bottom-left-radius: 6px;
-moz-border-radius-bottomright: 6px; -webkit-border-bottom-right-radius: 6px; -khtml-border-
bottom-right-radius: 6px; border-bottom-right-radius: 6px;
}
#rounded-corner tbody tr:hover td
{
background: #dde8f0;
}

/* Toggle
/*-----*/
.toggle_wrap{ background-color: #bad7e6;
margin: 0px; clear: both;
-moz-border-radius: 5px; -webkit-border-radius: 5px; -khtml-border-radius: 5px; border-
radius: 5px;
color: #22425e; font-size: 14px; font-weight: bold; padding: 10px 0 10px 15px; text-shadow: 1px
1px #DCEEF7; }
.trigger{ padding: 0px; margin: 0; }
.trigger a{ color: #22425e; font-size: 14px; font-weight: bold; padding: 5px 0 5px 0; text-
shadow: 1px 1px #DCEEF7; text-decoration: none; display: block; }
.active { }
.trigger a:hover, .trigger a:hover:focus { }
.toggle_container{ overflow: hidden; padding: 0px 10px 0 0; clear: both; font-size: 12px; font-
weight: normal; line-height: 20px; }

/* Tabs
/*-----*/
ul.tabsmenu{ padding: 15px 0 0 0; clear: both; list-style: none; margin: 0px; }
ul.tabsmenu li a{ width: auto; float: left; margin: 0 5px 0 0; text-align: center;
background-color: #bad7e6;
-moz-border-radius-topleft: 6px; -webkit-border-top-left-radius: 6px; -khtml-border-top-left-
radius: 6px; border-top-left-radius: 6px;

```

```

-moz-border-radius-topright:6px;-webkit-border-top-right-radius:6px;-khtml-border-top-right-
radius:6px;border-top-right-radius:6px;
color:#22425e; font-size:14px; font-weight:bold; padding:10px 15px; text-shadow:1px 1px
#DCEEF7;
}
ul.tabsmenu li.active a{ background-color:#a8c9da;}
ul.tabsmenu li a:hover{background-color:#a8c9da;}
.tabcontent{ padding:10px; clear:both; border:1px #ddd solid; margin:0 0 15px 0;
-moz-border-radius-bottomleft:5px;-webkit-border-bottom-left-radius:5px;-khtml-border-
bottom-left-radius:5px;border-bottom-left-radius:5px;
-moz-border-radius-bottomright:5px;-webkit-border-bottom-right-radius:5px;-khtml-border-
bottom-right-radius:5px;border-bottom-right-radius:5px;
}
/*-----form-----*/
.form{padding:20px;}
.form_row{ width:610px;float:left;clear:both;margin:0 0 10px 0;}
.form_row label{ width:100px;float:left;padding:5px 0 0px 0;font-size:12px; color:#535E66;
font-weight:bold; text-shadow:1px 1px #fff; text-align:left;}
.form_input{ width:500px;height:34px;float:left;padding:0px 0px 0 4px; background-
color:#F4F6F7; border:1px #90A9B7 solid; color:#000;-moz-border-radius:4px;-webkit-
border-radius:4px;border-radius:4px;}
select.form_select{ width:506px;height:37px;float:left;padding:8px 5px 8px 4px; background-
color:#F4F6F7; border:1px #90A9B7 solid; color:#000;-moz-border-radius:4px;-webkit-
border-radius:4px;border-radius:4px;}
.form_textarea{ width:500px;height:100px;float:left;padding:3px 0px 0 4px; background-
color:#F4F6F7; border:1px #90A9B7 solid; color:#000; font-family:Arial, Helvetica, sans-
serif; font-size:12px;-moz-border-radius:4px;-webkit-border-radius:4px;border-radius:4px;}
input.form_submit{ float:right; clear:both; margin:0px 5px 0 0px;color:#fff;background:
#7dc44e;-moz-border-radius:4px;-webkit-border-radius:4px;border-radius:4px;font-
family:arial;font-size:12px;font-weight: bold;padding:8px 15px;text-align:
center;cursor:pointer; border:none;text-shadow:1px 1px #4c9021;}

.loginform{padding:20px;}
.loginform_row{ width:460px;float:left;clear:both;margin:0 0 10px 0;}
.loginform_row label{ width:100px;float:left;padding:5px 0 0px 0;font-size:12px;
color:#535E66; font-weight:bold; text-shadow:1px 1px #fff; text-align:left;}
.loginform_input{ width:350px;height:34px;float:left;padding:0px 0px 0 4px; background-
color:#F4F6F7; border:1px #90A9B7 solid; color:#000;-moz-border-radius:4px;-webkit-
border-radius:4px;border-radius:4px;}
input.loginform_submit{ float:right; clear:both; margin:0px 5px 0 0px;color:#fff;background:
#7dc44e;-moz-border-radius:4px;-webkit-border-radius:4px;border-radius:4px;font-
family:arial;font-size:12px;font-weight: bold;padding:8px 15px;text-align:
center;cursor:pointer; border:none;text-shadow:1px 1px #4c9021;}

```

```
input.loginform_add{ float:none clear:both; margin:0px 5px 0 0px;color:#fff;background:
#7dc44e;-moz-border-radius:4px;-webkit-border-radius:4px;border-radius:4px;font-
family:arial;font-size:12px;font-weight: bold;padding:8px 15px;text-align:
center;cursor:pointer; border:none;text-shadow:1px 1px #4c9021;}
```

```
.footer{height:50px;background-color:#e4e3e0; border-top:1px #fff solid; line-height:50px;
padding:0 0 0 20px;}
```

COLLEGE AREA

```
html, body, div, span, applet, object, iframe,
h1, h2, h3, h4, h5, h6, p, blockquote, pre,
a, abbr, acronym, address, big, cite, code,
del, dfn, em, img, ins, kbd, q, s, samp,
small, strike, strong, sub, sup, tt, var,
b, u, i, center,
dl, dt, dd, ol, ul, li,
fieldset, form, label, legend,
table, caption, tbody, tfoot, thead, tr, th, td,
article, aside, canvas, details, embed,
figure, figcaption, footer, header, hgroup,
menu, nav, output, ruby, section, summary,
time, mark, audio, video {
    margin: 0;
    padding: 0;
    border: 0;
    font-size: 100%;
    font: inherit;
    vertical-align: baseline;
}
```

```
article, aside, details, figcaption, figure,
footer, header, hgroup, menu, nav, section {
    display: block;
}
```

```
body {
    line-height: 1;
}
```

```
ol, ul {
    list-style: none;
}
```

```
blockquote, q {
    quotes: none;
```



```
}
```

```
blockquote:before, blockquote:after,  
q:before, q:after {  
  content: "";  
  content: none;  
}
```

```
table {  
  border-collapse: collapse;  
  border-spacing: 0;  
}
```

```
.about {  
  margin: 70px auto 40px;  
  padding: 8px;  
  width: 260px;  
  font: 10px/18px 'Lucida Grande', Arial, sans-serif;  
  color: #666;  
  text-align: center;  
  text-shadow: 0 1px rgba(255, 255, 255, 0.25);  
  background: #eee;  
  background: rgba(250, 250, 250, 0.8);  
  border-radius: 4px;  
  background-image: -webkit-linear-gradient(top, rgba(0, 0, 0, 0), rgba(0, 0, 0, 0.1));  
  background-image: -moz-linear-gradient(top, rgba(0, 0, 0, 0), rgba(0, 0, 0, 0.1));  
  background-image: -o-linear-gradient(top, rgba(0, 0, 0, 0), rgba(0, 0, 0, 0.1));  
  background-image: linear-gradient(to bottom, rgba(0, 0, 0, 0), rgba(0, 0, 0, 0.1));  
  -webkit-box-shadow: inset 0 1px rgba(255, 255, 255, 0.3), inset 0 0 0 1px rgba(255, 255,  
255, 0.1), 0 0 6px rgba(0, 0, 0, 0.2);  
  box-shadow: inset 0 1px rgba(255, 255, 255, 0.3), inset 0 0 0 1px rgba(255, 255, 255, 0.1), 0  
0 6px rgba(0, 0, 0, 0.2);  
}  
.about a {  
  color: #333;  
  text-decoration: none;  
  border-radius: 2px;  
  -webkit-transition: background 0.1s;  
  -moz-transition: background 0.1s;  
  -o-transition: background 0.1s;  
  transition: background 0.1s;  
}  
.about a:hover {  
  text-decoration: none;  
  background: #fafafa;
```

```

background: rgba(255, 255, 255, 0.7);
}

.about-links {
height: 30px;
}
.about-links > a {
float: left;
width: 50%;
line-height: 30px;
font-size: 12px;
}

.about-author {
margin-top: 5px;
}
.about-author > a {
padding: 1px 3px;
margin: 0 -1px;
}

/*
* Copyright (c) 2012-2013 Thibaut Courouble
* http://www.cssflow.com
*
* Licensed under the MIT License:
* http://www.opensource.org/licenses/mit-license.php
*/
body {
font: 13px/20px 'Lucida Grande', Tahoma, Verdana, sans-serif;
color: #404040;
background: #03274B;
/*#0ca3d2;*/
}

.container {
margin: 80px auto;
width: 640px;
}

.login {
position: relative;
margin: 0 auto;
padding: 20px 20px;
width: 310px;

```

```

background: white;
border-radius: 3px;
-webkit-box-shadow: 0 0 200px rgba(255, 255, 255, 0.5), 0 1px 2px rgba(0, 0, 0, 0.3);
box-shadow: 0 0 200px rgba(255, 255, 255, 0.5), 0 1px 2px rgba(0, 0, 0, 0.3);
}
.login:before {
content: "";
position: absolute;
top: -8px;
right: -8px;
bottom: -8px;
left: -8px;
z-index: -1;
background: rgba(0, 0, 0, 0.08);
border-radius: 4px;
}
.login h1 {
margin: -20px -20px 21px;
line-height: 40px;
font-size: 15px;
font-weight: bold;
color: #555;
text-align: center;
text-shadow: 0 1px white;
background: #f3f3f3;
border-bottom: 1px solid #cfcfcf;
border-radius: 3px 3px 0 0;
background-image: -webkit-linear-gradient(top, whiteffd, #eef2f5);
background-image: -moz-linear-gradient(top, whiteffd, #eef2f5);
background-image: -o-linear-gradient(top, whiteffd, #eef2f5);
background-image: linear-gradient(to bottom, whiteffd, #eef2f5);
-webkit-box-shadow: 0 1px whitesmoke;
box-shadow: 0 1px whitesmoke;
}
.login p {
margin: 20px 0 0;
}
.login p:first-child {
margin-top: 0;
}
.login input[type=text], .login input[type=password] {
width: 278px;
}
.login p.remember_me {
float: left;

```

```

    line-height: 31px;
}
.login p.remember_me label {
    font-size: 12px;
    color: #777;
    cursor: pointer;
}
.login p.remember_me input {
    position: relative;
    bottom: 1px;
    margin-right: 4px;
    vertical-align: middle;
}
.login p.submit {
    text-align: right;
}

.login-help {
    margin: 20px 0;
    font-size: 11px;
    color: white;
    text-align: center;
    text-shadow: 0 1px #2a85a1;
}
.login-help a {
    color: #cce7fa;
    text-decoration: none;
}
.login-help a:hover {
    text-decoration: underline;
}

:-moz-placeholder {
    color: #c9c9c9 !important;
    font-size: 13px;
}

::-webkit-input-placeholder {
    color: #ccc;
    font-size: 13px;
}

input {
    font-family: 'Lucida Grande', Tahoma, Verdana, sans-serif;
    font-size: 14px;

```

```

}

input[type=text], input[type=password] {
  margin: 5px;
  padding: 0 10px;
  width: 200px;
  height: 34px;
  color: #404040;
  background: white;
  border: 1px solid;
  border-color: #c4c4c4 #d1d1d1 #d4d4d4;
  border-radius: 2px;
  outline: 5px solid #eff4f7;
  -moz-outline-radius: 3px;
  -webkit-box-shadow: inset 0 1px 3px rgba(0, 0, 0, 0.12);
  box-shadow: inset 0 1px 3px rgba(0, 0, 0, 0.12);
}

input[type=text]:focus, input[type=password]:focus {
  border-color: #7dc9e2;
  outline-color: #dceefc;
  outline-offset: 0;
}

input[type=submit] {
  padding: 0 18px;
  height: 29px;
  font-size: 12px;
  font-weight: bold;
  color: #527881;
  text-shadow: 0 1px #e3f1f1;
  background: #cde5ef;
  border: 1px solid;
  border-color: #b4ccce #b3c0c8 #9eb9c2;
  border-radius: 16px;
  outline: 0;
  -webkit-box-sizing: content-box;
  -moz-box-sizing: content-box;
  box-sizing: content-box;
  background-image: -webkit-linear-gradient(top, #edf5f8, #cde5ef);
  background-image: -moz-linear-gradient(top, #edf5f8, #cde5ef);
  background-image: -o-linear-gradient(top, #edf5f8, #cde5ef);
  background-image: linear-gradient(to bottom, #edf5f8, #cde5ef);
  -webkit-box-shadow: inset 0 1px white, 0 1px 2px rgba(0, 0, 0, 0.15);
  box-shadow: inset 0 1px white, 0 1px 2px rgba(0, 0, 0, 0.15);
}

```

```

input[type=submit]:active {
    background: #cde5ef;
    border-color: #9eb9c2 #b3c0c8 #b4ccce;
    -webkit-box-shadow: inset 0 0 3px rgba(0, 0, 0, 0.2);
    box-shadow: inset 0 0 3px rgba(0, 0, 0, 0.2);
}

.lt-ie9 input[type=text], .lt-ie9 input[type=password] {
    line-height: 34px;
}

```

8.4 INDEX.PHP (admin)

```

<?php
session_start();
if ($_SESSION['userlogged']!="1")
{
    header("location:login.php");
}
?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>Admin | ecounselling</title>
<link rel="stylesheet" type="text/css" href="css/style.css" />
<link href='http://fonts.googleapis.com/css?family=Belgrano' rel='stylesheet' type='text/css'>
<link rel="stylesheet" href="css/jquery-ui-1.10.4.custom.css" type="text/css" />
<style>
.loader {
    position: fixed;
    left: 0px;
    top: 0px;
    width: 100%;
    height: 100%;
    z-index: 9999;
    background: url('images/loadingAnimation.gif') 50% 50% no-repeat rgb(249,249,249);
}
.ui-dialog{
    background:#FFFFFF;
    color:#666666;
    font-size:14px;
}
.ui-dialog .ui-dialog-titlebar{
    background:#003366;
}

</style>

```

```

<!-- jQuery file -->
<script src="js/jquery.min.js"></script>
<script src="js/jquery.tabify.js" type="text/javascript" charset="utf-8"></script>
<script type="text/javascript" src="js/jquery-ui-1.10.4.custom.js"></script>

<script type="text/javascript">
var $ = jQuery.noConflict();
$(function() {
$('#tabsmenu').tabify();
$(".toggle_container").hide();
$(".trigger").click(function(){
    $(this).toggleClass("active").next().slideToggle("slow");
    return false;
});
$("#box").hide();
$("#e1").click(function(){
    $('#box').dialog({
        show:'bounce',
        hide:'explode'
    });
});
$("#c1").click(function(){
    //$('#box').fadeOut(2000);
    $('#box').dialog('close');
});
$(window).load(function() {
    $(".loader").delay(5000).fadeOut("slow");
})
});
</script>
<script type="text/javascript" src="required/js/ajaxcall.js"></script>
<script src="js/valid_rank_entry.js" type="text/javascript"></script>
<script src="js/valid_college_entry.js" type="text/javascript"></script>
<script type="text/javascript">
    window.location.hash="no-back-button";
window.location.hash="Again-No-back-button";//again because google chrome don't insert
first hash into history
window.onhashchange=function(){ window.location.hash="no-back-button";}
</script>
<script type="text/javascript" language="javascript">

    $(function() {

        $(this).bind("contextmenu", function(e) {

            e.preventDefault();

        });

    });

</script>

```

[illegible]


```

        Last Login: &nbsp;&nbsp;&nbsp;<a href="#"><?php echo
$_SESSION['lastloggedtime']; ?></a><br>
        </p>
    </div>
</div>
    <ul id="tabsmenu" class="tabsmenu">
        <li class="active" id="tab2"><a href="#tab1">Important&nbsp;</a></li>
    </ul>
    <div class="toogle_wrap" id="tb1">
        <div class="trigger"><a href="#" style="font-size:12px">View</a></div>

        <div class="toggle_container">
            <p><h2 align="center">Loggin to Email Service for quick
support.</h2></p>
        </div>
    </div>
    <div id="d1">

    </div>
</div>

</div><!-- end of right content-->

<div class="sidebar" id="sidebar">
<h2>Candidate Panel</h2>

    <ul>
        <li><a href="#" class="selected" onclick="candlist(1)">Candidate Details</a></li>
        <li><a href="#" onclick="loadXMLDoc()" >ADD New Rank</a></li>
        <li><a href="#" onclick="rankpage(1)">Rank Details</a></li>
        <li><a href="#" onclick="candpref(1)">Canidate Preferences</a></li>
        <li><a href="#" onclick="contactcandidate()">Quick Contact</a></li>
    </ul>

<h2>College Panel</h2>

    <ul>
        <li><a href="#" onclick="clglist(1)">College Details</a></li>
        <li><a href="#" onclick="clgadd()">ADD New College</a></li>
        <li><a href="#">Quick Contact</a></li>
    </ul>

<h2>Counselling Panel</h2>

    <ul>
        <li><a href="#" onclick="counsellingschedule()">Counselling Schedule</a></li>
        <li><a href="#" onclick="startcounselling()">Start Counselling</a></li>
        <li><a href="#" onclick="counsellingallotments(1)">Counselling Allotments</a></li>
        <li><a href="#" onclick="admissionstatus()">Admission Status</a></li>
    </ul>

```


CHAPTER 9

TESTING

9.1 SYSTEM TESTING

Prior to the actual implementation of the system it had to be tested comprehensively and every possible error uncovered. Since it is not possible to test the system exhaustively, the black box testing method was used for system testing. The black box testing usually demonstrates that software functions are operational; that the input is properly accepted and the output is correctly produced; and that integrity of external information (databases) is maintained.

Table 9.1 outlines the tests that were performed on the system to ensure correctness and unearth errors which were subsequently debugged.

Table 9.1:- Tests Conducted on the System

Testing Phase	Objectives
Unit Testing	The various functions within each program and the program blocks are tested for proper working.
Module Testing	A module is composed of various programs related to that module. Module testing is done to check the module functionality and interaction between units within a module
Integration Testing	Integration testing is done to test the functionality and interfacing between the modules.
Acceptance Testing	Acceptance testing is done after implementation to check if the system runs successfully in the customer environment/site.

9.2 UNIT TESTING

Unit Testing will be done to test field validations, navigation, functionality of the programs and its blocks. These tests are applied on various functions within each program and other critical program blocks. Table 10.2 and 10.3 outline two sample test cases for Unit Testing performed on the system

Table 9.2:- Unit Testing – Test Case 1

Test Case Description

This test case deals with the creation of Student information. The creation program takes many inputs. The test should check for proper inputs and verify whether the creation function is called properly with the correct input parameters.

Expected Inputs

Student details for reporting from the user (Counseling).

Expected Outputs

Alert window for erroneous inputs.
Confirmation of Student Counseling.

Actual Test Results

An alert window was shown whenever the user gave some erroneous data, such as entering numbers in the name field, entering characters in numeric fields.

Confirmation of Insertion of details was displayed on submission to the add function, implying that the function was called properly.

Table 9.2:- Unit Testing – Test Case 2

Test Case Description

This test case deals with the Withdraw of counseling Student by the java function for that does the Withdraw. The test will check if the java function receives the Withdraw properly and checks if the Withdraw is performed correctly.

Expected Inputs

Withdraw Counseling Student from the web server.

Expected Outputs

The java function should return the Student Withdraw Message with correct Rank and Roll-on of student.

Actual Test Results

The java function received the Withdraw Message properly.

9.3 MODULE TESTING

Module testing will be done to test the interaction between the various programs within one module. It checks the functionality of each program with relation to other programs within the same module. It then tests the overall functionality of each module. Table 10.4 and 10.5 outline two sample test case for Module Testing performed on the system.

Table 9.3:- Module Testing – Test Case 1

Test Case Description
This test case deals with the module creation in the Counseling module.
Expected Inputs
Student details for Counseling.
Expected Outputs
This new module should appear in the insertion /Registration programs.
Actual Test Results
The new module appears in the insertion /Registration programs.

Table 9.3:- Module Testing – Test Case 2

Test Case Description
This test case deals with the Withdraw and Reconciling for the Withdraw programs in the Withdraw and Reconciling Module.
Expected Inputs
Withdraw and recounseling of student details.
Expected Outputs
Student Withdraw Message with correct Rank and Roll-on of student, with provisions to Recounseling.
Actual Test Results
Displayed the correctly Withdraw message, with provisions to Recounseling for the Student.

9.4 INTEGRATION TESTING

Integration testing is done to test the functionality and interfacing between the modules. The system is built up of various modules which work together to automate the activities. These modules should work together in a seamless way to achieve the desired results. Integration testing will test for this property of the modules. The modules display a cause and effect relationship, if data in one module is changed, then it affects the data to change in some other module also. Integration testing needs to check if the modifications do not adversely affect some other modules.

Table 9.4:- Integration Testing – Test Case 1

Test Case Description
This test case deals with the Counseling module. After the Student Reporting and final counseling.
Expected Inputs
Student Roll No, Rank and category for confirmation.
Expected Outputs
The student must be confirmation Counseling.
Actual Test Results
Once the details are registered Student and on seeing the details in the Counseling module, the student record details are displayed.

9.5 ACCEPTANCE TESTING

Acceptance testing was done after the implementation of the system. The acceptance testing will check if the system works correctly in the user environment and if all the user specified functionalities are present. It also tests if the system adheres to the company policies and quality standard. The On-Line Counseling system was tested and accepted by Gnix Infosoft after the acceptance testing.

CHAPTER 10

IMPLEMENTATION AND MAINTENANCE

10.1 IMPLEMENTATION

Implementation uses the design document to produce code. Demonstration that the program satisfies its specifications validates the code. Typically, sample runs of the program demonstrating the behavior for expected data values and boundary values are required. Small programs are written using the model: -

It may take several iterations of the model to produce a working program. As programs get more complicated, testing and debugging alone may not be enough to produce reliable code. Instead, we have to write programs in a manner that will help insure that errors are caught or avoided.

- **Top-Down Implementation**

Top down implementation begins with the user-invoked module and works toward the modules that do not call any other modules. The implementation may precede depth-first or breadth-first.

- **Bottom-Up Implementation**

Implementation begins with modules that do not call any other modules and works toward the main program. Test harness (see below) is used to test individual modules. The main module constitutes the final test harness.

- **Stub Programming**

Stub programming is the implementation analogue of top-down and stepwise refinement. It supports incremental program development by allowing for error and improvement. A stub program is a stripped-down, skeleton version of a final program. It doesn't implement details of the algorithm or fulfill all the job requirements. However, it does contain rough versions of all subprograms and their parameter lists. Furthermore, it can be compiled and run. Extensive use of procedures and parameter are the difference between stub programs and prototypes. Quick and dirty prototypes should be improved--they should be

rewritten. A stub program helps demonstrate that a program's structure is

plausible. Its procedures and functions are unsophisticated versions of their final forms, but they allow limited use of the entire program. In particular, it may work for a limited data set. Often the high-level procedures are ready to call lower-level code, even if the more detailed subprograms haven't even been written. Such sections of code are commented out. The comment brackets can be moved, call-by-call, as the underlying procedures are actually written.

Incremental Program Development

As program become more complex, changes have a tendency to introduce unexpected effects. Incremental programming tries to isolate the effects of changes. We add new features in preference to adding new functions, and add new function rather than writing new programs. The program implementation model becomes:

- Define types/compile/fix;
- Add load and dump functions/compile/test;
- Add first processing function/compile/test/fix;
- Add features/compile/test/fix;
- Add second processing function/compile/test/fix;
- Keep adding features/and compiling/and testing/ and fixing.

10.2 MAINTENANCE

Once the software is delivered and deployed, then maintenance phase starts. Software requires maintenance because there are some residual errors remaining in the system that must be removed as they discovered. Maintenance involves understanding the existing software (code and related documents), understanding the effect of change, making the changes, testing the new changes, and retesting the old parts that were not changed. The complexity of the maintenance task makes maintenance the most costly activity in the life of software product.

It is believed that almost all software that is developed has residual errors, or bugs, in them. These errors need to be removed when discovered that leads to the software change. This is called Corrective Maintenance. Corrective maintenance means repairing, processing or performance failures or making alterations because of previously ill-defined problems.

Software undergoes change frequently even without bugs because the software must be upgraded and enhanced to include more features and provide more services. This also requires modification of the software. The changed

software changes the environment, which in turn requires further change. This phenomenon is called the “law of software evaluation”. Maintenance due to this

phenomenon is called adaptive maintenance. Adaptive maintenance means changing the program function. Perfect maintenance means enhancing the performance or modifying the programs according to the user’s additional or changing needs. The keys to reduce the need for maintenance are:

- More accurately defining the user’s requirement during system development.
- Preparation of system documentation in a better way.
- Using more effective ways for designing processing logic and communicating it to project team members.
- Making better use of existing tools and techniques.
- Managing the system engineering process effectively.

10.3 COST ESTIMATION OF THE PROJECT

The objective of the cost estimation is to enable the client or developer to perform a cost-benefit analysis and for project monitoring and control. The accuracy of the estimate depends on the amount of reliable information about the final product. When the product is delivered, the cost can be accurately determined, as all the data about the project and the resource spent can be fully known by then. The obtainable accuracy of the estimates as it varies with the different phases is shown in below figure:-

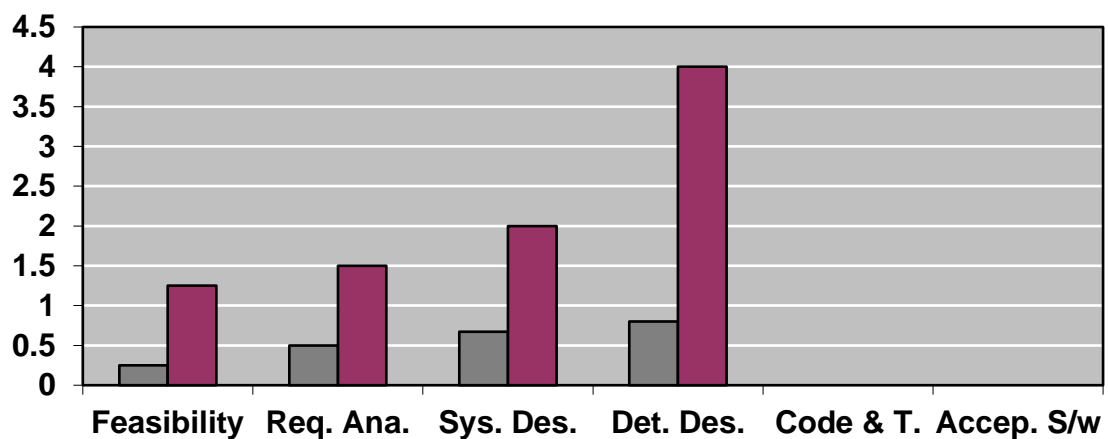


Fig 10.3 : Graph of Accuracy of Cost Estimation

- **Cost of Correcting Errors**

According to the established S/W Engineering standard of estimating the cost of correcting errors the phase wise distribution of occurrences of errors is as given below: -

Requirement Analysis	20%
Design	30%
Coding	50%

The cost of correcting errors of different phases is not the same and depends on when the error is detected and corrected. The relative cost of correcting requirement errors as a function of where they are detected is shown below figure-

One can perform cost estimation at any point in the software life cycle. As the cost of the project depends on the nature and characteristics of the project, at any point, the accuracy of the estimate will depend on the amount of reliable information we have about the final product. The figure depicted below shows the accuracy of the cost estimation.

On Size estimation of Schedule and Cost of the Project: this approach implies that size is the primary factor for cost; other factors have lesser effect.

Here we will discuss one such model called the Constructive Cost Model (COCOMO) developed by Boehm. This model also estimates the total effort in terms of person-months of the technical project staff. The basic steps of this model are as follows: -

- Obtain the initial estimate of the development effort from the estimate of thousands of delivered lines of source code (KDLOC).
- Determine a set of multiplying factors from different attributes of the project.
- Adjust the effort estimate by multiplying the initial estimate with all the multiplying factors.

The initial estimate also called nominal estimate is determined by an equation of the form used in the static single-variable models, using KDLOC as the measure of size. To determine the initial effort E_i in person-months the equation used is of the type

$$E_i = a \cdot (\text{KDLOC})^b$$

In COCOMO model the values of constants a and b are different with different type of projects. As our project is Organic type the values of a and b are 3.2 and 1.05 respectively. The total thousand delivered code (KDLOC) of our system has been estimated as around 2.

In order to determine the multiplying factors commonly known as cost driver attributes we have taken rating of these attributes according to our requirements. From these, the effort adjustment factor (EAF) of our project has been estimated as 1.16.

Now the final efforts estimate, E, of our project is obtained by multiplying the initial estimate by the EAF.

$$\text{i.e., } E = \text{EAF} * E_i$$

The project duration is estimated for an Organic project by the formula $D = 2.5 * E^{0.38}$ and according to this formula I have estimated the project.

CHAPTER 11

CONCLUSIONS

This was the first considerably large and important project undertaken by me during my MCA course. It was an experience that changed the way I perceived project development. The coding could not be started before the whole system was completely finalized. Even then there were so many changes required and the coding needed to be changed. I attribute this to inadequate information gathering from the user. Though there were many meetings with the user and most of the requirements were gathered, a few misinterpretations of the requirements still crept in. It made me realize how important the systems analysis phase is. The project is a classic example for the adage that learning of concepts needs to be supplemented with application of that knowledge.

On the whole it was a wonderful experience developing this project and I would have considered my education incomplete without undertaking such a project which allowed me to apply all that I have learnt.

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