# Final year Project
# On
# All Punjab Universities Portal
## (Web Application)

**Prepared By**

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**University Of Sahiwal**

# **DEDICATION**

I am really graceful to Allah who has give me strength so that I Will be able to complete my project

Our Parents and Teachers all who've given us their support during the development of this project and

for giving good ideas to prove ourselves as intellectuals in front of our Respected Teachers.

# A CKNOWLEDGEMENT

Praise to Allah Almighty, Lord of the worlds, the Merciful and the Beneficent, who gave us strength, thoughts and co-operative people to enable us to accomplish this goal and fulfill the required functionalities.

This was all not possible without the guidance, continuous appreciation and moral support by **"Mr. Muhammad Umar Draz".** He was always there whenever we need her help and ideas. We are really thankful to her who made our concepts clearer.
At last, we would like to acknowledge all of the assistance and contributions of Sahiwal University for supporting us with all that is needed  and ending with the full care that it is providing us with, to help us to be professionals in the field of Information Technology.

# <u>Declaration</u>

I hereby declare that this project report has been prepared by me under the supervisor of "**Mr. Muhammad Umar Draz"** for the partial fulfillment of the requirement for the BS degree from the Department of Computer Science and Engineering at University of Sahiwal. I'm also declaring that this project report is original in nature and has not been submitted elsewhere.

Signature of Candidate

………………….

**Muhammad Hassan**

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# ABSTRACT

The main objective of my project is to provide all basic details of all Punjab universities to the student and students does not need to go to the specific university and not even every university site one by one. In this project our focus is to provide details of all Punjab universities that every student have needed. The students can easily check what can do after intermediate. The Universities Portal is a web application where the students can see all related details easily. All information about all Punjab universities is available in this project so students can easily see details. The students can see details of Latest Admissions, Top Ranked Universities, Universities Careers and also see universities Events details. The student can login using his account details or new student can set up an account very quickly. They should give the details of their name, contact number and E-mail address. The Administrator will have additional functionality when compared to the common student or user. The Administrator can add, delete and update the University details, Latest Admissions details, Top Ranked University Details, Careers Details and also Events details . After all, this Website is error free. Any student can use this website friendly.
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# CERTIFICATE OF APPROVAL

It is to certify that the final year project of **BS (CS) "All Punjab Universities Portal"** (A web application) was developed by "**Muhammad Hassan"** under the supervision of "**Mr. Umar Daraz**" and that in her opinion, it is in scope, fully adequacy and quality of the degree of Bachelors of Science in Computer Sciences.

**Supervisor**                                      **External Examiner**

**Mr. Umar Daraz**                          Name: _____

Lecturer                                         Designation:_____

Department of Computer Science          Signature:_____

_____          _____

**Head of Department**

  Dr. Shafiq Husain

  Associate Professor

Department of Computer Science

_____

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# CHAPTER # 1
# INTRODUCTION

## 1.1 Overview

The modern world is surrounded by the technology and internet is the biggest invention of the world which is a worldwide system of computer networks. In the network users at any computer can communicate with the other if they have permission to get information from any other computer. Today hundreds of millions of people worldwide are using internet and most widely used part of the internet is the World Wide Web (www). It is basically a system of internet servers that support specially formatted documents which is formatted in a markup language called Hyper Text Markup Language (HTML) that supports links to other documents, as well as graphics, audio, and video files. Web page is a document commonly written in Hyper Text Markup Language (HTML) that is accessible through the internet or other network using an internet browser by entering a URL address and many contain text, graphics and hyperlinks to other web pages and files. A website contains thousands of different pages including the web pages. The people can access the website in any places using the internet. So that the businessman and consumers are selling, showing, marketing their products making the attractive website and deliver the products as early as possible. Any type of business or commercial transactions that involves the transfer of information across the internet is called Electronic Commerce or ecommerce. It allows consumers to electrically exchange goods and services with no barriers of time or distance.

## 1.2 Purpose and Motivation

The main objective of this project is to create Universities Portal that allows students to visit my website and see details of Latest Admissions, Top Ranked Universities, and Universities Careers and also see universities Events.
We display all Punjab universities details such as university name, city, program, degree, duration, fee, latest admission details, latest universities careers and events. The Administrator will have additional functionalities when compared to the common user.

The motivation to create this project has many sources -

- Interest to develop a good user friendly website with using a database.
- To increase my knowledge horizon in technologies like PHP (Laravel), SQL, CSS, HTML, Bootstrap, JavaScript.
- To reduce time consumption, labor requirements.

## 1.3 Project Overview

Student has some specific knowledge about their domain. They don't know best field according to their interest and study. In Pakistan students face many problems in choosing their domain according to their interest. They have poor knowledge about their specific field. For example, if a student does FSC (pre-medical) he/she don't know about any other domain except M.B.B.S. No one provide them such kind of information. Even he/she face problems related institutes that which institutes are offering programs related to his specific domain. "Universities Portal" is domain finding website. Basically, we are going to design this web site to overcome the problem of students to selecting their domain. After intermediate most of students do not know what they will do. They do not know which domain is related to their education. So basically, our main object of this project is to provide very basic information to students that have completed their intermediate. The user or student can login using his account details or new user can set up an account very quickly. They should give the details of their name, contact number and E-mail Address.

This project has the following functionalities:

- **A Home page with Programs and institutes**

  This is the page where the user will be navigated after a successful login. In this section we provide all details of all Institutes of Punjab. We display different programs such as Engineering, Agriculture, medicals, and IT etc.
  .

- **Search**

  A search by keyword option is provided to the user using a textbox. The keyword to be entered should be the Program title. If the user would like to know details about a degree, he can click on the program or the image from where he will be directed to a degree description page.

- **Comment**

  The user can comment if they will find any problem. The admin will try to solve their problem**. First of all, we check if user is authenticated then it will be going to leave comment otherwise not leave comment.**

- **Latest Admissions**

  In this section we provide of all latest admissions detail of all Punjab institutes. We put also type of admission such as fall or spring admissions of any institute.

- **Managing user accounts**

  Each user should have an account to access all the functionalities of website. User can login using login page and logout using the logout page. All the user sessions will be saved in the database.

- **Administration**

  The Administrator will be provided with special functionalities like

  - Add or delete and edit institute.

  - Add or delete   programs.

  - Add or delete and edit a member.

  - Add or delete and edit latest admission.

  - Manage events.

  - Add or delete and edit career.

## 1.4 Objective of the project:

**All Punjab Universities Portal focuses** precisely on the following objectives:

- To enable administrator to access the system from anywhere.

- provide facility to find right career domain.

- Provide basic information of Punjab institutes such as name, city, fee, program etc.

- Provide all latest admissions detail.

- To reduce data redundancy and pruning ambiguous data.

- To process data in possibly least amount of time.

## 1.5 Functional Requirements

My system will provide functionalities:

- System administrator
- Users:
  - ➢ Guest user
  - ➢ Registered user.

### 1.5.1 Functional Requirements administrator:

- System administrator will have user friendly asynchronous GUI (Graphical User Interface) system.
- Can be accessed from anywhere of the world.

### 1.5.2 Functional Requirements registered user

- User can see all Punjab universities detail easily from this site only by registering.
- Registered User can only write comment.
- User can easily access this website

### 1.5.3 Functional Requirements Guest user

- Users can show all information of Institutes.
- User can also see details of latest admissions from this website.
- Users can read review about careers and events.
- Users can complain about the website.
- Users can contact with  admin.

### 1.5.3 Non-Functional Requirements

Non-functional requirements are the constraints or checks on the services and functions provided by an application such as constraints on the development standards/process and constraints of time etc.

- Non-Functional requirements of CCW are as follows:
- Application shall provide better response and performance. It shall take initial load time depending on internet connection strength.
- Application must be efficient.
- Application must be user interactive.
- Application must be secure by using different standard authentication.

### 1.6 Tools and Technique

- **Hardware Details**

  No Hardware Require except laptop/tablet/phones.

  Normal Internet Connection

- **Software Details**

  Visual Studio Code

  My SQL

  Xampp server

# CHAPTER #2

## TECHNOLOGY REVIEW& METHODOLOGY

## 2.1 Application Quality Attributes

### 2.1.1 Availability

Application must be responsive and available at every time.

Availability of high speed internet connection is the major requirement of the application.

### 2.1.2 Maintainability

Making changes or upgradeability in the site will not be that much difficult. By having some knowledge of programming, some features of the application might be converted to a new version.

### 2.1.3 Consistency

When an administrator is updating information consistency must hold there.

Consistency in database systems refers to the requirement that any given database transaction must change affected data only in allowed ways.

## 2.2  Use Cases:

An important part of the analysis phase is to drawing the diagrams of Use cases. They are used through the phase of analysis of a project to find and divide functionality of the application. Application is separated into actors and use cases.

Actors play the role that is played by the application users. Use cases define the application behavior when one of the actors sends any particular motivation. This type of behavior can be described by text. It describes the motivation nature that activates use case, the inputs and outputs to some other actors and the behavior of conversion of inputs to the outputs. Usually the use case describes everything that can go wrong during the detailed behavior and what will be helpful action taken by the application.

Some of the use cases are as follows:

### 2.2.1 UC1:Login

**Actor:** User
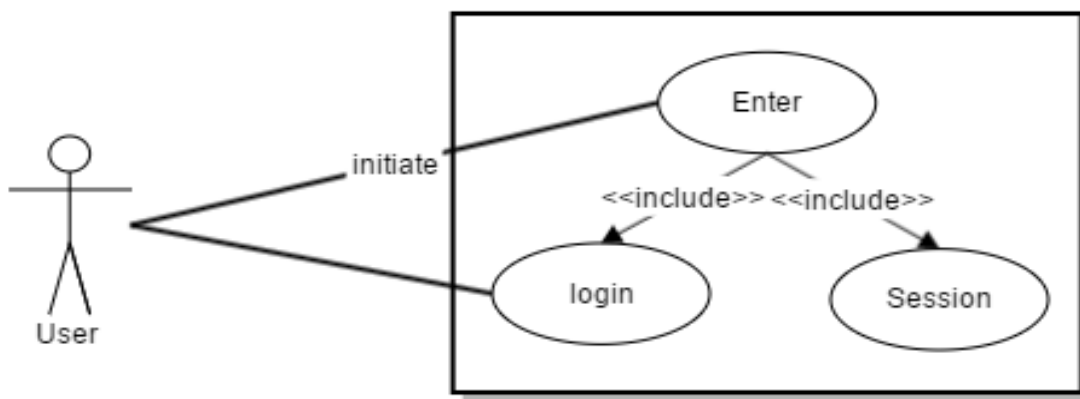


Figure **Error! No text of specified style in document.**.1: Login (use case)

## Pre-Condition:

1. For the member, he/she must have registered already in application by the administrator.
2. User must enter correct Email address and password for login.

## 2.2.2 UC2: Register Member

**Actor:** Administrator
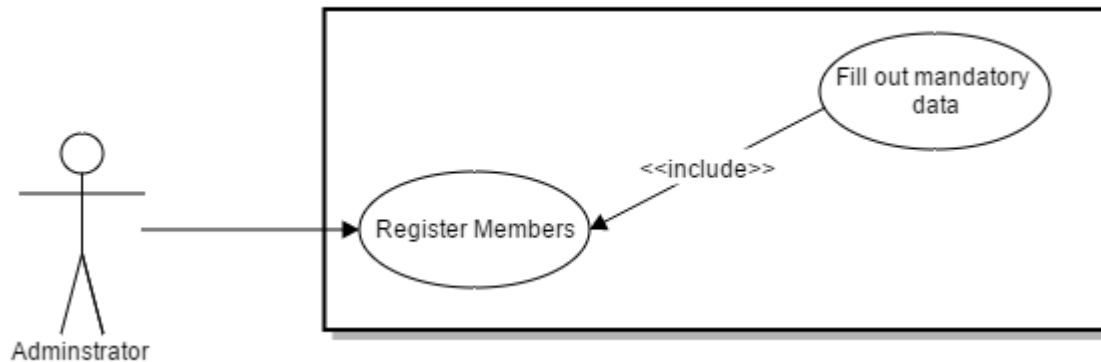


Figure **Error! No text of specified style in document.**.2: Register Member (use case)

## Pre-Condition:

1. UC1
2. The administrator must provide complete mandatory details of a member.

## Post-Condition:

1. User Account should be created successfully.
2. Member particular folder is created in project directory.

## Non-Functional Requirements:

1. Better response
2. Robustness
3. Reliable

### 2.2.3 UC3: Manage members

**Actor:** Administrator
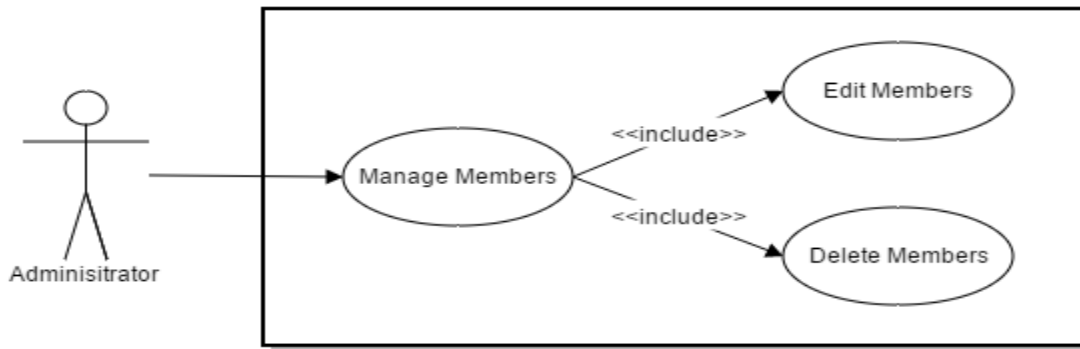


Figure **Error! No text of specified style in document.**.3: Manage Members (Use Case)

## Pre-Condition:

1. UC1 & UC2
2. The member's detail is required.

## Post-Condition:

1. The member information should be edited and deleted.

## Non-Functional Requirements:

1. Better response
2. Easy to use
3. Secure
4. Availability
5. Short response time.

## 2.2.4 UC4: Logout

**Actor:** User
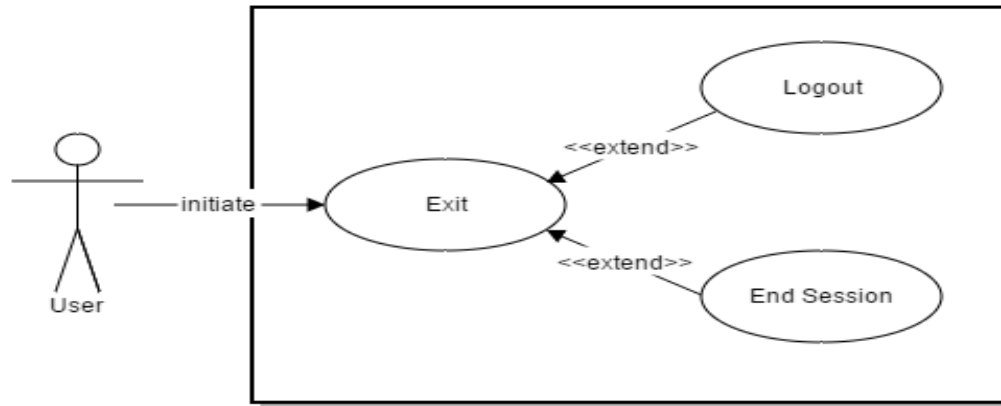


Figure **Error! No text of specified style in document.**.4: Logout (Use Case)

## Pre-Condition:

    1. UC1

## Post-Condition:

1. Main page displayed to the user.

## Basic Path:

1. The member can perform activities with or without login.
2. Click the logout for logging out.
3. Clicks on logout to close the connection with the application and application move the user towards main page of the application for login again if he/she wants to.

## NON-FUNCTIONAL REQUIREMENTS:

1. Secure
2. Reliable
3. Better performance
4. Short Response Time

## 2.2 Methodology:

Various inconsistencies and mismanagement of several **All Punjab Universities Portal** are detected after the case study and my findings. By analyzing the finding and the demand of people I have tried to remove those inconsistencies and security hazard in my system. Based on my findings and report I will implement the following functionalities to ablate the drawbacks of existing system.

## 2.2.1 Developing the crucial functionalities:

This will include the development and fertilize the administration part of my project which will include add user, edit user, add institute, edit institute ,delete and so on.

## 2.2.2 Facilitating the user for allowing them access in the system:

In my next phase I will develop the panel for user so that this will enable them to choose category anytime from anywhere with detail information .This functionality will be a major one because most of the user wants to know every detail of the institute details.

## 2.2.3 Developing the report generation and analytical functionalities:

Sometimes it is boring to search for information of any institutes. In the system as the chronological information are not stored in one place. So, to get rid of this monotonous task, I will develop functionality for my system that will generate a search option from where a user can search for institutes like for her / him.

## 2.2.4 Use of waterfall method:
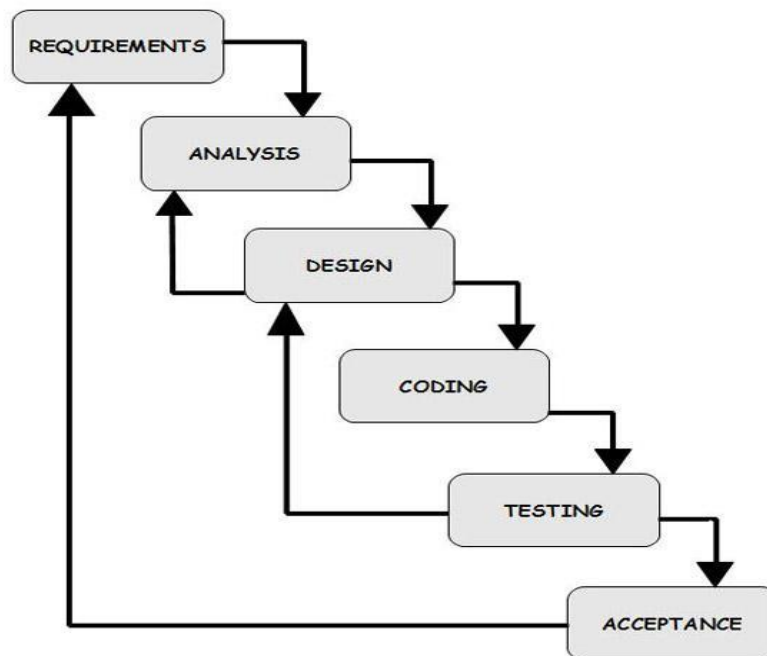


The methodology I will use to develop the **OTBMS** is waterfall model. Waterfall model is one of the system development life cycle (SDLC) models. Users proceed to next phase

if and only if current phase is complete. Users are not allowed to go back to previous phases if there is any mistake so the model is named after **waterfall** model.

In Royce's original waterfall model, the waterfall model originally consists of **seven phases** which are ___

- Requirement specification
- Design
- Construction
- Integration
- Testing
- Debugging
- Installation and
- Maintenance


**Requirement Analysis and Definition:**

All possible requirements of the system to be developed are stated in this phase. Requirements are a set of functions and constraints that the end user expects from the system. The requirements are gathered from the end user, and are analyzed for their validity and the possibility of incorporating them. Finally, a requirement specification document is created which serves the purpose of a guideline for the next phase of the model.

**System and Software Design:**

Before starting the actual coding phase, it is highly important to understand the requirements of the end user and also have an idea of how the end product should look like. The requirement specifications from the first phase are studied here, and a system design is prepared. The design helps in specifying hardware and system requirements,

And also helps in defining the overall system architecture. The system design specifications serve as an input for the next phase of the model.

**Implementation and Unit Testing**:

On receiving system design documents, the work is divided in modules/units and actual coding starts. The system is first elaborated into small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality; this is referred to as unit testing. Unit testing mainly verifies if the modules/units meet their specifications.

**Integration and System Testing:**

The units are now integrated to form a complete system during the integration phase and tested to check if all modules/units coordinate with each other and the system as a whole behaves as per the specifications. After successfully testing the software, it is delivered to the user.

**Installation and Deployment:**

The software is now applied by the user to his/her own system(s). What the user's needs to take care of is his system complying with the minimum system requirements of the software. He also needs to take care of any system configurations and reconfigurations on his side of the deal. Once the software is properly installed, he will begin communication with the dealers on a need-to-know basis, and help report any bugs that occur.

**Operations & Maintenance:**

This phase of the model is virtually never-ending. Generally, problems with the system (which are not found during the development cycle) come up after its practical use starts, so the issues related to the system are solved after its deployment. Not all the problems come into picture directly, but they arise from time to time and need to be solved; hence this process is referred.

## 2.2.5 Adopted Methodology

Incremental model is used to develop this project, in which we divided our work in multiple modules. All these modules are further divided into more easily managed modules which made up the actual implementation of the requirements.

Reason behind using this model is:

- It is easy to test and debug the product during iterations.

- Software released in increments over time is more likely to satisfy changing user requirements than if it were planned as a single overall release at the end of the same period.

- Generates working software quickly and early during the software life cycle.

- This model is more flexible – less costly to change scope and requirements.

- It is easier to test and debug during a smaller iteration.

- In this model customer can respond to each built.

- Lowers initial delivery cost.

- Easier to manage risk because risky pieces are identified and handled during it'd iteration.
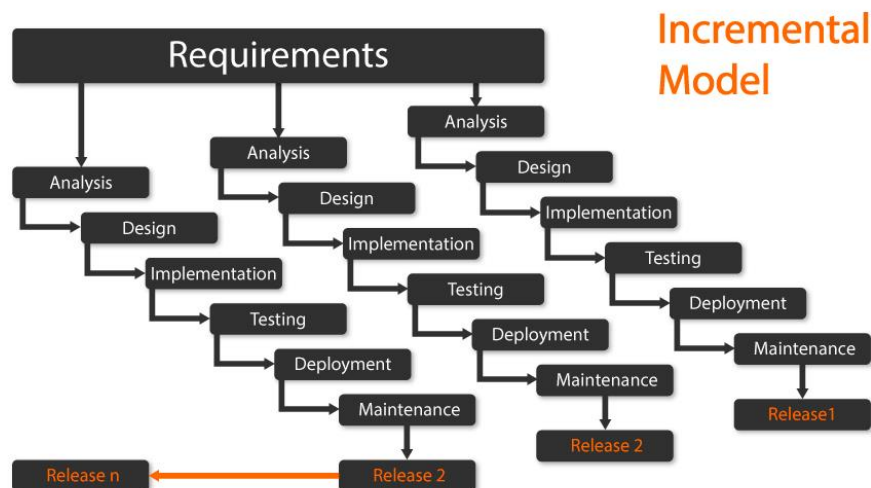


Figure : Adopted Methodology

# CHAPTER 3
# SYSTEM ANALYSIS

**Systems analysis** is the study of sets of interacting entities. According to the Merriam-Webster dictionary, systems analysis is "the process of studying a procedure in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way". Analysis and synthesis, as scientific methods, always go hand in hand; they complement one another. Every synthesis is built upon the results of a preceding analysis, and every analysis requires a subsequent synthesis in order to verify and correct its results.

## 3.1 Schema:

Pronounce *skee-ma,* the structure of a database system, described in a formal language supported by the database management system (DBMS). In a relational database, the schema defines the tables, the fields in each table, and the relationships between fields and tables.

Schemas are generally stored in a data dictionary. Although a schema is defined in text database language, the term is often used to refer to a graphical depiction of the database structure.

## 3.2 Primary Key:

A primary key, also called a primary keyword, is a key in a relational database that is unique for each record.

## 3.3 Foreign Key:

A foreign key is a column or group of columns in a relational database table that provides a link between data in two tables. It acts as a cross-reference between tables because it references the primary key of another table, thereby establishing a link between them.

## 3.4 Data Dictionary:

A data dictionary is a collection of descriptions of the data objects or items in a data model for the benefit of programmers and others who need to refer to them. A first step in analyzing a system of object with which users interact is to identify each object and its relationship to other objects. This process is called data modeling and results in a picture of object relationships. After each data object or item is given a descriptive name, its relationship is described (or it becomes part of some structure that implicitly describes relationship), the type of data (such as text or image or binary value) is described, possible predefined values are listed, and a brief textual description is provided. This collection can be organized for reference into a institute called a data dictionary.

➢ In order to manage the details in large-scale systems.
➢ Most systems are ongoing and dynamic and management of all the descriptive details is difficult, therefore an accurate and consistent recording technique is essential.
➢ To communicate a common meaning for all of the elements in the system.
➢ Simply making sure that for all elements, the meaning will remain consistent.
➢ To document features of the system.
➢ It is essential to document the circumstances under which data items occur.
➢ To locate errors and omissions in the system.
➢ The data dictionary may reveal information that is incomplete and/or inaccurate. It may show stores that are never accessed and/or processes that should be sub-divided, etc.

## 3.5 Description of data objects in database table:-

### Table 1: Table Structure of users

| Field | Type | Null | Key | Description |
|---|---|---|---|---|
| **Id** | Int | No | Primary key | User id |
| **name** | Varchar (30) | No | | User name |
| **email** | Varchar (100) | No Yes | | User Email Id |
| **Password** | Varchar (255) | | | User password |
| **role_id** | int (30) | No | | User Role |
| **created at** | Timestamp | No | | User Upload data |
| **Updated at** | Timestamp | No | | Admin update Data |

**Table 2: Table structure of Program**

| Field | Type | Null | Key |
|---|---|---|---|
| ID | Int | No | Primary |
| Program_Name | varchar(50) | No | |
| Description | varchar(250) | No | |
| Url_Wikipedia | Varchar(50) | No | |
| created at | timestamp | No | |
| Update at | timestamp | No | |

**Table 6: Table Structure of Institutes**

| Field | Type | Null | Key | Description |
|-------|------|------|-----|-------------|
| Id | Int | No | Primary key | Id |
| Name | Int | No | | **Name** |
| City | Varchar(50) | No | | **City** |
| Fee | Double | No | | Fee |
| Degree | Double | No | | Degree |
| Imag_Url | Varchar(50) | No | | Imag_Url |
| Duration | Varchar(50) | No | | Duration |
| Pro_Name | Varchar(50) | No | | Pro_Name |
| Description | Varchar(50) | No | | Description |

**Table 7: Table Structure of Latest Admission**

| Field | Type | Null | Key | Description |
|---|---|---|---|---|
| id | Int | No | Primary key | Id |
| Name | Int | No | | Name |
| Uni_Img | Varchar | no | | Uni_Img |
| Admission_img | Int | No | | Admission_img |
| Type | Varchar | No | | Type |
| Admission Start Date | Int | No | | Admission Start Date |
| Admission End Date | Int | No | | Admission End Date |
| Description | Varchar | No | | Description |
| URL | Varchar | No | | URL |



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## Table 8: Table Structure of Top Institutes

| Field | Type | Null | Key | Description |
|---|---|---|---|---|
| Id | Int | No | Primary key | Id |
| Pak_ranked | Varchar(50) | No | | Pak_ranked |
| world_ranked | Varchar(100) | No | | world_ranked |
| Name | Varchar(150) | No | | Name |
| URl | Varchar(50) | No | | URl |

**3.6 Entity Relationship Diagram (E-R diagram):**

An entity-relationship (ER) diagram is a specialized graphic that illustrates there relationships between entities in a database. ER diagrams often use symbols to represent three different types of information. Boxes are commonly used to represent entities. Diamonds are normally used to represent relationships and ovals are used to represent attributes.

The attributes of ER Diagram are:

- Entities
- Relationships
- Attributes

# All Punjab University Portal
## (ER-Diagram)
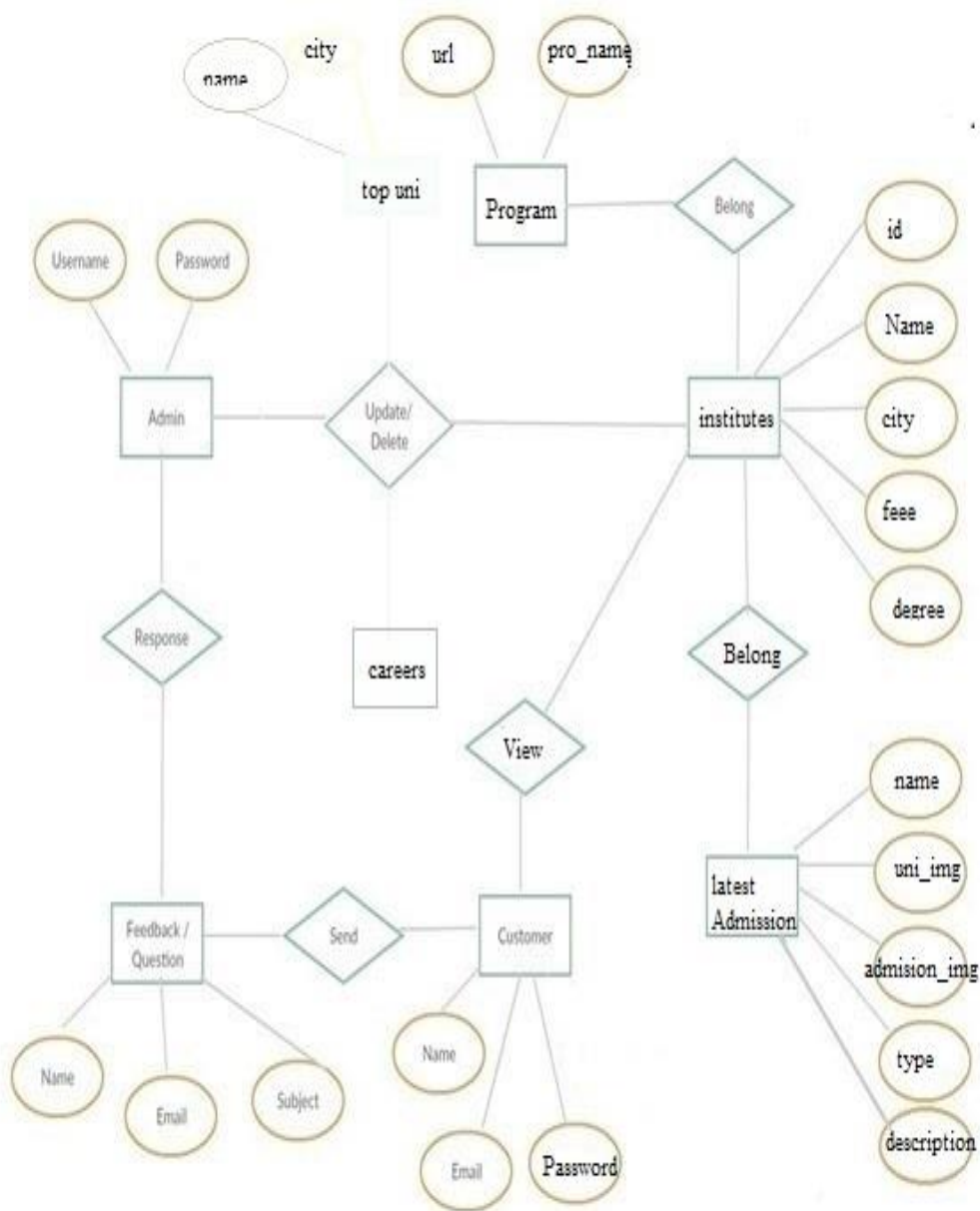
# 3.7 Activity Diagram

Activity diagrams are graphical representations of <u>workflows</u> of stepwise activities and actions [1] with support for choice, iteration and concurrency. In the <u>Unified Modeling Language</u>, activity diagrams are intended to model both computational and organizational processes (i.e., workflows), as well as the data flows intersecting with the related activities.

### 3.7.1  Log in (user):
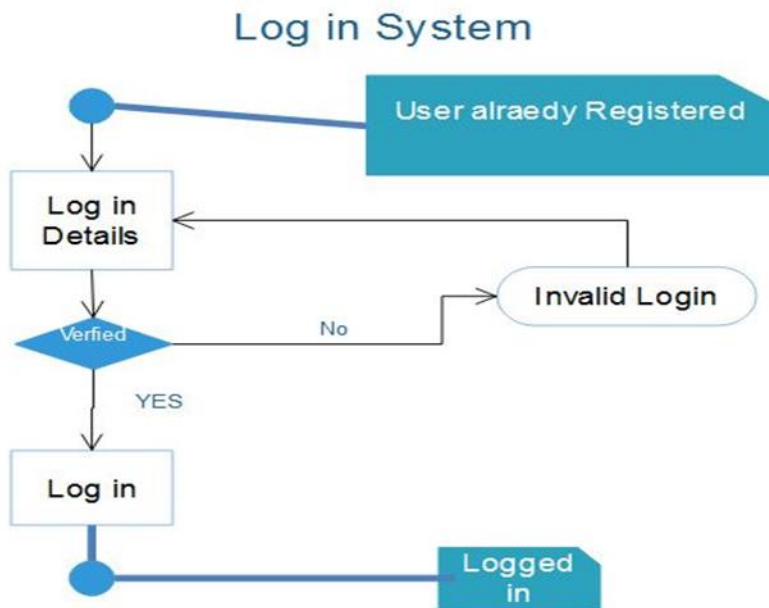
## 3.8  Data flow diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through
an information system, modeling its process aspects. A DFD is often used as a preliminary step
to create an overview of the system without going into great detail, which can later be elaborated.
DFDs can also be used for the visualization of data processing,

## *3*.8.1 Data flow diagram



Flow Diagram
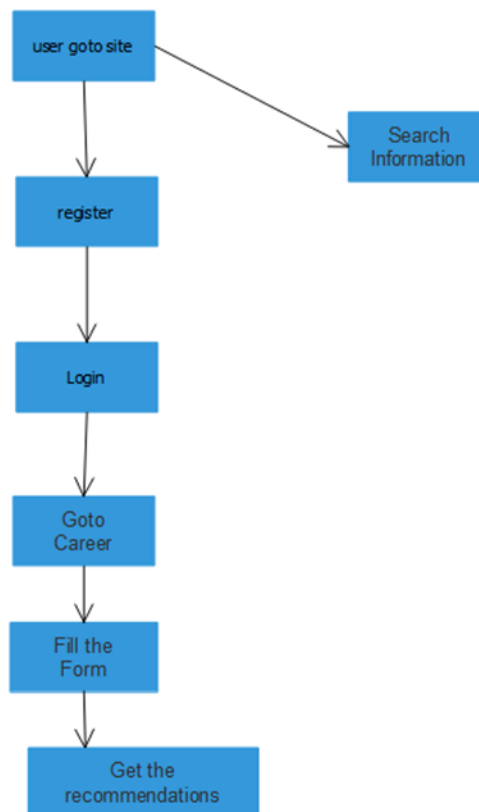
## 3.9 Sequence Diagram :

Sequence diagram uses concept of a Message-Sequence-Chart. It shows interactions of objects in a sequence of time. It shows the classes and objects involved in the scenario and the message sequence between the objects which is desired to carry out the functionality of a given scenario. Sequence diagrams are usually related with the understanding of use case in the logical View of the system which is under development. "Sequence diagrams are sometimes called event diagrams, timing diagrams, event scenarios".

A parallel vertical line on sequence diagram is called lifeline. Different objects or processes that live simultaneously, and, on horizontal arrows, the messages exchanged, in the order in which processes occur. This allows some specification of some simple runtime scenarios in a graphical pattern.

## 3.9.1 Sequence Diagram:
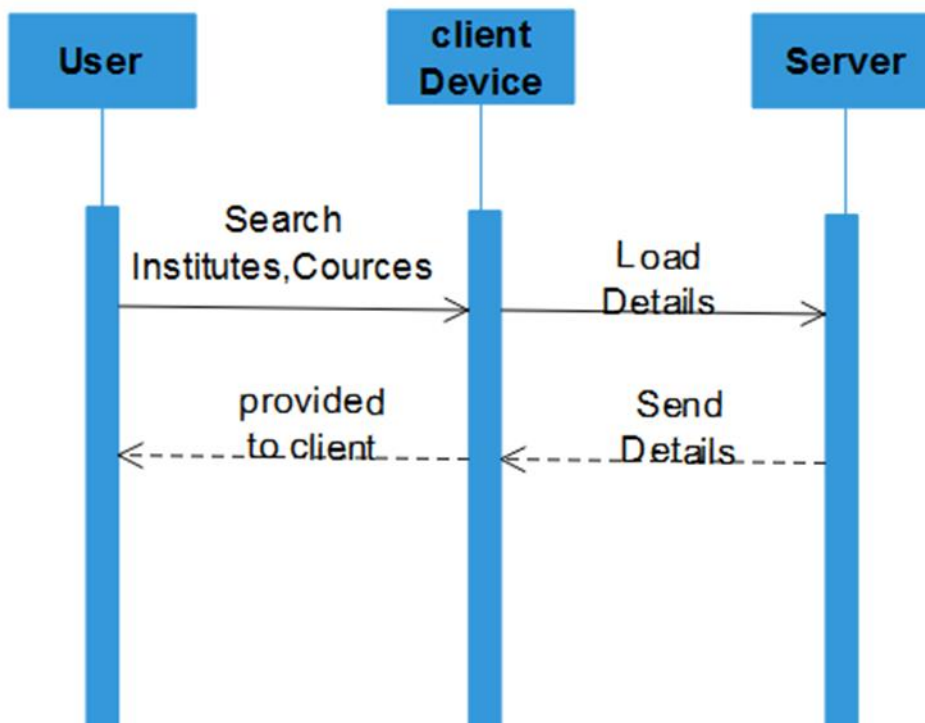


Figure **Error! No text of specified style in document.**.5: Sequence Diagram (search data)

## 3.9.2 Sequence diagram (fields recommendation)



User      Client Device      Server

UserName password → Confirm Details

Log in Status ← Boolean

Tap on Career → Load Form

Display Form ← Return Form

Fill and Submit Form → Check Details

User See ← Recomend
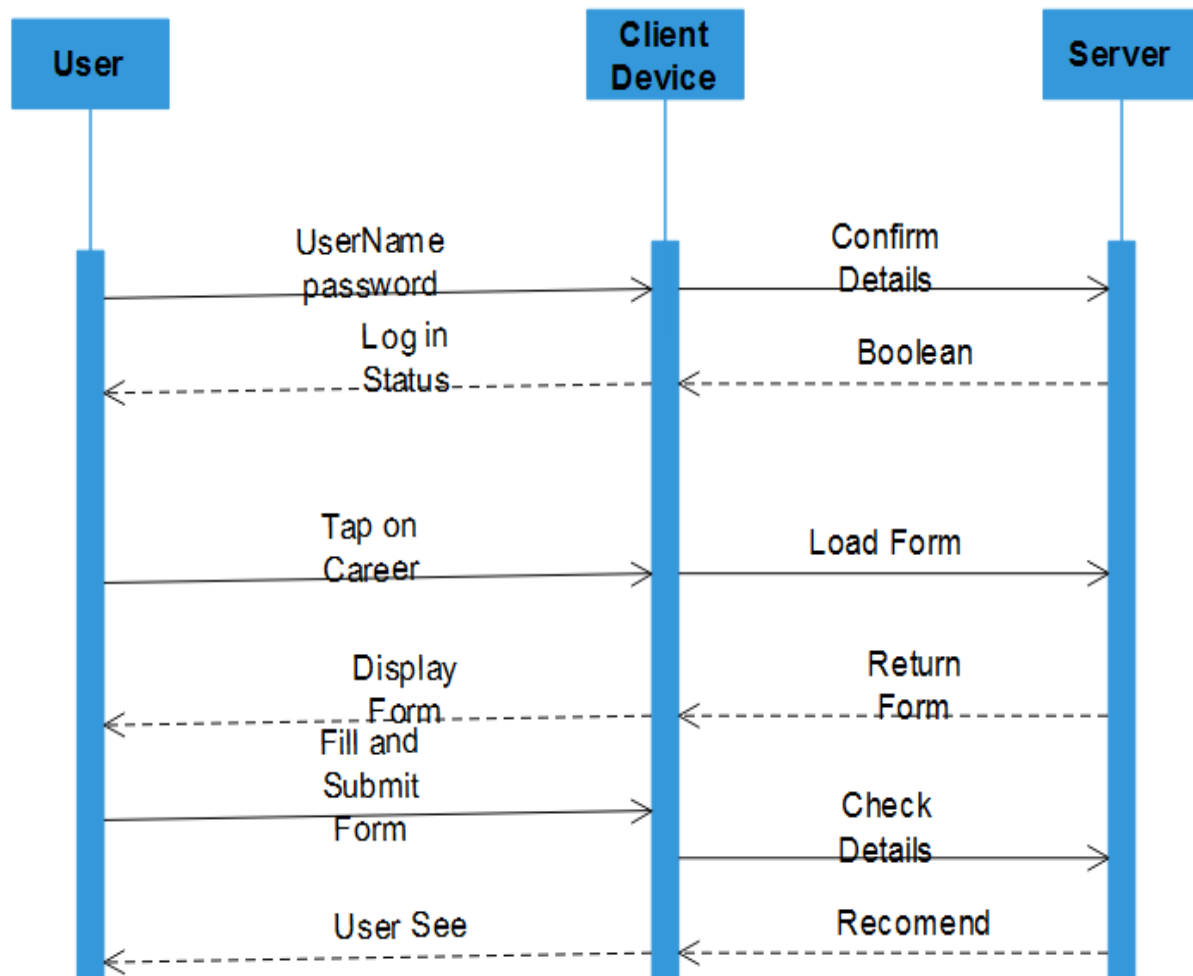
## 3.10    U<u>se Case Diagram</u>

Use case diagrams consists of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system.

In UML, there are five diagrams available to model the dynamic nature and use case diagram is one of them. Now as we have to discuss that the use case diagram is dynamic in nature, there should be some internal or external factors for making the interaction.

These internal and external agents are known as actors

**Purpose Of Use Case Diagram:**

The purposes of use case diagrams can be said to be as follows −

- Used to gather the requirements of a system.

- Used to get an outside view of a system.

- Identify the external and internal factors influencing the system.

- Show the interaction among the requirements are actors.

**Use case diagrams can be used for :**
- Requirement analysis and high level design.
- Model the context of a system.
- Reverse engineering.
- Forward engineering.

### 3.10.1 Use Case Diagram



All Punjab Uni's Portal

(Use Case Diagram)

Search

Browse

Select the Institute

View Institute detailes

Customer

Institute

View programs Details

Message

Profile

Register

Login/ Logout

View

Add Institute

Delete Institute

Add Program

Admin

Manage User Detailes

Delete Program
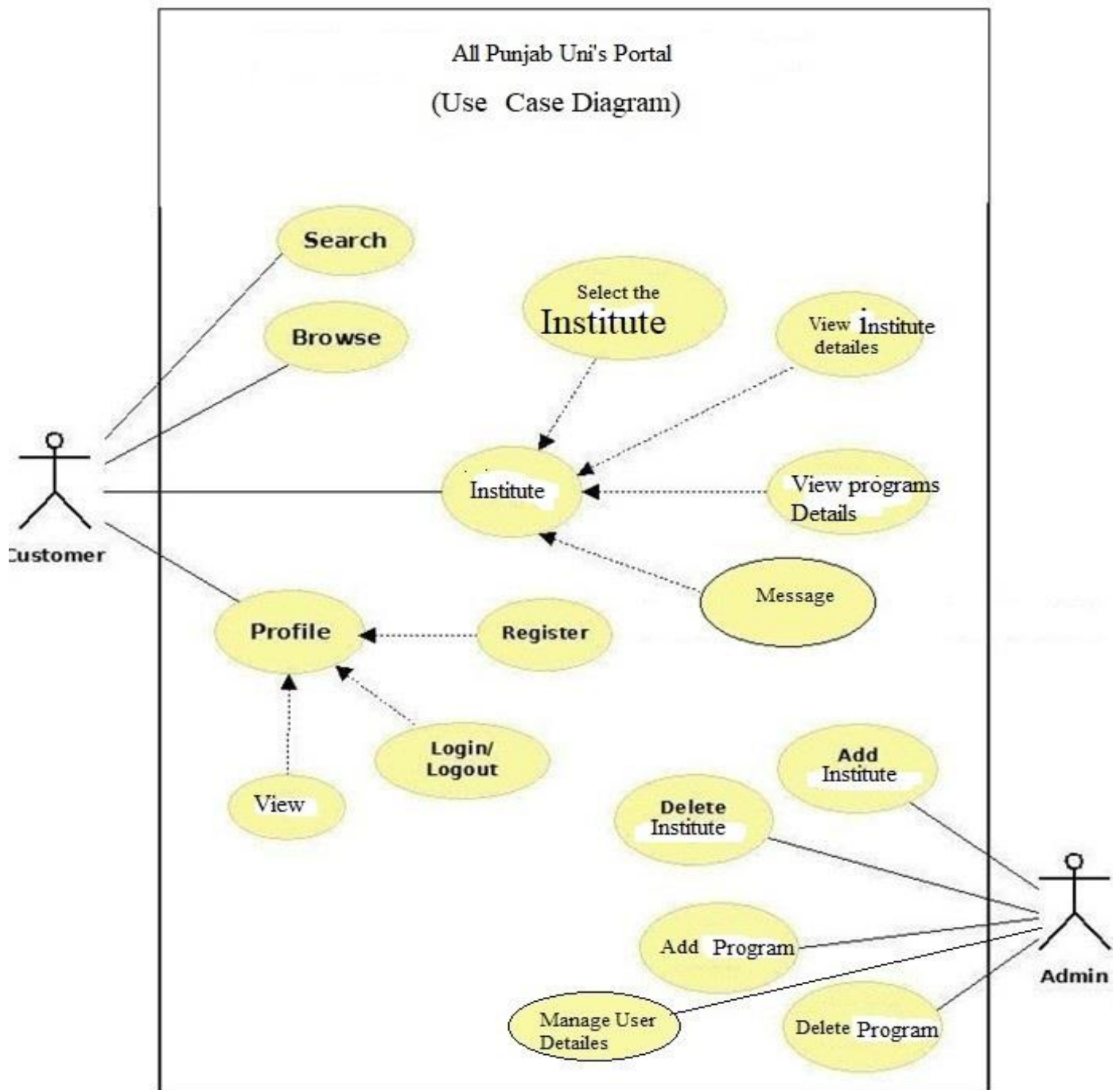
## 3.11 Class Diagram:

The class diagram is the main building block of object direct modeling. It is used both for general conceptual modeling of the systematic of an application, and for detailed modeling translating the models into programming. Class diagrams can also be used for data modeling.

The classes in a class diagram represent both the main objects and or interactions in the application and the objects.

In the class diagram these classes are represented with boxes which contain three parts

- The upper part of holds the name of the class
- Next one holds the parameters of the class
  - Last one holds the methods of the class

The purpose of the class diagram can be summarized as −

- Analysis and design of the static view of an application.

- Describe responsibilities of a system.

- Base for component and deployment diagrams.

- Forward and reverse engineering.

### 3.11 .1 Class Diagram:
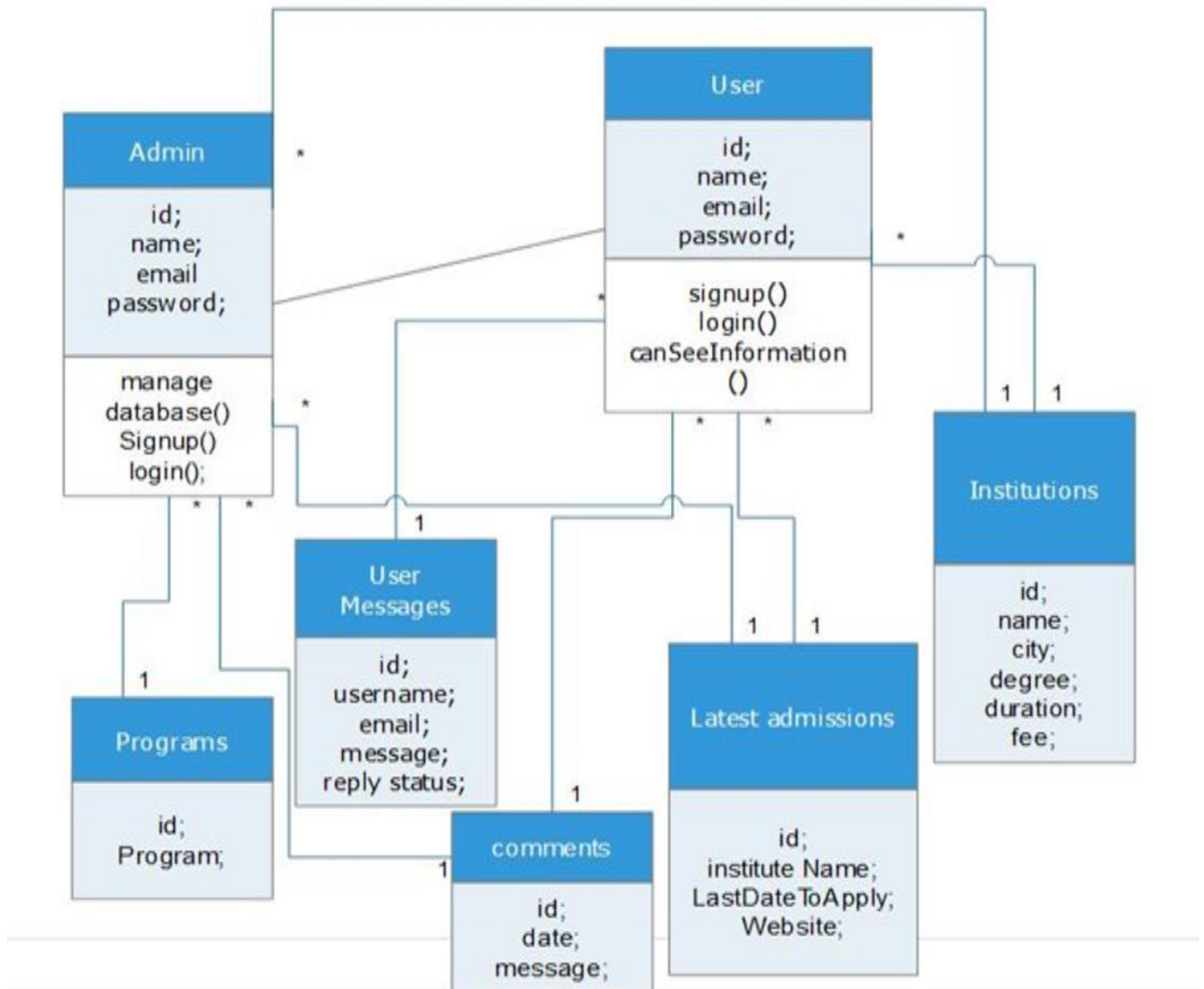
## 3.11  Planning & Scheduling

## 3.11 Gantt chart

A Gantt chart is a scheduling technique that is used commonly in project management. It is one of the useful and common ways of representation of activities displayed in contrast to time. On the vertical side of the chart activities list is displayed and on the top a time scale which is appropriate. A bar represents each activity's length and also shows the start date, end date and duration of the activity. This shows following information.

- "What the different activities are?"
- "When an activity starts and ends?"
- "How much long each activity is scheduled to finish?"
- "The start and finish date of the whole project.

# Key Milestones of the Project with dates

**Table** Error! No text of specified style in document.**-1: Project Plan & Key Milestones**

| Key Milestones of the Project with dates | | | |
|---|---|---|---|
| S. No | Elapsed time since start of the project | Milestone | Deliverable |
| 1. | 1 Month (September 11,2019- October 11,2019) | Analysis & Requirements | Complete Research Proposal |
| 2. | 1 Month (October 12,2019 -November 18,2020) | Planning, scheduling and purchase of hardware | Report |
| 3. | 1 month (November 19,2019-december 9,2019) | Modeling & design | Report |
| 4. | 2 month (December 10,2019- February 10,2020) | Coding & testing | Software System |
| 5. | April  15,2020 | Deployment | Hardware & Software System |

# CHAPTER 4

# GRAPHICAL USER INTERFACE

This chapter will show the Graphical User Interface (GUI) of the system through screenshots and user guides that how will they operate the system.

## 4.1.1 Home *Page* :

## *4.1.2 Registering Users:*

All Punjab Uni Portal

Login  Register
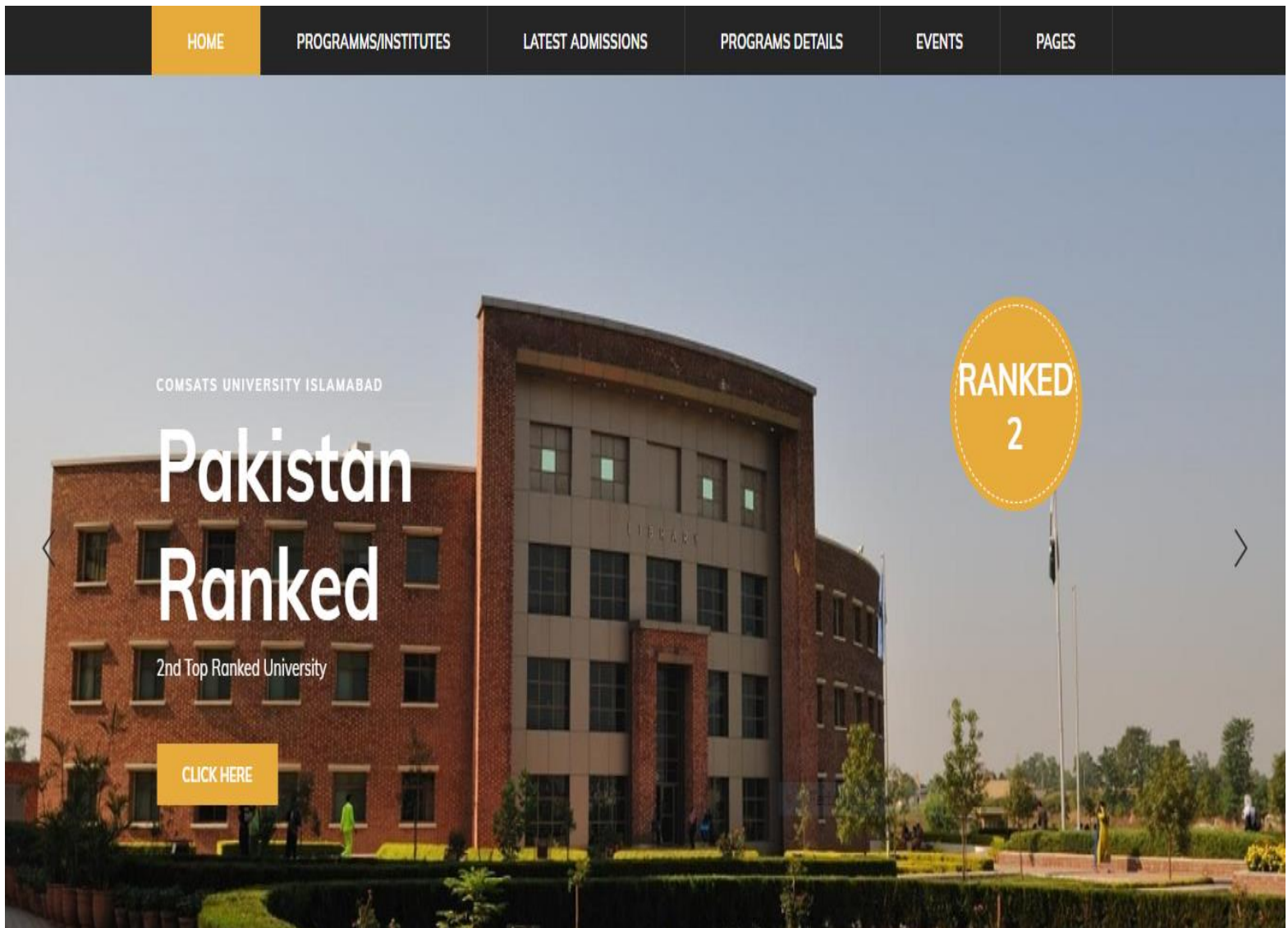
Register

Name

E-Mail Address

Password

Confirm Password

Register

## 4.1.3 Latest Admissions View



Latest Admissions

**Name:** COMSATS University Islamabad

**Admission:** Fall

**Open Date:** 2020-07-07

**Name:** University of Sahiwal

**Admission:** Fall

**Open Date:** 2020-06-07

**Last Date:** 2020-09-30

## *4.1.4 Events View*

## 4.1.5 Careers View

# Creers Details

Institute Name: COMSATS University

## POSITIONS VACANT

COMSATS University Islamabad (CUI) invites applications from interested candidates for the following positions at its Attock, Vehari, Wah, Lahore, Abbottabad, Sahiwal, Virtual and Islamabad campuses (Open Merit):

| S. No. | Position | Faculty Positions of Attock Campus (Area of Specialization) |
|---|---|---|
| 1 | Professor (TTS) | • **Electrical & Computer Engineering** -Electrical/Computer/Electronics (1)<br>• **Computer Science** (1) |
| 2 | Associate Professor (TTS) | • **Electrical & Computer Engineering**- Electrical Engineering (2)<br>• Computer Engineering (1) • **Computer Science** (1) • **Mathematics** (1)<br>• **Management Science** (1) |
| 3 | Assistant Professor (TTS) | • **Management Science**-Project Management(1) • **Electrical & Computer Engineering** - Power (1) • **Computer Science** -Software Engineering (1) |
| 4 | Lecturer (OG-I) | • **Computer Science**-Compiler Contraction/ Software Construction/ Formal Methods in Software Engineering/Computer Organization & Assembly |

## *4.1.6 Top institutes view*



Top Rank Uni In Pakistan

📅 Pakistan Ranked  💬 1

Quaid e Azam University is top Ranked in pakistan Number1 and Over all the World in 400

📅 Pakistan Ranked  💬 2

COMSATS University Islamabad is top Ranked in pakistan Number2 and Over all the World in 401-600

📅 Pakistan Ranked  💬 3

International Islamic University, Islamabad is top Ranked in pakistan Number3 and Over all the World in 800-1000

### *4.1.7 Programs View*

# *4.1.8 Comments of users:*

## *4.2 Admin login page*

All Punjab Uni Portal                                                                            Login   Register
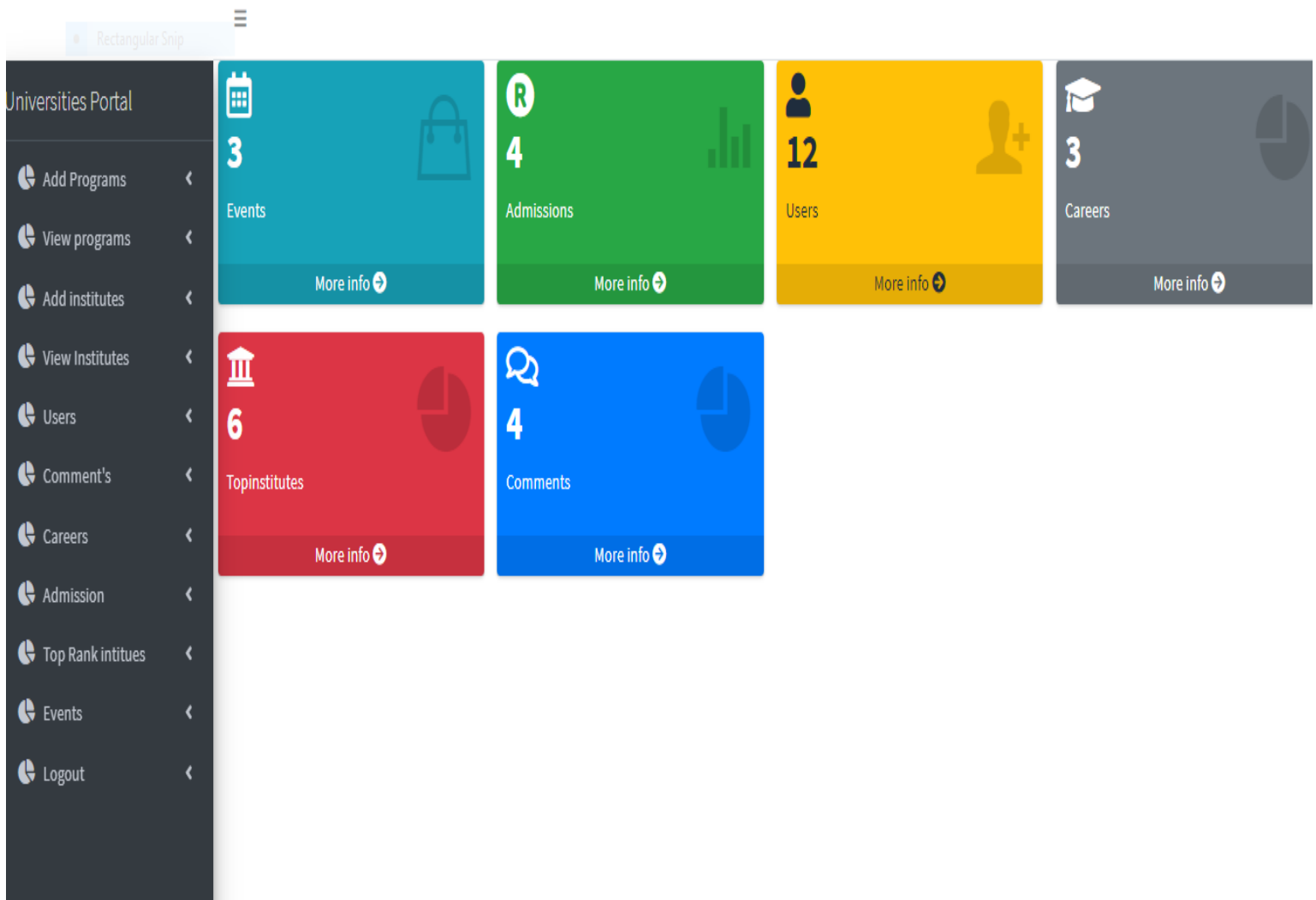
| Login |
| --- |

E-Mail Address

Password

☐ Remember Me

Login   Forgot Your Password?

## 4.2.1 Admin home page

## 4.2.2: Admin Institutes Page

**Universities Portal**

- Add Programs
- View programs
- Add institutes
- View Institutes
- Users
- Comment's
- Careers
- Admission
- Top Rank intitues
- Events
- Logout

### Cs and It Institutes Table

| Id | Name | City | Fee | Degree | Duration | Image Url | Program | description | Operation |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Uosahiwal | sahiwal | 230066 | Bachler of Computer Science | 4 year | | Computer Science | University of sahiwal is an institution of higher education and research, which awards academic degrees in various academic disciplines. Universities typically provide undergraduate education and postgraduate education | |
| 2 | University of Sahiwal | sahiwal | 4500000 | Bachelor of Information Technology | 4 year | | Information Technology | University of sahiwal is an institution of higher education and research, which awards academic degrees in various academic disciplines. Universities typically provide undergraduate education and postgraduate education | |
| 3 | COMSATS University Islamabad | Islamabad | 4500000 | Bachelor of software engeenring | 4 year | | Software Engeenring | Comsats University is an institution of higher education and research, which awards academic degrees in various academic disciplines. Universities typically provide undergraduate education and | |

# CHAPTER 5
TESTING

This chapter describes to develop a test plan for the Online Institute Store design system. This document defines all the procedures and activities required to prepare for testing of the functionalities of the system which are specified in Vision document. The objectives of the test plan are to define the activities to perform testing, define the test deliverables documents and to identify the various risks and contingencies involved in testing.

## 5.1 Featured to be tested

The following list describes the features to be tested:

**USER:**

- Registration
- Login
- Visit Website

**ADMIN:**

- Create and Delete institute Institutes
- Create and Delete programs
- Create and Delete latest admissions
- Create and Delete careers
- Manage events
- Manage Members

## 5.2 Test cases

### 4.2.1 User Registration

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| U_reg_1 | User Registration | User selects already existing Email address. | Display message to choose different email address |
| U_reg_2 | User Registration | User enters different password in password confirm field | Display message that Password and Confirm Password fields don't Match |
| U_reg_3 | User Registration | User forgets to enter a particular required fields | Display message The value in field is Required |
| U_reg_4 | User Registration | User enters all the details Successfully | User account created |

### 5.2.2 Login

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| U_log_1 | User login | User enters wrong email address | Display message to Login or wrong email |
| U_log_2 | User login | User enter wrong password | Display message to message or wrong Password |
| U_log_3 | User login | User enters correct email address and password | User logs in successfully |

## User Details Program:

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| U_ Details Program_1 | View Details | View Details | User  Successfully  View Details |
| U_Program_2 | Edit/Delete | Admin Edit/Delete Program | Edit/Delete program Successfully |

*User Details*
*Institutes:*

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| U_EC_1 | Edit institutes | see  institutes details | Successfully see  details Of institutes |
| U_EC_2 | Edit institutes | User complete details of institutes | Successfully see details Of institutes |
|  |  |  |  |

## 5.2.2 Admin

### Create edit and delete Programs:

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| A_ *pro* _1 | Create edit and delete program | Admin creates program | Admin creates a Program successfully |
| A_ *Pro*_1 | Create edit and delete a program | Admin edits an Program | Admin edits Program successfully |
| A_ *Pro*_1 | Create edit and delete a *program* | Admin deletes p*rogram* | Admin deletes Program successfully |

# Create edit and delete
# a Institutes:

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| A_cat_1 | Create edit and delete a institute | Admin creates a new Institute | Admin creates Institute successfully |
| A_cat_1 | Create edit and delete a institute | Admin edit a Institute | Admin edit Institute successfully |
| A_cat_1 | Create edit and delete a institute | Admin deletes Institute | Admin deletes Institute successfully |

## *Manage Latest Admission:*

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| A_cas-1 | Manage admissions | Admin add admissions | Admin add admissions successfully |
| A_cas_1 | Manage admissions | Admin edit admissions | Admin add admissions Successfully |

## *Manage Users:*

| ID | Test case | User input | Pass Criteria |
|---|---|---|---|
| A_mu_1 | Manage users. | Admin accepts Members | Member is accepted |
| A_mu_1 | Manage users. | Admin detects Members | Member is not accepted |

## 5.3 Approach

This section describes the overall approach of the testing which ensures that the each feature and the combination of the features are adequately tested. The major tasks that are used are

### Unit testing:

Unit testing is a method of testing that verifies the individual units of source code are working properly. The goal of unit testing is to isolate each part of the program and show that the individual parts are correct

### Load testing:

Load testing is the process of creating demand on a system or device and measuring its response. It generally refers to the practice of modeling the expected usage of a software program by simulating multiple users accessing the program concurrently. As such, this testing is most relevant for multi-user systems; often one built using a client/server model, such as web servers

### System Testing:

Once the entire system has been built then it has to be tested against the Software Requirement Specification and System Specification to check if it delivers the features required. System testing can involve a number of specialist types of test to see if all the functional and non-functional requirements have been met.

### Performance Testing

The system should meet the performance requirements as mentioned in the document. The performance will be evaluated based on the response time of the GUI and the database commands.

**Manual Testing**

Manual Testing will be done to ensure the correctness of various parts of the code using test cases generated by the tester.

## 5.4 Pass/fail criteria

The system should satisfy all the functional requirements, in the document. Each feature to be tested will be evaluated against its requirement as stated in the Vision Document. The pass or fail of a test depends on whether the system meets with all the particular post conditions. Test cases executed on the Online Institute Shopping Store will pass if they meet the specific requirements as mentioned in the Documentation.

# CHAPTER 6
## CONCLUTION

## 6.1 Limitation of the system:

Though I have tried my level best to make my system flawless and user friendly by using the modern technologies, some minor functional and design inconsistencies exist in my system due to time constraint, design of prototype and cost constraints. The limitations of "All Punjab Universities Portal is:

- I have used Ajax in my system which will show the system after loading fully. Though it is faster, it may cause malfunction in hasty situation. That is, incomplete loading of the system.
- Users see only details of institutes.
- Users can not add institute in his/her institute list.

## 6.2 Prospective future improvement:

My system websites developed based on current findings, demand of users satisfaction and facilities. In my system I have used the modern web technologies to make my system fast, convenient and efficient for all of the personnel mentioned. Due to time and cost constraint it was not possible to fulfill all requirements and functionalities those were planned. But in future these planned functionalities and more improvement will be possible to pursue. The functionalities to be implemented are:

- All universities of Pakistan
- Provide Offline website
- Domain recommendation after Matriculation
- Fields detail
- Provide all fee structure and scholarships offered in universities.

## 6.3 Conclusion:

"All Punjab University Portal "is developed for provide education assistance, career guidance .This application provide a platform to student which is best for him. What opportunity they have. What they can do after inter.

This application provide such environment this is more efficient and user friendly. It will improve the performance of such organizations ( colleges and universities) and protect users from selecting wrong career. It is professionally beneficial.

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