A Project Report On

LEARNING HUB

R. C. Patel Educational Trust's
R. C. Patel Institute of Management Research and Development College, Shirpur

Submitted By

Anuja Nikumbh

anujanikumbh1999@gmail.com

Guided By

Rahul Badgujar Sir

INDEX

Chapter 1: Introduction

Learning Hub is a online notes sharing website for read and download the notes. This website used by all college and organization for store the study material. It is used to read and download the notes of specific section with year. Learning Hub is easy to use and completely web based. Website also provides the admin page for manage and upload the notes.

The website also keep and manage the date of users and notes, with the help of that data we can manage user and notes. It is easy to manage user and notes. The overall purpose of the website is too easy to find notes.

Chapter 2: Need of the Project

1. Easy to read and Download the notes.

2. It's save the time of user.

3. With the help of this website we can easily add new notes.

4. We can search the information very fast.

5. Easy to manage all the data.

6. Workload and manpower is reduced.

Chapter 3: System Study Analysis

3.1 Information Gathering:-

Investigation of system is the first step while designing a system. This is the way to handle user needs. We consider following main things:- 1.

How the present system works.

2. Time taken to process through the system.
3. List of documentation.
4. File report associate with system.

From the available documents we get the basic idea about fundamental of system as well as current distribution method. In the next step we have about existing system and collected information about input and distribution.

3.2 Existing System:-

- The old method consumes .Human time and energy with respective task.
- Team requirement for validation and updating in manual system is more.
- Report processing is not in times instances required.
- Mistake in distribution occurs sometimes, it cause of loose.
- Shearing documents (notes) manually is very critical, tedious and time consuming.

3.2 Drawbacks or Limitations of Existing System:-

Distribution of Notes manually it's time consuming.

- Difficult to find out for documents (notes) for students. Difficult to find available distribution It is time consuming process.
- Due to offline process security will not maintained.

3.3 Objective of Proposed Project:-

The proposed of website is used for give the documents (notes) to students. It process quickly and user friendly. The Computerizes distribution of documents (notes) is easy and time saving than offline process. The Computerizes system is very useful in distribution of documents (notes) and maintaining the information.

3.4 Scope of Proposed Project:-

- Maintaining the documents (notes) by category.
- Keeping the information about the students.
- Providing reliable and easy interface to user.
- Keeping the information of services about website.
- Making and maintaining expenses of the firm.
- To Keeping distribution of documents (notes) and maintain the data

Chapter 4: Feasibility Study

Feasibility Study in an important phase of system development life cycle, where the proposed system is reviewed and evaluated to determine the usability and feasibility of system.

The proposed system was reviewed considering three feasibility tests:-

1. There was sufficient support for proposed system from the management as well as end user.
2. The system will have required validation and checks points, which will reduce errors and inconsistency in the database. Hence performance of system is enhanced.
3. Manual work will be produced.
4. The proposed system will provide timely information and status of various to management and users. It will facilitate the uses of system.

4.1 Technical Feasibility Study:-

- The necessary setup (Software and Hardware support) required for the system already exist.
- The System can run efficiently in present hardware setup.
- No extra resources are required for development of system.

- We will work for the project is done with the present equipment, current procedures, existing software technology and available personnel. Study the desired system can run efficiently on present hardware.

4.2 Economical Feasibility Study:-

- In economic feasibility we study the desired application economically beneficial or not. The costs must include both onetime costs and recurring costs.
- We study about application which covers organization or not. In this study we find out desired website is beneficial for college and organization.
- We will find out the cost of required hardware and software for development of application.

Cost of Hardware and Software Setup:-

The Hardware/Software setup required for development and efficient operation of system is already available, so the cost is less.

4.2 Behavioral Feasibility Study:-

- During the interviews, the requirements of the users were asked, so that they could be made available in the proposed system.
- The proposed system is designed in such way that a person unaware of the system can run it through the menu driven facility.
- The system will reduce errors and inconsistency in the database. Hence the performance of system will enhance.

The proposed system will provide timely information and status of various activities to owner and student. It will facilitate the use of system

Chapter 5:System Development 5.1 Operating

Environment:-

Main Memory	8 GB DDR4 RAM
Operating System	Window 7, 8.1, 10
SSD	512 GB
Processor	Ryzen 5Quad Core
Programming Environment	Visual Studio Code
Back End	PYTHON (Sqlite3)
Front End	Html, Css , JavaScript, Bootstrap

What is Python?

Python is an interpreter, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding; make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms, and can be freely distributed.

Django framework:

Django is an MVT web framework used to build web applications. It defines itself as a “batteries included” web framework, with robustness and simplicity to help web developers write clean, efficient and powerful code. It is among the most famous web frameworks out there in the world and it’s one of the most used frameworks as well. It’s used by Instagram, YouTube, Google and even NASA for their website

Django used:

Django's model makes use of a powerful ORM layer which simplifies dealing with the database and the data and accelerates the development process. Without Object-Relational-Mapping, developers would have to create the tables themselves and define the queries or procedures which sometimes translate to the hefty amount of SQL that is prone to be complex and hard to track. The ORM layer lets you write all the table definitions in simple python code, and it takes care of translating that to the appropriate query language chosen, and it also facilitates the CRUD operations. In fact, the developer doesn't necessarily need to know the complex SQL altogether or what it translates to, though, it worth noting that understanding SQL would allow you to write better and faster queries and also make your website more secure.

Advantages of Django:

1. Batteries included

   Django prides itself as a batteries-included framework. What that means is that it comes with a lot of stuff out of the box that you may or may not use depending on your application. Instead of having to write your own code (the power), you just need to import the packages that you want to use. It's a part of the convention over complicated paradigm that Django is part of, and it allows you to make use of the solutions implemented by world-class professionals. Django batteries span a wide range of topics that include:

   - Authentication with auth package
   - Admin interfacing with admin package
   - Session management with Sessions package
   - Managing temporary or session-based messages with Messages package
   - Generating Google sitemap XML with Sitemaps package Postgres special features with Postgres Package
   - Hooking into "types" of content with content type's framework.

2.Python

Since Django uses Python, it leverages some of the fame and power of python to its own benefit. Python is arguably one of the easiest -if not the easiest- programming language to learn for beginners, and it's also quite popular in introductory computer science courses (https://hackr.io/blog/best-onlinecomputer-science-degree) around the world. The 2017 Stack overflow Developers Survey revealed that Python is now more common than PHP and Python

3.Community

Django's community is one of the best things about it, they are helpful and actively working on making the framework more beginner-friendly and stabilizing the framework while adding new features. Django's documentation is quite thorough and is useful as a standalone tutorial; it will help you wrap your head around various features so you can use it as a primary source of information.

1. Scalable

Most developers, when thinking about picking up a framework plan for the future in their choice. That's why picking a scalable framework is quite essential for many, and Django is just that. It allows you to take a lot of different actions regarding scalability such as running separate servers for the database, the media, and the application itself or even use clustering or loadbalancing to distribute the application across multiple servers.

2.Built-in Admin

The Django team was quite thoughtful when they created the framework, and they kept user and client satisfaction in mind. It's quite unreasonable to create your own admin interface at the backend just to be able to manage your data with basic CRUD operations. That's why Django offers an administrative interface right out of the box that is both professional and versatile, according to the documents the developer can now develop with the presentation in mind.

Introduction to SQLite:

SQLite in general is a server-less database that you can use within almost all programming languages including Python. Server-less means there is no need to install a separate server to work with SQLite so you can connect directly with the database.

SQLite is a lightweight database that can provide a relational database management system with zero-configuration because there is no need to configure or set up anything to use it.

Chapter 6: Detail Design Proposed System

6.1 Use Case Diagram for User

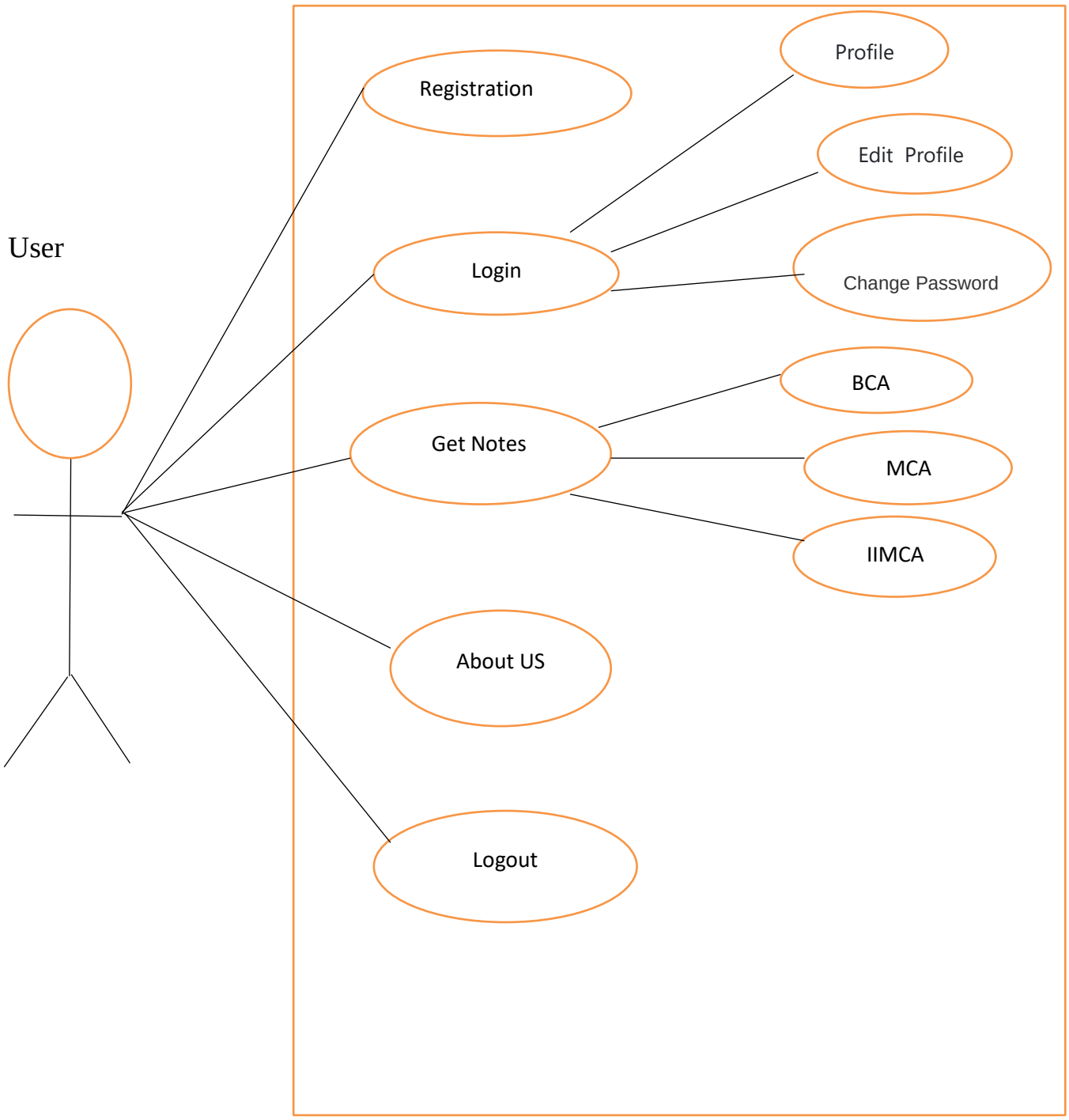
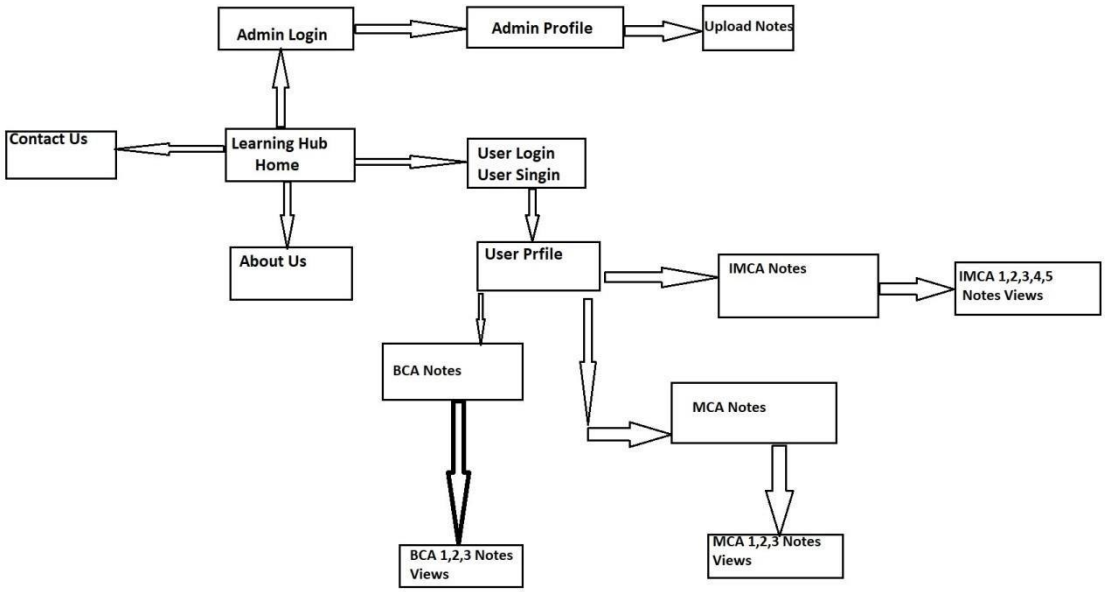


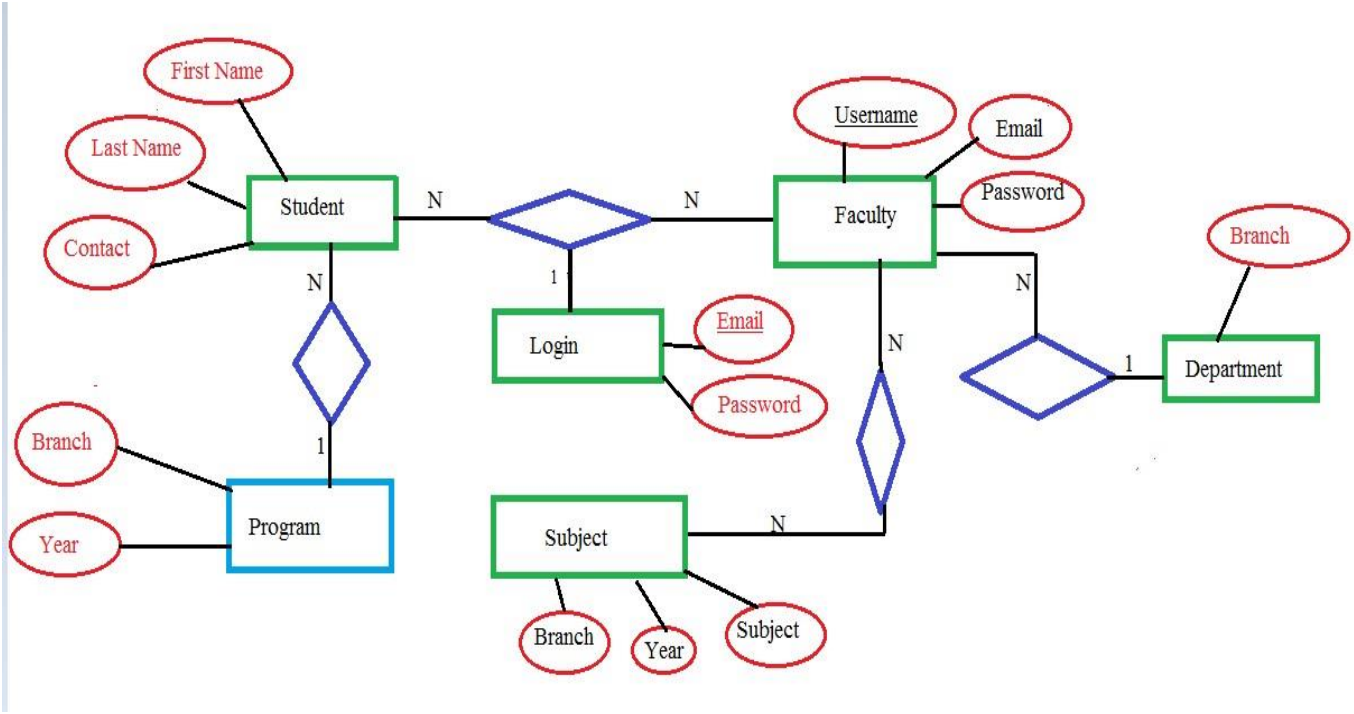
Figure: - Use Case Diagram for User

6.2 DFD

0-Level DFD:

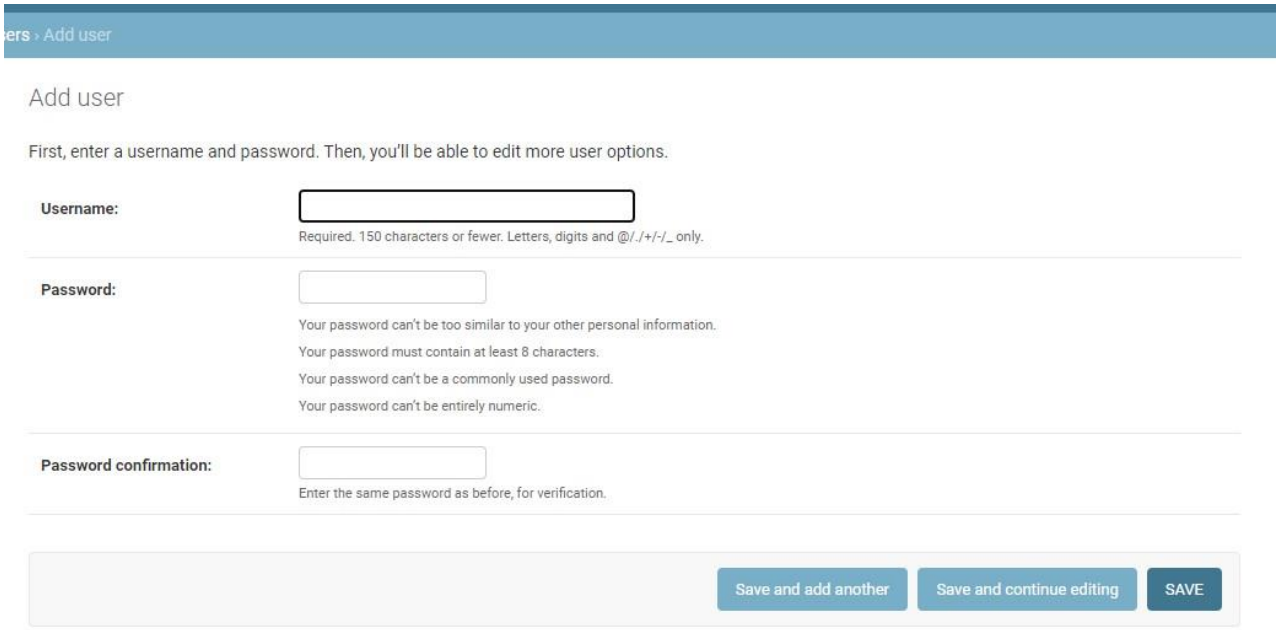


6.3 ER Diagram



6.4 Database Design

1) User



2) Signup

```
12
13  #for the signup page
14  class Signup(models.Model):
15      user=models.ForeignKey(User,on_delete=models.CASCADE)
16      contact=models.CharField(max_length=122)
17      branch=models.CharField(max_length=122)
18      role=models.CharField(max_length=254)
19
20      def __str__(self):
21          return self.user
22
```

3) Notes

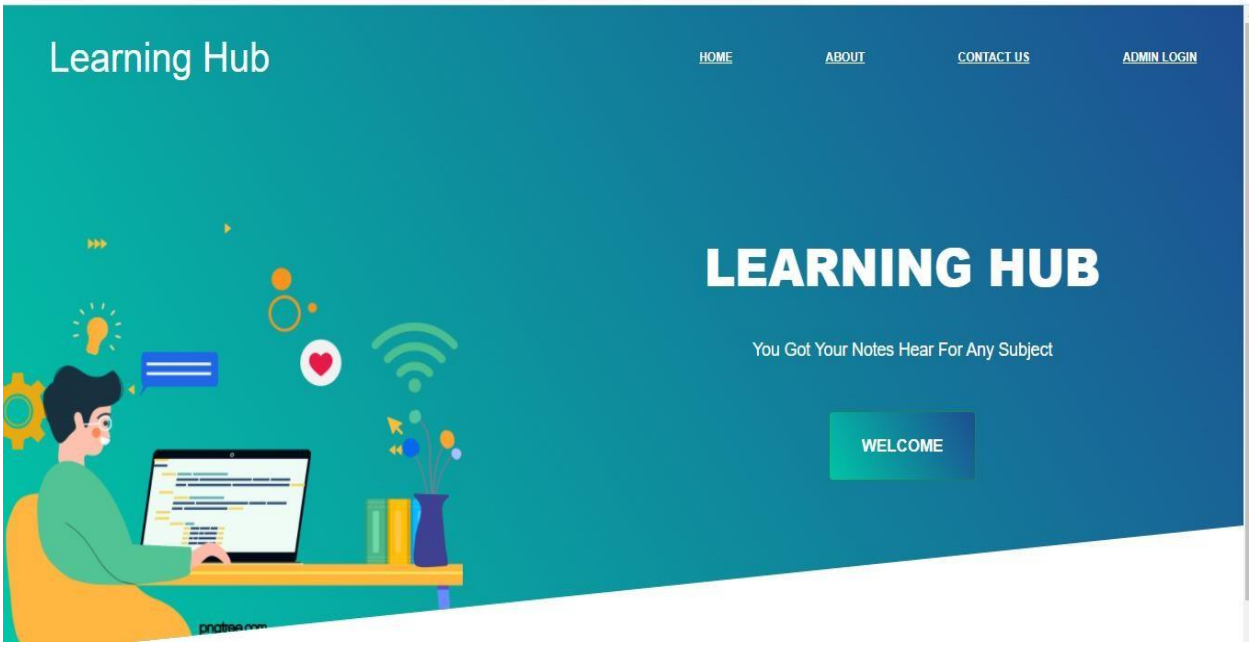
```
22
23
24  #for the notes page
25  class Notes(models.Model):
26      #user=models.ForeignKey(User,on_delete=models.CASCADE)
27      uploadingdate=models.CharField(max_length=30)
28      branch=models.CharField(max_length=30)
29      subject=models.CharField(max_length=30)
30      notesfilr=models.FileField(max_length=30)
31      clg_yr=models.CharField(max_length=10)
32
33
34
35
36
37
```

4) Contact Us

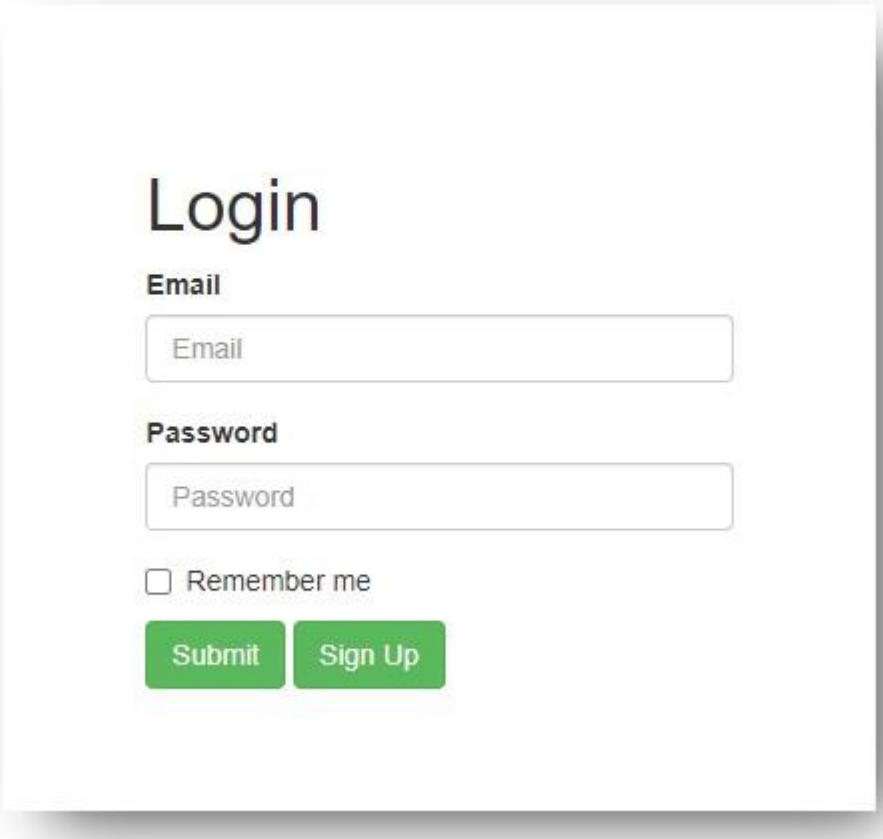
```
1  from django.db import models
2  from django.contrib.auth.models import User
3
4  # Create your models here.
5  #for the Contact us page
6  class Contact(models.Model):
7      fname=models.CharField(max_length=122)
8      lname=models.CharField(max_length=122)
9      email=models.CharField(max_length=254)
10     comment=models.TextField()
11     date=models.DateField()
12
```

6.5 Front End Designs

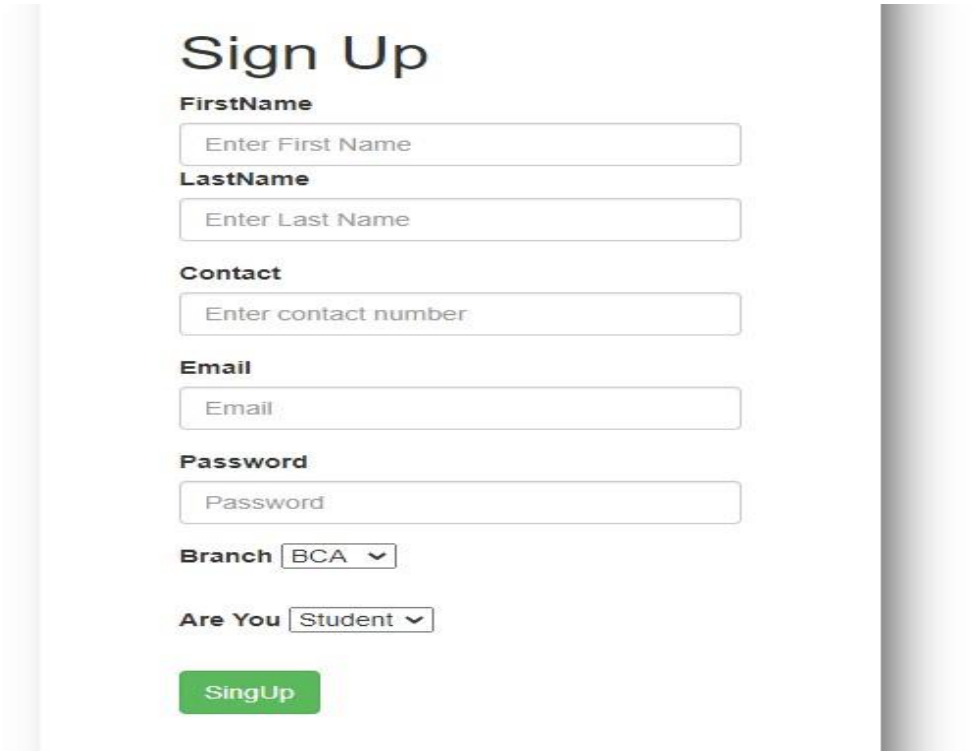
1) Home page



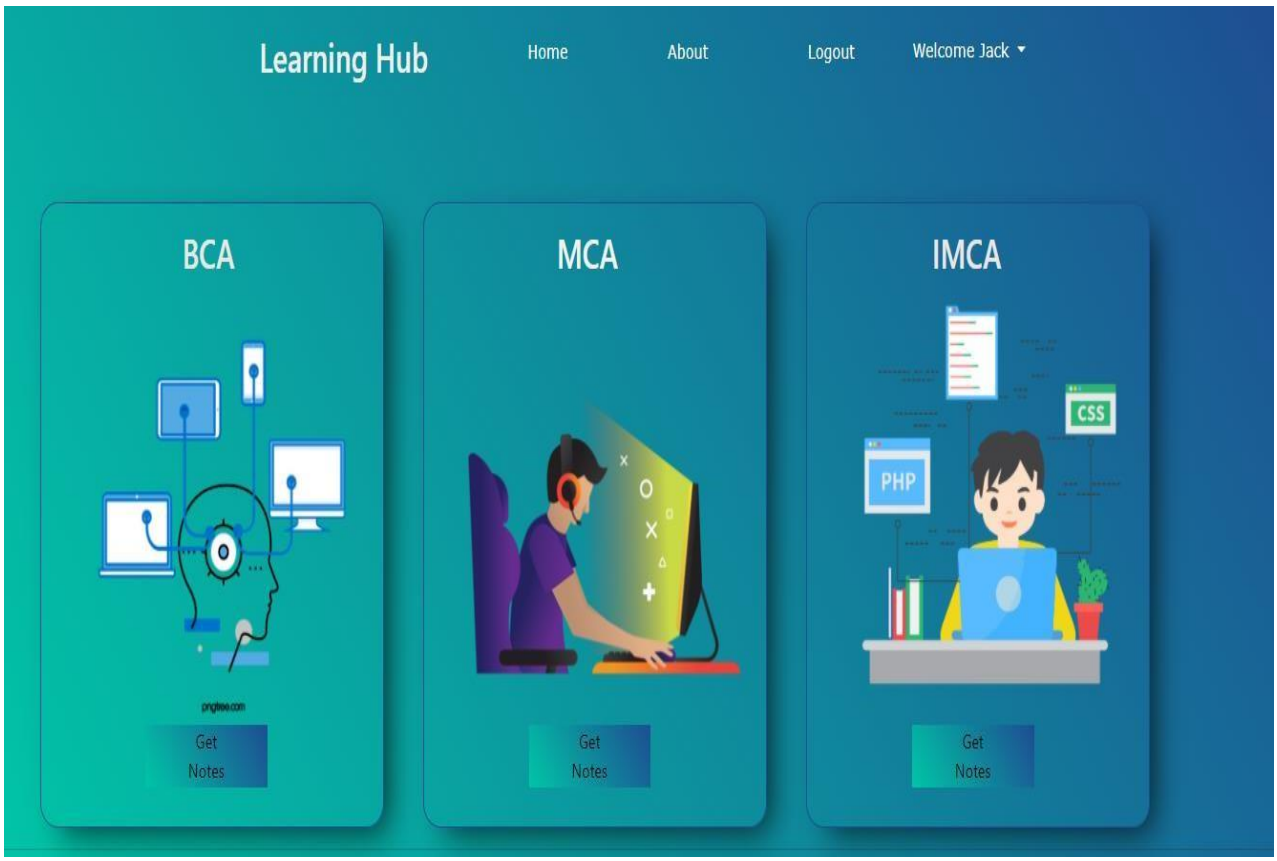
2) User Login



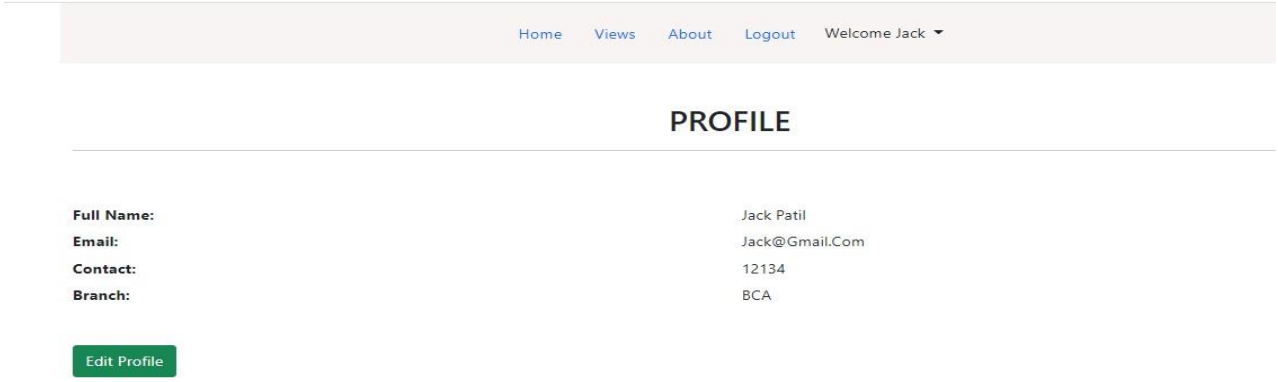
3) Sign Up



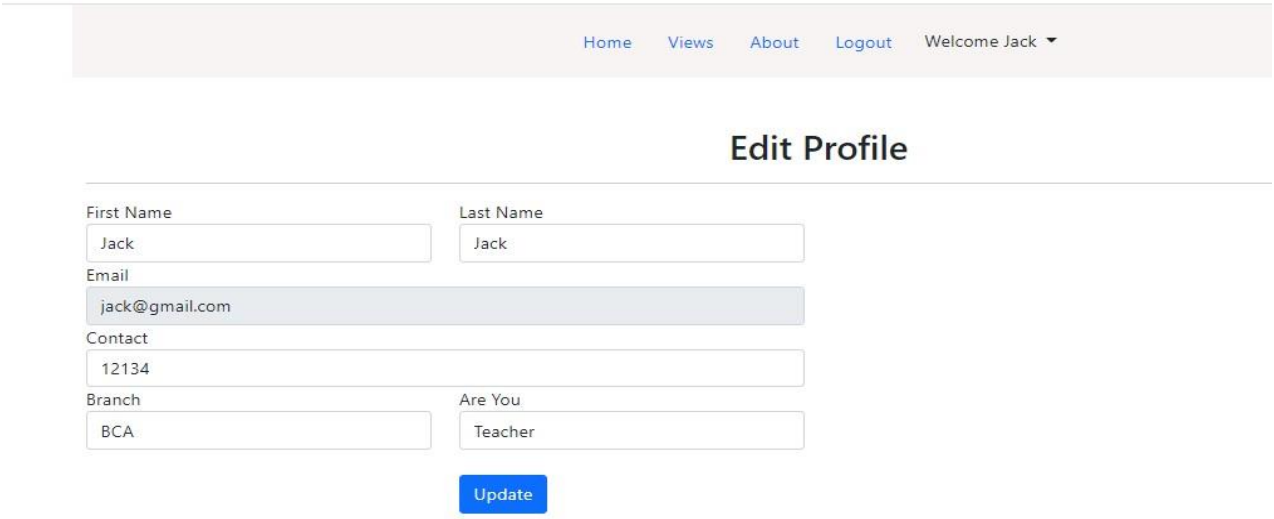
4) User Home Page



5) User Profile

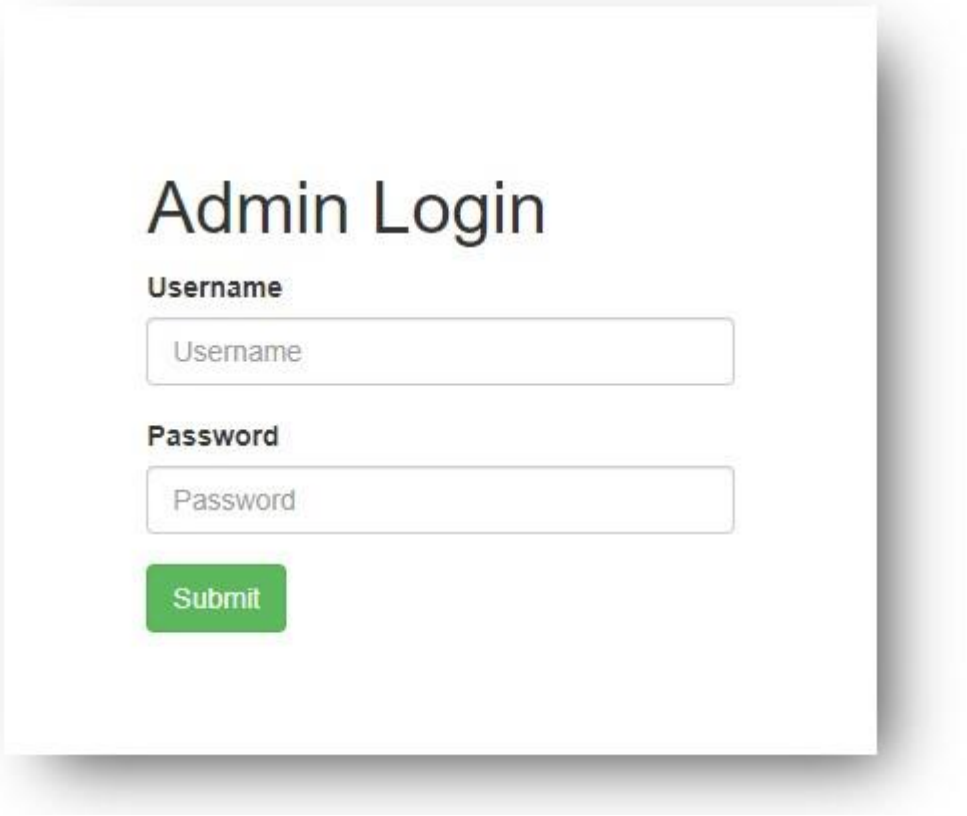


6) Edit User Profile

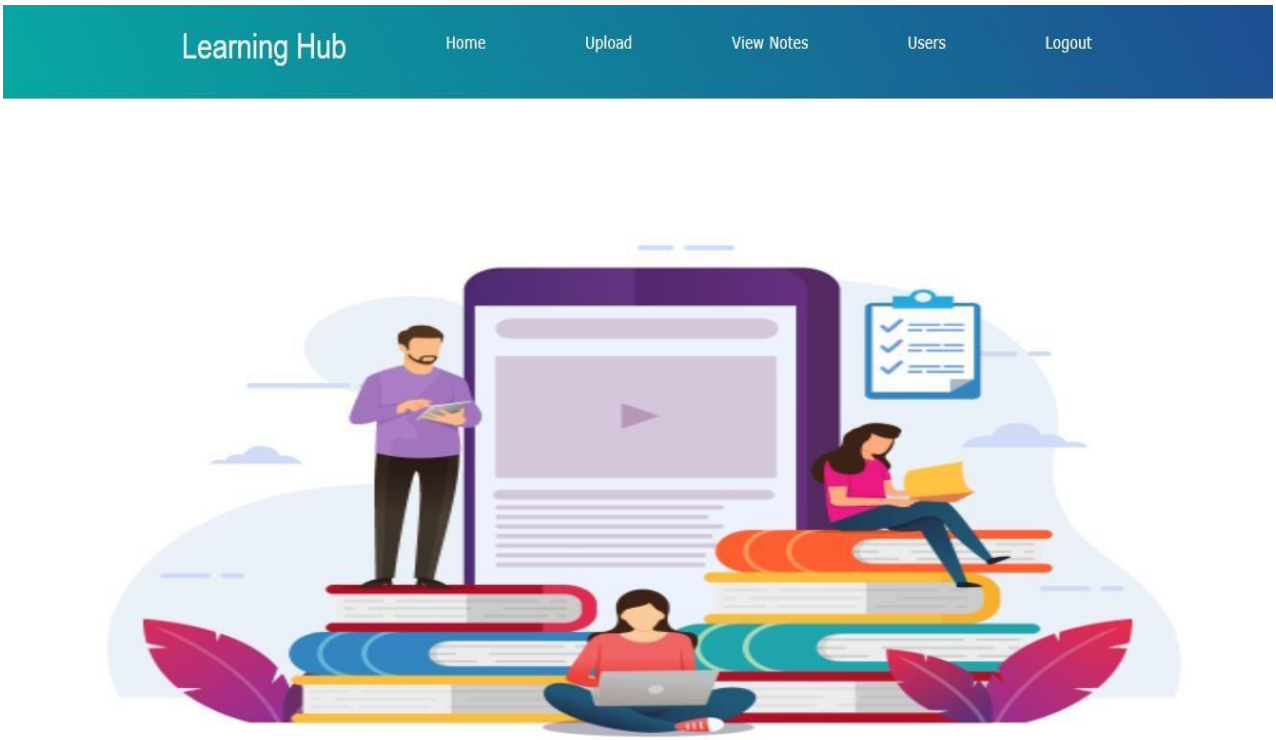


7) Change Password

8) Admin Login



6) Admin Home Page

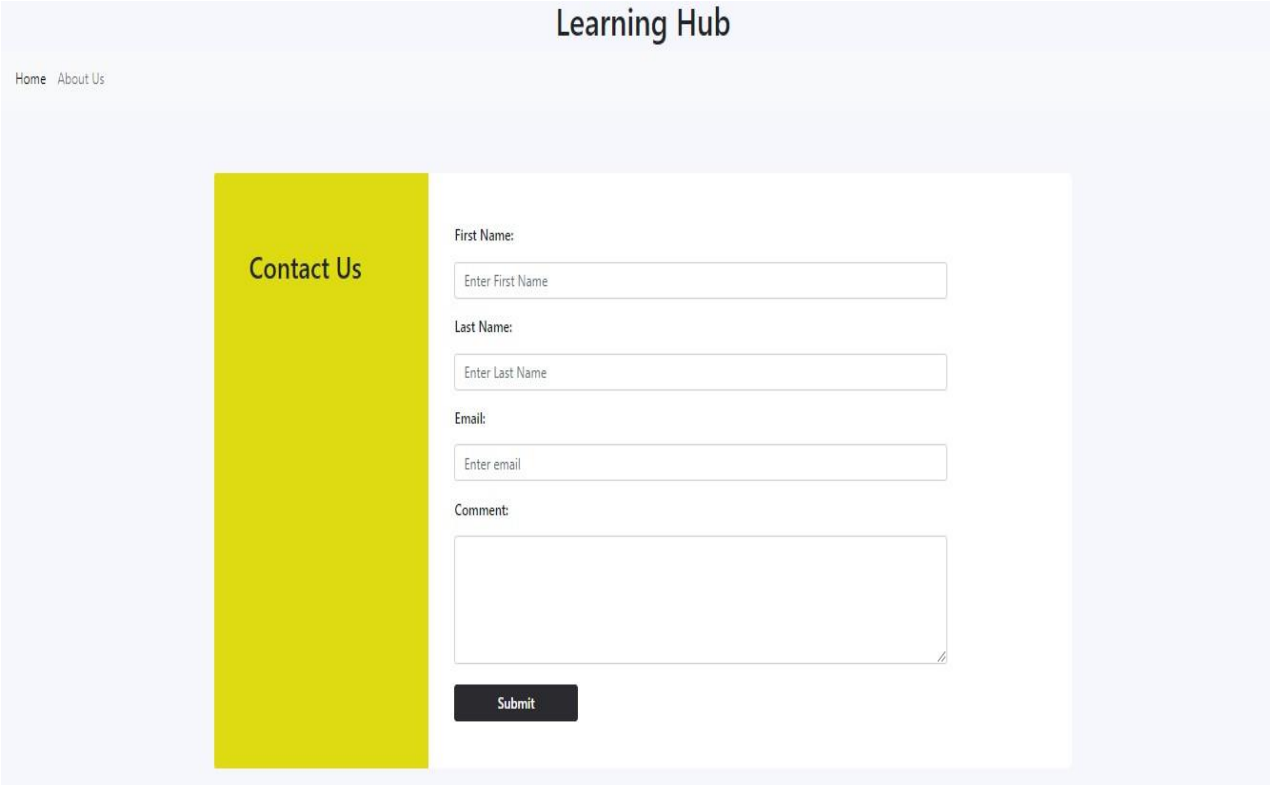


7) Upload Notes

8) View All Notes (Admin)

9) View All User (Admin)

10) Contact Us



Chapter 7: Testing

Ensuring the available & completeness of all work, items needed for corresponding test data & until test of data; it is developed during actual phase design & its purpose is to describe how system criteria establish during analysis phase.

Types of Testing:

a) Unit Testing b) System Testing

Unit Testing:-

This phase of testing include module testing in which each module is tested separately. By giving the test input & comparing the expected result there are four categories of the test that programmer typically perform on program unit.

1) Functional Test
2) Performance Test
3) Stress Test
4) Structure Test

System Testing:-

System Testing involved two activities:-

- Integration Testing
- Acceptance Testing

This phase, the entire system are tested with the live data. The result were Tested against the previous year manual reports. The systems has implemented after successful testing.

This user found that the systems are very easy to operate & time saving.

Chapter 8: Conclusion:-

System depends on the result of system phase in system development the result of each integrated quality reliability. The quality includes the modularity, the maintainability, good documentation user friendliness, designed the project to provide the user with easy navigation, retrieval of data. A good information system design must be accompanied with user-friendly information application logic. The admission management application described in this project provides a number of features that are designed to make the student and teacher more comfortable.

This project helps in understanding the creation of an interactive application and the technologies used to implement it. The building of the project has given me a precise knowledge about how Python used to develop a Website application, how it connects to the database to access the data and how to data are modified to provide the user with a application.

The present system is manual. Manual processes are time consuming and prone to errors. Manual entries cause error while recording a data and the system do not provide useful and status information instantly.

The computerized system arranges all documents systematically and sequentially which quick retrieval documents whenever necessary. It is easy and fast.

9.2 Limitation of System:-

1) Knowledge is must.
2) The System needs proper hardware requirement and high speed micros internet. 3) The system does not generate graphical reports.
4) System not provides the offline help.