

INDRA GANDHI NATIONAL OPEN UNIVERSITY

Online Institute management

By

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Under guidance
of

Dr. Rattan K Datta

Submitted to the School of Computer and Information Sciences
in partial fulfilment of the requirements
for the degree of

**Masters
of
Computer Applications**



Indra Gandhi National Open University

Maidan Garhi
New Delhi – 110068.

APPENDIX 2: PROFORMA OF PROJECT PROPOSAL



SCHOOL OF COMPUTER AND INFORMATION SCIENCES
IGNOU, MAIDAN GARHI, NEW DELHI – 110 068

PROFORMA FOR SUGGESTIONS OF MCS-044 PROJECT PROPOSAL

(Note: All entries of the proforma of suggestions should be filled in with appropriate and complete information. Incomplete proforma of suggestions in any respect will be summarily rejected.)

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2. Title of the Project ...*Online Institute Management*.....

3. Name and Address of the Counsellor.....

Ph.D* M.Tech.* B.E*/B.Tech.* MCA M.Sc.*

4. Educational Qualification of the Counsellor
(Attach bio-data also)



(*in Computer Science / IT only)

5. Working / Teaching experience of the Counsellor**

6. Software used in the Project..... *MySQL with JSP*.....

Nilesh Kumar

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Signature of the Student

Signature of the Counsellor

Date: 29-12-2020

Date:

Suggestions for improving the Project:

APPENDIX 3: CERTIFICATE OF AUTHENTICATED WORK

This is to certify that the project report entitled *Online Institute Management* submitted to **Indira Gandhi National Open University** in partial fulfilment of the requirement for the award of the degree of **MASTER OF COMPUTER APPLICATIONS (MCA)** is an original work carried out by Mr. Nilesh Kumar & Mr. Nitin Enrolment no. 157798950 & 159612460 under my guidance. The matter embodied in this project is authentic and is genuine work done by the student and has not been submitted whether to this University or to any other University / Institute for the fulfilment of the requirement of any course of study.



Signature of the Student:

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Signature of the Counsellor

Date : _____

Name, Designation and Address of
the Counsellor

.....
.....
.....
.....
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Signature of the Student:

Date : 29-12-2020

Name and Address of the student



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APPENDIX 4: ROLES AND RESPONSIBILITIES FORM

Name of the Project Online Institute Management Date: 29-12-2020

	Name of the Team Member	* Role	Tasks and Responsibilities
1.	Nilesh Kumar	Team Coordinator & Data Manager	Ensure Team Performance & Building Data Queries (SQL), Web development
2.	Nitin	Quality Manager & Data Manager	Improve Processes, Document Software Issues, Web Development

Name and Signature of the **Project Team members:**

	Name	Signature
1.	Nilesh Kumar	
2.	Nitin	

Signature of the Counsellor:

Date: 29-12-2020

* Students may take up roles such as Team Coordinator, Auditor/Receiver, Data Manager, Quality Manager or others according to the needs of the project.

Table of Contents

1	INTRODUCTION	3
1.1	Background	3
1.2	Objective	3
1.3	Purpose and Scope	4
1.4	Project Category	5
2	SURVEY OF TECHNOLOGIES	5
2.1	Tools and Platform	5
3	REQUIREMENTS AND ANALYSIS	6
3.1	Problem Definition	6
3.2	Requirement Specification	6
3.3	Planning and Scheduling	7
3.3.1	Gantt Diagram	7
3.3.2	PERT Diagram	7
3.4	Software and Hardware Requirement	7
3.4.1	Software interface	7
3.4.2	Hardware interface	8
3.4.3	Communications Interfaces	8
3.5	Conceptual Module	9
3.5.1	ER Diagram	9
3.5.2	DFD	10
3.5.3	Use Case Diagram	11
4	SYSTEM DESIGN	11
4.1	Basic Modules	11
4.2	Data Design	14
4.2.1	Logical database connectivity	14
4.3	Procedural Design	17
4.4	USER INTERFACE	22
4.5	Security Issues	27
5	IMPLEMENTATION AND TESTING	27
5.1	Testing	27
5.2	Performance Testing	27
6	RESULT AND DISCUSSION	28
6.1	User Documentation	28

7	CONCLUSIONS.....	28
7.1	Limitations of the Project.....	28
7.2	Future Scope of the Project.....	28
8	References.....	28

Table of Figures

Figure 1 : GANTT CHART	7
Figure 2 : PERT CHART.....	7
Figure 3 : ER Diagram	9
Figure 4 : DFD First Level.....	10
Figure 5 : DFD Second Level	10
Figure 6 : Use Case Diagram	11
Figure 7 : Procedural Design for Admin	18
Figure 8 : Procedural Design for Teacher.....	19
Figure 9 : Procedural Design for Student.....	20
Figure 10 : User Interface Home Page	23
Figure 11 : User Interface Login	23
Figure 12 : User Interface Admin Dashboard.....	24
Figure 13 : User Interface New Teacher Appointment	24
Figure 14 : User Interface Teacher Dashboard	25
Figure 15 : User Interface Mark Attendance	25
Figure 16 : User Interface Pending Fee Detail	26
Figure 17 : User Interface Student Dashboard	26

1 INTRODUCTION

1.1 Background

The idea of developing “**Online Institute Management**” project is come in our mind when we used to go the Institute of computer education (Computer Organisation Institute) where we saw that the data is handled manually.

The “**Online Institute Management**” has been developed to override the problems prevailing in practicing manual systems. This web software supports to eliminate and in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the organisation to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error messages while entering invalid data. No formal knowledge is needed for the users to use this system as described above. Organisation can lead to error free, secure, reliable and fast management systems. It can assist the user to concentrate on their other activities rather than to concentrate on the record keeping. Thus, it will help organizations in better utilization of their resources.

1.2 Objective

The objective is to design a system that can integrate all the above features in a single system, so that it can be easy to use .The new system should have all the records and files of the old system in comprehensively linked manner so that whenever we want to retrieve some information, it can be done in an efficient manner. The system should be a one-step solution where all the different jobs regarding the various operations and functions in the centres can be done on a single window with least hassle. That is, the new system should be able to do work in the least amount of time and with much more efficiency and effectiveness than the existing system. The designing aspects of new system should be aimed towards data fields and data records in a single database, from where any operation on the data or data retrieval can be done easily. It should be designed in such a way that only the required information is displayed when asked for. Not like the manual system where one has to search in hard copy files to look for a particular record. It should remove, if not all majority of the problems that exists in the old system. Also it should be compatible, easy to understand and easy to modify. The aim would be to remove as many problems as possible from the existing system and design the new system in such a manner that it looks a very comprehensive approach to the

stated objectives. The organization structure of the old system should be clearly understood so that the objectives it aims to achieve can be designed.

The main objectives of the new system are mentioned below:-

1. **Fast and Efficient:-** As compared to existing system, in new system the user can get the information fast, easily and efficiently from the website.
2. **Reliable and accurate:** - As in new system, the information is stored and processed in computers so that data will be more reliable and accurate.
3. **Centralized Data:-** In the existing system, data records are kept under file maintenance system due to this system the placement of the data is not at one particular place. But in new system, each and every record is maintained on computer, which leads to the centralization of data.
4. **Non Redundant Information:** - As in proposed system data is maintained on the computers so inconsistency does not occur which will never lead to problem like duplication of data.
5. **Easy to Access:** - As compared to existing system, in new system the users can easily and efficiently accesses the information from the computer.
6. **No Documentation:** - As everything is stored on the computer, so there is no need of documentation or maintaining the files.

1.3 Purpose and Scope

1.3.1 Purpose

The purpose of Online Institute Management is to automate the existing manual system to the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with Online Institute Management. As described above, it is 99% error free, secure, reliable and fast management system. The organization can maintain computerized records without redundant entries. That means that one need not to be distracted by information that is not relevant while being able to reach the information.

1.3.2 Scope

The new system will automate the whole working of institute. In this project we will retrieve the information of student or update the information easily by the use of Computer. If any

new student come into the institute for admission all the information regarding the student and in which course he / she wants to take admission or what the Roll no/Enrolment no./Admission No. given to the student all the information is stored into the database .**we can easily retrieved , changed , updated or saved the information whenever we want.**

Basically, the project describes how to manage for good performance and better services for organisations.

Online Institute Management software is developed to cater the needs of the Education Sector. This Software helps Saving Time and Systemize the Running of Institute. It also reduces paper work & Manpower. It works on web based platform and highly user friendly ERP System. This website makes a bridge of communication between Students and Institute. Software uses the latest and advanced technology framework which makes it robust, secured, flexible, powerful and efficient to handle the complex processes and deliver the maximum performance. It is easily deployable, operable and capable of integration with other systems and devices it can also be integrated with any Institute website or portal and is fully configurable to provide appropriate access to the wider Institute community including teachers, students and parents as well.

1.4 Project Category

This project named as “On line Institute Management” is developed with the help of JSP and JavaScript and uses latest technologies. One can easily run it on any web browsers like Chrome, Internet Explorer and Firefox etc. s. Hence, it can run in any devices (Computer, Mobile etc.) and any web browsers environment that’s why it comes under the category of “Web Development Projects”.

2 SURVEY OF TECHNOLOGIES

The Online Institute Management has to handle records for much number of students and maintenance was difficult. Though it has used an information system, it was totally manual. Hence there is a need to upgrade the system with a computer based information system. This website provides the interface to resolve all over problems mentioned above.

2.1 Tools and Platform

FRONT END TOOLS	HTML (Hyper Text Mark-up Language) CSS(Cascading Style Sheet) JavaScript
-----------------	--

Internet Technologies / Programming Languages	JSP Java
RDBMS/BACK END	SQL

3 REQUIREMENTS AND ANALYSIS

This section provides all the detailed functional and non-functional requirements.

3.1 Problem Definition

The system mainly consists of Online Institute Management containing user interface and server side scripting. On user interface student and faculty can login and see the content and on server side all the data of the student and faculty are stored onto server to verify them. The scripting will be based on the categories like attendance view and daily activities. Further the institute management staff faculty can add/update/remove the resources when the time limit completed.

The system will also have an admin who has full-fledged rights with regards to managing resource. The user can view, submit online payment, uploading various information about their accounts etc. there are two types of user one is student and other is faculty member. Every user has different facility with a different username and having a password for private use. The two types of user differ from each other due to accessing limits to Online Institute Management.

3.2 Requirement Specification

Assumption and dependency

- ☐ Exam centres are already created and information's available for use.
- ☐ Roles and responsibilities are already established.
- ☐ Administrator is already created.

User Characteristics

Users of Online Institute Management

There are three types of users available in the project.

- ☐ Admin : with full access ,
- ☐ Teacher: with limited access
- ☐ Student : with limited access

Constrains

- ☐ GUI is only in plain English.

- ☐ Login and password is used for identification of authorized persons.
- ☐ Examination city entered should be perfect.
- ☐ No checks of time line are being implemented.

3.3 Planning and Scheduling

3.3.1 Gantt Diagram

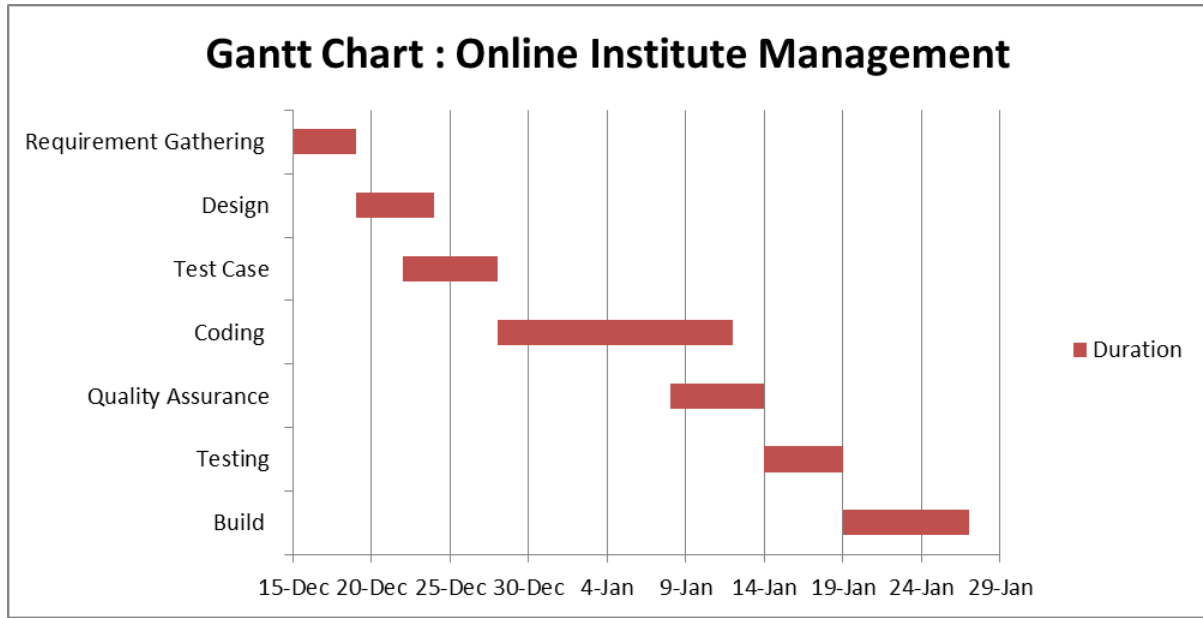


Figure 1 : GANTT CHART

3.3.2 PERT Diagram

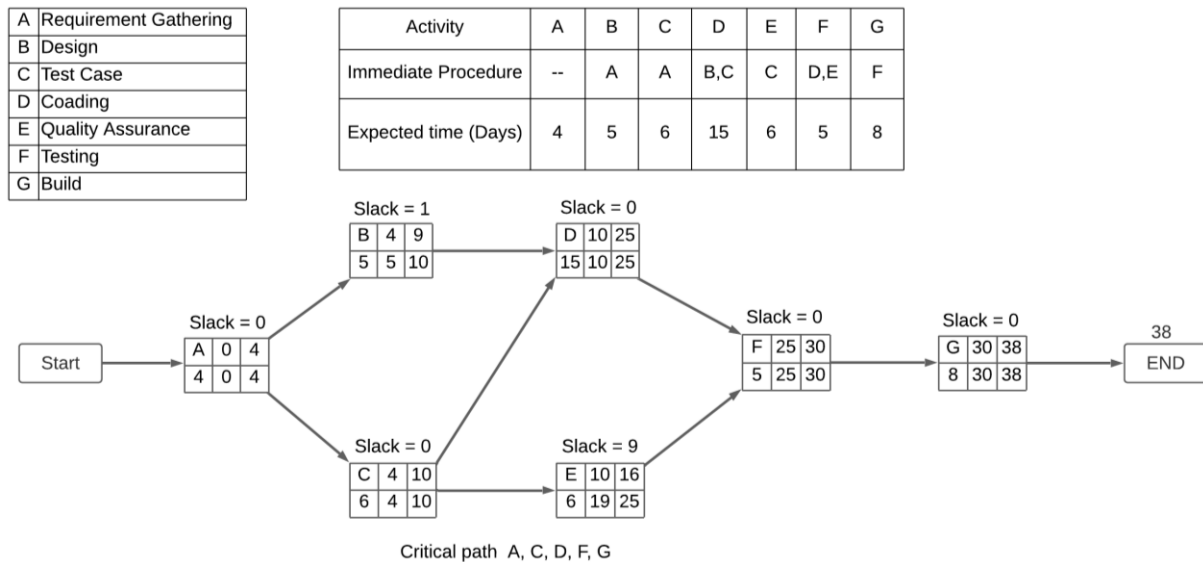


Figure 2 : PERT CHART

3.4 Software and Hardware Requirement

3.4.1 Software interface

This area is explained about the software requirement for the website.

Online Institute Management

Software used	Software name	Description
Operating system	Window, Mac, android etc. (any one)	We have chosen Windows operating system for its best support and user-friendliness.
Database	DB2, MySQL, Oracle, SQLite, SQL Server, etc. (any one)	To save the student records, faculty records we have chosen MySQL database.
Programming language	VB.Net, JSP, PHP, Python, (any one)	To implement the project we have chosen JSP language for its more interactive support.
I am using NetBeans IDE for writing this project and creating connectivity to database.		

3.4.2 Hardware interface

Client side

- ☐ Operating system: window 7/8/10
- ☐ Processor: Pentium 1.5 GHz or higher.
- ☐ Ram: 1GB and above
- ☐ Hard drive: 3GB or more

Server Side

- ☐ Operating system: window 7/8/10
- ☐ Processor: Pentium 2.4 GHz or higher.
- ☐ Ram: 2GB and above
- ☐ Hard drive: 10GB or more

3.4.3 Communications Interfaces

The Customer must connect to the internet to access the website.

- ☐ Dial up modem 128kb.
- ☐ Broadband network

3.5 Conceptual Module

3.5.1 ER Diagram

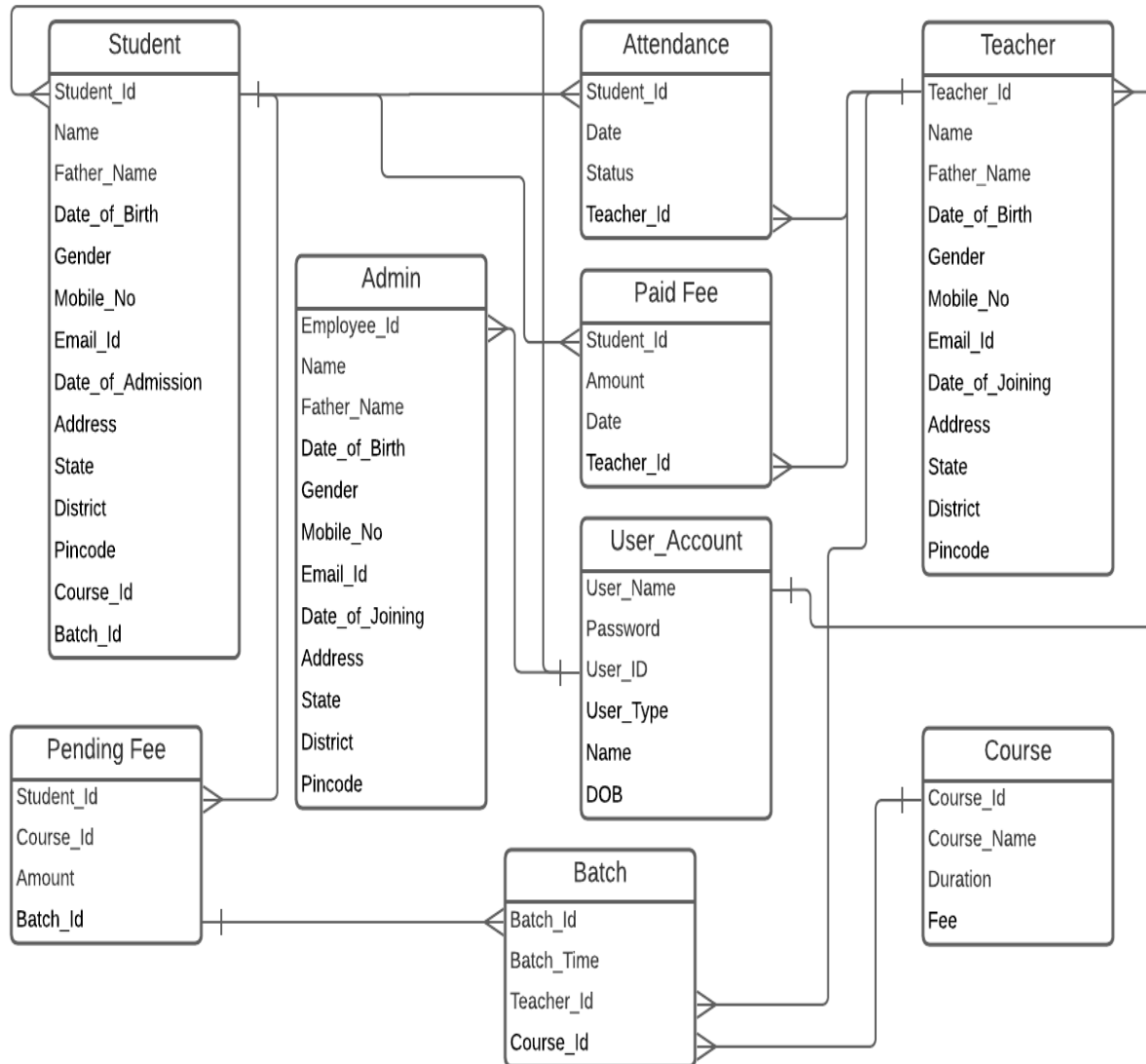
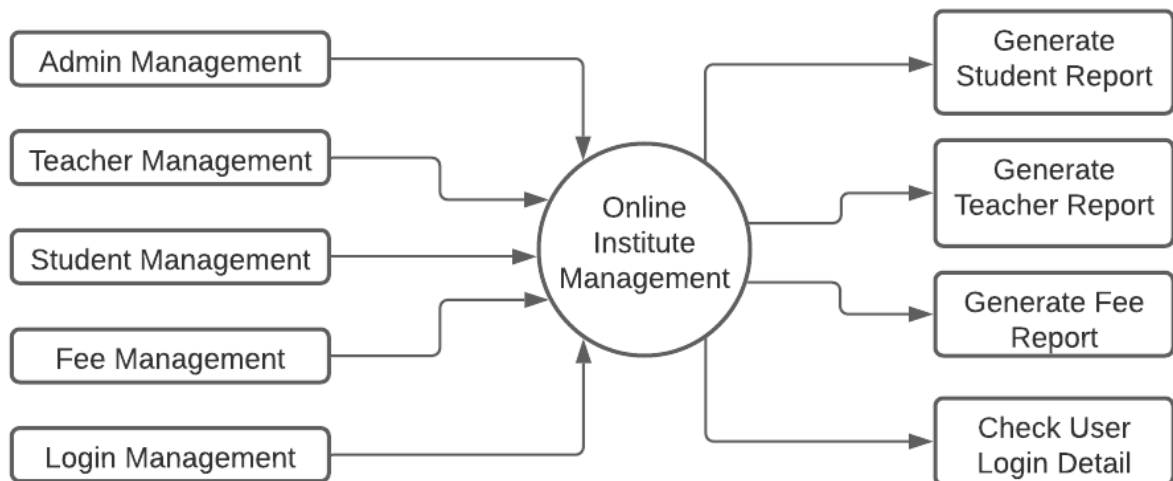


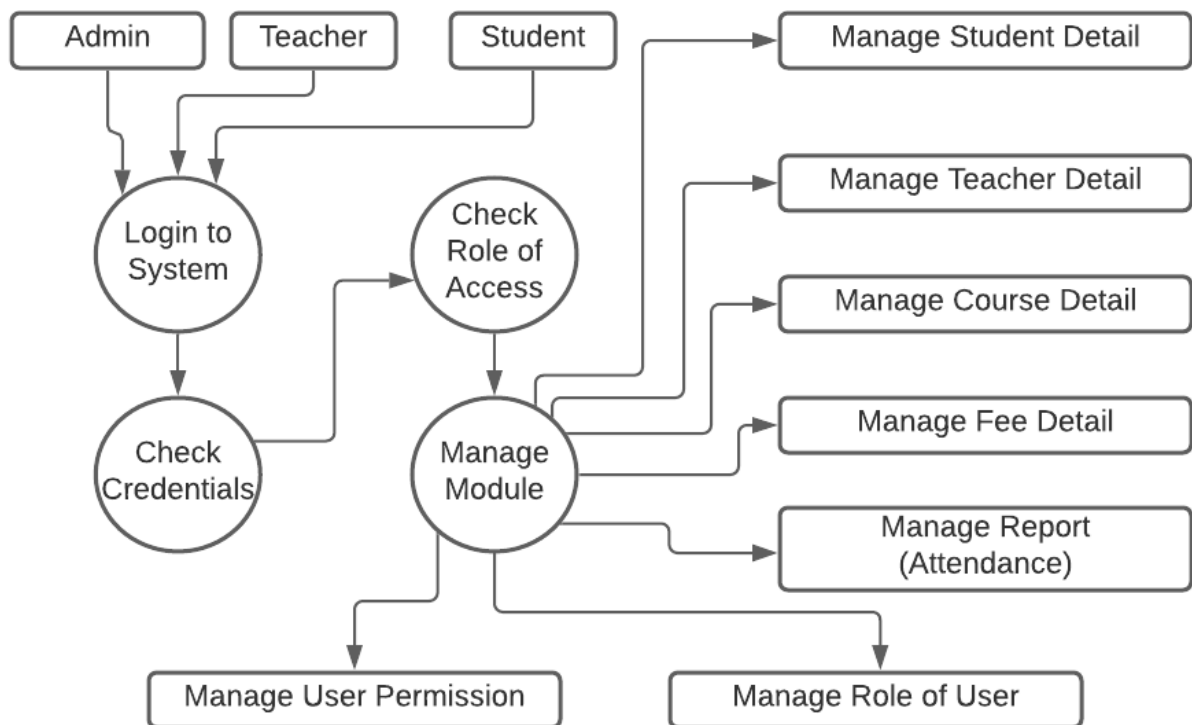
Figure 3 : ER Diagram

3.5.2 DFD



First Level DFD : Online Institute Management

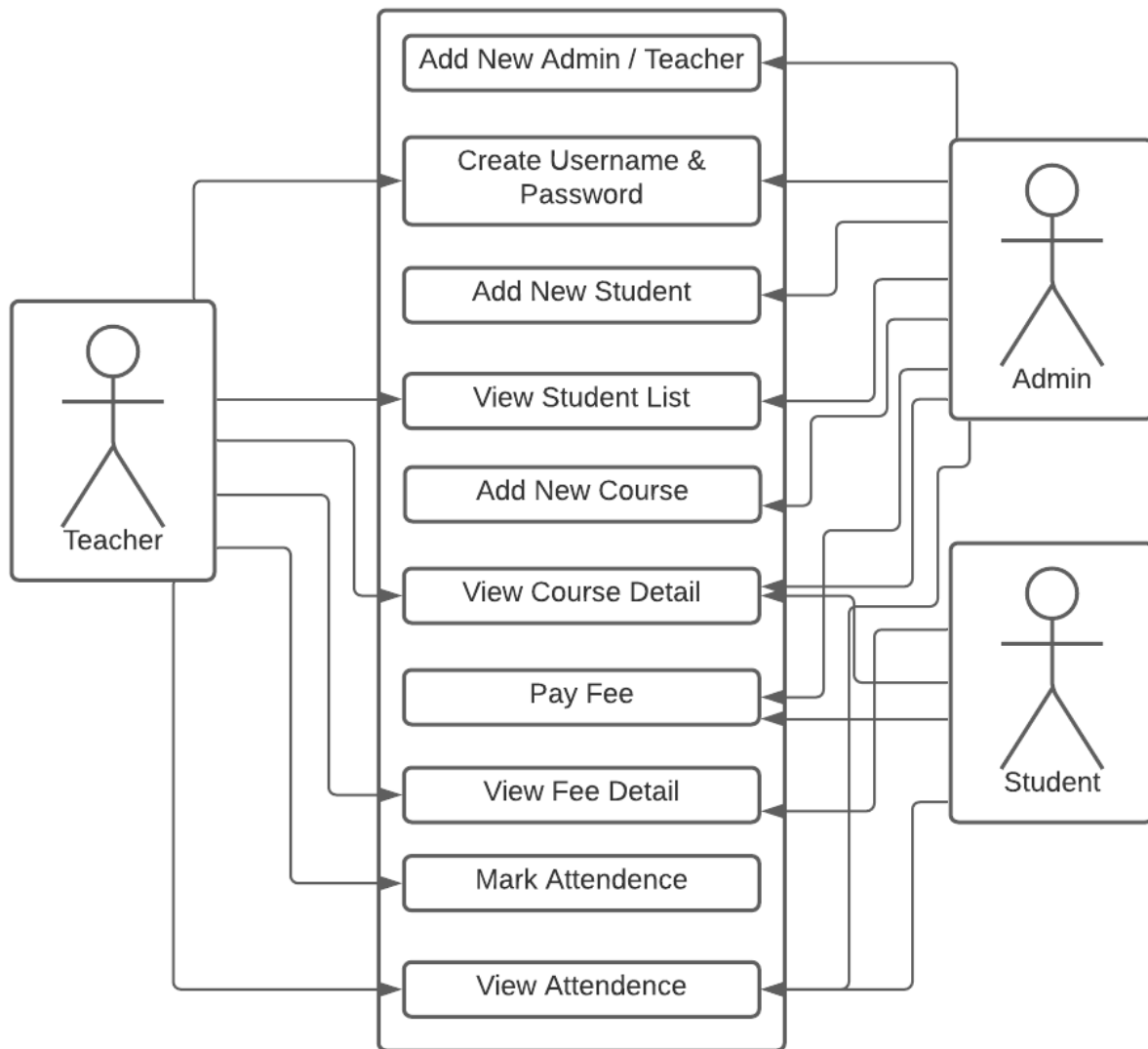
Figure 4 : DFD First Level



Second Level DFD : Online Institute Management

Figure 5 : DFD Second Level

3.5.3 Use Case Diagram



Use Case Diagram : Online Institute Management

Figure 6 : Use Case Diagram

4 SYSTEM DESIGN

4.1 Basic Modules

Modules and their functions Descriptions

This section provides detail of all major functionalities supported by Online Institute Management.

Online Institute Management

Login operation Module

Functional Requirement Id	FR 1
Requirement Title	Login Operation
Requirement Description	<ul style="list-style-type: none">● Registered user enters username and password.● User clicks on required 'Login' button.● System should authenticate and create a valid user session upon successful authentication and redirect users Dashboard.
Business Rationale	<ul style="list-style-type: none">● Allow Registered user to get their welcome page according to their type of user (Admin, Teacher and Student)
Exception Scenarios	<ul style="list-style-type: none">● If authentication fails, user should be redirected to login page showing "User id or password incorrect" message.
Dependencies	<ul style="list-style-type: none">● User must be registered on Database.

Registration operation Module

Functional Requirement Id	FR 2
Requirement Title	Registration and Admission
Requirement Description	<ul style="list-style-type: none">● Admin should fill a form● It enters the New Admission Student Information Student Name, Gender, Data of Birth, Mobile No., Father's Name and Address etc.● User clicks on "Submit" button.● Post Successfully Admitted
Business Rationale	<ul style="list-style-type: none">● Allow Faculty User to save the newly admitted student's information into database.
Exception Scenarios	<ul style="list-style-type: none">● Two student's admission no. must not same.
Dependencies	<ul style="list-style-type: none">● User must be an Admin.● FR1 User should be logged in.

Online Institute Management

Course Management Module

Functional Requirement Id	FR 3
Requirement Title	Course
Requirement Description	<ul style="list-style-type: none">• The Course Function should display all available courses in the institute.• Student can choose any course according to his/her choice. .
Business Rationale	<ul style="list-style-type: none">• Allow Admin User to easily add, update and edit a course.
Exception Scenarios	<ul style="list-style-type: none">• Internal Error of database
Dependencies	<ul style="list-style-type: none">• User should be a Admin.• FR1 User should be logged in.

Batch Management Module

Functional Requirement Id	FR 4
Requirement Title	Batch
Requirement Description	<ul style="list-style-type: none">• The Batch Function should display all the running batches and courses in that batch.• Students have choice to join any available batch during admission.
Business Rationale	<ul style="list-style-type: none">• Allow Admin User to easily update, edit and display batch to teacher and student.
Exception Scenarios	<ul style="list-style-type: none">• Internal Error of database
Dependencies	<ul style="list-style-type: none">• User should be an Admin.• FR1 User should be logged in.

Fee management Module

Functional Requirement Id	FR 5
Requirement Title	Fee Management
Requirement Description	<ul style="list-style-type: none">• Admin / Teacher are being allowed to display any Student's

Online Institute Management

	<p>fee.</p> <ul style="list-style-type: none">• User enters Enrolment No., Student Name and click on Fee Detail.• Teacher will see the fee detail of student.• S/he needs to click on fee detail of student.
Business Rationale	<ul style="list-style-type: none">• Allow User to get Students' fee details.
Dependencies	<ul style="list-style-type: none">• User should be a Teacher or student or admin.• FR1 User should be logged in.

Attendance Management Module

Functional Requirement Id	FR 6
Requirement Title	Attendance
Requirement Description	<ul style="list-style-type: none">• The Attendance Function should display all Students Attendance by Day, Month and Year.• Teacher can take Batch wise attendance daily.• Teacher have a daily form in which all student name class present and have two option first present and second is absent they must select one and the data will save in database.
Business Rationale	<ul style="list-style-type: none">• Allow Teacher User to easily update, edit and display daily attendance of students
Exception Scenarios	<ul style="list-style-type: none">• Internal Error of database
Dependencies	<ul style="list-style-type: none">• User should be a Teacher.• FR1 User should be logged in.

4.2 Data Design

4.2.1 Logical database connectivity

Student			
Field name	Field type	Field size	Key attribute
Student_Id	Varchar2	10	Primary
Name	Varchar2	25	
Father_Name	Varchar2	25	
Date_of_Birth	Date	--	

Online Institute Management

Gender	Varchar2	10	
Mobile_No	Varchar2	10	
Email_Id	Varchar2	40	
Date_of_admission	Date	--	
Address	Varchar2	50	
State	Varchar2	15	
District	Varchar2	15	
Pincode	INT	--	
Course_Id	Varchar2	10	
Batch_Id	Varchar2	10	

Staff			
Field name	Field type	Field size	Key attribute
Employee_Id	Varchar2	10	Primary
Name	Varchar2	25	
Father_Name	Varchar2	25	
Date_of_Birth	Date	--	
Gender	Varchar2	10	
Mobile_No	Varchar2	10	
Email_Id	Varchar2	40	
Date_of_joining	Date	--	
Address	Varchar2	50	
State	Varchar2	15	
District	Varchar2	15	
Pincode	INT	--	

Teacher			
Field Name	Field type	Field size	Key attribute
Teacher_Id	Varchar2	10	Primary
Name	Varchar2	25	
Father_Name	Varchar2	25	
Date_of_Birth	Date	--	
Gender	Varchar2	7	
Mobile_No	Varchar2	10	
Email_Id	Varchar2	40	
Address	Varchar2	50	
State	Varchar2	15	
District	Varchar2	15	
Pincode	INT	--	

Online Institute Management

Batch			
Field Name	Field type	Field size	Key attribute
Batch_Id	Varchar2	10	Primary
Batch_Time	Varchar2	30	
Teacher_Id	Varchar2	10	Foreign
Course_Id	Varchar2	10	Foreign

Course			
Field Name	Field type	Field size	Key attribute
Course_Id	Varchar2	10	Primary
Course_Name	Varchar2	30	
Duration	INT	--	
Fee	INT	--	

Attendance			
Field Name	Field type	Field size	Key attribute
Student_Id	Varchar2	10	Foreign
Date	Date	--	
Status	Varchar2	2	
Teacher_Id	Varchar2	10	Foreign

Fee			
Field name	Field type	Field size	Key attribute
Student_Id	Varchar2	10	Foreign
Amount	INT	--	
Date	Date	--	
Teacher_Id	Varchar2	10	Foreign

Pending Fee			
Field name	Field type	Field size	Key attribute
Student_Id	Varchar2	10	Foreign
Course_Id	Varchar2	10	Foreign
Amount	Date	--	
Batch_Id	Varchar2	10	Foreign

User Account			
Field name	Field type	Field size	Key attribute
Username	INT	--	Unique
Password	Varchar2	10	Hidden
User Id	Varchar2	10	Unique
User_Type	Varchar2	10	
Name	Varchar2	25	
DOB	Date	--	

4.3 Procedural Design

It shows the functions of the project: what can do this project and what cannot?

There are three different users who will be using this product:

- Institute Manager who will be acting as the administrator (Admin).
- Faculty members (Teachers) who are second level users accessing OIM (Online Institute Management).
- Student of the Institute who will be accessing the OIM online.

Administrator can login with their provided username and password and able to create/update/delete Teachers account. If the username or password does not match then the Admin will return back to login page again. If the username and password is verified then the admin is able to hide feature, create Teacher, Add student detail etc.

The features that are available to the Administrator are:

- The administrator has the full-fledged rights over the OIM.
- Can create/delete an account.
- Can view the accounts or users.
- Can change the password.
- Can hide any kind of features for the both of users.
- Insert/delete/edit the information of available on OIM.
- Can access all the accounts of the Teacher / students.
- Can add new Course and Batch.
- Can Increase Fee of any course at any time.
- Can view attendance of any student.
- Can pay fee of any student after collection of fee offline.
- Can view the pending fee of any student.

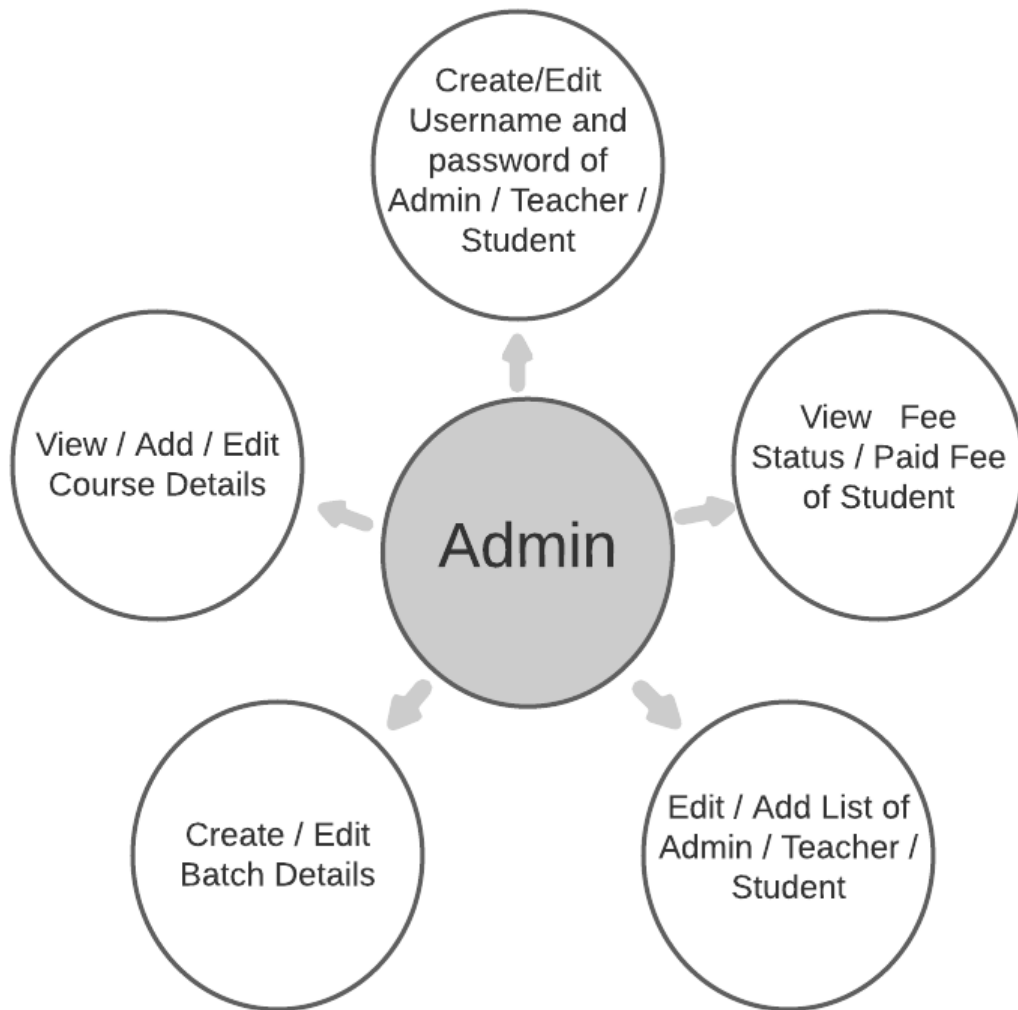


Figure 7 : Procedural Design for Admin

Teacher can login with their provided username and password and able to attendance detail and topics for study. If the username or password does not match then the instructor will return back to login page again. If the username and password is verified then the teacher shall be able to the following work.

- ☐ Can create username and password of any Student.
- ☐ Can view student list.
- ☐ Can view course detail.
- ☐ Can view batch detail of any course.
- ☐ Can view pending fee detail of any student.
- ☐ Can update and view attendance of students online.
- ☐ Can upload assignments, reading materials for student.

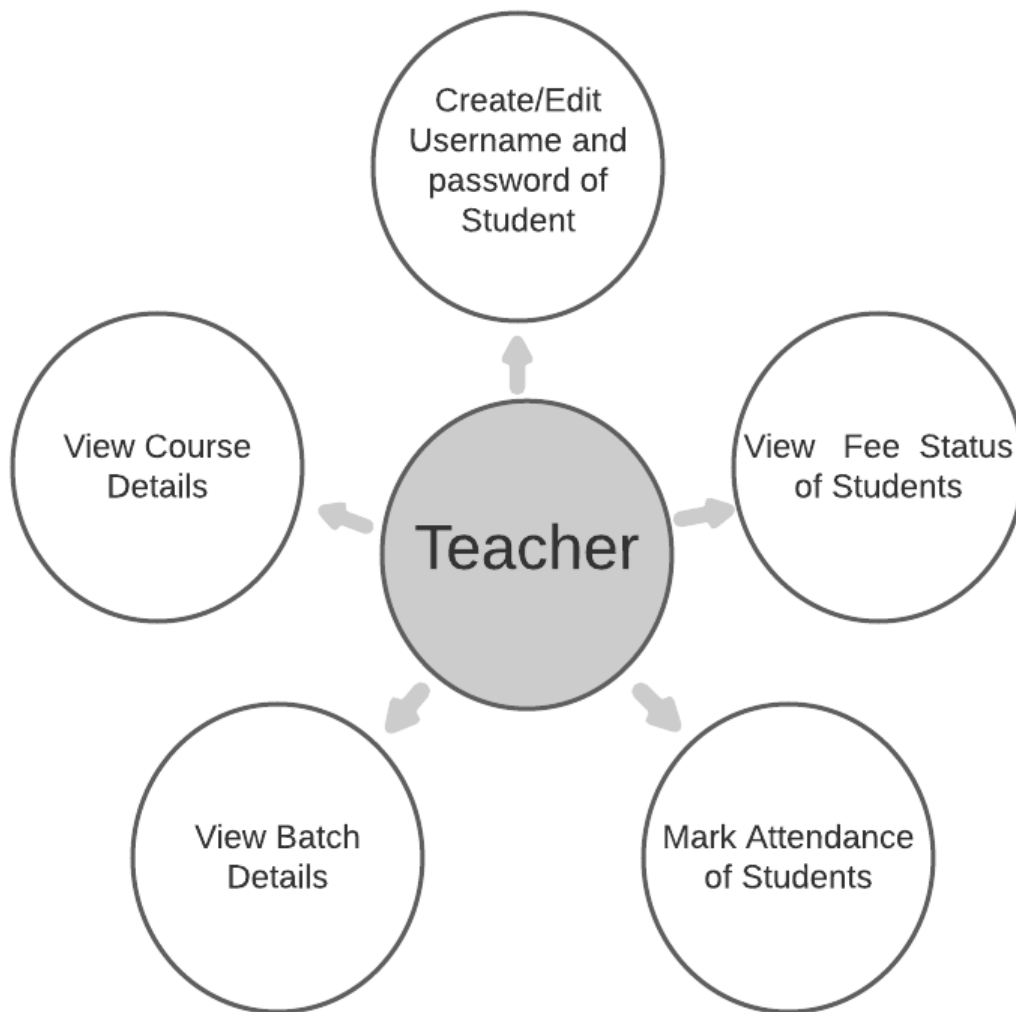


Figure 8 : Procedural Design for Teacher

Student can login with their provided username and password and able to view and access all information regarding to the account. If the username and password does not match then the user will return back to login page again and they will read only some content of this website.

This system allows student to update his/her profile and s/he will be able to see their attendance but they not able to modify them.

The features available to the Students are:

- ☐ Can view and modify its profile but can modify it to some limited range.
- ☐ Can view available course detail.
- ☐ Can view available batch of any course.
- ☐ Can view the various reading material.
- ☐ Can view pending fee of self.
- ☐ Can view attendance of self.

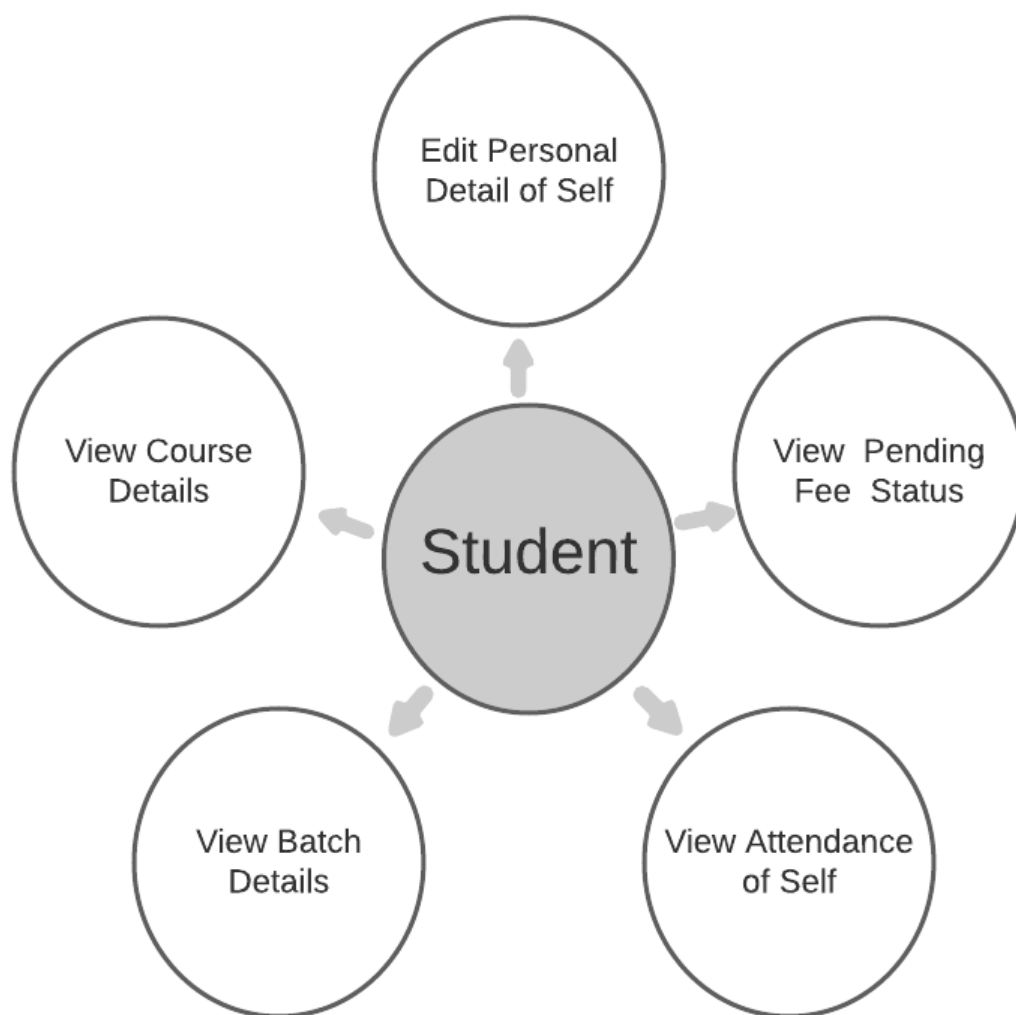


Figure 9 : Procedural Design for Student

Functionality performed by Admin Account

Function for admin	
Manage faculty	<div>Adding New Teacher</div> <div>Edit the Exiting Teacher</div> <div>View Profile of any Teacher</div> <div>Listing of all Teacher</div>
Manage Student	<div>Adding New Student</div> <div>Edit the Exiting Student</div> <div>View Profile of any Student</div> <div>Listing of all Student</div>

Online Institute Management

Manage Fees	Edit Fees for Student View Details of the Fees Listing of all Fees Filters Fees according to Student
Manage Attendance	View Attendance of Student Filter attendance according to Student
Manage Course	Add New Course Edit Course Detail View List of all course
Manage Batch	Create Batches Edit Running Batch View all Running Batch

Functionality performed by Teacher Account

Function for Teacher	
Manage Profile	Login to dashboard Able to Change some details
Manage Student	View Profile of the Student Listing of all Student
Manage Fees	View Details of the Fees Listing of all Fees
Manage Attendance	Add Attendance of Student Edit Attendance of Student Listing of the Attendance Filter attendance according to Student
Manage Course	View Course List
Manage Batch	View All Running Batch

Online Institute Management

Functionality performed by Student Account

Function for Student	
Manage Profile	Login to dashboard View his Registration Details Able to Change some details
Manage Course	View Course List
Manage Batch	View All Running Batch
Manage Fees	View Details of the Fees View his Fess Payment History
Manage Attendance	View his Attendance History Filter attendance according to Date

Static Pages and other sections:

- ☐ These static pages will be available in project
- ☐ Home Page with good UI (user interface) Home
- ☐ Page will contain an animated slider for images banner
- ☐ About us page will be available which will describe about the project
- ☐ Contact us page will be available in the project

Functionalities provided by Online Institute Management

- ☐ Online Institute Management also manage the Registration Details of Student,
- ☐ Teacher Details, Attendance, Fee Management and Batch Management etc.
- ☐ It tracks all the information of Student, Registration, and Teachers etc.
- ☐ Manage the information of Students and Teachers.
- ☐ Shows the Time Table, Attendance of Class, Fee Details, Student information.
- ☐ Editing, adding and updating of Records of improved which result in proper resource management of Institute Data.

4.4 USER INTERFACE

It shows the welcome page to all users. (It may change in UI Design)

Home Page:

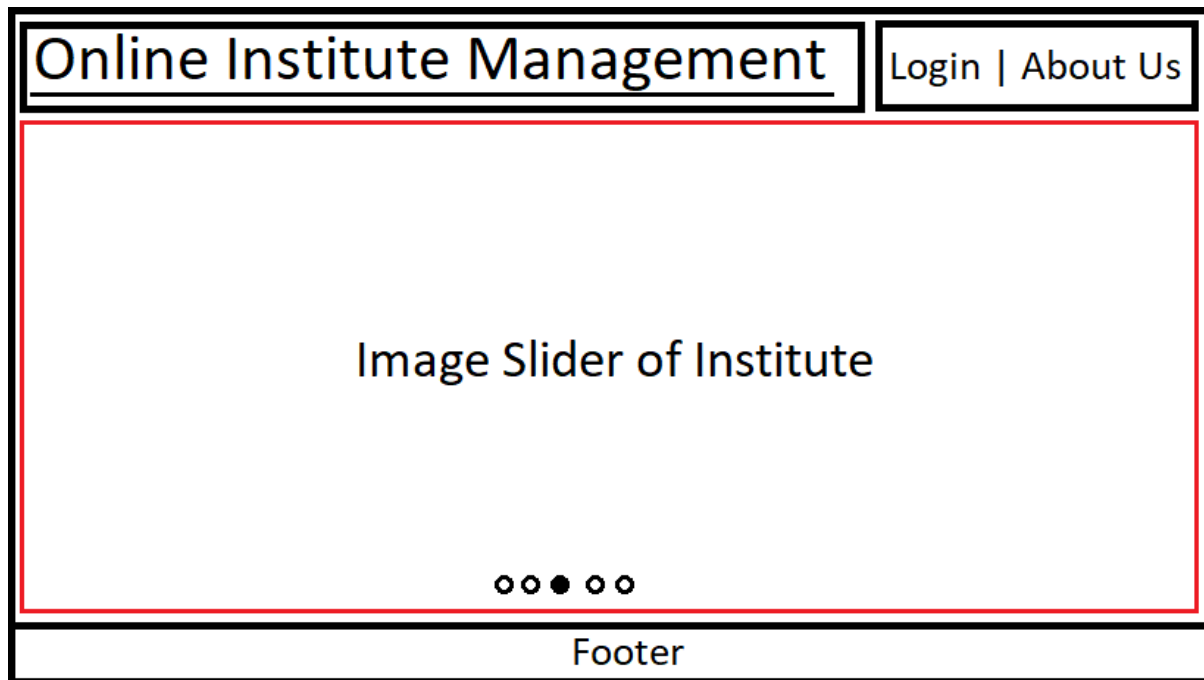


Figure 10 : User Interface Home Page

Login:

Here user can login and use some feature according to their user type as below.

The layout for the login page. It features a header with the site name and navigation links. The main content area contains a login form with fields for Username, Password, and Captcha. Below the Captcha field are 'Login' and 'Reset' buttons. A 'Forget Password' link is located below the 'Reset' button. The footer is a simple bar at the bottom.

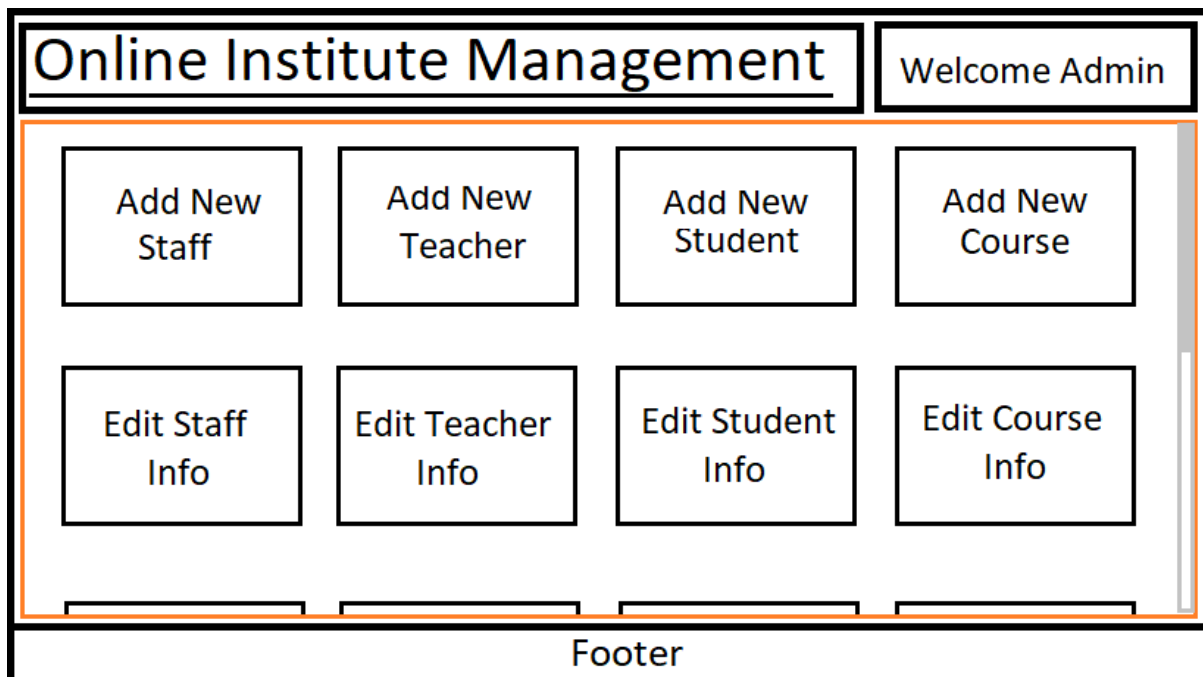
```
graph TD
    subgraph Header
        H1[Online Institute Management]
        H2[Home | About Us]
    end
    subgraph MainContent [ ]
        direction TB
        subgraph LoginForm [ ]
            direction TB
            U[Username] --- UInput[ ]
            P[Password] --- PInput[ ]
            C[Captcha] --- CInput[ ]
            L[Login]
            R[Reset]
        end
        FP[Forget Password]
    end
    subgraph Footer
        F[Footer]
    end
```

Figure 11 : User Interface Login

Online Institute Management

Admin Dashboard:

Here admin can login and use some feature as below.



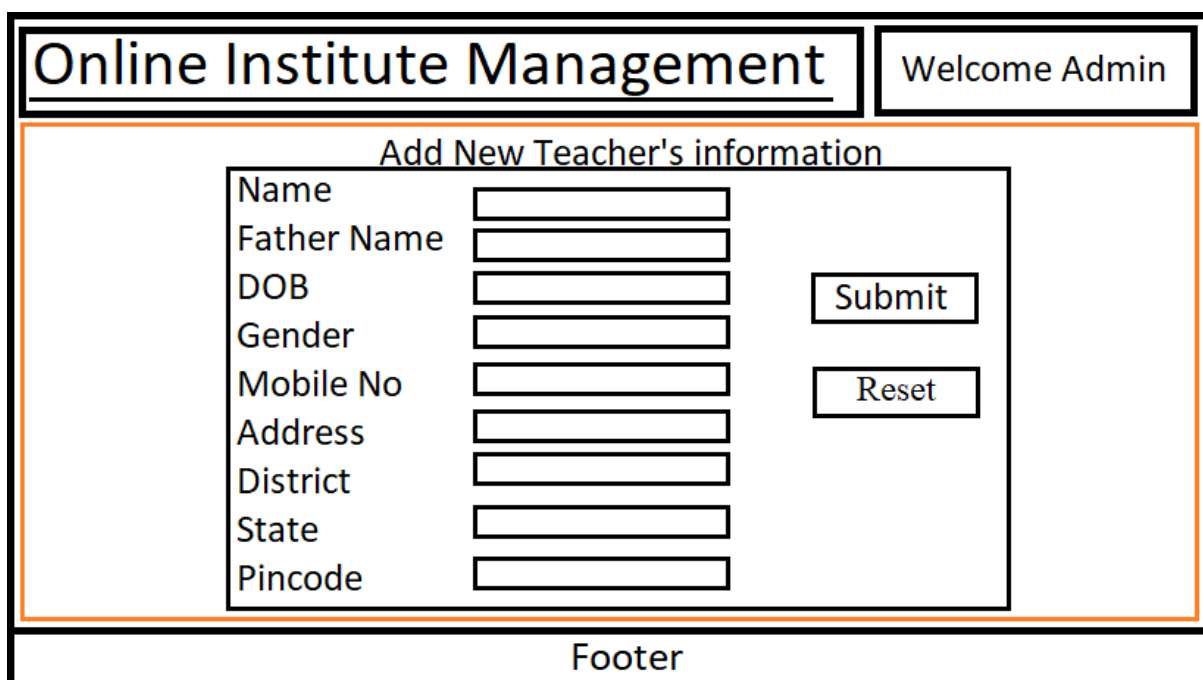
The Admin Dashboard interface features a header with the title "Online Institute Management" and a "Welcome Admin" message. The main content area is a grid of eight buttons: "Add New Staff", "Add New Teacher", "Add New Student", "Add New Course", "Edit Staff Info", "Edit Teacher Info", "Edit Student Info", and "Edit Course Info". A "Footer" bar is at the bottom.

Online Institute Management		Welcome Admin	
Add New Staff	Add New Teacher	Add New Student	Add New Course
Edit Staff Info	Edit Teacher Info	Edit Student Info	Edit Course Info
Footer			

Figure 12 : User Interface Admin Dashboard

New teacher appointment

Admin can create a new teacher as per requirement.



The New Teacher Appointment interface features a header with the title "Online Institute Management" and a "Welcome Admin" message. The main content area is titled "Add New Teacher's information" and contains a form with fields for Name, Father Name, DOB, Gender, Mobile No, Address, District, State, and Pincode. There are "Submit" and "Reset" buttons. A "Footer" bar is at the bottom.

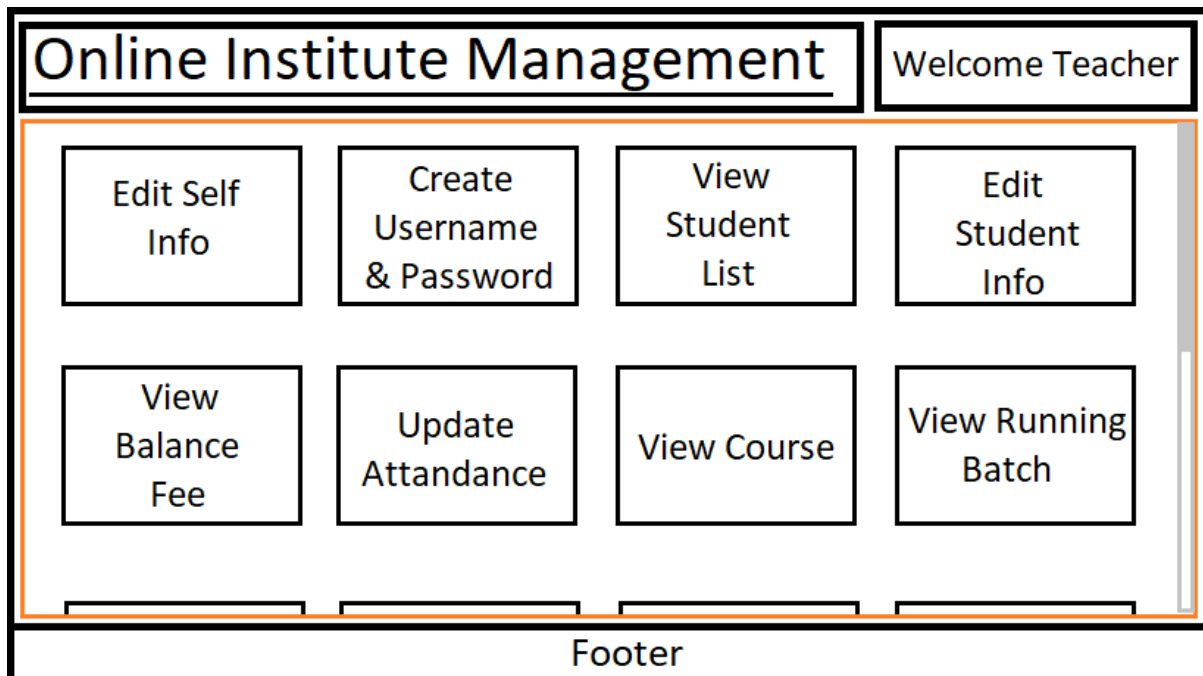
Online Institute Management		Welcome Admin	
Add New Teacher's information			
Name	<input type="text"/>	Submit	
Father Name	<input type="text"/>		
DOB	<input type="text"/>	Reset	
Gender	<input type="text"/>		
Mobile No	<input type="text"/>		
Address	<input type="text"/>		
District	<input type="text"/>		
State	<input type="text"/>		
Pincode	<input type="text"/>		
Footer			

Figure 13 : User Interface New Teacher Appointment

Online Institute Management

Teacher Dashboard:

Teacher can login to add student records, update student record, view balanced fee of student etc.

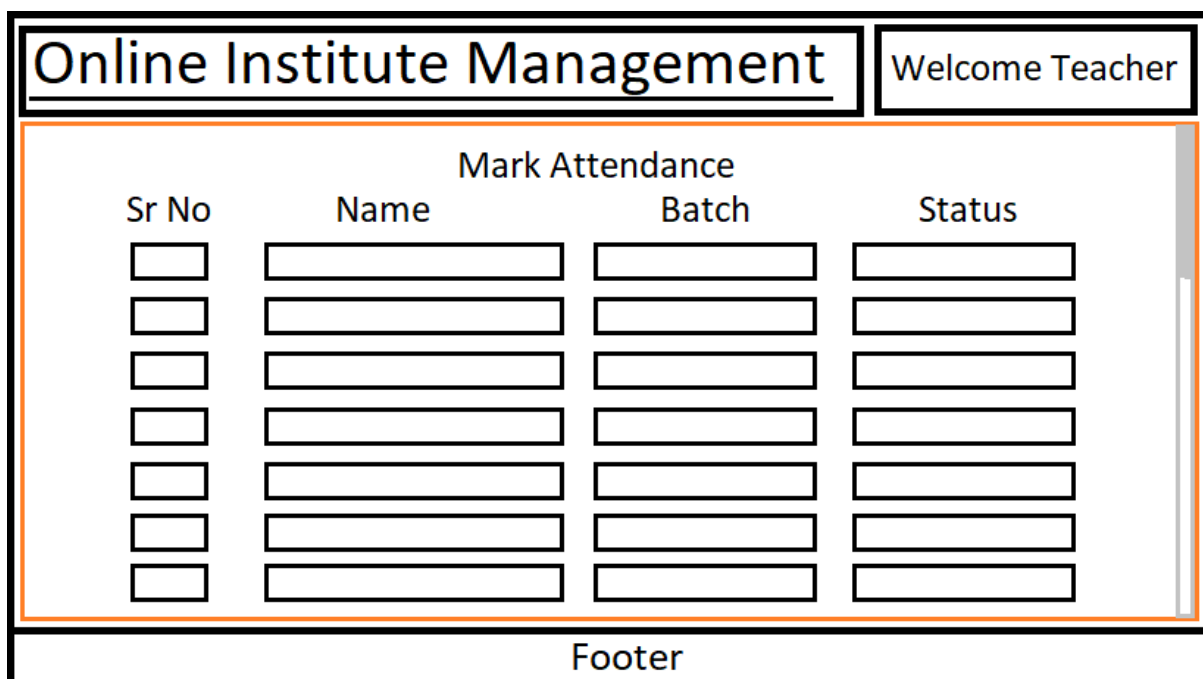


The Teacher Dashboard interface features a header with the title 'Online Institute Management' and a welcome message 'Welcome Teacher'. The main content area contains eight buttons arranged in a 2x4 grid: 'Edit Self Info', 'Create Username & Password', 'View Student List', 'Edit Student Info', 'View Balance Fee', 'Update Attendance', 'View Course', and 'View Running Batch'. A 'Footer' bar is located at the bottom.

Figure 14 : User Interface Teacher Dashboard

Mark attendance

Here the attendance is updated by the Teacher online.



The Mark Attendance interface features a header with the title 'Online Institute Management' and a welcome message 'Welcome Teacher'. The main content area displays a table titled 'Mark Attendance' with four columns: 'Sr No', 'Name', 'Batch', and 'Status'. The table contains eight rows of input fields for marking attendance. A 'Footer' bar is located at the bottom.

Sr No	Name	Batch	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Figure 15 : User Interface Mark Attendance

Pending fees details:

This area shows the balance fee of students. It is shown on Admin, teacher and student page.

Online Institute Management				Welcome Admin
Fee Details				
Sr No	Name	Batch	Amount	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Footer				

Figure 16 : User Interface Pending Fee Detail

Student Dashboard:

Student can login and view the features listed below.

Online Institute Management				Welcome Student
Edit Self Info	Read Study Material	View Attandance	View Balance Fee	
Reset Password	Search Teachers	View Course	View Running Batch	
Footer				

Figure 17 : User Interface Student Dashboard

4.5 Security Issues

1. Login operation should be performed using transport layer security.
2. All password information should be encrypted using #tag.
3. Registration process should use CAPTCHA to prevent machine / robot brute force attacks.
4. All input filled should be validated through JavaScript.

5 IMPLEMENTATION AND TESTING

- First match the minimum requirement (as describe in Software and Hardware Requirement) for the system. If condition matches then setup Net beans and My SQL Server as a Database Server.
- At first we need the PC and minimum Software and Hardware configuration as specified earlier.
- This project has three Security Verification Admin, Teacher and Student separately all will open with correct username and password. The administrator and teacher would login with their password provided by administrator and then he follow on line help.
- While entering the data into the form it will check for the name of the client is properly filled & it should not be null.
- Whenever we enter the data for the new staff detail, student detail, or user will automatically check the details from the database tables and also generate the connection number automatically.

5.1 Testing

- **White Box Testing** : This type of testing goes inside the program and tests the paths, loops and branches in the code at least once to verify the programmer's intention
- **Black Box Testing**: This testing is done only by checking the outputs to see whether they are the expected ones. This type of testing verifies that the software generates the expected outputs eight a given set of inputs

5.2 Performance Testing

The following are the key performance requirements.

- All pages load within 3 to 4 seconds throughout the Indian region.
- Search result should be displayed within 2 to 3 second.

6 RESULT AND DISCUSSION

6.1 User Documentation

The following maintainability feature should be supported.

- All code artefacts should have proper documentation.
- All code components should be thoroughly tested and the test coverage should be more than 85%.

7 CONCLUSIONS

7.1 Limitations of the Project

1. For uploading this project we require some space on the internet server.
2. This Project is also not having any Library Management Module for Recording Books Details and Issues Records.
3. This project can be used as Administrative/Teacher /Student to support system for Institute with adding some more useful modules in the project.

7.2 Future Scope of the Project

- This project has been designed to work on any institute/organisation for their day to day requirement. So, according to our analysis the future scope of the project is bright and would have an everlasting effect on the current system.
- Currently, our software is fully compatible with all those systems which can run SQL Server correctly and efficiently. So, there is no compatibility issue in our software in future.

8 References

- <https://www.w3schools.com/>
- <https://www.javatpoint.com/>
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- <https://krazytech.com/>
- <http://shodhganga.inflibnet.ac.in/>
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