

A

Report On

“Knowledge Enhancement Portal”

Under the subject

‘Web Technology’

Submitted by

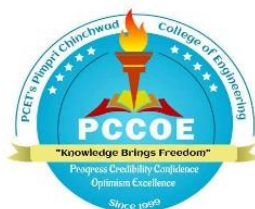
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Under the guidance of

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Certificate

This is to certify that,

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From **Pimpri Chinchwad College of Engineering, Pune** have completed project of final year having title **Knowledge Enhancement Portal** during 2021-22 in a group consisting of **2** persons under the guidance of **Prof. Rahul Pitale**.

Place: **Pune**

Date:

Guide

Prof. Rahul Pitale

Head of Department

Dr. K. Rajeswari

Abstract

The need and importance of Information Technology (IT) has been established in all walks of professions and everyone has experienced that one of the most important components of IT is computer. The role of computer and digital equipment is well accepted in decision making, automation of work and in communication. Therefore, it has become essential for everyone irrespective of their core discipline to acquire basic knowledge and skills to develop insight not only into its potential and application but also to utilize and manage basic IT infrastructure and resources effectively. Through this Capstone Project, we have acquired knowledge and skills related to developing a software project by following various different phases. Following is a report on the project developed under the title Knowledge Enhancement Portal. The report consists of brief introduction of the web application developed. It also consists of database design, UML's, testing details, etc., The portal that we have developed will help different stakeholders of education system namely students, librarian, administrator. The portal consists different features for librarian to manage library options. For administrator the portal provides two modules viz. student profile management and examination seating arrangement, in which they can perform their respective functions. And for students portal provides feature to view their own profile and edit the profile. The portal also provide change password module where each stakeholder can change their own passwords.

Index

Chapter No.	Title	Page No
1	Introduction	6- 8
	1.1 Introduction & Objectives	6
	1.2 Existing system and problems	6
	1.3 Proposed system	7
	1.4 Advantages of proposed system	8
2	Scope of project	9- 10
	2.1 Scope of project	9
	2.2 Requirements specifications	10
3	Details of Design	11- 25
	3.1 System Architecture	11
	3.2 UML's	12- 13
	3.2.1 Data Flow Diagrams	12
	3.2.2 Use Case Diagram	13
	3.3 Modules	14
	3.4 Database Design	17
	3.5 Sample Code	21-25
	3.5.1 Student data insertion	21
	3.5.2 Uploading CSV file	22
	3.5.3 Report Generation (Packing Slip)	23
4	Results and Application	26-36
	5.1 Testing	26
	5.2 Snapshots	30
	5.3 Applications	36
5	Conclusion and Future Scope	37-37
	6.1 Conclusion	37
	6.2 Future Scope	37
6	References and Bibliography	38-38
	7.1 References and Bibliography	38

Figures

Figure. No.	Figure Name	Page No.
1.1	System Architecture	8
3.1	System Architecture	11
3.2	Data Flow Diagram Level 1	12
3.3	Use- Case Diagram	13
4.1	Login Page	30
4.2	Student Management System	31
4.3	Change Password Page	31
4.4	Home Page for Examination Seating Arrangement	32
4.5	Print Master Seating Chart	32
4.6	Importing Examination Timetable using CSV file	33
4.7	Attendance Report	33
4.8	Packing Slip	34
4.9	Question Paper Account	34
4.10	Exam Student table in database	35
4.11	Library Issue table in database	35

Tables

Table. No.	Table Name	Page No.
3.1	Schema for student Table	17
3.2	Schema for library Table	18
3.3	Schema for library_issue Table	18
3.4	Schema for library_return Table	18
3.5	Schema for users Table	19
3.6	Schema for examtimetable Table	19
3.7	Schema for examstudent Table	19
3.8	Schema for examstaff Table	20
3.9	Schema for examqp Table	20
3.10	Schema for examdetails Table	20
3.11	Schema for examblocks Table	21
6.1	Test Cases	26-30

Chapter 1: Introduction

1.1 Introduction & Objectives

Introduction

Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs and habits. Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. The mostly known and simplest location to acquire knowledge are Schools, Colleges, Educational Institutes, Universities, etc., Students acquire knowledge by getting education. So, Education is backbone for development of the society.

Students get knowledge through institutes. While taking knowledge they face various issues. Along with the students, faculties too face various issues. Under this project we have considered various issues faced by them such as student data management, examination seating arrangement, library management where they need to manage everything manually. We have developed a web application which will solve all those issues faced by educational institutes regarding data management.

The main focus of our system is to develop examination seating arrangement system which will be used by our institute for managing halls at the time of exam. In this module we have included block assignment, report generation, attendance management, question paper management, etc. This will prove helpful to our institute at the time of exams.

Objectives

1. To develop Web Application to solve problems in education system.
2. To develop Examination Seating Arrangement System.
3. To develop Student Management System.
4. To develop Library Management System.

1.2 Existing System & Problems

The system consists of different modules such as managing student profile and examination seating arrangement system for the administrator. The system provides separate login to librarian where he/she can perform library functions. The system also provides view profile and update profile feature to students. Although there are separate system for all these modules, there is no existing system which contains all modules together. For Examination Arrangement Module we studied Examination Arrangement Module of our college. There were some problems in that system,

1. There is duplication of data of students in database.
2. The number of students assigned to block are greater than size of block.
3. Search Student and Subject options are not available.
4. There is no option of creating timetable.
5. No navigation buttons when report is generated.
6. Report is opened in same tab so admin has to use browser navigation buttons.
7. All other modules available are independent modules there is no system which consists all of them together.

1.3 Proposed System

The proposed system will solve problems in existing system. It will also provide various additional options along with the Examination Seating Arrangement System. The technology used to develop this application is jsp. The additional functionalities of new system,

1. Duplication of student data in database is removed.
2. Search Student and Subject facility is provided.
3. The maximum number of students allocated to a block will be less than or equal to size of block.
4. Timetable will get created on uploading csv file.
5. Navigation buttons are present on each page.
6. The report will be opened in new tab so admin can directly print that page, while the page which has triggered event will remain opened in same tab so no need to use browser navigation buttons.
7. It consists of library management system
8. It also consists of student management system.
9. It provides advanced options such as change password.
10. It will also help student to view their profile and update own profile.
11. All the modules which were developed previously we developed that modules adding some features with providing ease in GUI, and integrated all modules together.

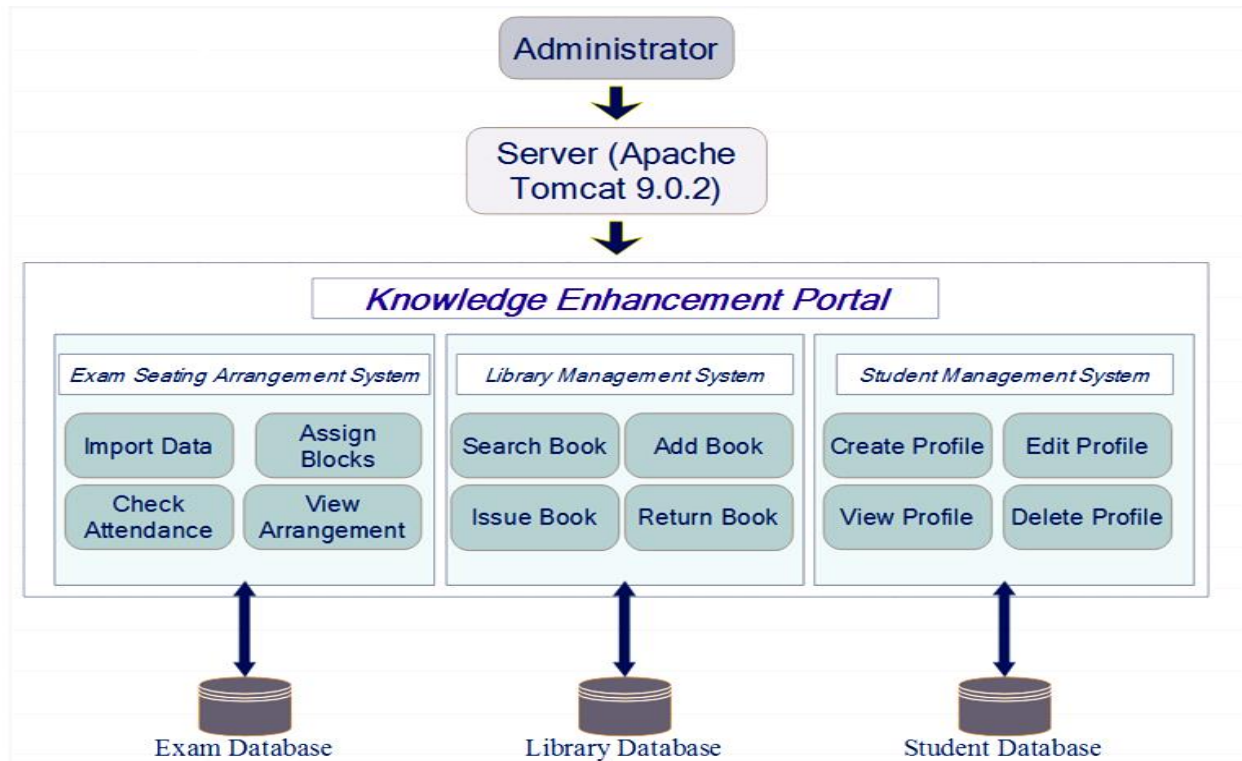


Figure 1.1- System Architecture

1.4 Advantages of Proposed System

1. It provides richer GUI.
2. It provides advanced additional functionalities than in existing system.
3. It provides ease of access of data.
4. It prevents duplication of data.
5. It provides faster operations as it is developed in jsp language rather than the old one which one was developed in php.
6. It generates report efficiently and provides direct printing facility.

Chapter 2- Scope of Project

2.1 Scope of Project

The project is to develop a Knowledge Enhancement Portal which will contain various modules such as Student Management System, Library Management System, Examination Seating Arrangement System, etc., The project will help administrator to manage the student details and manage the examination details at the time of exams, librarian to manage the library details and students to view and edit their own profile.

2.1.1 Deliverables:

The deliverables which will be delivered with final project are,

1. Web Application
2. knowledge database
3. Test Cases Report
4. UML diagram's
5. Planning Report
6. Final Report
7. Gantt chart for plan, code and execution

2.1.2 Justification for the project:

The project was decided to develop considering the issues of the components of the education system. The project was to be developed for administrator, librarian and student. The librarian has to manage library details in the registers, admin had to manage student details in registers and assign exam blocks at the time of exam manually, student has to visit student's section to visit his/her profile and give different applications for updating their profiles. Considering all those issues system was intended to solve these problems.

2.1.3 Constraints:

The project requires constant modification every year when new student have become part of the institute and old students which are not part of the system needs to be removed. While uploading the CSV file for exam seating arrangement the file needs to at the specified location otherwise it will provide file not found error, because different browsers have different configurations, some of them are unable to read the absolute path of the file.

2.1.4 Assumptions:

The repeaters should be in working conditions. The students should be able to use system it is quite easy to manage system for them as the system is user friendly. The admin has to delete the student data, exam timetable, reset blocks and supervisor and delete the exam details and add new exam details before start of the new exam.

2.2 Requirements Specification

The project will be used by librarian, administrator and students which are the components of the educational institute. The administrator has to manually allocate the blocks and manage other exam details during the exams. He/ She has to manually manage student data in the registers. The librarian has to manually manage library details in the form of registers. When student want to view his data and wants certain modification in data then he/she has to visit student section and perform further tasks. This system is intended to solve all these issues.

2.2.1 Platform:

The system can be used from any device as well as any browser with any configuration. Specifically, the website should be accessed from windows system and google chrome browser.

2.2.2 Scheduling:

The schedule by which project is developed in mentioned in chapter 4.

2.2.3 Technical Process:

Front- end development- HTML, CSS, JSP

Back-end development- JSP, MySQL

Chapter 3 – Details of Design

3.1 System Architecture

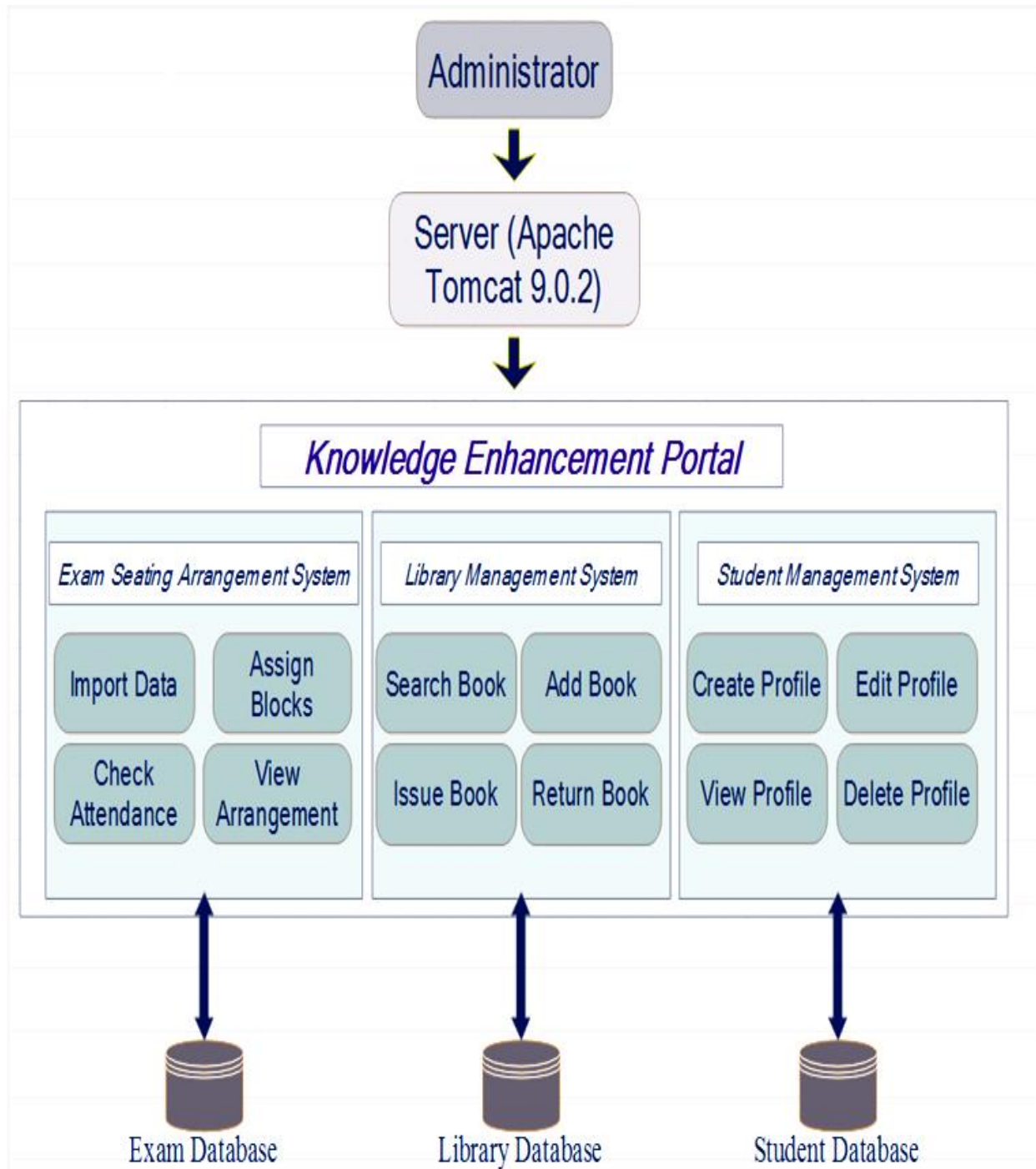
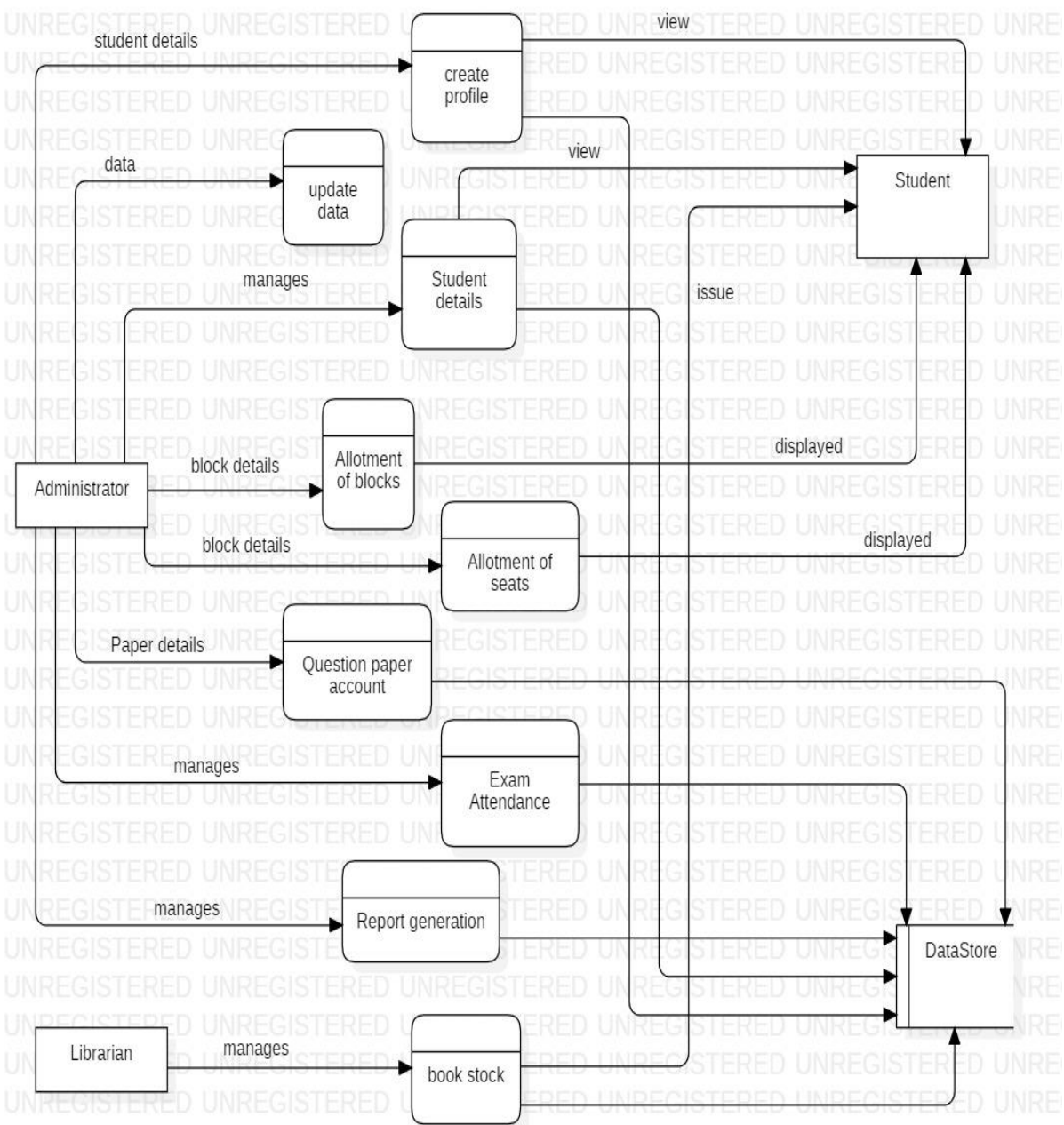


Figure 3.1- System Architecture

3.2 UML's

3.2.1 Data Flow Diagram Level 1



Data Flow Diagram Level 1

Figure 3.2- Data Flow Diagram Level 1

3.2.2 Use- Case Diagram

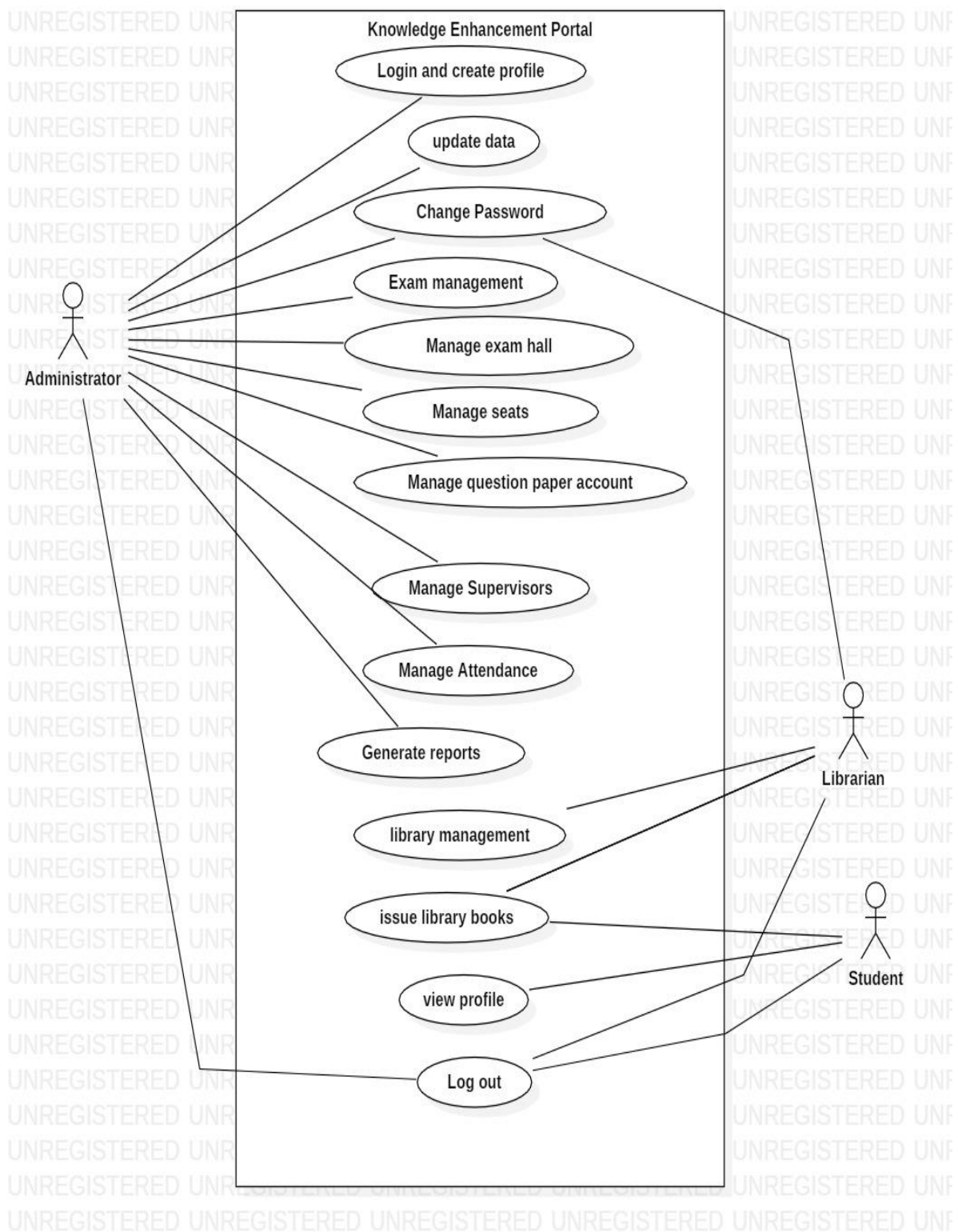


Figure 3.3 - Use- Case Diagram

3.3 Modules

As per above diagrams we have developed a Knowledge Enhancement Portal which will help students and faculties in education system.

The Knowledge Enhancement Portal consists of various modules which are as follow:

1. Examination Hall Seating Arrangement

The administrator has to manually manage the examination hall during the exams which is quite difficult. To handle this issue, we have developed this module. This module contains submodules which are,

i. Exam details management:

This module provides facility to manage exam details such as staff details, block details, details of the exam, student details during exam.

ii. Insertion of student and timetable data using csv file:

This module helps in uploading student data and timetable which is provided by MSBTE to the institutes for organizing the exams. This data further can be manipulated to assign blocks to students.

iii. Assignment of Blocks:

This module provides facility to assign students to blocks as well as assign supervisors to block based on date and time of exam.

iv. Attendance Management:

This module will provide facility to mark attendance during exam and also provides facility to check attendance during exam. This module will also help to assign a special code to student e.g. 401 for absent, 403 for copycase, etc.,

v. Question Paper Account Management:

This module provides facility to manage question paper account, edit the question paper account. It also provides facility to print question paper account which consists of papers given to RAC, total received papers, students appeared for exam, remaining papers, etc.,

vi. Report Generation:

It provides facility to generate various reports as per formats provided by MSBTE. These reports are,

- a) Master Seating Arrangement
- b) Block-wise Supervisor Appointment
- c) Seating Chart
- d) Appendix- B
- e) Format 10 Attendance Report

- f) Format 8
- g) Packing Slip

2. Library Management

The Librarian has to manually manage the library details in the registers which is very difficult and time-consuming process and also requires lot of manual efforts. So, considering this we have tried our best and developed Library Management System which will assist Librarian in managing library. This module contains various submodule which are,

i. Adding new book to library:

This module provided facility to add new book to the library. Here librarian can add details of book such as book name, book author, book id, etc., This module will not allow a book to be added with same id so librarian has to give unique to id each book.

ii. Deleting book:

This module provides help to delete book from the books database which consists of books present in the library, based on the book id.

iii. Issuing books:

This module provides facility to maintain book issuing details. It provides facility to store student details such as student roll number, student name, student class, etc.,

iv. Return books:

This module provides facility to store the details of the book when it is returned by the student.

v. Search book:

This module provides facility to search book details based on the id of the book.

3. Student Management

The admin has to manually manage the student details in the registers which is very difficult and time-consuming process and also requires lot of manual efforts. So, considering this we have tried our best and developed Student Management System which will assist admin in managing student details. This module contains various submodule which are,

i. Create Student profile:

This module provides facility to create new student profile and manage student details such as Enrollment number, roll number, student name, branch, year, password, address, date of birth, gender, etc.,

ii. Deleting Student profile:

This module provides facility to delete student profile based on student enrollment number or roll number.

iii. Update Student profile:

This module provides facility to update student details. The updated details will be saved to the database.

iv. Search Student Profile:

This module provides facility to search any student based on his/her enrollment number or roll number.

4. Student Module:

When student wants to see his/her personal details he/she has to go to students section for the details, which requires time and unwanted time is wasted. We have developed a separate login for student i.e. separate module for student which will help them to view their profile. This module consists of various submodules which are,

i. View Profile:

This module provides facility to students to view their own profile when they will login to the system with enrollment number and password.

ii. Deleting Student profile:

This module provides facility to student to update his/her own profile. He cannot update other student's profile as the enrollment number and roll number fields are made read only so they are not updatable.

5. Login Module

This module consists of different login options for students, admin, library. First the user has to select the role. The value assigned to librarian role is 1. The system then checks the username and password for library role in the users database where username and password of librarian is stored. Login is successful if match is found else login is unsuccessful. For the admin role the value assigned is 2. The system then checks the username and password in users database for the admin access is granted if match is found or not. For students we have provided login facility based on enrollment number and password.

6. Change Password:

We have also provided facility to change password to librarian, admin, student. When librarian has login to the system he/she is provided with the change password module, where he/she has to enter his old password, new password and confirm new password. When the old password is matched the system will match new password and confirm new password if all are valid the system will update password for librarian.

Admin can change the password in the same way. For student when student edits his/her profile he/she can also change his/her own password.

Above are the various modules that are implemented in as part of Knowledge Enhancement Portal. We have implemented these modules using JSP language and developed this Web Portal. We have used MYSQL server for creating databases. Various database tables have been created they are mentioned in 5.3.

We have provided facility of registering new student only to the admin so that the students which are not part of college will not be able to use this portal. This will increase security of the Web Portal and will prevent the college data from the unauthorized users. The Knowledge Enhancement Portal will save everyone's time and will allow to achieve the aim of modern learning.

3.4 Database Design

Following are the tables with their schema present in the database named knowledge,

Table Name: student	
Enrollment	Int (10) primary key
roll_no	Int (10)
stud_name	Varchar (50)
stud_dob	Varchar (50)
stud__gender	Varchar (50)
stud_email	Varchar (50)
stud_mob	Varchar (50)
stud_add	Varchar (50)
stud_branch	Varchar (50)
stud_year	Varchar (50)
stud_pin	Varchar (50)

Table 3.1- Schema of Student Table

Table Name: library	
book_id	Int (10) primary key
book_name	Varchar (50)
book_author	Varchar (50)
quantity	Int (10)
perquantity	Int (10)

Table 3.2- Schema of Library Table

Table Name: library_issue	
book_id	Int (10) Primary key
book_name	Varchar (50)
book_author	Varchar (50)
student_name	Varchar (50)
Class	Varchar (50)
roll_no	Varchar (50)
issue_date	Varchar (50)

Table 3.3- Schema of library_issue Table

Table Name: library_return	
book_id	Int (10) Primary key
book_name	Varchar (50)
book_author	Varchar (50)
student_name	Varchar (50)
Class	Varchar (50)
roll_no	Varchar (50)
return_date	Varchar (50)

Table 3.4- Schema of library_return Table

Table Name: users	
Role	Int (10) Primary key
Uname	Varchar (50)
Pass	Varchar (50)

Table 3.5- Schema of users Table

Table Name: examtimetable	
Id	Int (10) Primary key
Date	Varchar (50)
Time	Varchar (50)
subcode	Varchar (50)
subname	Varchar (50)
count	Int (10)
remcount	Int (10)
qpstatus	Varchar (50)

Table 3.6- Schema of examtimetable Table

Table Name: examstudent	
Id	Int (10) Primary key
Date	Varchar (50)
Time	Varchar (50)
subcode	Varchar (50)
subname	Varchar (50)
seatno	Int (10)
center	Int (10)
coucode	Varchar (50)
yearcode	Varchar (50)
mastercode	Varchar (50)
block	Varchar (50)
attendance	Varchar (50)
staffname	Varchar (50)
specialcode	Varchar (50)

Table 3.7- Schema of examstudent Table

Table Name: examstaff	
staff_id	Int (10) Primary key
staff_name	Varchar (50)
staff_dept	Varchar (50)
staff_design	Varchar (50)
staff_role	Varchar (50)
status	Varchar (50)

Table 3.8- Schema of examstaff Table

Table Name: examqp	
Id	Int (10) Primary key
Date	Varchar (50)
Time	Varchar (50)
subcode	Varchar (50)
subname	Varchar (50)
numpack	Int (10)

Table 3.9- Schema of examqp Table

Table Name: examdetails	
Id	Int (10) Primary key
examcenter	Varchar (50)
centername	Varchar (50)
examyyear	Varchar (50)
duration	Varchar (50)
session1	Varchar (50)
sessiondur	Varchar (50)
chiefofficer	Varchar (50)
officer	Varchar (50)
controller	Varchar (50)
supervisor	Varchar (50)

Table 3.10- Schema of examdetails Table

Table Name: examblocks	
block_id	Int (10) Primary key
block_name	Varchar (50)
block_size	Varchar (50)
break1	Int (10)
break2	Int (10)
break3	Int (10)
break4	Int (10)
allocated	Varchar (50)
staff	Varchar (50)

Table 3.11- Schema of examblocks Table

3.5 Sample Code

3.5.1 Student data insertion

```

<% Class.forName("com.mysql.jdbc.Driver");

java.sql.Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/knowledge","root","root");

Statement st= con.createStatement();

if(mbno.length()==10)
{
    if(enroll.length()==10)
    {
        int i=st.executeUpdate("insert into student
values("+enroll+"",""+roll+"",""+name+"",""+dob+"",""+gender+"",""+email+"",""+mbno+"",""+ad
d+"",""+branch+"",""+year+"",""+pass+"")");

        out.println("<h1>Student Profile Created Successfully<h1><br/>");

        out.println("Enrollment Number : "+enroll);

        out.println("<br/>Roll Number: "+roll);

        out.println("<br/>Student Name: "+name);

        out.println("<br/>Student DOB: "+dob);
    }
}

```

```

        out.println("<br/>Student Gender: "+gender);
        out.println("<br/>Student Email: "+email);
        out.println("<br/>Student Mobile Number: "+mbno);
        out.println("<br/>Student Address: "+add);
        out.println("<br/>Student Branch: "+branch);
        out.println("<br/>Student Year: "+year);
    }
    else
    {
        out.println("<h1 style=\"color:red;\">Invalid Enrollment Number</h1>");
    }
}
else
{
    out.println("<h1 style=\"color:red;\">Invalid Mobile Number</h1>");
}
%>

```

3.5.2 Uploading CSV file

```

<% try{
String file=request.getParameter("file");

String fName1 ="D:\\demo\\ExamSeatingArrangement\\"+file;
File f=new File(fName1);
String fName=f.getPath();
String thisLine;

FileInputStream fis = new FileInputStream(fName);
DataInputStream myInput = new DataInputStream(fis);
int i=0;

Class.forName("com.mysql.jdbc.Driver");

java.sql.Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/knowledge","root","root");

```

```

Statement st= con.createStatement();
ResultSet rs=st.executeQuery("select * from examstudent");
if(rs.next())
{
    out.println("<h1 style=\"color:red;\">Please delete the previous data</h1>");
}
else
{
    while ((thisLine = myInput.readLine()) != null)
    {
        String strar[] = thisLine.split(",");
        int p=st.executeUpdate("insert into examstudent
values(\""+strar[0]+"\", \""+strar[1]+"\", \""+strar[2]+"\", \""+strar[3]+"\", \""+strar[4]+"\", \""+strar[5]+"\", \""+s
trar[6]+"\", \""+strar[7]+"\", \""+strar[8]+"\", \""+strar[9]+"\", 'none', 'present', 'none', 'none')");
        i++;
    }
    out.println("<h1>File Uploaded Successfully</h1>");
}
}
catch(FileNotFoundException fe)
{
    out.println("<h1>Enter Valid File Location</h1>");
}
catch(ArrayIndexOutOfBoundsException fe)
{
    out.println("<h1>File Uploaded Successfully</h1>");
}
%>

```

3.5.3 Report Generation (Packing Slip)

```
<% @ page import="java.io.*"%>
```

```

<% @ page import ="java.sql.*" %>
<% @ page import ="javax.sql.*" %>
<%
String date=request.getParameter("date");
String time=request.getParameter("time");
String class1=request.getParameter("class1");
String coucode=class1.split(" ")[0];
String yearcode=class1.split(" ")[1];
String mastercode=class1.split(" ")[2];
Class.forName("com.mysql.jdbc.Driver");
java.sql.Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/knowledge","root","root");
Statement st= con.createStatement();
String subname,exam1,sess,ins;
String subname1,subabb,session1="";
int count=0;
ResultSet rs1=st.executeQuery("select * from examdetails where id='1'");
if(rs1.next())
{
exam1=rs1.getString(4);
ins=rs1.getString(2);
sess=exam1.split(" ")[0];
if(sess.equals("Summer"))
{
    session1="Afternoon";
}
else
{
    session1="Morning";
}
}

```



```

ResultSet rs=st.executeQuery("select * from examstudent where date='"+date+"' and
time='"+time+"' and coucode='"+coucode+"' and yearcode='"+yearcode+"' and
mastercode='"+mastercode+"'");

if(rs.next())
{
    subname=rs.getString(5);
    int sublen=subname.length();
    int splitlength=sublen-5;
    subname1=subname.substring(0, sublen-5);
    subabb=subname.substring(sublen-4, sublen-1);

    out.println("<br/>Institute(Examination Center) Center Code : <b> "+ins +"</b> <br/>
<br/> ");

    out.println("Date :<b>"+date+"</b> Session : <b> "+session1+"</b><br/><br/>");
    out.println("Course / Sem / Year / Master : <b> "+class1+"</b><br/><br/>");
    out.println("Subject Name : <b> "+subname1+"</b><br/><br/>");
    out.println("Subject Code : <b> "+rs.getString(4)+"</b> Mark Sheet Number/s :<br/>
<br/>");

    ResultSet rs3=st.executeQuery("select * from examstudent where date='"+date+"' and
time='"+time+"' and coucode='"+coucode+"' and yearcode='"+yearcode+"' and
mastercode='"+mastercode+"' and attendance='present' or attendance='copycase'");

    while(rs3.next())
    { count++; }

    out.println("Number of Answer books in this packet : <b> "+count+"</b><br/><br/>");
    out.println("Date and Time of Sealing:Date :<b>"+date+"</b>Time : <b>"+time+"</b><br/>
<br/> ");

    out.println("<b><div class=\"abc1\">Signature of <br/>Sealing Officer</div> <div
class=\"abc2\">Signature of <br/>Officer-In-Charge </div></b>");
}
else
{ out.println("<h1 style=\"color:red;\">Please Select Valid data</h1>"); }
}
else
{ out.println("<h1 style=\"color:red;\">Please Enter Exam Data</h1>"); } %>

```

Chapter 4 – Results and Applications

4.1 Testing

Test Cases

Sr. No	Test Case ID	Objectives	Prerequisite	Steps	Input data	Expected result	Actual Result	Status	Level
LOGIN MODULE									
1	Login_1	Validate home page	Server should be started and run project successfully	1.Click on the image you to login for the module you desired	Click on any of the one from three images	The Login page for the module corresponding to the image clicked should be opened	The Login page for the module corresponding to the image clicked is opened	Pass	System
2	Login_2	Validate Login as Librarian	Login page opened	1.Select the role 2. Enter user name 3.Enter password 4.Click on Login option	Role="Librarian" User name="gpklibrary" Password="library@12"	Library management system should be logged in	Library management system is logged in	Pass	Unit
3	Login_3	Validate Login as Student	Login page opened	1.Select the role 2. Enter user name 3.Enter password 4.Click on Login option	Role="Student" Enrollment="1700100370" Password="Pratik@123"	Student page should be opened	Student page opened	Pass	Unit
4	Login_4	Validate Login as admin	Login page opened	1.Select the role 2. Enter user name 3.Enter password 4.Click on Login option	Role="Admin" User name="gpkadmin" Password="admin@3422"	Exam Seating Arrangement module should be logged in	Exam Seating Arrangement module is logged in	Pass	Unit

					”				
LIBRARY MANAGEMENT SYSTEM									
5	Lib_mgt_1	Validate issue book option	Library Management System should be open	1.Enter required details 2.Click on Issue Book option	All required details	Book issued message should be displayed. Quantity that book should be decremented by 1.	Book issued message is displayed. Quantity that book is decremented by 1.	Pass	Unit
6	Lib_mgt_2	Validate return book option	Library Management System should be open	1.Enter all required details 2.Click on Return Book option	All required details	Book Returned message should be displayed. Quantity that book should be incremented by 1.	Book Returned message is displayed. Quantity that book is incremented by 1.	Pass	Unit
7	Lib_mgt_3	Validate search book option	Library Management System should be open	1.Enter the Book ID 2.Click on Search Book option	Book ID=”1”	The Book details of the corresponding ID should be displayed.	The Book details of the corresponding ID is displayed.	Pass	Unit
8	Lib_mgt_4	Validate add book option	Library Management System should be open	1.Enter all required details 2.Click on Add Book option	All required details	Book added message should be displayed	Book added message is displayed	Pass	Unit
9	Lib_mgt_5	Validate remove book option	Library Management System should be open	1.Enter Book ID 2.Enter Book Name 3.Click on Remove Book option	Book ID=”1” Book Name=” ANSI C”	Book will be removed, and if book doesn’t exist the	The book is removed and all the details related to	Pass	Unit

						message should be displayed accordingly.	the book are cleared.		
STUDENT MANAGEMENT SYSTEM									
10	Std_mgt_1	Validate Create Profile option	Student Management System should be open	1.Enter All the required details 2.Click on Create Profile option	All required details	Student Profile should be created	Student Profile is created	Pass	Unit
11	Std_mgt_2	Validate Update Profile option	Student Management System should be open	1.Enter All the required details 2.Click on Update Profile option	All required details	Details Updated Successfully message should be displayed and data should be updated in database	Details Updated Successfully message is data is updated in database	Pass	Unit
12	Std_mgt_3	Validate view profile option	Student Management System should be open	1. Choose the option from Enrollment no or Roll no to view Profile 2. Enter the no as per the option chosen 3. 3.Click on View Profile option	Select option : Enrollment Number Enrollment no="170 0100101 "	The student profile of the Enrollment number entered should be displayed	The student profile of the Enrollment number entered is displayed	Pass	Unit
13	Std_mgt_4	Validate delete profile option	Student Management System should be open	1.Enter All the required details 2.Click on Delete Profile option	All required details	Student no more exists message should be displayed	Student no more exists message is displayed	Pass	Unit
EXAMINATION SEATING ARRANGEMENT									
14	Exm_mgt_1	Validate Prepare Examination	Exam Seating Arrangement module should be	1.Click the prepare Examination option	CSV file="timetable.csv"	The timetable should be imported	The timetable is imported	Pass	Unit

		on option [import timetable]	open	2.Select Import Main Examination Timetable option. 3.Choose the CSV file to be imported 4.Click on import option		and should be displayed when clicked on Display Main Timetable option	and is being displayed when clicked on Display Main Timetable option		
15	Exm_mgt_2	Validate Assign Block option [Edit assigning of blocks]	Exam Seating Arrangement module should be open	1.Select the check box for appropriate option. 2.Click on Submit Button	Select (check) the appropriate check box	The form should be opened for Assigning the blocks where you can edit the data and Assign the blocks	The form is opened for Assigning the blocks and blocks were Assigned	Pass	Unit
16	Exm_mgt_4	Validate Assign Block option [Edit assigning of blocks]	Exam Seating Arrangement module should be open	1.Enter all required details 2.Click Submit button	All required details	“Block size less than Selected Candidates ” message should be displayed	“Block size less than Selected Candidates ” message is displayed	Pass	Unit
17	Exm_mgt_5	Validate Master Seating Arrangement option	Exam Seating Arrangement module should be open	1.Enter all required details 2.Click Submit button	All required details	New window must be opened displaying the report containing the details of the exam	New window is opened displaying the report containing the details of the exam	Pass	Unit
18	Exm_mgt_6	Validate Mark Absent option	Exam Seating Arrangement module should be open	1.Enter all required details 2.Click Submit	All required details	New window must be opened for marking	New window is opened for marking	Pass	Integration

				button		the absent students	the absent students		
19	Exm_mgt_7	Validate Check Attendance option	Exam Seating Arrangement module should be open	1.Enter all required details 2.Click Submit button	All required details	Attendance report according to class Should be displayed	Attendance report according to class is displayed	Pass	Integration
Student Profile Section									
20	Stud_prof_1	Validate whether student can view and edit his/her own profile	Logged in as student	1. Click on View Profile 2. Click on Edit Profile 3. Click on Update My Profile	All required details	Student profile should be displayed and updated on click on buttons	Student profile displayed and updated successfully on click on buttons	Pass	System

Table 4.1 – Test Cases

4.2 Snapshots

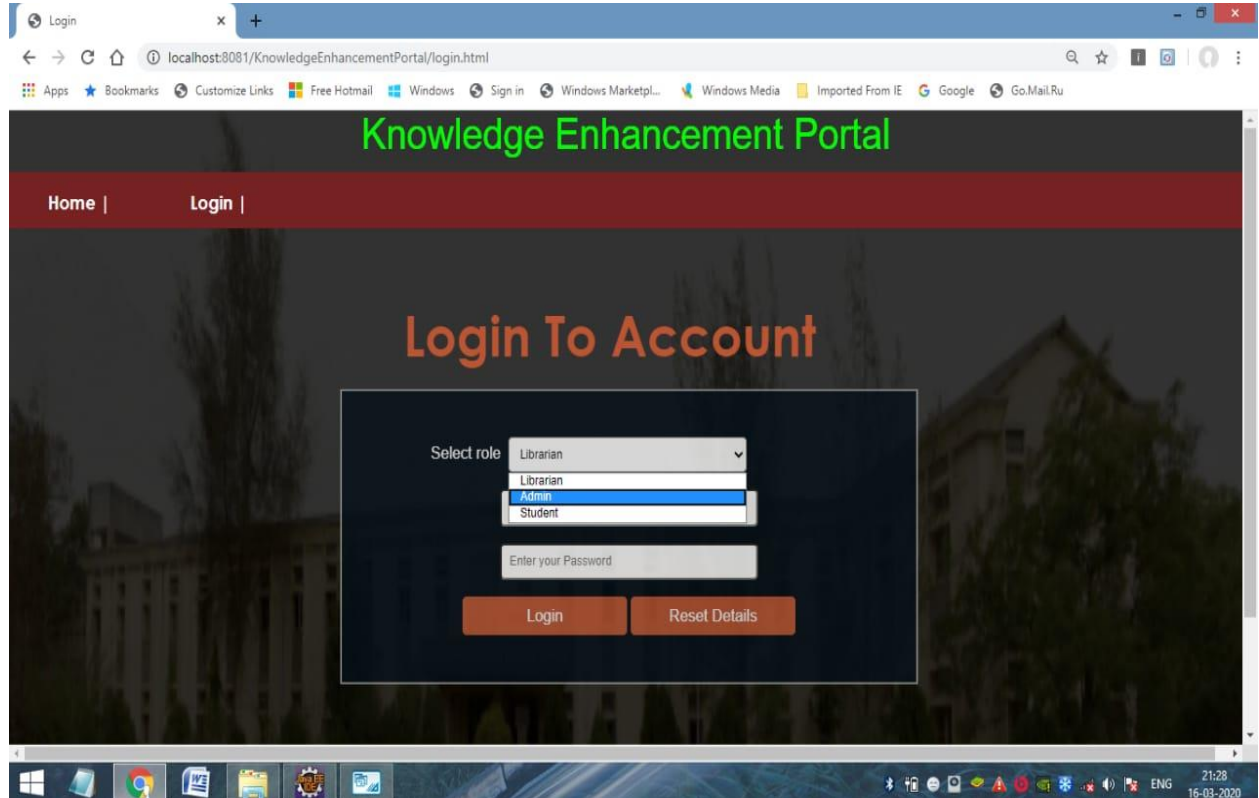


Figure 4.1- Login Page

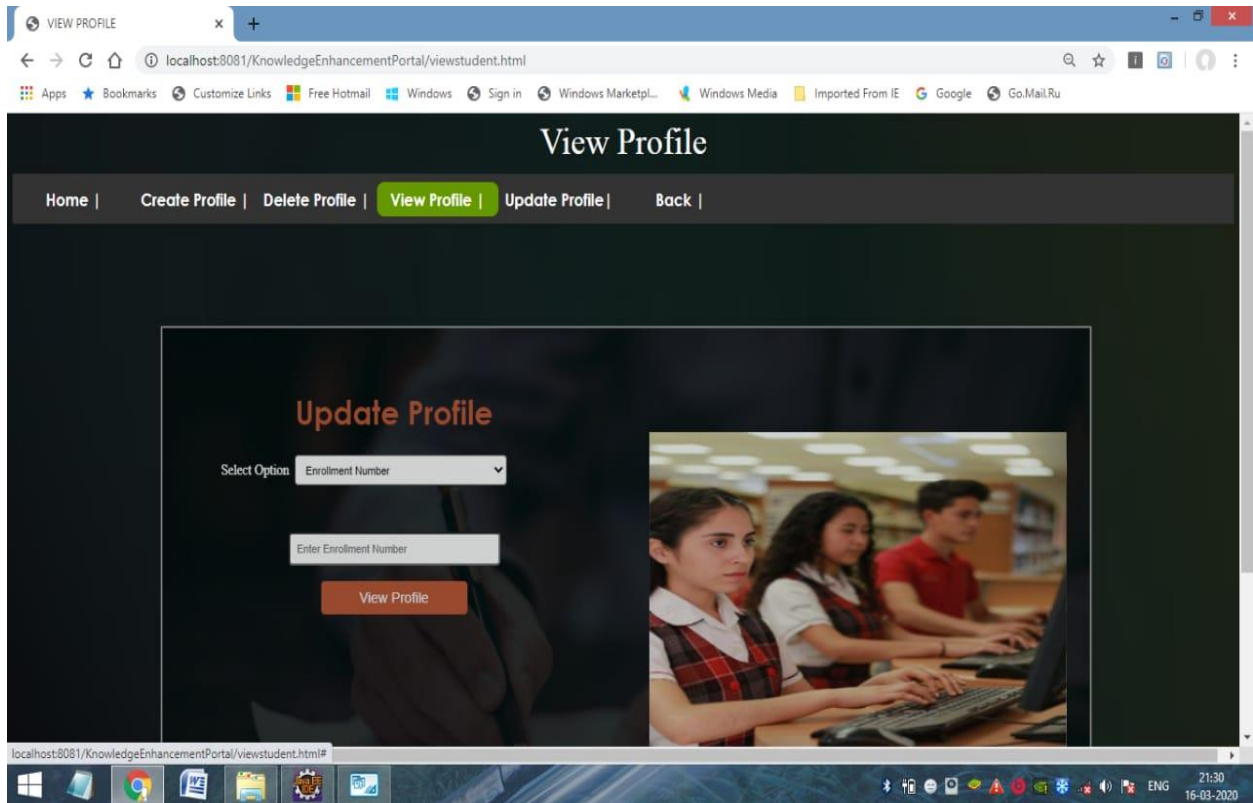


Figure 4.2 – Student Management System

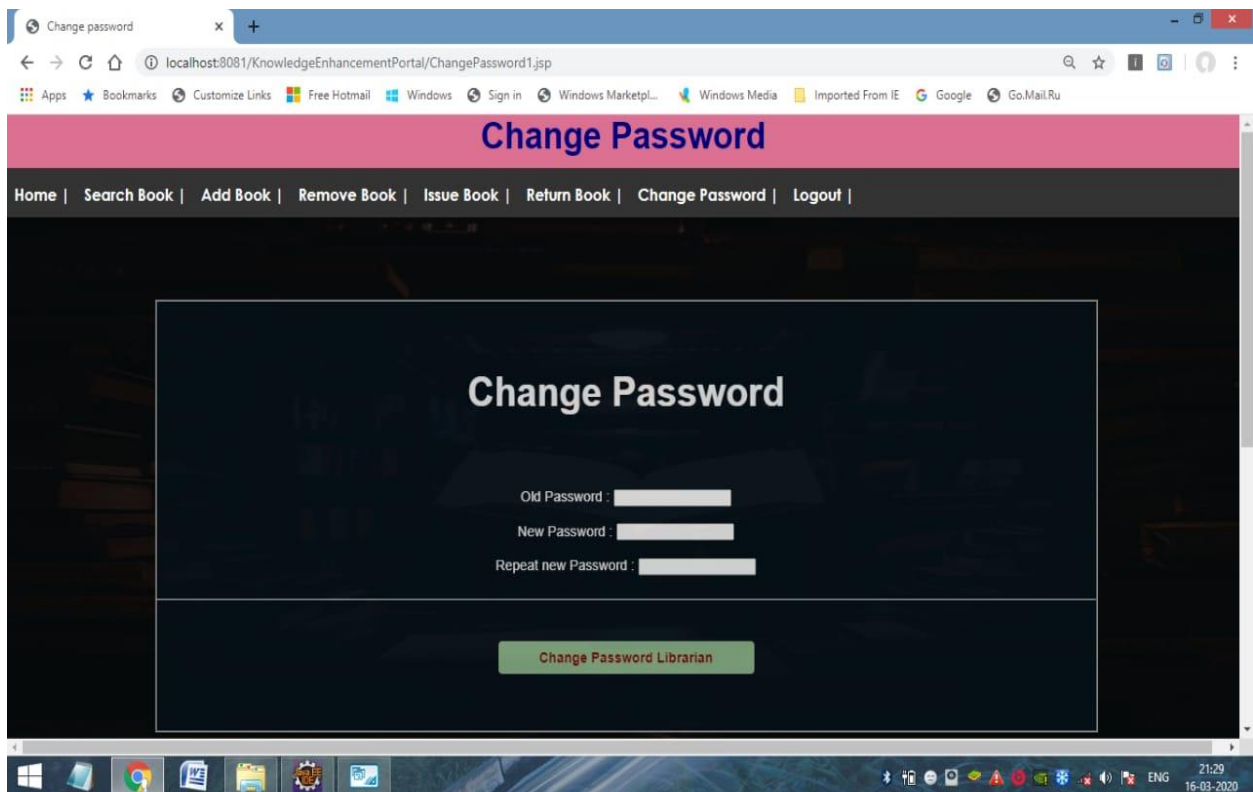


Figure 4.3 – Change Password Page

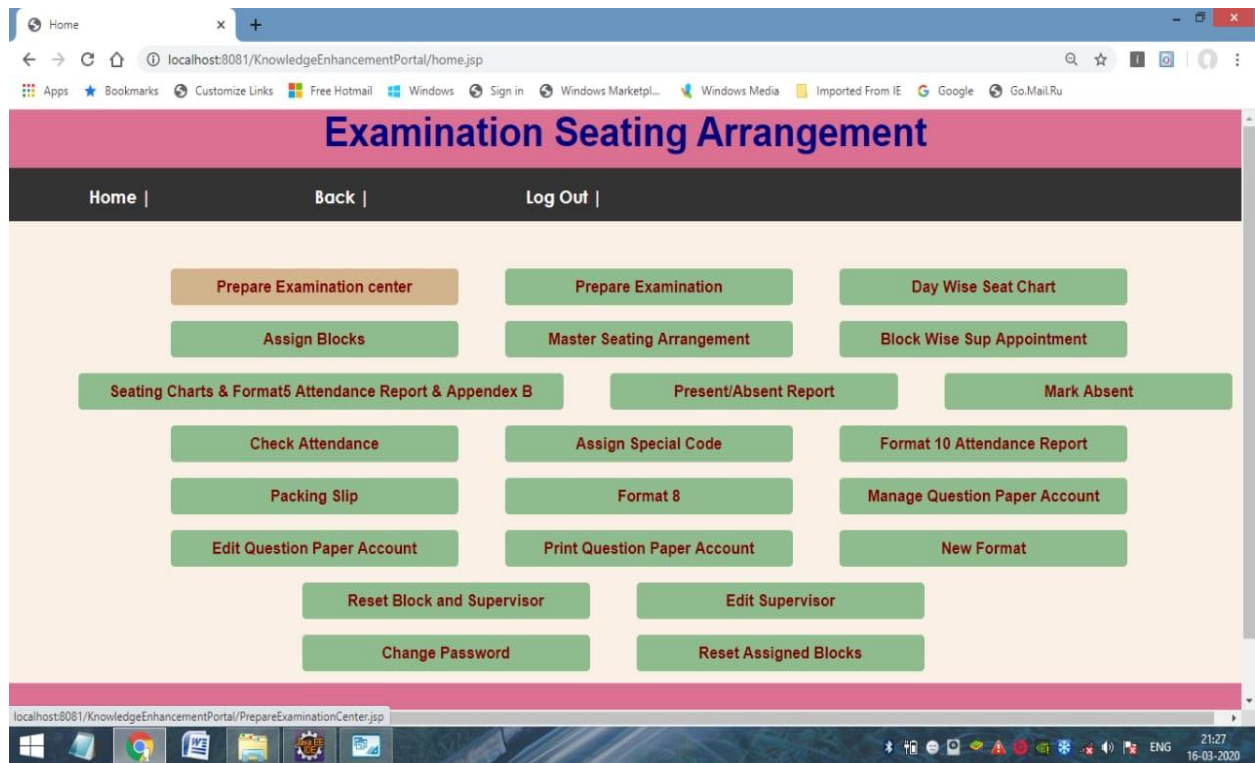


Figure 4.4 – Home Page for Examination Seating Arrangement

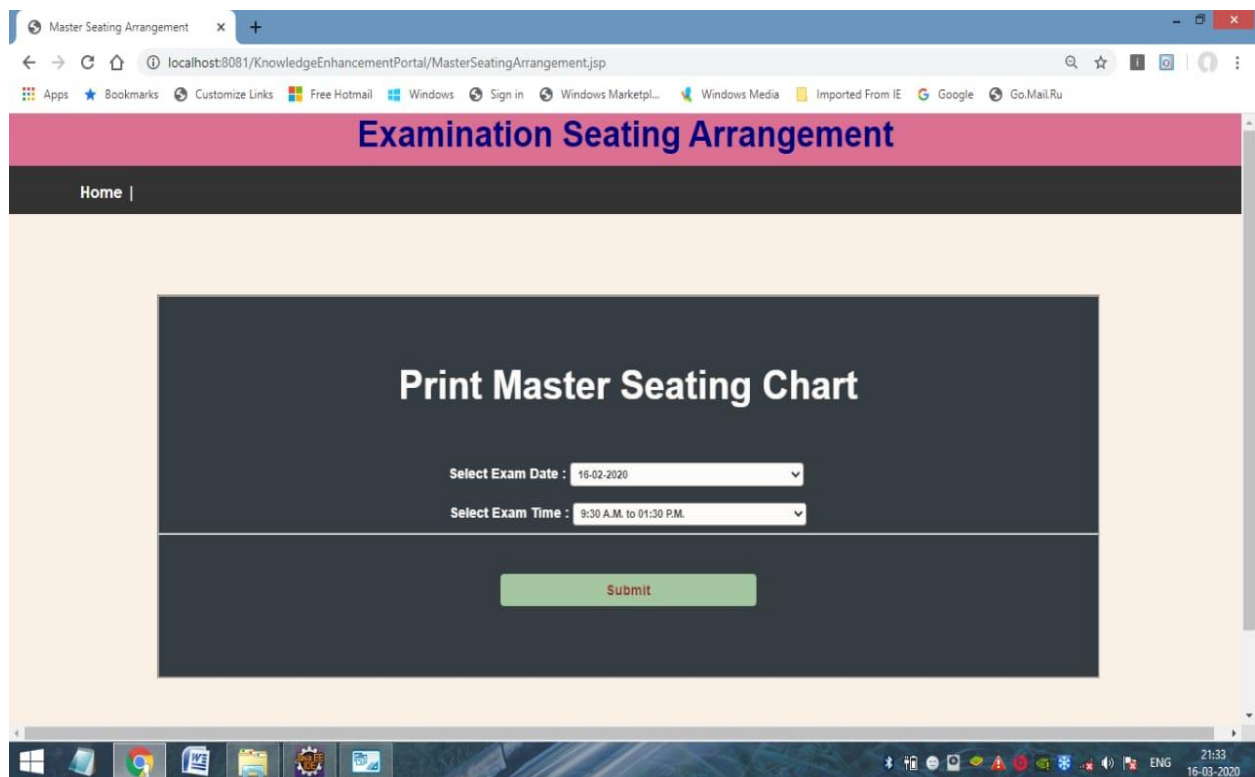


Figure 4.5 – Print Master Seating Chart Page

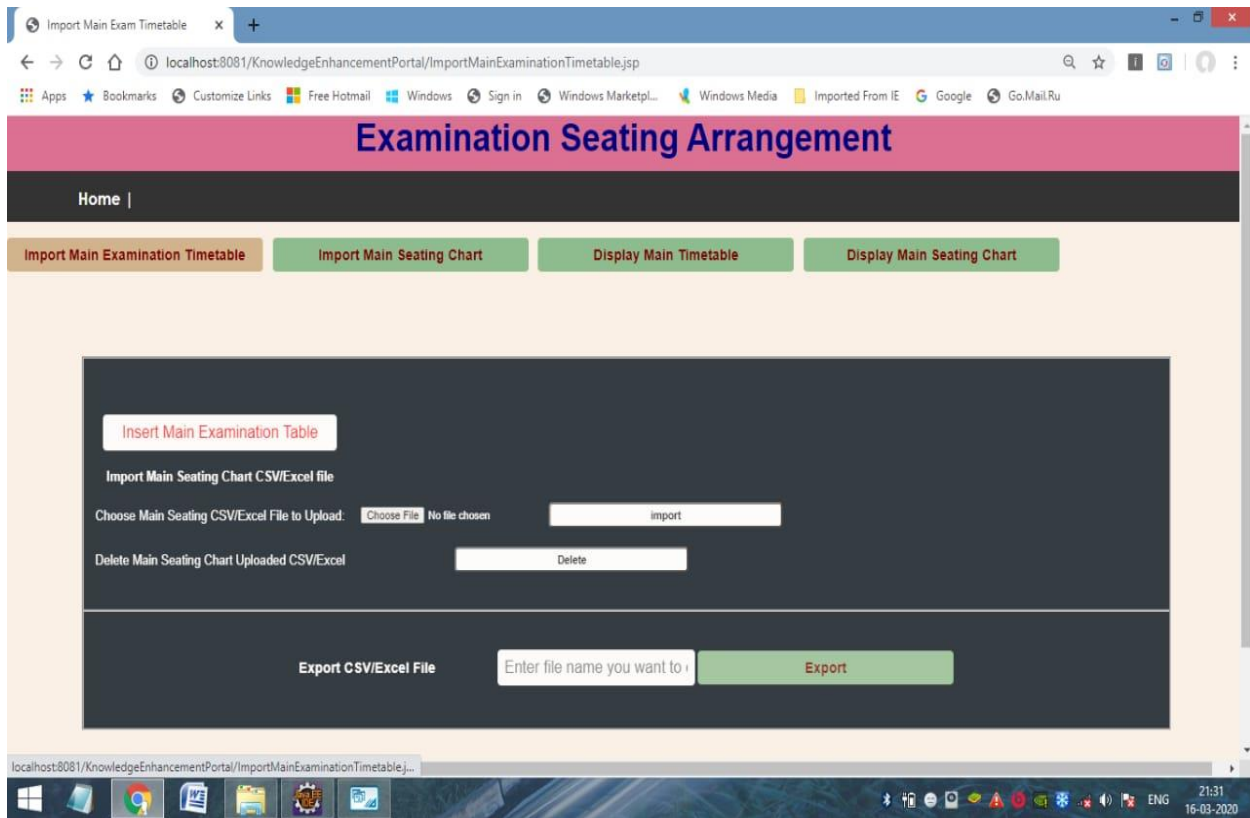


Figure 4.6 – Importing Examination Timetable using CSV file

Check Attendance

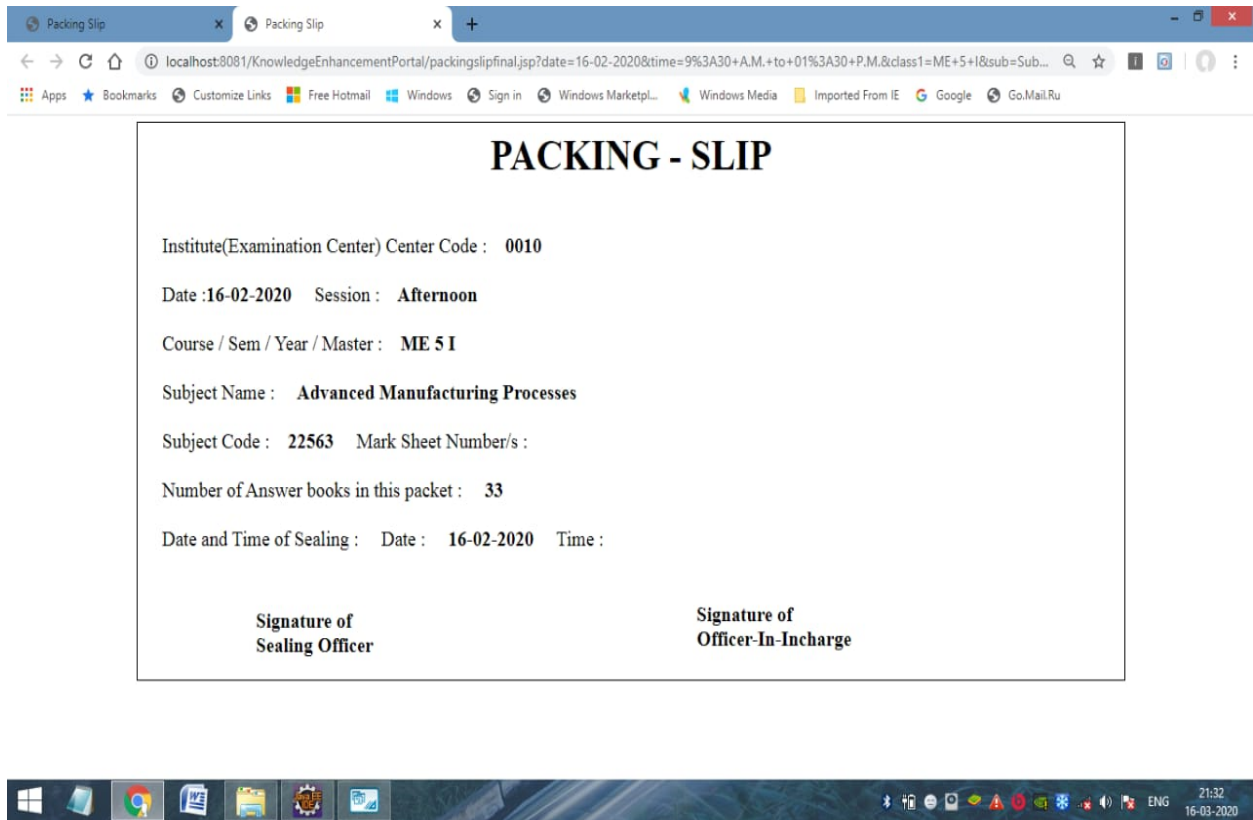
localhost:8081/KnowledgeEnhancementPortal/checkattendancefinal.jsp?date=16-02-2020&time=9%3A30+A.M.+to+01%3A30+P.M.&class1=ME+5+I&su...

Attendance

Class:	ME 5 I	Date:	16-02-2020
Time:	9:30 A.M. to 01:30 P.M.	Subject Code:	22563
Subject:	Advanced Manufacturing Processes(AMII)	Total Students:	33

Sl. No.	Seat No	Class Name	Block Name	Attendance	Edit
1	171319	ME 5 I	none	present	Edit
2	171320	ME 5 I	none	present	Edit
3	171321	ME 5 I	none	present	Edit
4	171322	ME 5 I	none	present	Edit
5	171323	ME 5 I	none	present	Edit
6	171324	ME 5 I	none	present	Edit
7	171325	ME 5 I	none	present	Edit
8	171326	ME 5 I	none	present	Edit
9	171327	ME 5 I	none	present	Edit
10	171328	ME 5 I	none	present	Edit
11	171329	ME 5 I	none	present	Edit
12	171330	ME 5 I	none	present	Edit
13	171331	ME 5 I	none	present	Edit
14	171332	ME 5 I	none	present	Edit
15	171333	ME 5 I	none	present	Edit
16	171334	ME 5 I	none	present	Edit
17	171335	ME 5 I	none	present	Edit
18	171336	ME 5 I	none	present	Edit
19	171337	ME 5 I	none	present	Edit
20	171338	ME 5 I	none	present	Edit
21	171339	ME 5 I	none	present	Edit
22	171340	ME 5 I	none	present	Edit
23	171341	ME 5 I	none	present	Edit
24	171342	ME 5 I	none	present	Edit
25	171343	ME 5 I	none	present	Edit
26	171344	ME 5 I	none	present	Edit

Figure 4.7 – Attendance Report



PACKING - SLIP

Institute(Examination Center) Center Code : 0010

Date :16-02-2020 Session : Afternoon

Course / Sem / Year / Master : ME 5 I

Subject Name : Advanced Manufacturing Processes

Subject Code : 22563 Mark Sheet Number/s :

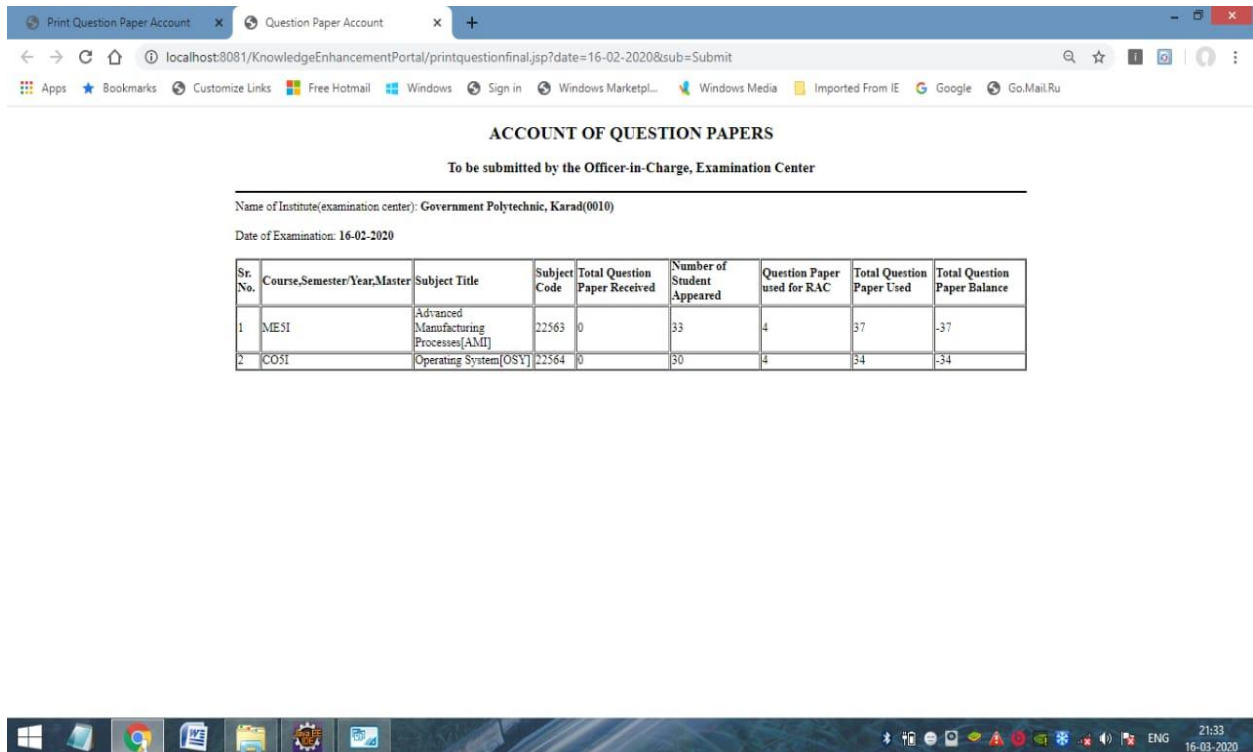
Number of Answer books in this packet : 33

Date and Time of Sealing : Date : 16-02-2020 Time :

Signature of Sealing Officer

Signature of Officer-In-Charge

Figure 4.8 – Packing Slip



ACCOUNT OF QUESTION PAPERS

To be submitted by the Officer-in-Charge, Examination Center

Name of Institute(examination center): Government Polytechnic, Karadi(0010)

Date of Examination: 16-02-2020

Sr. No.	Course,Semester,Year,Master	Subject Title	Subject Code	Total Question Paper Received	Number of Student Appeared	Question Paper used for RAC	Total Question Paper Used	Total Question Paper Balance
1	ME5I	Advanced Manufacturing Processes[AMI]	22563	0	33	4	37	-37
2	COSI	Operating System[OSV]	22564	0	30	4	34	-34

Figure 4.9 – Question Paper Account

MySQL Workbench

SQL Editor (MySQLForExcel...)

File Edit View Query Database Plugins Scripting Help

Object Browser

SCHEMAS

Search objects

demodb
inventory
knowledge
Tables
examblocks
Columns
Indexes
Foreign Keys
Triggers
examdetails
examap
examstaff
examstudent
examtimetable
library
library_issue
library_return
student
users
Views
Routines
mydata
sakila
stm
test
test1
world

Query 11 Query 12 Query 13 Query 14 Query 15 Query 16 Query 17 users examdetails examstudent

Filter:

id	date	time	subcode	subname	seatno	center	coucode
1	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171319	10	ME
2	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171320	10	ME
3	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171321	10	ME
4	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171322	10	ME
5	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171323	10	ME
6	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171324	10	ME
7	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171325	10	ME
8	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171326	10	ME
9	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171327	10	ME
10	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171328	10	ME
11	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171329	10	ME
12	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171330	10	ME
13	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171331	10	ME
14	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171332	10	ME
15	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171333	10	ME
16	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171334	10	ME
17	16-02-2020	9:30 A.M. to 01:3...	22563	Advanced Manuf...	171335	10	ME

examstudent 1

Apply Cancel Snippets

Output

Action Output

Time	Action	Message	Duration / Fetch
2 21:34:42	SELECT * FROM knowledge.examdetails LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Query Completed

21:34 16-03-2020

Figure 4.10 – Exam Student Table in database

MySQL Workbench

SQL Editor (MySQLForExcel...)

File Edit View Query Database Plugins Scripting Help

Object Browser

SCHEMAS

Search objects

demodb
inventory
knowledge
Tables
examblocks
Columns
Indexes
Foreign Keys
Triggers
examdetails
examap
examstaff
examstudent
examtimetable
library
library_issue
library_return
student
users
Views
Routines
mydata
sakila
stm
test
test1
world

Query 12 Query 13 Query 14 Query 15 Query 16 Query 17 users examdetails examstudent library_issue

Filter:

book_id	book_name	author_name	student_name	class	roll_no	issue_date
1	Java	S.S. patil	Pratik Patil	TYCO	2252	12/10/2019
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-28
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-21
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-28
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-28
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-28
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-28
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-28
1	Java	S.S. patil	Pratik Patil	TYCO	2252	2019-12-20
2	Advanced Java	S.P. Emekar	Mohini Shinde	TYCO	2209	2019-12-15
2	Advanced Java	S.P. Emekar	Mohini Shinde	TYCO	2209	2019-12-26
4	PHP	B.R. Amrutkar	Pratik Patil	TYCO	2252	2019-12-31
4	PHP	S.P. Emekar	Pratik Patil	TYCO	2252	2019-12-31
4	PHP	S.P. Emekar	Pratik Patil	TYCO	2252	2019-12-31
4	PHP	S.P. Emekar	Pratik Patil	TYCO	2209	2020-01-16
4	PHP	S.P. Emekar	Mohini Shinde	TYCO	2209	2020-01-03
4	PHP	B.R. Amrutkar	Pratik Patil	TYCO	2209	2020-01-02

library_issue 1

Read Only Snippets

Output

Action Output

Time	Action	Message	Duration / Fetch
3 21:34:48	SELECT * FROM knowledge.examstudent LIMIT 0, 1000	63 row(s) returned	0.016 sec / 0.000 sec

Query Completed

21:35 16-03-2020

Figure 4.11 – Library Issue Table in database

4.3 Applications

1. The project can be used by administrators in educational institutes for managing student data.
2. The project can be used by administrators in educational institutes for managing library.
3. The project can be used by administrator for managing examination seating arrangement at the time of the exams.
4. The project can be used by educational institutes to achieve the motto of modern education for reducing efforts of components of education system.
5. The project can be also used to solve problem of students for viewing and editing their own profile.

Chapter 5 – Conclusion and Future Scope

5.1 Conclusion

We conclude that this Knowledge Enhancement Portal will solve the problems of Stakeholders of education system. It will help them to handle their problems and will achieve the motto of Modern Education Techniques. We suggest different colleges to use this Portal for their betterment, so the issues they are facing in traditional education system will be eliminated.

5.2 Future Scope

1. We can add notice module where the faculties will be able to send notice directly to the students.
2. We can also add consumer option where student can order educational materials from consumer shop.
3. We can add the attendance module for faculties, where they can take attendance of students for every lecture and attendance will be stored in database. Here we can add option of create detain list and detain students will receive alert.
4. We can provide additional facilities for faculties.
5. We can fix repeaters in institutes so when student or faculties will enter the institute he/she will automatically get connected to this portal and they can use the system directly.
6. We can also add the chat module between faculties and students.

Chapter 6 - References and Bibliography

6.1 References and Bibliography

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6. ResearchGate | Need for value based education | Volume 2 Issue 3 | by Manoj Dash