RAJIV GANDHI INSTITUTE OF TECHNOLOGY

GOVERNMENT ENGINEERING COLLEGE

KOTTAYAM - 686501

MINI PROJECT REPORT

ON

EXAM CELL MANAGEMENT

SUBMITTED BY

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CERTIFICATE

This is to certify that this report entitled " Exam Cell Management " is an authentic report of the mini project done by MARSHALL MATHEW(Reg No:14013774),MYRTLE HARIDAS(Reg No :14013778),SACHU SHAJI ABRAHAM(Reg No :14013787),TOM MATHEW THOMAS(Reg No:14013798) during the academic year 2016 – 17, in partial fulfilment of the requirement for the award of B.Tech Degree in Computer Science and Engineering of Mahatma Gandhi University, Kottayam.

PROJECT GUIDE HEAD OF DEPARTMENT

INTERNAL EXAMINER EXTERNAL EXAMINER

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MARSHAL MATHEW

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ABSTRACT

Our project aims to develop an online portal to perform the functions of the Examination Cell. The online portal intends to reduce the current difficulties which are faced by the faculty while organizing an exam. The online portal will have the capability to generate timetables for both university and series exam.

The project also aims to develop an android app for the students to know their allotted seat just prior the exam to avoid last minute rush. It also has provisions to allocate necessary faculty to provide invigilation for proper conduct of exams.

CONTENTS

1. INTRODUCTION

Examinations are an important factor for proper evaluation of the student performance. Thus in order to make sure examination are organized properly, an efficient **Exam Management Cell** is essential. We aim to reduce some of the current difficulties of exam cell by devising a web based portal.

1.1 PROBLEM DEFINITION

For conducting exams, seating arrangement generation is a major hurdle. Since it is often done manually, it is time consuming and is prone to errors. Also allocating necessary faculty for invigilation also remains a problem. Thus in order to deal with these problems, our project aims to develop an online portal to generate seating arrangements and to allocate necessary faculty for evaluation.

1.2 OBJECTIVES AND SCOPE

This project aims at creating an Online Examination Cell for our campus which is a website that is intended for generating seating arrangements and faculty allocation for conducting exams. The major objectives identified are

- Devising an algorithm for proper seating arrangements for students in exam halls and allocating necessary faculty members to invigilate the exams.
- To create an online interface for teachers to feed in requirements for exams (no of exams to be conducted, no of students attempting exam etc.) so that the online system can generate the necessary requirements and guidelines for faculty to conduct the exam.
- To develop an android app for the students to view their allotted seats prior to exams.

2.SYSTEM STUDY AND ANALYSIS

2.1 EXISTING SYSTEM

The existing system involves manual generation of seating arrangements. The exam halls are allocated with students according to its capacity and also according to the subjects of the exam. The faculty for invigilation is also allocated according to the availability and also while keeping a minimum teacher to student ratio.

Limitations of existing system

- Time consuming to generate the necessary arrangements.
- Prone to errors

2.2 PROPOSED SYSTEM

The proposed system is an online portal which have all the necessary facilities to satisfy the functions of an examination cell. It will have the capability to generate seating arrangements for both university and series exams. Also faculty allocation can also be done using this portal. It will also contain an android app for sending the necessary arrangements to students.

Advantages of proposed system

- Seating arrangements can be generated easily.
- User friendliness and high flexibility
- Online portal can be accessed from anywhere across the globe.

3.REQUIREMENT ANALYSIS

3.1 FEASIBILITY STUDY

A feasibility analysis usually involves a thorough assessment of the operational (need), financial and technical aspects of a proposal. Feasibility study is the test of the system proposal made to identify whether the user needs may be satisfied using the current software and hardware technologies, whether the system will be cost effective from a business point of view and whether it can be developed with the given budgetary constraints .A feasibility study should be relatively cheap and done at the earliest possible times. Depending on the study, the decision is made whether to go ahead with a more detailed analysis.

When a new project is proposed, it normally goes through feasibility assessment. Feasibility study is carried out to determine whether the proposed system is possible to be developed with available resources and what should be the cost consideration. Facts considered in the feasibility analysis were:

- Economic feasibility
- Technical feasibility
- Operational feasibility

3.1.1 ECONOMIC FEASIBILITY

Economic feasibility study presents tangible and intangible benefits by comparing the development and operational cost. The system requires little initial investment. Also, there is hardly any maintenance cost involved. Our project is economically feasible. It does not require much cost to be involved in the overall process.

3.1.2 TECHNICAL FEASIBILITY

Technical feasibility includes whether the technology is available in the market for development and its availability. The assessment of technical feasibility must be based on an outline design of system requirements in terms of input, output, files, programs and procedures. This project involves the use of HTML, CSS and JS for frontend and PHP to do the backend works. Thus this system is technically feasible as it already available.

3.1.3 OPERATIONAL FEASIBILITY

This analysis involves how it will work when it is installed and the assessment of political and managerial environment in which it is implemented. The proposed system tends to reduce the workload of faculty involved in Exam Cell. It provides a faster method to obtain seating arrangements. It will be widely accepted. Hence this project can be said to be operationally feasible

3.2 SYSTEM REQUIREMENTS

3.2.1 HARDWARE REQUIREMENTS

a) Server side

The web application will be hosted on a web server which is listening on the web standard port, port 80.

Ram : 2GB or above

Hard Disk : 100GB or above

Processor : Intel Core 2 Duo processor or above

b) Client side

Monitor screen – the software shall display information to the user via the monitor screen

Mouse – the software shall interact with the movement of the mouse and the mouse buttons. The mouse shall activate areas for data input, command buttons and select options from menus.

Keyboard – the software shall interact with the keystrokes of the keyboard. The keyboard will input data into the active area of the database.

Ram : 2 GB

Hard Disk : 100 GB or above

Processor : Any Processor

3.2.2 SOFTWARE REQUIREMENTS

a) Server side

An Apache web server will accept all requests from the client and forward it accordingly. A database will be hosted centrally using .

Operating System **:** Windows 8 or above

Database **:** Oracle

Web Server **:** Apache Tomcat 4.0/0.5

b) Client side

An OS which is capable of running a modern web browser which supports JavaScript and HTML5.

Operating System **:** Any Operating System with IE 5.0/0.6 is supported

Browser : Internet Explorer Version 5.0/0.6 or above

Web Server : Apache Tomcat 4.0/0.5

b) Client side

An OS which is capable of running a modern web browser which supports JavaScript and HTML5.

Operating System : Any Operating System with IE 5.0/0.6 is supported

Browser : Internet Explorer Version 5.0/0.6 or above

3.3 BACKGROUND STUDY

a).HTML

Hyper Text MarkupLanguage(HTML) is the main markup language for web pages HTML elements are the basic building- blocks of web pages.

HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>), within the page content. HTML tags most commonly come in pairs like <hl> and </hl>, although some tags, known as empty elements, are unpaired, for example <img>. The first tag in a pair is the start tag, the second tag is the end tag (they are also called opening tags and closing tags).In between these tags web designers can add text , tags, comments and other types of text-based content.

The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages.The browser does not display the HTML tags, but uses the tags to interpret the content of the page.

b).PHP

PHP stands for “Hypertext pre-processor”, a recursive acronym.It is a general- purpose server-side scripting language originally designed for web development to produce dynamic web pages. It is one of the first developed sever-side scripting languages to be embedded into an HTML source document, rather than calling an external file to process data. Ultimately, the code is interpreted by a Web server with a PHP processor module which generates the resulting web page. It is also has ivolved to include a command-line interface capability and can be used in standalone graphical applications.

c).CSS

CSS stands for Cascading Style Sheets. CSS is used to control the style of a web document in a simple and easy way. CSS is a simple design language intended to simplify the process of making web pages presentable. CSS is easy to learn and understand but it provides control over the presentation of an HTML document. Css handles the look and feel of a website.

d).JAVASCRIPT

JavaScript was designed to add interactively to HTML pages. A JavaScript gives HTML designers a programming tool. JavaScript can put dynamic text into an HTML page. JavaScript can read and writes HTML elements. A JavaScript can used to validate the data.

e).MySQL

MySQL is the most popular open source relational SQL database management system. MySQL is one the best RDBMS being used for developing web based applications. MySQL uses a standard form of the well known SQL data language. MySQL works on many operating systems and with many languages including PHP.

4.SYSTEM DESIGN

System designing is the most creative and challenging phase in a system life cycle. The term design describes a final system and the process by which it is developed. System design is a transition from the user-oriented document to the document-oriented program or database personnel. It emphasizes translating performance specification into the design specification and it involves conceiving and planning and then carrying out the plan for generating the necessary outputs and reports. Design phase acts as the bridge between the software requirements specification and implementation phase, which satisfies the requirements.

4.1 LOGICAL DESIGN

It is the preliminary step and is also the building block of Software Engineering. The efficiency of software is promoted through design phase. The design phase begins when the requirement specification document for the software to be developed is available. While the requirement specification activity is entirely in the problem domain design is the first step to moving from the problem domain towards the solution domain. Design is the bridge between requirement specification and the final solution for satisfying the requirements. Design of the system can be defined as the process of applying various techniques principles for the purpose of defining a device, a process or system in efficient detail to permit its physical realization. Thus system design is a solution. A way to approach to the creation of new system.

4.1.1 DATA FLOW DIAGRAM

A Data Flow Diagram (DFD) is a graphical representation of the flow of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing which provides the structured design.

A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequence or in parallel.

The DFDs of the Exam cell are depicted below:

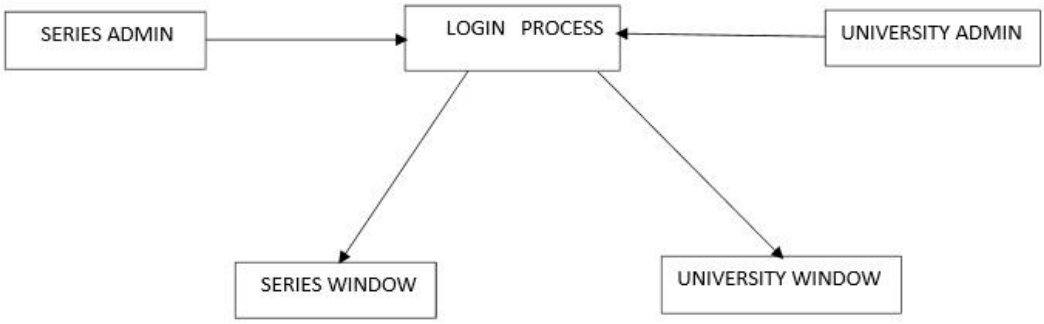


Fig:4.1.1.1 Level 0: DFD

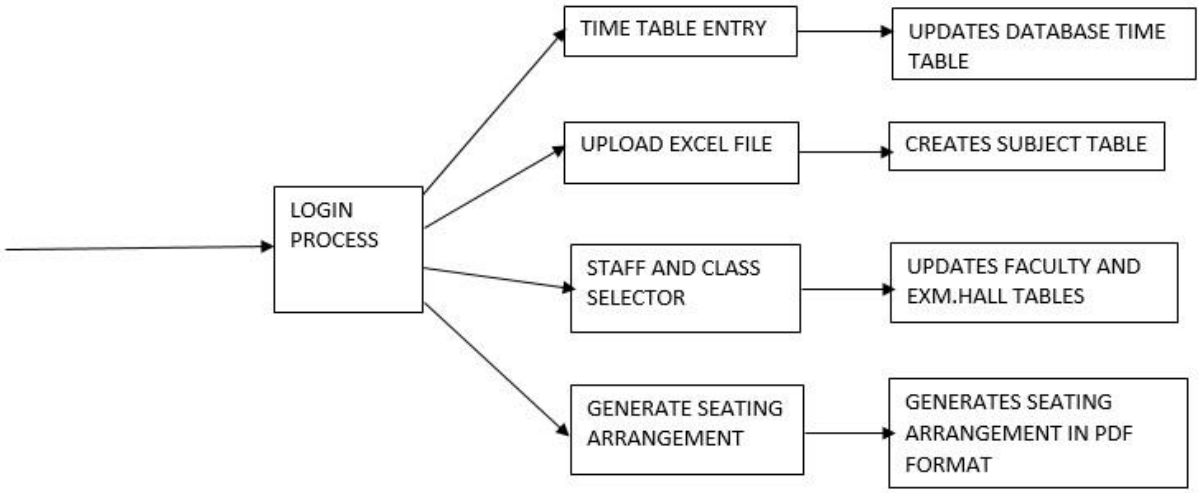


Fig:4.1.1.2 Level1:University Admin

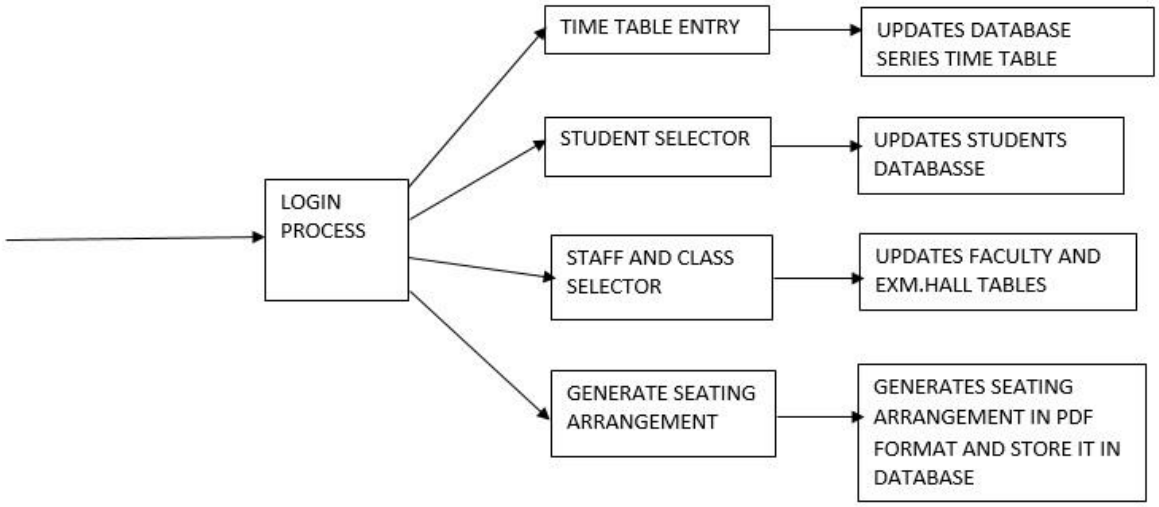
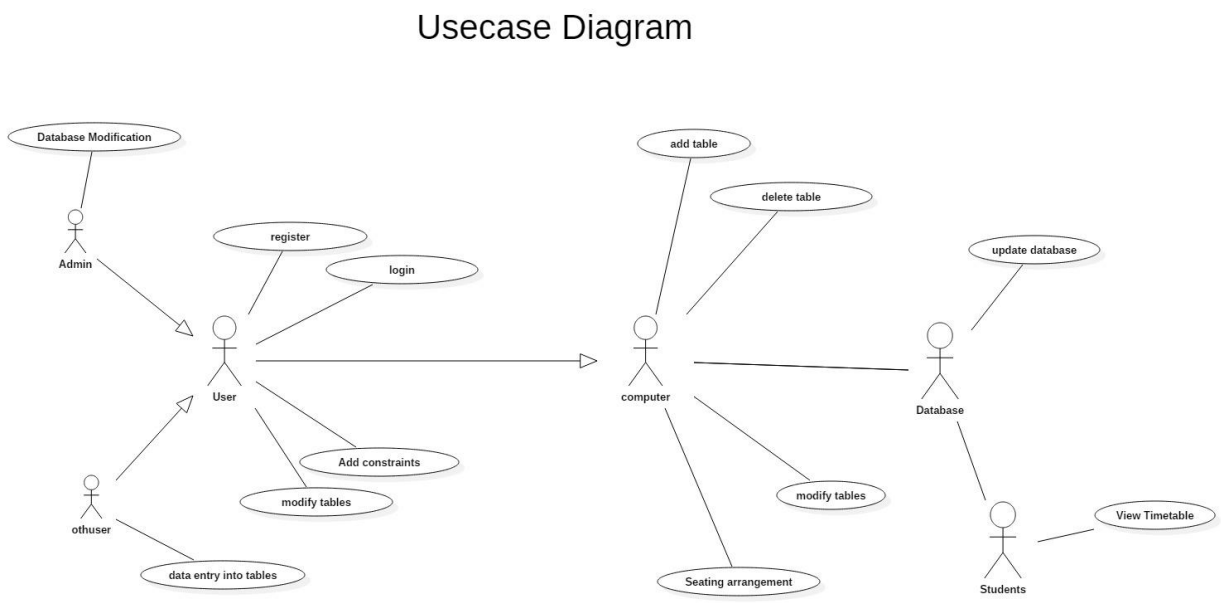


Fig.4.1.1.3 Level 1:series Admin

Fig.4.1.1.1 though Fig.4.1.1.4 shows the DFDs at various levels for this project. The Level 0 DFD shows how the external users can log in to the system. This is a context level diagram. The other figures show the various services that are provided to each users and their flow of data between different components and database tables.

4.1.2 USE CASE DIAGRAM

The use case diagram represents the objectives that different users of the system want to achieve. It is a set of use cases, actors and their relationships. It represents a particular functionality of a system. It visualizes the functional requirements of the project. Fig.4.1.2.1 features the functional requirements of the three types of users in the system, namely, administrator, other users and students.



4.2 PHYSICAL DESIGN

4.2.1 INPUT DESIGN

Inaccurate input data are the most common cause of errors in data processing. Input design is process of converting user-originated inputs to computer based format. Input design is the one of the most expensive phase and can create problems. Better input can ensure the reliability of a system and can generate accurate and valid output from it. The design of input focusses on controlling the errors, avoiding delay, avoiding extra steps and keeping the process simple. The input is designed in such a way so that it provides security and ease of use with remaining the privacy.

Input:

1)Time table for the university/series exam.

2)Details of students enrolled for the exam, exam halls available and also the availability of faculty which would be available that day for invigilation.

3) Administrator will have the capability to add other users, modify the tables in the database and over all control over the online portal.

4.2.2 TABLE DESIGN

The database table used in this project are described below:

SL.NO	**FIELD NAME**	**DATA TYPE**
1	ID	VARCHAR
2	NAME	VARCHAR
3	DEPT	CHAR
4	EMAIL_ID	VARCHAR
5	DESGNATION	VARCHAR
6	PRIORITY	INT
7	PHONENO	VARCHAR
8	PRIORITY TEMP	VARCHAR

Table4.2.2.1 Faculty Table

SL NO	FIELD NAME	DATA TYPE
1	SID	VARCHAR
2	ID	INT
3	SUBJECT ID	VARCHAR
4	DEPT	VARCHAR
5	D.HALL	INT

Table 4.2.2.2 Students SUBJECT TABLE

SL NO	FIELD NAME	DATA TYPE
1	HALL ID	VARCHAR
2	ROW	INT
3	COLUMN	INT
4	AVAILABLE	INT
5	DISTANCE	INT
6	DHALL	INT

Table4.2.2.3 Exam Hall Table

SL NO	FIELD NAME	DATA TYPE
1	DATE	DATE
2	1	CHAR
3	2	CHAR
4	3	CHAR
5	4	CHAR
6	5	CHAR
7	6	CHAR
8	7	CHAR
9	8	CHAR
10	9	CHAR
11	10	CHAR
12	11	CHAR
13	12	CHAR
14	13	CHAR
15	14	CHAR
16	15	CHAR
17	16	CHAR
18	FA	INT

Table4.2.2.4 Table Table

SL NO	FIELD NAME	DATA TYPE
1	CLASS NAME	VARCHAR
2	ASTART	INT
3	ARANGE	INT
4	BSTART	INT
5	BRANGE	INT
6	SIZE	INT
7	DEPT1	CHAR
8	DEPT2	CHAR
9	DEPT3	CHAR
10	DEPT4	CHAR
11	TEACHER 1	VARCHAR
12	TEACHER 2	VARCHAR
13	RELIVER	VARCHAR

Table4.2.2.5 Allocation Table

SL NO	FIELD NAME	DATA TYPE
1	DATE	DATE
2	1	CHAR
3	2	CHAR
4	3	CHAR
5	4	CHAR

Table4.2.2.6 Series Time Table

SL NO	FIELD NAME	DATA TYPE
1	1	INT
2	2	INT
3	3	INT
4	4	INT

Table4.2.2.7 Series Student Size

SL NO	FIELD NAME	DATA TYPE
1	CLASSNAME	VARCHAR
2	1S	INT
3	2S	INT
4	3S	INT
5	4S	INT
6	1E	INT
7	2E	INT
8	3E	INT
9	4E	INT
10	TEACHER 1	VARCHAR
11	TEACHER 2	VARCHAR
12	RELIVER	VARCHAR

Table4.2.2.8 Series Student Allocation

5.SYSTEM IMPLEMENTATION

5.1 SYSTEM IMPLEMENTATION

Implementation is the stage in the project where the theoretical design is turned into a working system and is giving confidence on the new system for the users that it will work efficiently and effectively.

The implementation phase of a project covers the period from the acceptance of the test design to its satisfactory operation support by the appropriate user and the operations manual.

The website for the Examination Cell is designed using technologies like HTML and CSS and are used for implementing the human interfaces of the website. PHP is used for the server side implementation of the project and MySQL is used for database implementation. The website is built by incorporating all the requirements from the user. The user is provided with a very friendly interface, hiding all the technical complexities. Thus, user can access various features in the website easily.

6.CODING

6.1 Login Page

```
<!DOCTYPE html>
<html>
<head>
<title>Rit Examcell</title>
<meta name="viewport" content="width=device-width, initial-scale=1">
<script type="application/x-javascript"> addEventListener("load", function() {
setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); }
</script>
<meta name="keywords" content="Ribbon Login Form Responsive Templates, Iphone
Compatible Templates, Smartphone Compatible Templates, Ipad Compatible Templates, Flat
Responsive Templates"/>
<link href="css/style.css" rel= "stylesheet" type="text/css" />
<!--webfonts-->
<link href='http://fonts.googleapis.com/css?family=Roboto:400,100,300,500,700,900'
rel="stylesheet" type='text/css'>
  <link href="assets\css\animate.css" rel="stylesheet"/>
<!--/webfonts-->
</head>
<body>
<!--start-main-->


<h1 class="animated slideInDown">Welcome To RIT Examcell!</h1>
<div class="login-box">
                <form method="post" action="login.php">
                        <input type="text" name="us" class="text" value="Username"
onfocus="this.value = ';" onblur="if (this.value == '') {this.value = 'Username';}" >
                        <input type="password" name="ps" value="Password"
onfocus="this.value = ';" onblur="if (this.value == '') {this.value = 'Password';}">

                <div class="remember">
                        <a href="#"><p>Remember me</p></a>
                        <h4>Forgot your password?<a href="#">Click here.</a></h4>
                </div>
                <div class="clear"> </div>
                <div class="btn">
                <?php
                        require_once("database.php");
                if(isset($_POST['submit']))
                {$flag=0;
```

```
                        if(!(isset($_POST['us']))||!(isset($_POST['ps'])))
                        {$flag=1;}
                    else{
                                $u=$_POST['us'];
                                $p=$_POST['ps'];
                                $res=$db->query("SELECT name,dept,cat FROM login WHERE
user='$u' AND pass='$p'");
                                $out=$res->fetch_assoc();
                                if(!empty($out))
                                {

                                        session_start();
                                        $_SESSION['name']=$out['name'];
                                        $_SESSION['dept']=$out['dept'];
                                        if($out['cat']=='admin')
                                        {
                                                header('Location:basic.php');
                                        }
                                        else
                                        {header('Location:series.php');}
                                }
                                else{$flag=1;}
                        }
                    if($flag)
                    {
                            echo "<h4 style=\"color:red\">Invalid Username or Password</h4>";
                    }

                    }
                    ?>
                            <input type="submit" name="submit" value="LOG IN" >
                    </div>
                    </form>
                    <div class="clear"> </div>
</div>
<!--//End-login-form-->
<!--start-copyright-->

<!--//end-copyright-->
</body>
</html>
```

6.2 Class Insertion

```
<!doctype html>
<html>
```

```
<head>
<meta charset="utf-8">
<title>Untitled Document</title>
</head>

<body>
<?php
	require_once("database.php");

if($dat=$db->query("SELECT DISTINCT date FROM timetable WHERE 1=1"))
{
	$i=0;
	while($res=$dat->fetch_assoc())
	{
		++$i;
		$date[$i]=$res['date'];
		/*try{
			if(!($db->query("ALTER TABLE `ehall` ADD `$date[$i]` TINYINT(1)
NOT NULL DEFAULT '0'")))
			{
				throw new Exception("error");
			}
		}
		catch(Exception $e){
			die("Cannot create new row in ehall");
		}*/
	}
	if($val=$db->query("SELECT rno FROM `ehall` WHERE 1=1"))
	{
		while($class=$val->fetch_assoc())
		{
			$id=$class['rno'];
			for($j=1;$j<=$i;$j++)
			{
				 $var =$id."[".$j."]";
				if(isset($_POST[$class['rno']][$j]))
				{  echo "hai";
					echo "hello";
					$db->query("UPDATE ehall SET `$date[$j]`= 1 WHERE
rno='$id'");
				}
			}
		}
	}
```

```
}
        ?>
</body>
</html>
```

6.3 Database Connection

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title></title>
</head>

<body>
<?php
        if(!($db=new MySQLi('localhost','Examcell','automation','mini-project')))
        {

                die("Connection to database failed.Try again later") ;

        }

        ?>
</body>
</html>
```

6.4 Seating Generation

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
    <meta charset="utf-8" />
```

```
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Free Bootstrap Admin Template : Admin</title>
          <!-- BOOTSTRAP STYLES-->
    <link href="assets/css/bootstrap.css" rel="stylesheet" />
     <!-- FONTAWESOME STYLES-->
    <link href="assets/css/font-awesome.css" rel="stylesheet" />
        <!-- CUSTOM STYLES-->
    <link href="assets/css/custom.css" rel="stylesheet" />
     <!-- GOOGLE FONTS-->
   <link href= "http://fonts.googleapis.com/css?family=Open+Sans" rel="stylesheet"
type="text/css" />
</head>
<body>
  <?php
          session_start();
          $name=$_SESSION['name'];

          ?>
    <div id="wrapper">
       <nav class="navbar navbar-default navbar-cls-top " role="navigation" style="margin-
bottom: 0">
          <div class="navbar-header">
             <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target=".sidebar-collapse">
                <span class="sr-only">Toggle navigation</span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
                <span class="icon-bar"></span>
             </button>
             <a class="navbar-brand" href="basic.php"><?php echo $name;?></a>
          </div>
  <div style="color: white;
padding: 15px 50px 5px 50px;
float: right;
font-size: 16px;"> <a href="#" class="btn btn-danger square-btn-adjust">Logout</a> </div>
       </nav>
          <!-- /. NAV TOP  -->
             <nav class="navbar-default navbar-side" role="navigation">
          <div class="sidebar-collapse">
                <ul class="nav" id="main-menu">
                                  <li class="text-center">
                <img src="assets/img/find_user.png" class="user-image img-responsive"/>
                                        </li>


                <li>
```

```
                <a    href="basic.php"><i class="fa fa-dashboard fa-3x"></i> Dashboard</a>
              </li>
               <li  >
                <a href="timetable.php?z=0"><i class="fa fa-table fa-3x"></i> Time Table</a>
              </li>
               <li>
                <a  href="#"><i class="fa fa-bar-chart-o fa-3x"></i> Upload Portal<span
class="fa arrow"></span></a>
                <ul class="nav nav-second-level">
                  <li>
                                    <a href="upload.php?s=1">Semester 1</a>
                  </li>
                  <li>
                    <a href="upload.php?s=2">Semester 2</a>
                  </li>
                  <li>
                    <a href="upload.php?s=3">Semester 3</a>
                  </li>
                  <li>
                    <a href="upload.php?s=4">Semester 4</a>
                  </li>
                  <li>
                    <a href="upload.php?s=5">Semester 5</a>
                  </li>
                  <li>
                    <a href="upload.php?s=6">Semester 6</a>
                  </li>
                  <li>
                    <a href="upload.php?s=7">Semester 7</a>
                  </li>
                  <li>
                    <a href="upload.php?s=8">Semester 8</a>
                  </li>
                                          </ul>
              </li>
               <li>
                <a  href="class.php"><i class="fa fa-qrcode fa-3x"></i> Class Selection</a>
              </li>
               <li>
                <a class="active-menu" href="staff.php"><i class="fa fa-desktop fa-3x"></i>
Staff Selection</a>
              </li>
               <li>
                <a class="active-menu"  href="seatgen.php?s=0"><i class="fa fa-edit fa-3x"></i>
Gen. Seating Arrangment</a>
              </li>
```

```
                <li>
                    <a href="#"><i class="fa fa-sitemap fa-3x"></i> Database Management<span
class="fa arrow"></span></a>
                    <ul class="nav nav-second-level">
                        <li>
                            <a href="#">Second Level Link</a>
                        </li>
                        <li>
                            <a href="#">Second Level Link</a>
                        </li>
                        <li>
                            <a href="#">Second Level Link<span class="fa arrow"></span></a>
                            <ul class="nav nav-third-level">
                                <li>
                                    <a href="#">Third Level Link</a>
                                </li>
                                <li>
                                    <a href="#">Third Level Link</a>
                                </li>
                                <li>
                                    <a href="#">Third Level Link</a>
                                </li>

                            </ul>

                        </li>
                    </ul>
                </li>

            </ul>

        </div>

    </nav>
    <!-- /. NAV SIDE  -->
    <div id="page-wrapper" >
        <div id="page-inner">
            <div class="row">
                <div class="col-md-12">

                                                    <a href="dataentry.php"><button type="submit"
style="margin-left: 42%" class="btn btn-primary">Gen.Seating Arrangement</button></a>
                                                    <?php
                                                    $s=$_GET['s'];
```

```
                                        if($s==1)
                                        {
                                                require_once("database.php");
                                                $sp=$db->query("SELECT DISTINCT date
FROM timetable WHERE 1=1");
                                                echo "</br>Seating Arrangement
For.....</br>";
                                                while($out=$sp->fetch_assoc())
                                                {
                                                        echo "<a href=\"pdf-
writter/fpdf181/demo.php\">".$out['date']."</a></br>";
                                                }
                                        }
                ?>
              </div>
            </div>
             <!-- /. ROW  -->
             <hr />

   </div>
         <!-- /. PAGE INNER  -->
        </div>
      <!-- /. PAGE WRAPPER  -->
     </div>
  <!-- /. WRAPPER  -->
   <!-- SCRIPTS -AT THE BOTOM TO REDUCE THE LOAD TIME-->
   <!-- JQUERY SCRIPTS -->
   <script src="assets/js/jquery-1.10.2.js"></script>
     <!-- BOOTSTRAP SCRIPTS -->
   <script src="assets/js/bootstrap.min.js"></script>
   <!-- METISMENU SCRIPTS -->
   <script src="assets/js/jquery.metisMenu.js"></script>
     <!-- CUSTOM SCRIPTS -->
   <script src="assets/js/custom.js"></script>


</body>
</html>
---------------------------------------------------------------------
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Untitled Document</title>
</head>
```

```
<body>
<?php
	class seat{
		public $scode;
		public $cont;
		public $index;

		}
	class hall{
		public $name;
		public $row;
		public $col;
		public $size;
		public $set;
		public $dhall;
		public $dis;
		}
	require_once("database.php");
	//Assigning date,subject info into variaables
	$var=$db->query("SELECT * FROM timetable WHERE 1=1");
	$i=0;
	$j=0;
	$hl[][]= new hall();
	$sb[][]= new seat();
	$class[]=new hall();
	$flag=0;
	while($res=$var->fetch_assoc())
	{
		++$i;
		$date[$i]=$res['date'];
		echo $date[$i];
		for($k=1;$k<=8;$k++)
		{
			if($res[$k]!=NULL)
			{
				$sub[$i][++$j]=$k.$res[$k];
				echo $sub[$i][$j];

				echo " </br>   ";
				$s=$db->query("SELECT distinct subid FROM subject WHERE
sem=$k AND slot='$res[$k]'");
				$p=0;
				while($out=$s->fetch_assoc())
				{   ++$p;
				 $b=$out['subid'];
```

```
                                        $sb[$j][$p]->scode=$out['subid'];

                                                $t=$db->query("SELECT max(id) FROM $b");
                                $e=$t->fetch_assoc();
                                $sb[$j][$p]->cont=$e['max(id)']+$p;
                                $sb[$j][$p]->index=1;
                                $d=$db->query("SELECT drawhall FROM subject WHERE
`subid`='$b'");
                                $dr=$d->fetch_assoc();
                                $sb[$j][$p]->draw=$dr['drawhall'];

                                    $temp=$sb[$j][$p]->scode;
                                    $temp1=$sb[$j][$p]->cont;

                                echo $temp.$temp1;
                                echo $sb[$j][$p]->draw.$sb[$j][$p]->index;
                                }
//sorting ----------------------------------------------------------------------------------------------
                                $temp = new seat();
                        for($z=1;$z<$p;$z++)
                        {
                                for($x=$z+1;$x<=$p;$x++)
                                {
                                        if($sb[$j][$z]->cont < $sb[$j][$x]->cont)
                                        {
                                                $temp=$sb[$j][$z];
                                                $sb[$j][$z]=$sb[$j][$x];
                                                $sb[$j][$x]=$temp;
                                        }
                                }
                        }
                                $total=0;
                        for($z=1;$z<=$p;$z++)
                        {
                          $total+=$sb[$j][$z]->cont;
                        }
                        echo "Total".$total.$total%40;
                //----------------------------------------------------------------------------------------------------

                        echo "    </br>    ";
                        if($out=$db->query("SELECT rno,row,col,draw,distance FROM ehall WHERE
`$date[$i]` = 1 AND `avail`=1 ORDER BY distance ASC"))
                        {$x=0;

                        while($cl=$out->fetch_assoc())
                        {
```

```
                ++$x;
                $hl[$j][$x]->name=$cl['rno'];
                $hl[$j][$x]->row=$cl['row'];
                $hl[$j][$x]->col=$cl['col'];
                $hl[$j][$x]->dhall=$cl['draw'];
                if($cl['draw'])
                {++$flag;}
                $hl[$j][$x]->dis=$cl['distance'];
                $cap[x]=$cl['row']*$cl['col']*2;
                echo $hl[$j][$x]->name.$cap[x];
        }}
                        $x=1;
                                $r=1;
                         $t=round($total/40);
                        $t=$t+1;
                        if($total%40>=21)
                        {
                                $x=1;
                                $r=1;
                                while(!($hl[$j]))
                                {
                                        if($hl[$j][$x]->dhall!=1)
                                        {
                                                $class[$r]=$hl[$j][$x];
                                                $r++;$x++;
                                        }
                                        else
                                        {$x++;}
                                        if($r>($t))
                                        {
                                                break;
                                        }
                                }
                        }
                        else if($flag!=0)
                        {
                          while($x<=sizeof($hl[$j]))
                          {
                                  if($hl[$j][$x]->dhall==1)
                                  {
                                          $class[$r]=$hl[$j][$x];
                                            $hl[$j][$x]->set=1;
                                            echo "drawing------".$class[$r]->name;
                                            $r++;
                                            break;
                                  }
```

```
                    }
                        $x=1;
                    while($x<=sizeof($hl[$j]))
                    {


                            if($hl[$j][$x]->dhall==0)
                            {
                                $class[$r]=$hl[$j][$x];
                                echo "selected class------".$class[$r]-
>name."=====";
                                $r++;
                                $x++;

                            }
                            else
                            {   echo "qwerty";
                                $x++;}
                        if($r==$t)
                            { echo "Breaking at".$r;
                                break;

                            }

                        }


                    }
                else
                    {

                    }

//seating arrangement----------------------------
                    $set=1;
                    $p=1;
                    $i=1;$j=2;
                    while($set<=$t)
                    {


                    }
        }
        }
        }
        // assignment !
```

```
   ?>
</body>
</html>
```

6.5 Series Main Page

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
     <meta charset="utf-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Free Bootstrap Admin Template : Admin</title>
         <!-- BOOTSTRAP STYLES-->
   <link href="assets/css/bootstrap.css" rel="stylesheet" />
    <!-- FONTAWESOME STYLES-->
   <link href="assets/css/font-awesome.css" rel="stylesheet" />
      <!-- CUSTOM STYLES-->
   <link href="assets/css/custom.css" rel="stylesheet" />
    <!-- GOOGLE FONTS-->
  <link href= "http://fonts.googleapis.com/css?family=Open+Sans" rel="stylesheet"
type="text/css" />
</head>
<body>
  <?php
         session_start();
         $name=$_SESSION['name'];

         ?>
   <div id="wrapper">
      <nav class="navbar navbar-default navbar-cls-top " role="navigation" style="margin-
bottom: 0">
         <div class="navbar-header">
            <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target=".sidebar-collapse">
               <span class="sr-only">Toggle navigation</span>
               <span class="icon-bar"></span>
               <span class="icon-bar"></span>
               <span class="icon-bar"></span>
            </button>
            <a class="navbar-brand" href="basic.php"><?php echo $name;?></a>
         </div>
  <div style="color: white;
padding: 15px 50px 5px 50px;
float: right;
font-size: 16px;"> <a href="#" class="btn btn-danger square-btn-adjust">Logout</a> </div>
```

```
</nav>
  <!-- /. NAV TOP  -->
     <nav class="navbar-default navbar-side" role="navigation">
   <div class="sidebar-collapse">
      <ul class="nav" id="main-menu">
                              <li class="text-center">
         <img src="assets/img/find_user.png" class="user-image img-responsive"/>
                                  </li>


         <li>
           <a  class="active-menu"   href="serbasic.php"><i class="fa fa-dashboard fa-
3x"></i> Dashboard</a>
         </li>
          <li  >
           <a href="sertimetable.php"><i class="fa fa-table fa-3x"></i> Time Table</a>
         </li>
          <li>
           <a  href="seriesstudent.php"><i class="fa fa-bar-chart-o fa-3x"></i>Student
Selector</a>

         </li>
          <li>
           <a  href="serclass.php"><i class="fa fa-qrcode fa-3x"></i> Class Selection</a>
         </li>
          <li>
           <a  href="serstaff.php"><i class="fa fa-desktop fa-3x"></i> Staff Selection</a>
         </li>
          <li>
           <a  href="seriesgen.php?s=0"><i class="fa fa-edit fa-3x"></i> Gen. Seating
Arrangment</a>
         </li>


         <li>
           <a href="#"><i class="fa fa-sitemap fa-3x"></i> Database Management<span
class="fa arrow"></span></a>
           <ul class="nav nav-second-level">
             <li>
               <a href="#">Second Level Link</a>
             </li>
             <li>
               <a href="#">Second Level Link</a>
             </li>
             <li>
               <a href="#">Second Level Link<span class="fa arrow"></span></a>
```

```
                    <ul class="nav nav-third-level">
                       <li>
                          <a href="#">Third Level Link</a>
                       </li>
                       <li>
                          <a href="#">Third Level Link</a>
                       </li>
                       <li>
                          <a href="#">Third Level Link</a>
                       </li>

                    </ul>

                  </li>
                </ul>
              </li>

          </ul>

       </div>

    </nav>
    <!-- /. NAV SIDE  -->
    <div id="page-wrapper" >
       <div id="page-inner">
          <div class="row">
             <div class="col-md-12">
              <h2>General Instructions.</h2>
                <h5>*</h5>
                                              <h5>*</h5>
                                              <h5>*</h5>
                                              <h5>*</h5>

             </div>
          </div>
           <!-- /. ROW  -->
           <hr />

</div>
        <!-- /. PAGE INNER  -->
       </div>
     <!-- /. PAGE WRAPPER  -->
    </div>
 <!-- /. WRAPPER  -->
<!-- SCRIPTS -AT THE BOTOM TO REDUCE THE LOAD TIME-->
<!-- JQUERY SCRIPTS -->
```

```
    <script src="assets/js/jquery-1.10.2.js"></script>
      <!-- BOOTSTRAP SCRIPTS -->
    <script src="assets/js/bootstrap.min.js"></script>
    <!-- METISMENU SCRIPTS -->
    <script src="assets/js/jquery.metisMenu.js"></script>
      <!-- CUSTOM SCRIPTS -->
    <script src="assets/js/custom.js"></script>


</body>
</html>
```

6.4 Series Class Insertion

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Untitled Document</title>
</head>

<body>
<?php
        require_once("database.php");
        $dept="cs";
        $table=$dept."tt";

if($dat=$db->query("SELECT date FROM $table WHERE 1=1"))
{
        $i=0;
        while($res=$dat->fetch_assoc())
        {
                ++$i;
                $date[$i]=$res['date'];
                /*try{
                        if(!($db->query("ALTER TABLE `ehall` ADD `$date[$i]` TINYINT(1)
NOT NULL DEFAULT '0'")))
                        {
                                throw new Exception("error");
                        }
                }
                catch(Exception $e){
```

```
                        die("Cannot create new row in ehall");
                }*/
        }
        if($val=$db->query("SELECT rno FROM `ehall` WHERE rno like '$dept%'"))
        {

                while($class=$val->fetch_assoc())
                {
                        $id=$class['rno'];
                        for($j=1;$j<=$i;$j++)
                        {
                                $var =$id."[".$j."]";

                                echo $id;
                                if(isset($_POST[$id][$j]))
                                {
                                        $db->query("UPDATE ehall SET `$date[$j]`= 1 WHERE
rno='$id'");
                                }
                        }
                }
        }


}
        header('Location:serstaff.php');
        ?>
</body>
</html>
```

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Untitled Document</title>
</head>

<body>
<?php
        require_once("database.php");
        //Data Structure definition
        class exam{
                public $name;
                public $maxval;
                public $index;
                public $semno;
```

```
		function exam()
		{


		}

		}
	class hall{
		public $name;
		public $row;
		public $col;
		public $dhall;

		public $set;
		function hall()
		{


		}
	}
//-------------------------------------------//

$cls[]=new hall();
$maxdno=0;
$exm[]=new exam();
function exmsort(&$exm,$g)
{
	for($i=1;$i<=$g;$i++)
	{
		for($j=$i+1;$j<=$g;$j++)
		{
			if(($exm[$i]->maxval-$exm[$i]->index)<($exm[$j]->maxval-$exm[$j]-
>index))
			{
				$temp=new exam();
				$temp=$exm[$i];
				$exm[$i]=$exm[$j];
				$exm[$j]=$temp;
			}
		}
	}

}
	function validate($exm,$g)
	{
		for($j=1;$j<=$g;$j++)
		{
```

```
                    if($exm[$j]->index<$exm[$j]->maxval)
                    {break;}
                }
                if($j>$g)
                { return(0);}
                else{return(1);}
        }

        $qw=$db->query("SELECT * FROM cssz WHERE 1=1");
        $v=$qw->fetch_assoc();
$var=$db->query("SELECT * FROM cstt WHERE 1=1");
while($res=$var->fetch_assoc())//time table
        {
                echo $res['date'];
                $date=$res['date'];
                $table="cs";
                $c=$db->query("SELECT rno,row,col,draw FROM ehall WHERE `$date`=1
AND rno like 'CS%'");
                $z=0;
                while($cl=$c->fetch_assoc())//loop to get available classes
                {
                        ++$z;
                        $avalcls[$z]=new hall();
                        $avalcls[$z]->name=$cl['rno'];
                        $avalcls[$z]->row=$cl['row'];
                        $avalcls[$z]->col=$cl['col'];
                        $avalcls[$z]->dhall=$cl['draw'];
                        $avalcls[$z]->set=1;
                        echo $cl['rno'];

                }
                echo $z;
                $g=0;
                for($i=1;$i<=4;$i++)
                {
                        if($res[$i]!='N')
                        {   ++$g;

                           $exm[$g]=new exam();
                           $exm[$g]->name=$i;
                           $exm[$g]->maxval=$v[$i];
                           $exm[$g]->semno=$v[$i]%24;
                           $exm[$g]->index=1;

                        }
                }
```

```
exmsort($exm,$g);

$index=rand(1,20);
$index=($index%$z)+1;
$end=1;
$a=1;
$b=2;
$c=3;
$table="cs";
$end=1;
while($end)
{
        $size=24;
        if($avalcls[$index]->dhall!=1)
        {    echo "Entered";
                $clsname=$avalcls[$index]->name;
            echo $clsname;
                $v1=$exm[1]->index;
                $v2=$exm[1]->index+$size-1;
         echo $v1.$v2;
                $exm[1]->index+=$size;
                $v3=$exm[2]->index;
                $v4=$exm[2]->index+$size-1;
         echo $v3.$v4;
                $exm[2]->index+=$size;
                $s1=$exm[1]->name."s";
                $s2=$exm[2]->name."s";
                $e1=$exm[1]->name."e";
                $e2=$exm[2]->name."e";
                $in=$db->query("INSERT INTO `$table`(`clsname`, `$s1`, `$e1`,
`$s2`, `$e2`) VALUES ('$clsname',$v1,$v2,$v3,$v4)");
                $avalcls[$index]->set=0;
        }
        else{
                $clsname=$avalcls[$index]->name;
                $in=$db->query("INSERT INTO `$table`(`clsname`)
VALUES('$clsname')");
                for($i=1;$i<=$g;$i++)
                {
                        $v1=$exm[$i]->index;
                   $v2=$exm[$i]->index+$exm[$i]->semno-1;
                   $exm[$i]->index+=$exm[$i]->semno;
                        $s1=$exm[$i]->name."s";
                        $e1=$exm[$i]->name."e";
                        $in=$db->query("UPDATE `$table` SET
`$s1`=$v1,`$e1`=$v2 WHERE `clsname`='$clsname'");
```

```
                        }
                        $avalcls[$index]->set=0;
                        }
                    exmsort($exm,$g);
                    $end=validate($exm,$g);
                    ++$index;
                     if($index>$z)
                          {$index=1;}


            }

            break;
      }// end time table

      ?>

</body>
</html>
```

6.5Series Staff Insertion

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Untitled Document</title>
</head>

<body>
<?php
      require_once("database.php");

if($dat=$db->query("SELECT DISTINCT date FROM timetable WHERE 1=1"))
{
      $i=0;
      while($res=$dat->fetch_assoc())
      {
            ++$i;
            $date[$i]=$res['date'];
            /*try{
                  if(!($db->query("ALTER TABLE `ehall` ADD `$date[$i]`
TINYINT(1) NOT NULL DEFAULT '0'")))
                  {
                        throw new Exception("error");
                  }
            }
            catch(Exception $e){
                  die("Cannot create new row in ehall");
```

```
            }*/
      }
      if($val=$db->query("SELECT id FROM `teacher` WHERE 1=1"))
      {
            while($class=$val->fetch_assoc())
            {
                  $id=$class['id'];
                  for($j=1;$j<=$i;$j++)
                  {
                        $var =$id."[".$j."]";
                       if(isset($_POST[$class['id']][$j]))
                       {
                             $db->query("UPDATE `teacher` SET
`$date[$j]`= 1 WHERE `id`='$id'");
                       }
                  }
            }
      }


}
      ?>
</body>
</html>
```

6.6 Series Eval Page

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Untitled Document</title>
</head>

<?php
//session_start();
//$dept=$_SESSION['dept'];
$dept="cs";
$dept=$dept."tt";
require_once("database.php");
$flag=1;
for($i=1;$i<=6;$i++)
{
      if(!empty($_POST['day'][$i]))
      {
            $day=$_POST['day'][$i];
            $s1=$_POST['1'][$i];
            $s2=$_POST['2'][$i];
            $s3=$_POST['3'][$i];
            $s4=$_POST['4'][$i];
```

```
            $out=$db->query("INSERT INTO $dept
VALUES(STR_TO_DATE('$day','%Y-%m-%d'),'$s1','$s2','$s3','$s4')");
            if($out)
            {
                  $result =$db->query("SHOW COLUMNS FROM `ehall` LIKE
$day");
                  if(empty($result))
                  {
                        $enter=$db->query("ALTER TABLE `ehall` ADD `$day`
INT(1) NOT NULL DEFAULT '0'");
                  }
                  $tech=$db->query("SHOW COLUMNS FROM `teacher` LIKE
$day");
                  if(empty($tech))
                  {
                        $enter1=$db->query("ALTER TABLE `teacher` ADD
`$day` INT(1) NOT NULL DEFAULT '0'");
                  }
            }
            else{$flag=0;}
      }
}
if($flag)
{
      header('Location:serclass.html');
}
else{
      echo "Error in insertion";
}


?>
<body>
</body>
</html>
```

7.SYSTEM TESTING

7.1 Testing the system

Software testing is the major quality control measure used during software development. Its basic function is to detect errors in the software. Testing not only uncover errors during coding , but also errors introduced during earlier phases. During testing, the software to be tested is executed with a set of test cases , the behavior of the system for the test cases is evaluated to determine if the system is performing as expected.

Testing is usually relied upon to detect the faults remaining from earlier stages, in addition to the faults introduced during coding itself. Due to this , different levels of testing are used in the testing are Unit testing, Integration testing, Validation testing, Output testing and User Acceptance testing.

7.1.1 Unit Testing

First level of testing is called unit testing. In this, different modules are tested against the specifications produced during design for the modules. Unit testing is essentially for the verification of the code produced during the code phase and hence the goal is to test the internal logic of the modules. It is typically done by the programmer of the module. A module is considered for integration and use by others only after it has been unit tested satisfactorily.

7.1.2 Integration Testing

In integration testing, many unit tested modules are combined into subsystems, which are then tested. The goal is to see if the modules can be integrated properly. Hence, the emphasis is eventually from the entire system.

7.1.3 Validation Testing

Validation is a process of evaluating software at the end of the software at the end of the software development to ensure the compliance with the software requirements. The software product should functionally do all the functional requirements set by the user. For the high reliability, we need to perform validation.

7.1.4 Output Testing

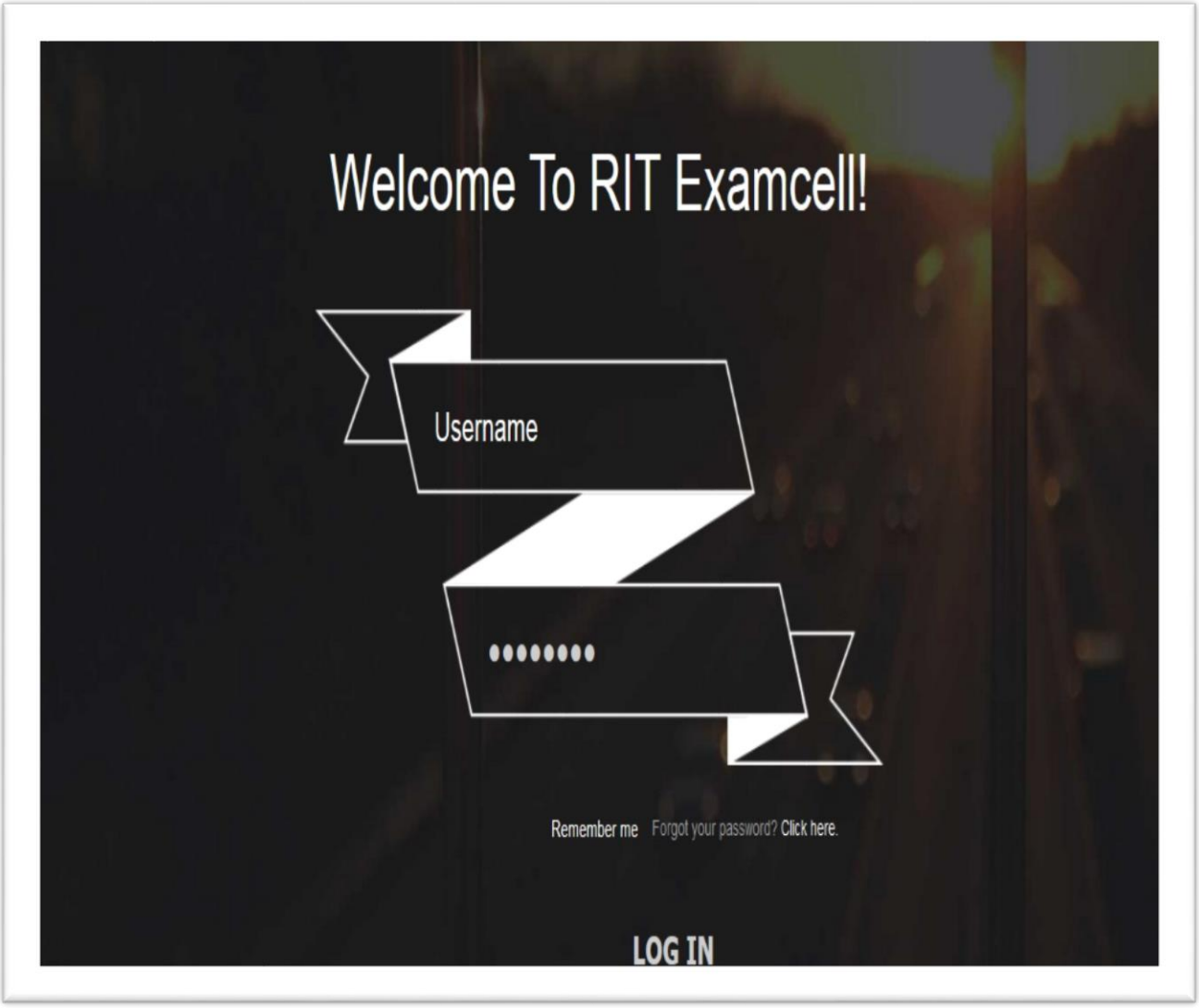
After performing validation testing, the next step is output testing of the produced system. The system cannot be useful if it does not produce the required output. The output displayed or generated by the system under consideration will be compared with the user needs. Here the output format is considered in two ways, one in screen format and the other in the printed format.

7.1.5 User Acceptance Testing

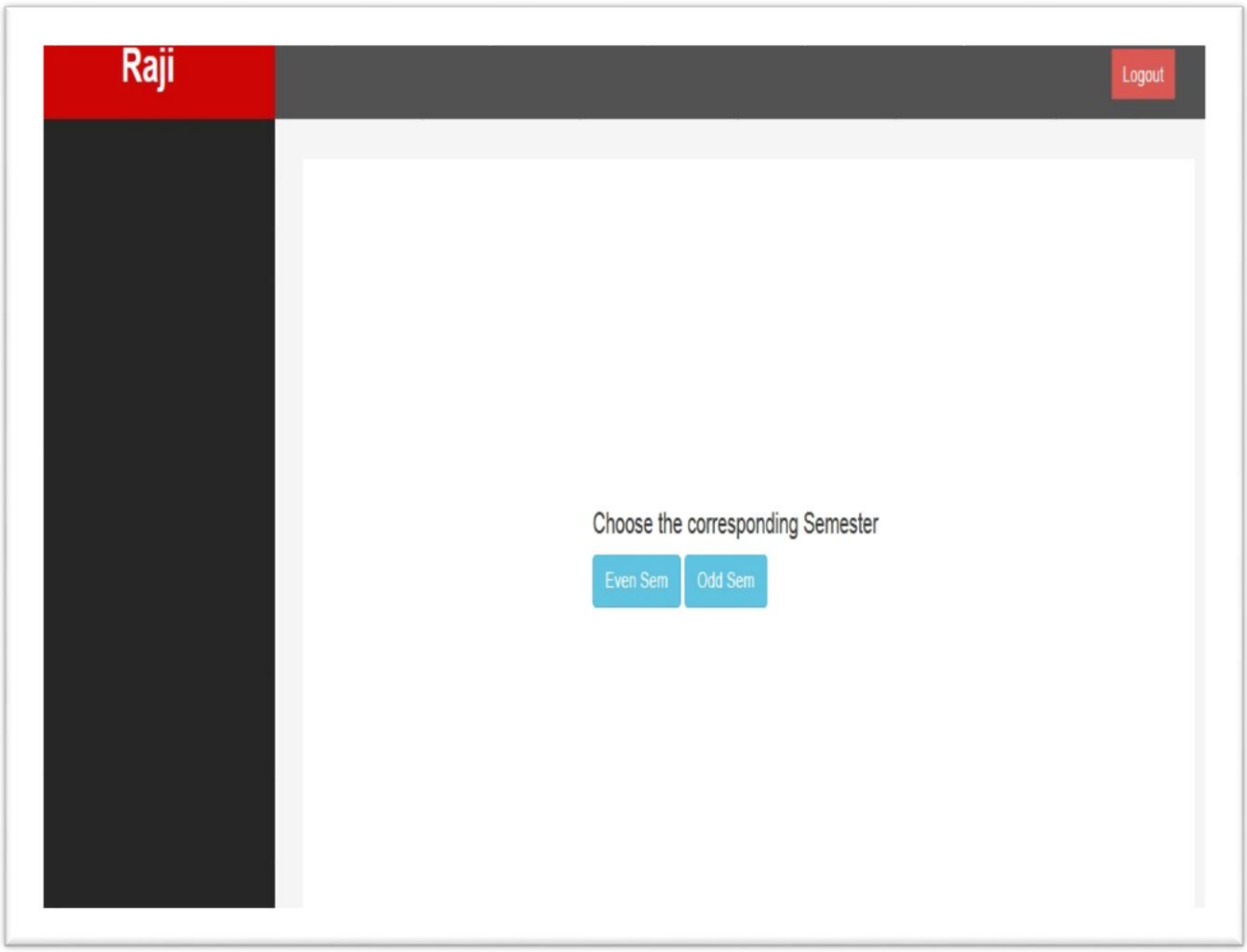
User acceptance testing of the system is the key factor for the success of any system. The system under consideration is tested for user acceptance by constantly keeping a track with perspective system at the time of development and making change whenever required. This is done with regard to the input screen design and output screen design.

8.SNAPSHOT

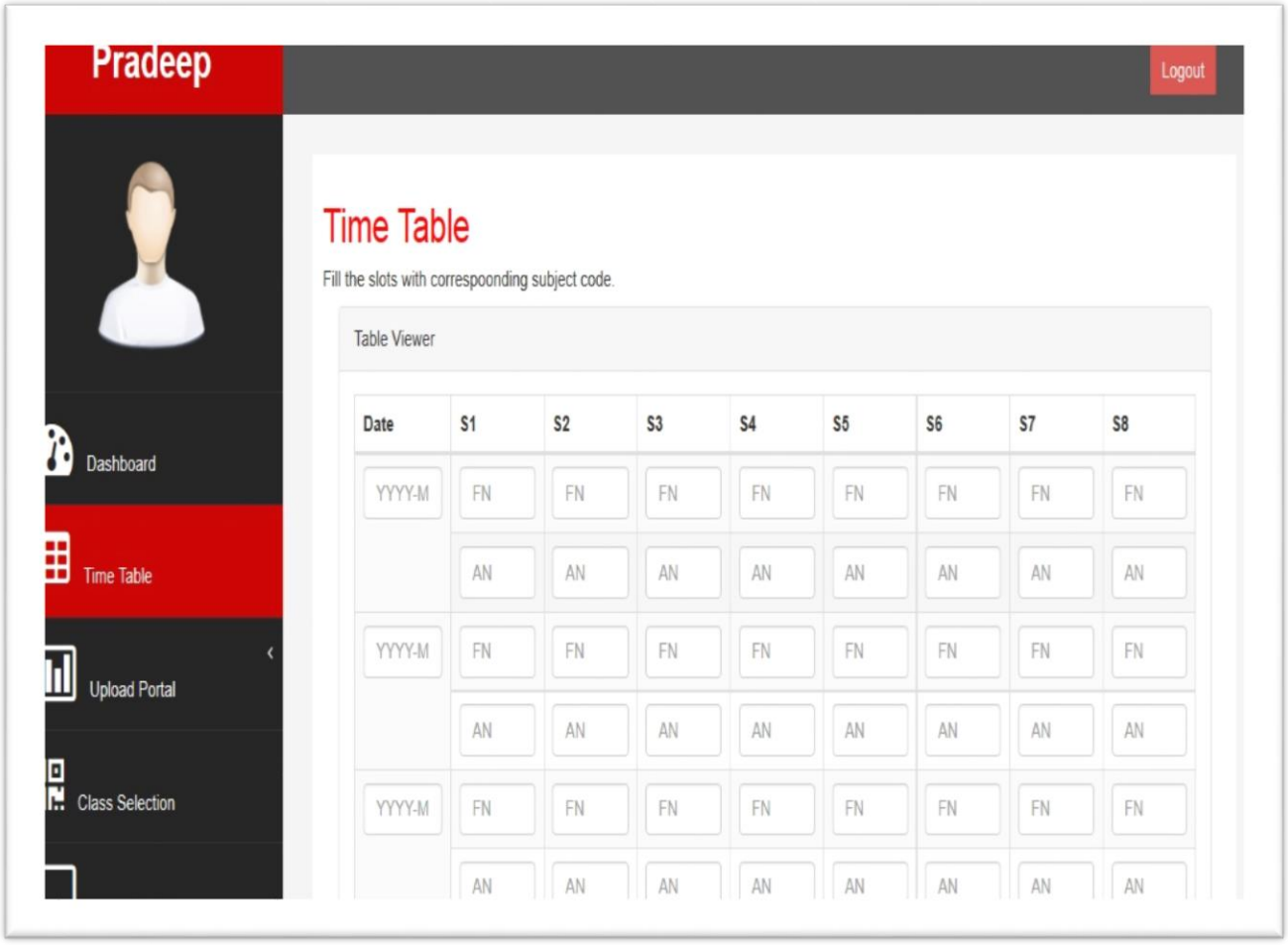
8.1 Login Page



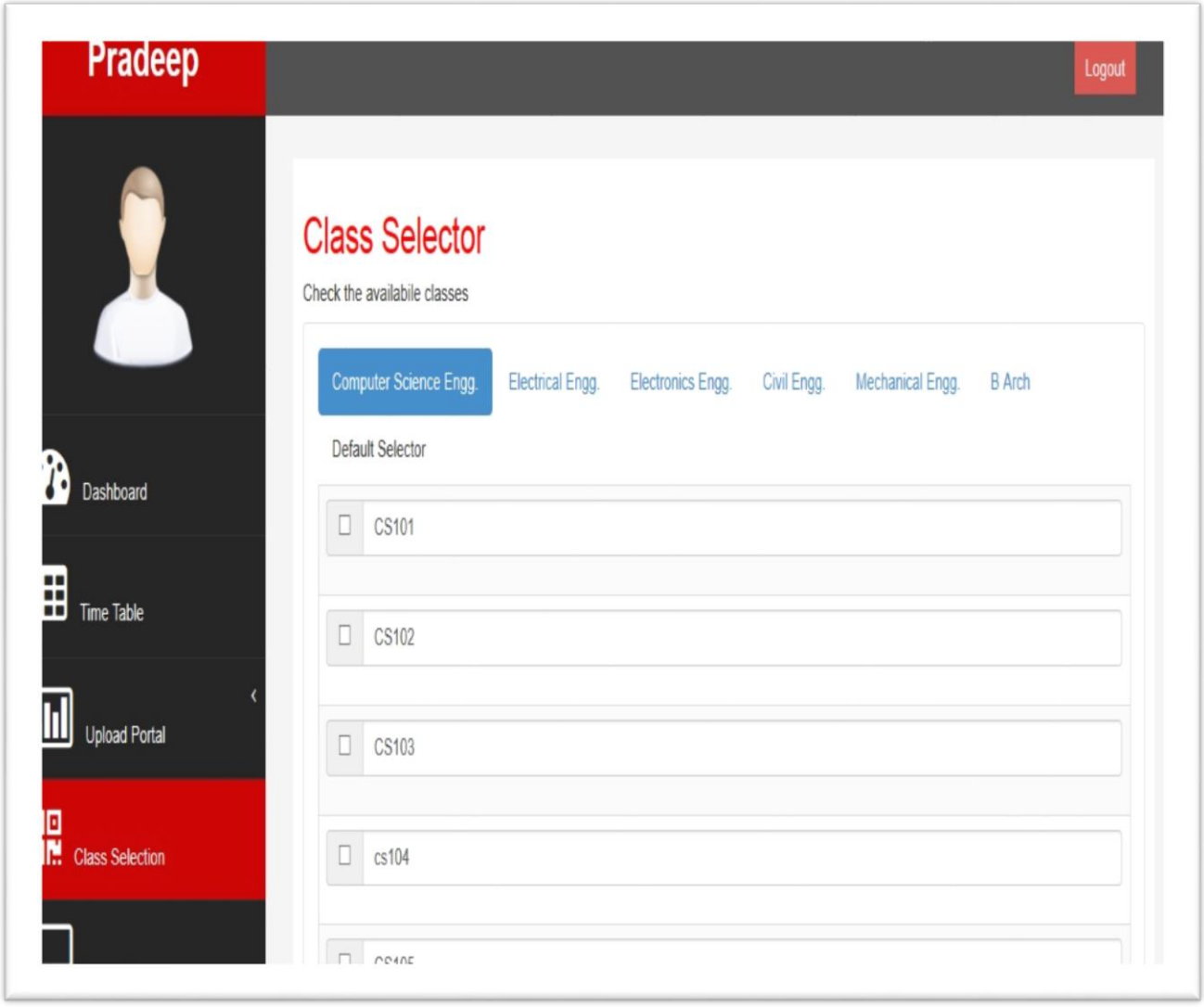
8.2 Semester Selection



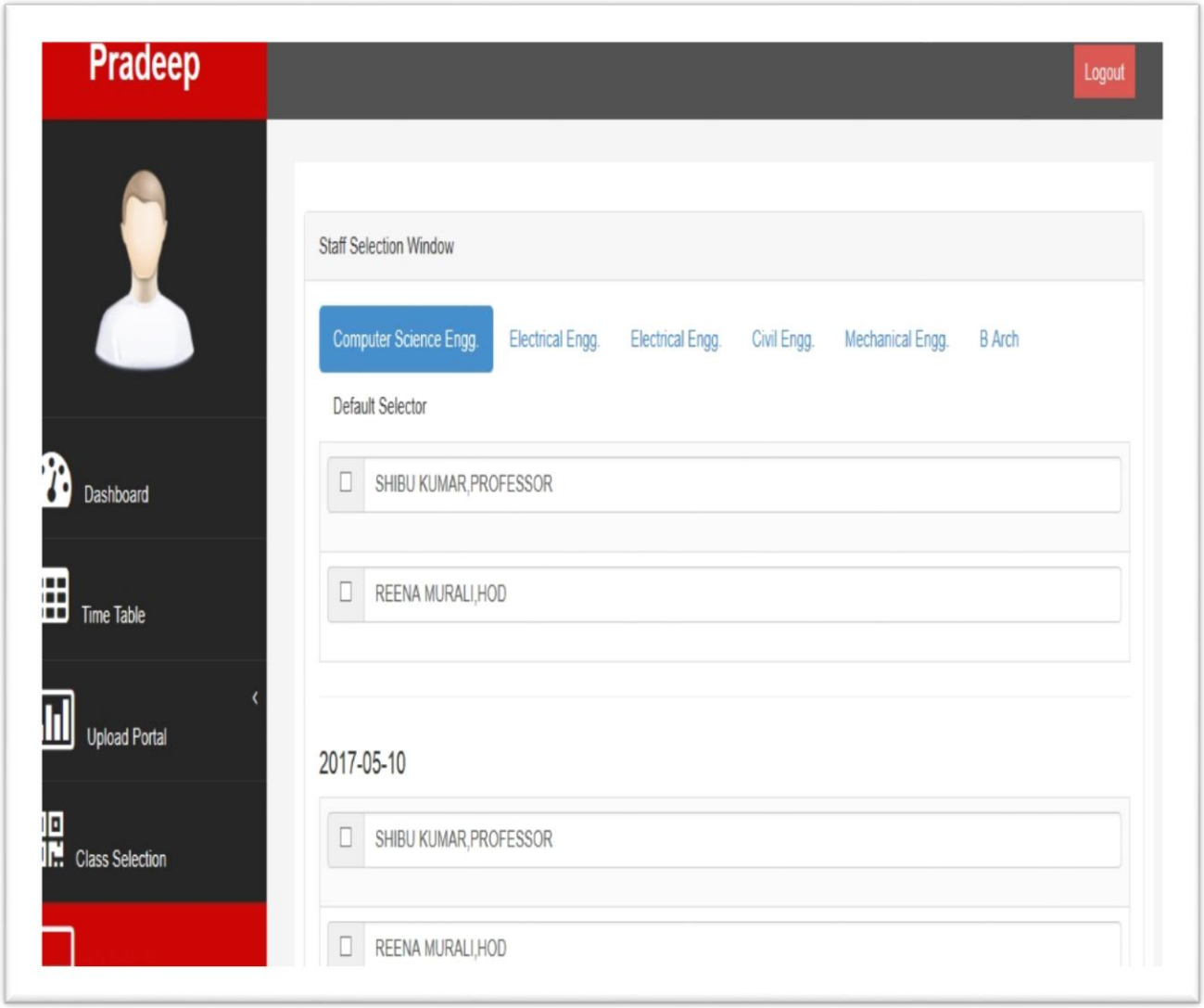
8.3 University Time Table Upload



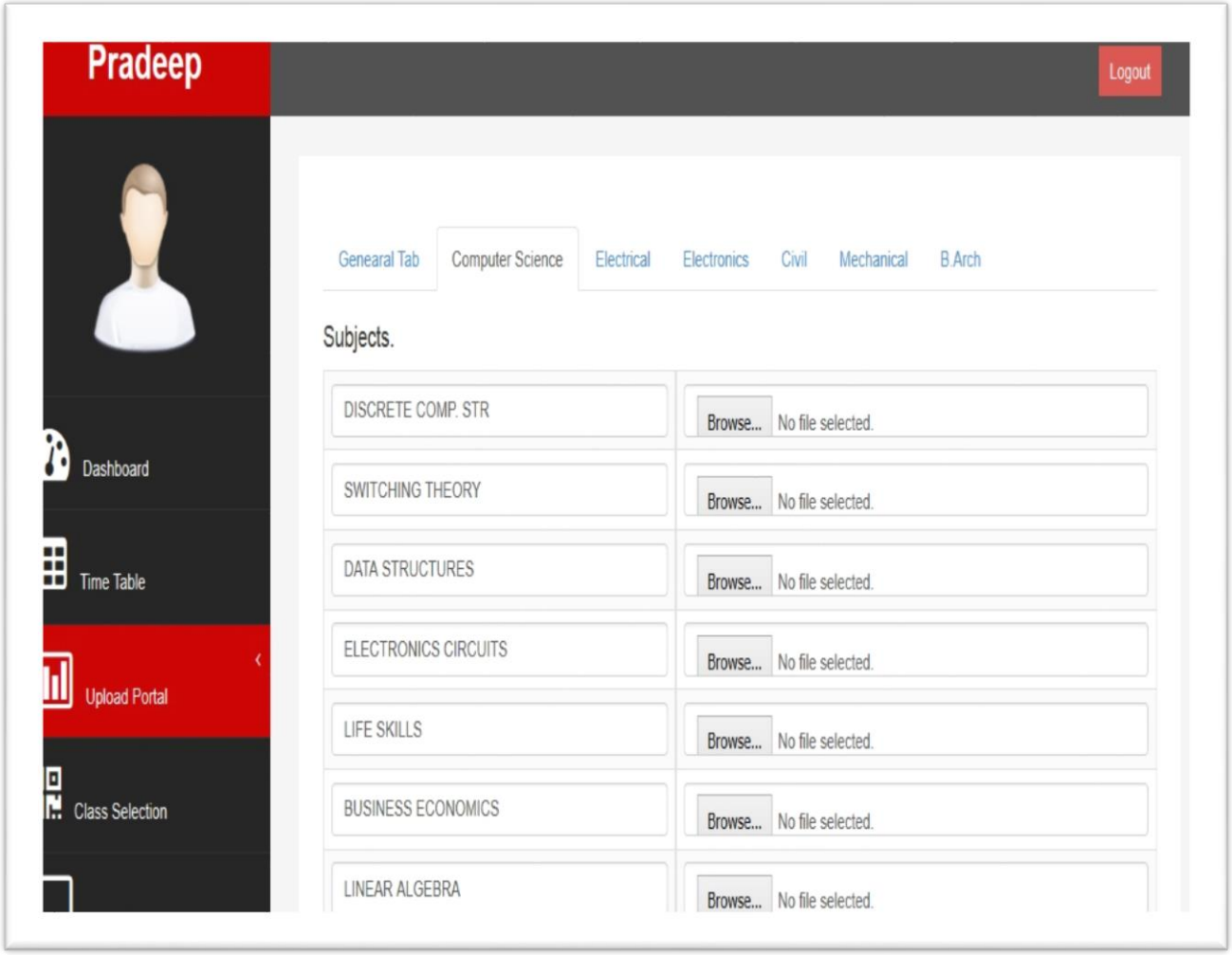
8.4 University Class Selector



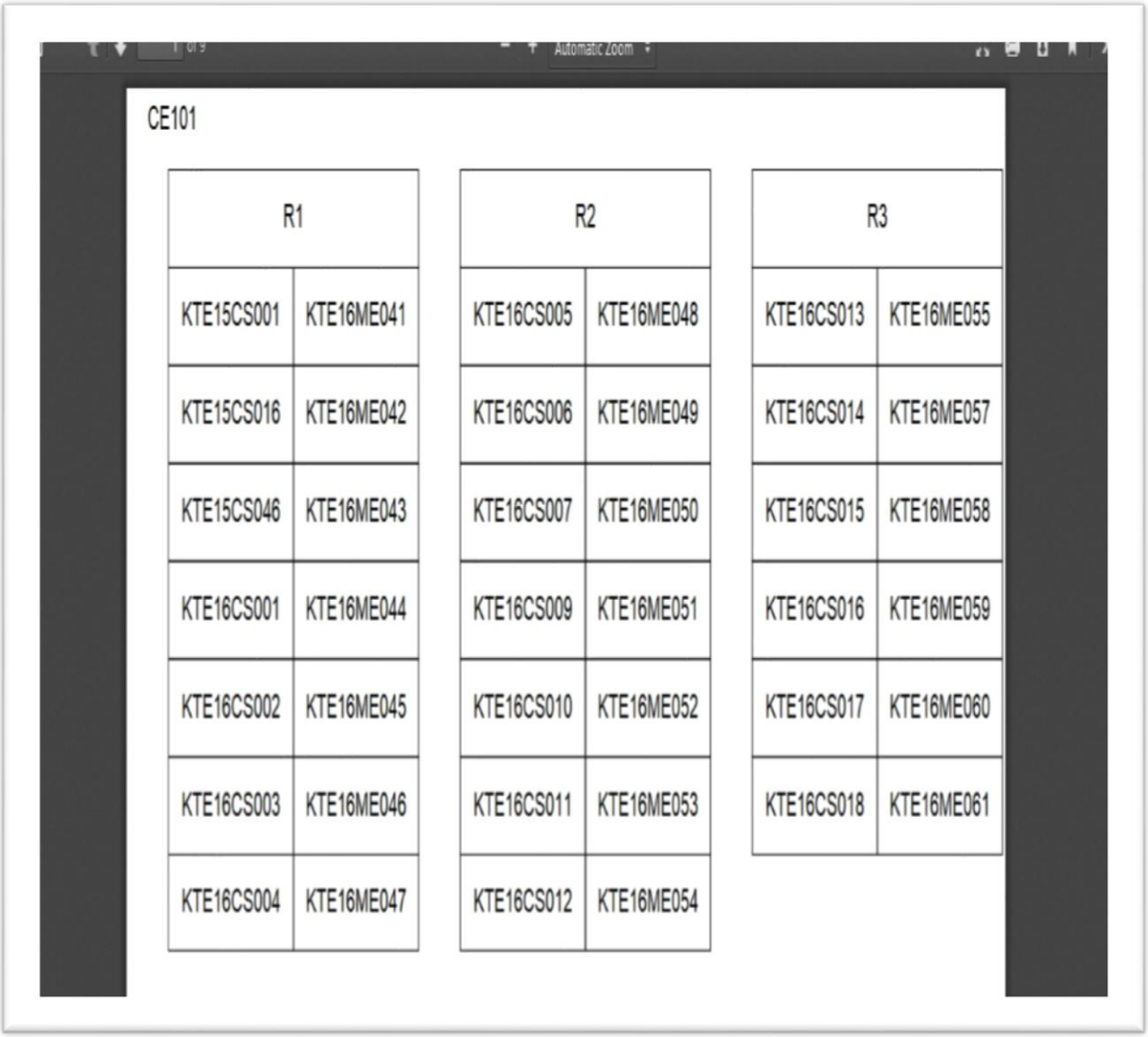
8.5 University Staff Upload



8.6 University Students List Upload



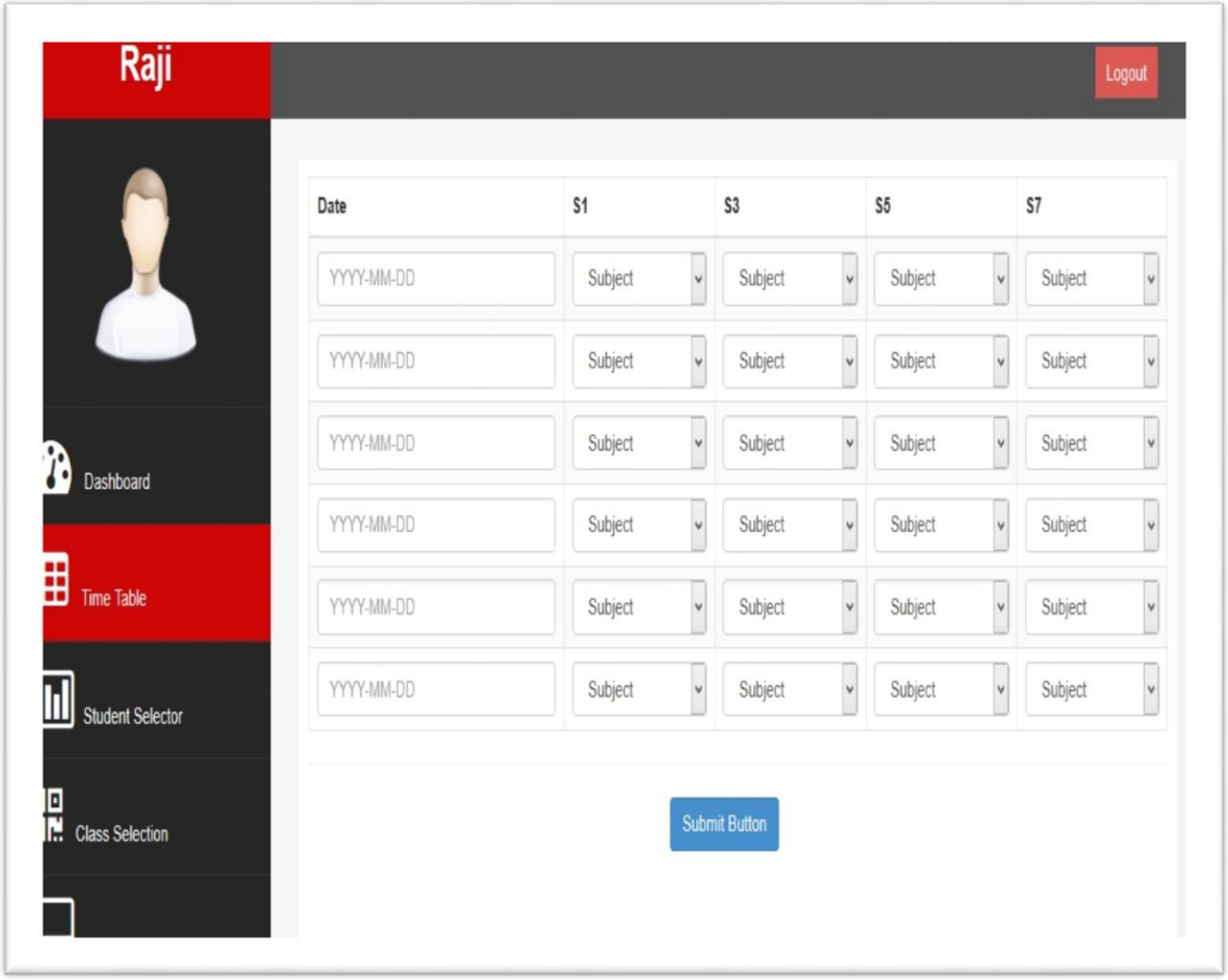
8.7UniversityResults



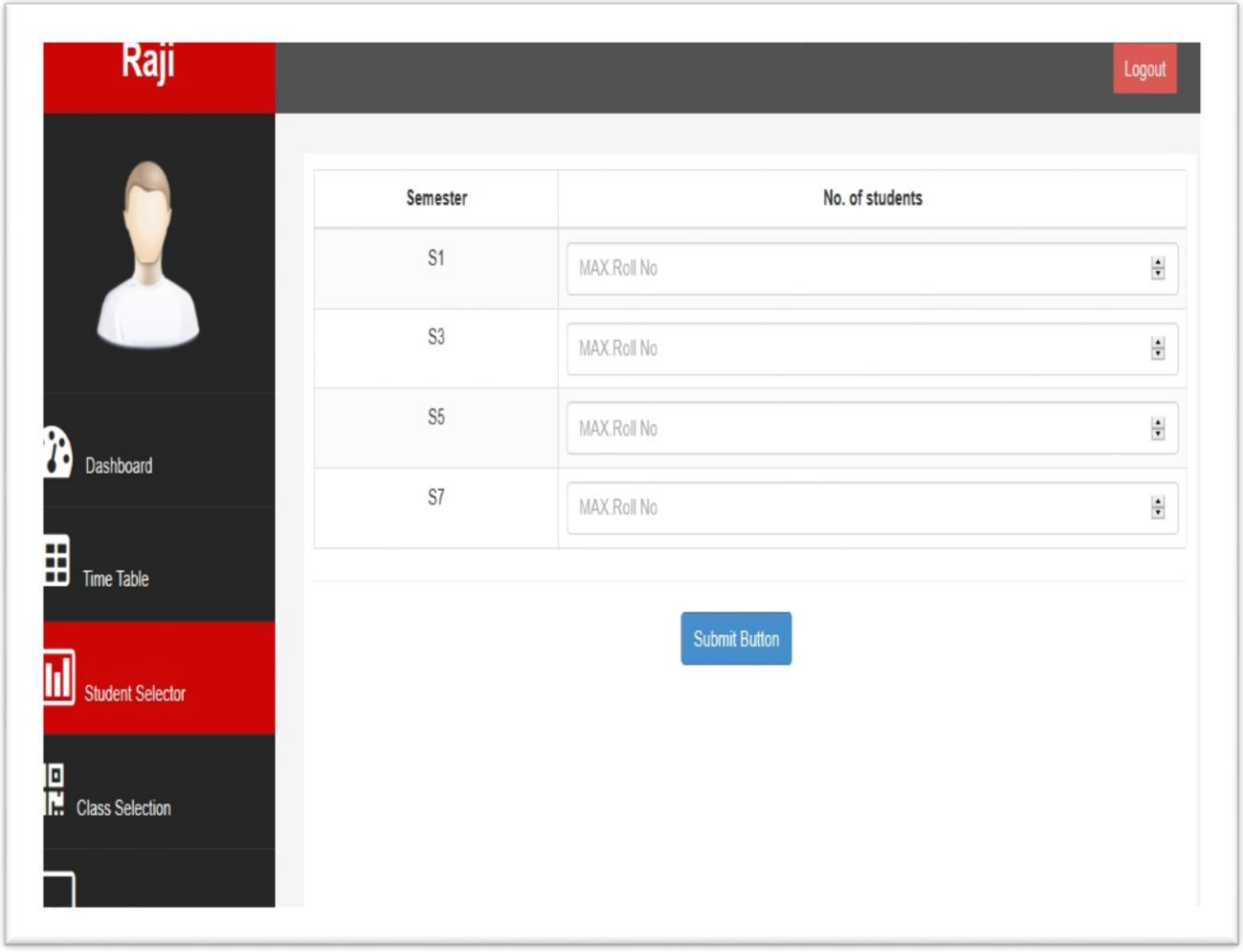
CE101

R1		R2		R3	
KTE15CS001	KTE16ME041	KTE16CS005	KTE16ME048	KTE16CS013	KTE16ME055
KTE15CS016	KTE16ME042	KTE16CS006	KTE16ME049	KTE16CS014	KTE16ME057
KTE15CS046	KTE16ME043	KTE16CS007	KTE16ME050	KTE16CS015	KTE16ME058
KTE16CS001	KTE16ME044	KTE16CS009	KTE16ME051	KTE16CS016	KTE16ME059
KTE16CS002	KTE16ME045	KTE16CS010	KTE16ME052	KTE16CS017	KTE16ME060
KTE16CS003	KTE16ME046	KTE16CS011	KTE16ME053	KTE16CS018	KTE16ME061
KTE16CS004	KTE16ME047	KTE16CS012	KTE16ME054		

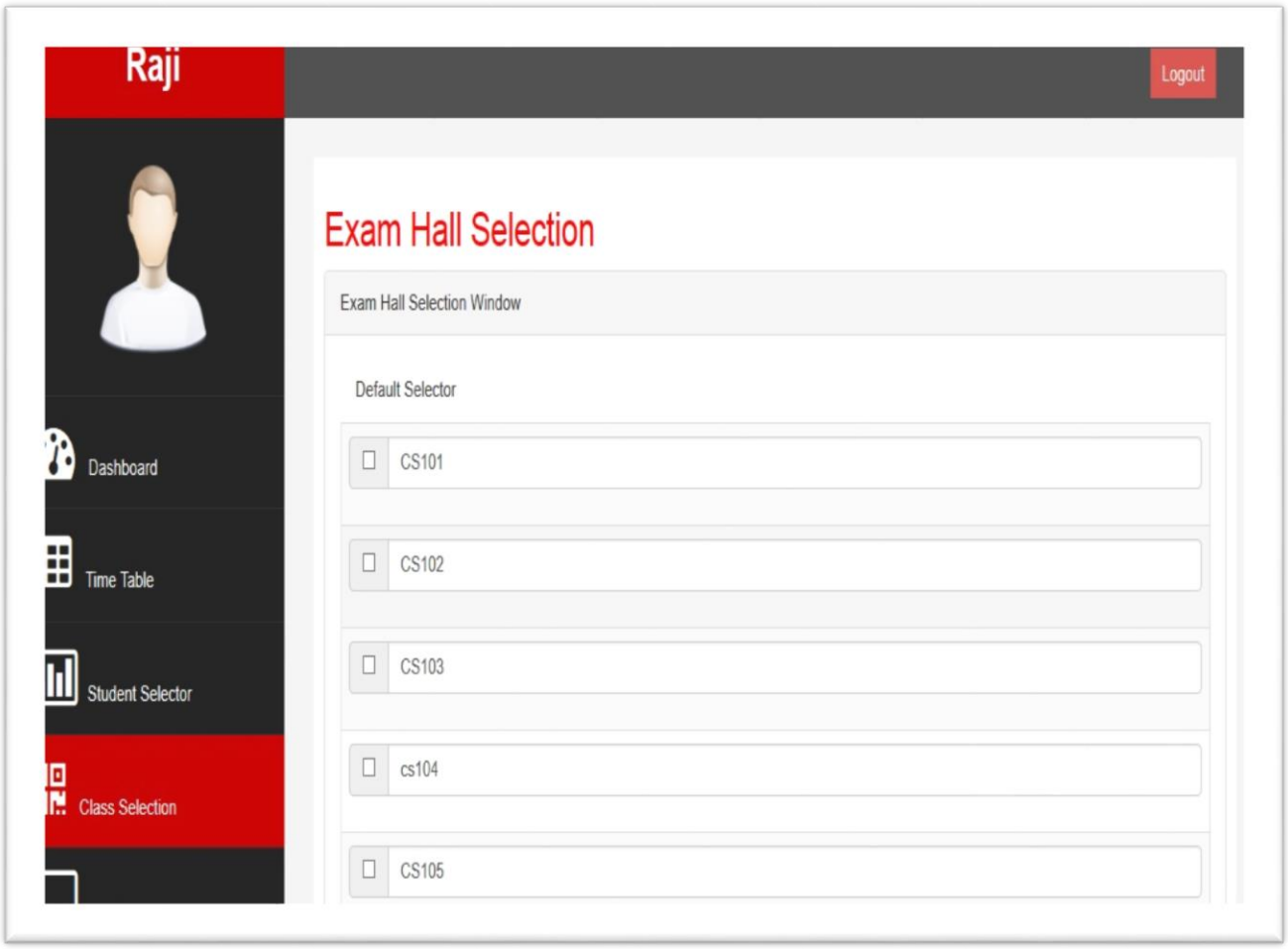
8.8 Series Time Table Upload



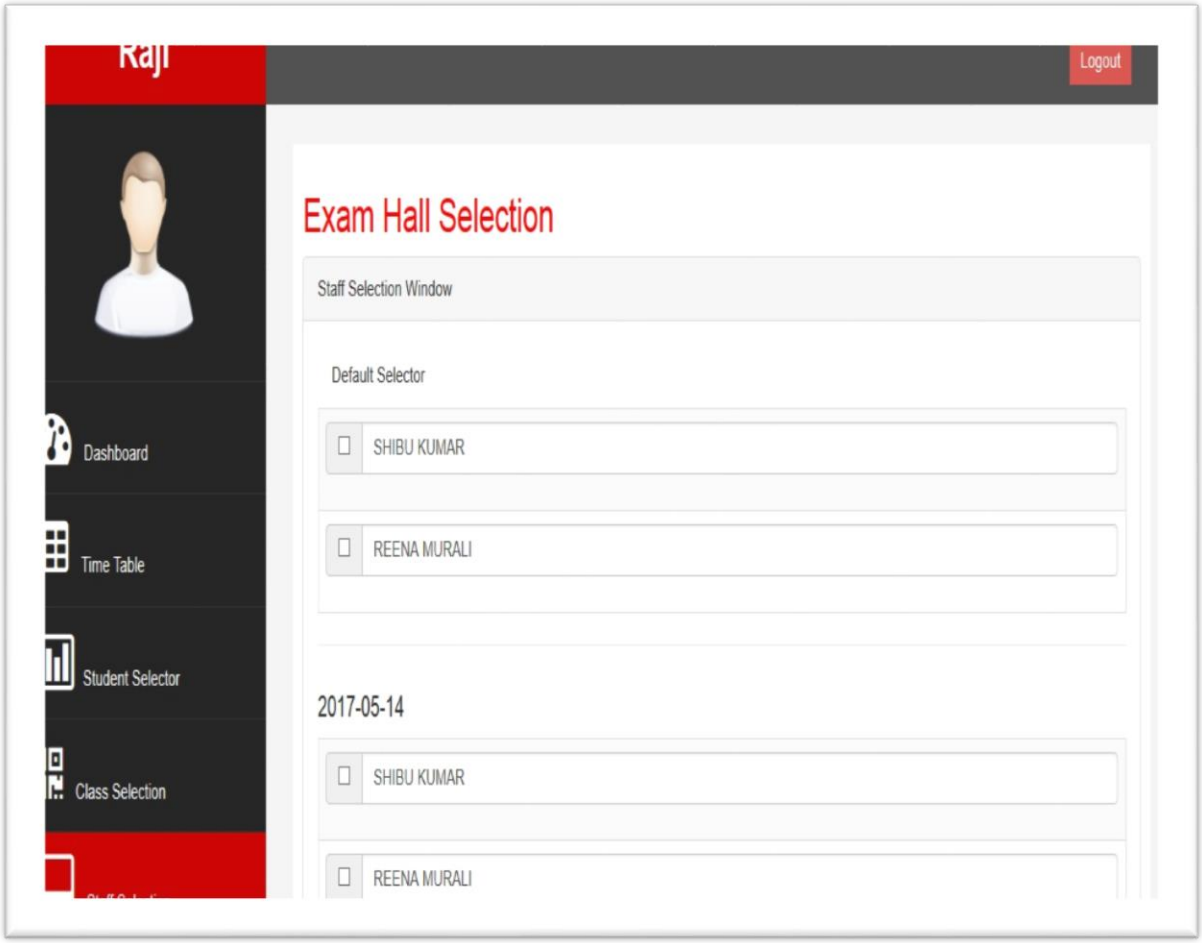
8.9 Series Student Upload



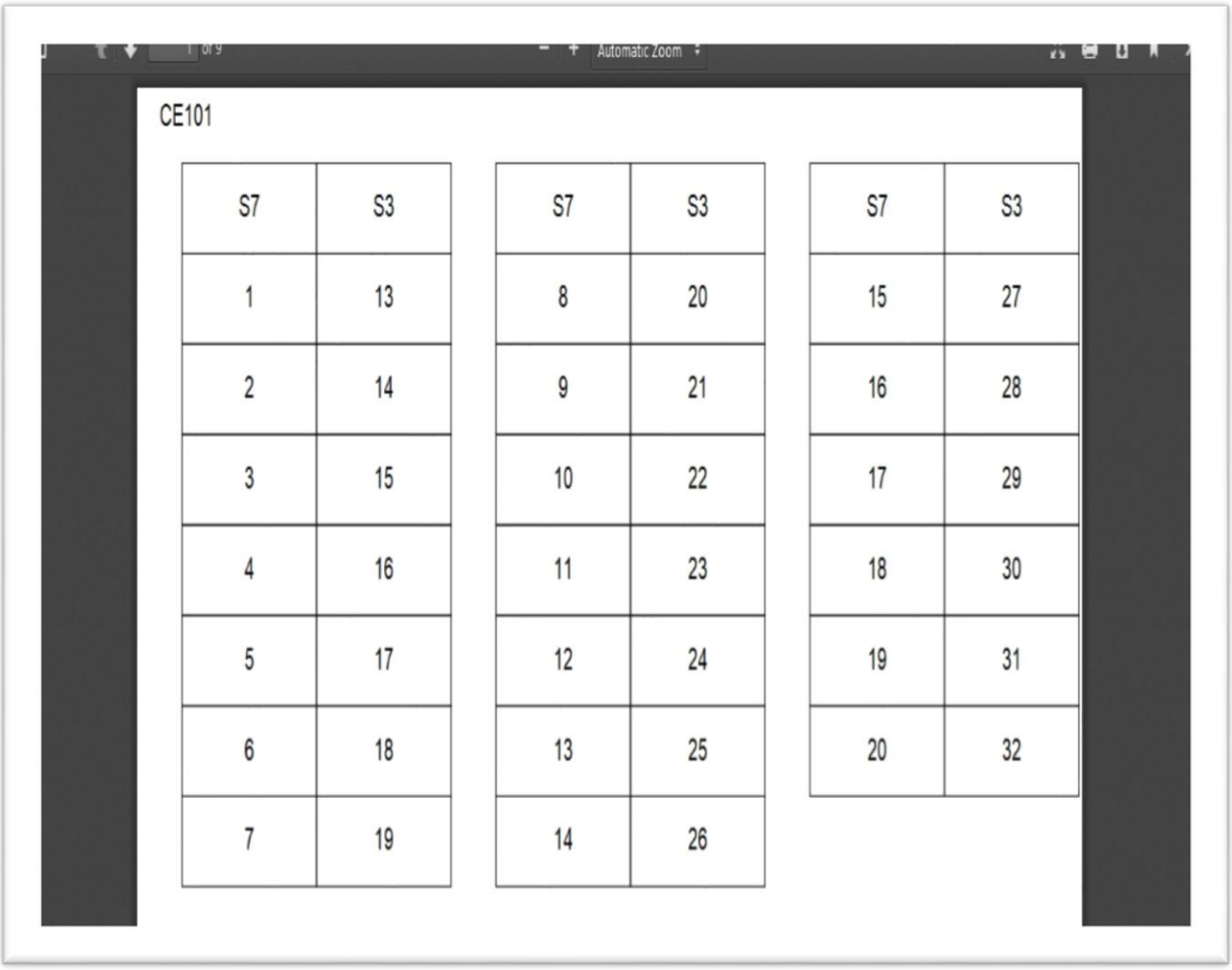
8.10 Series Class Selection



8.11 Series Staff Selection



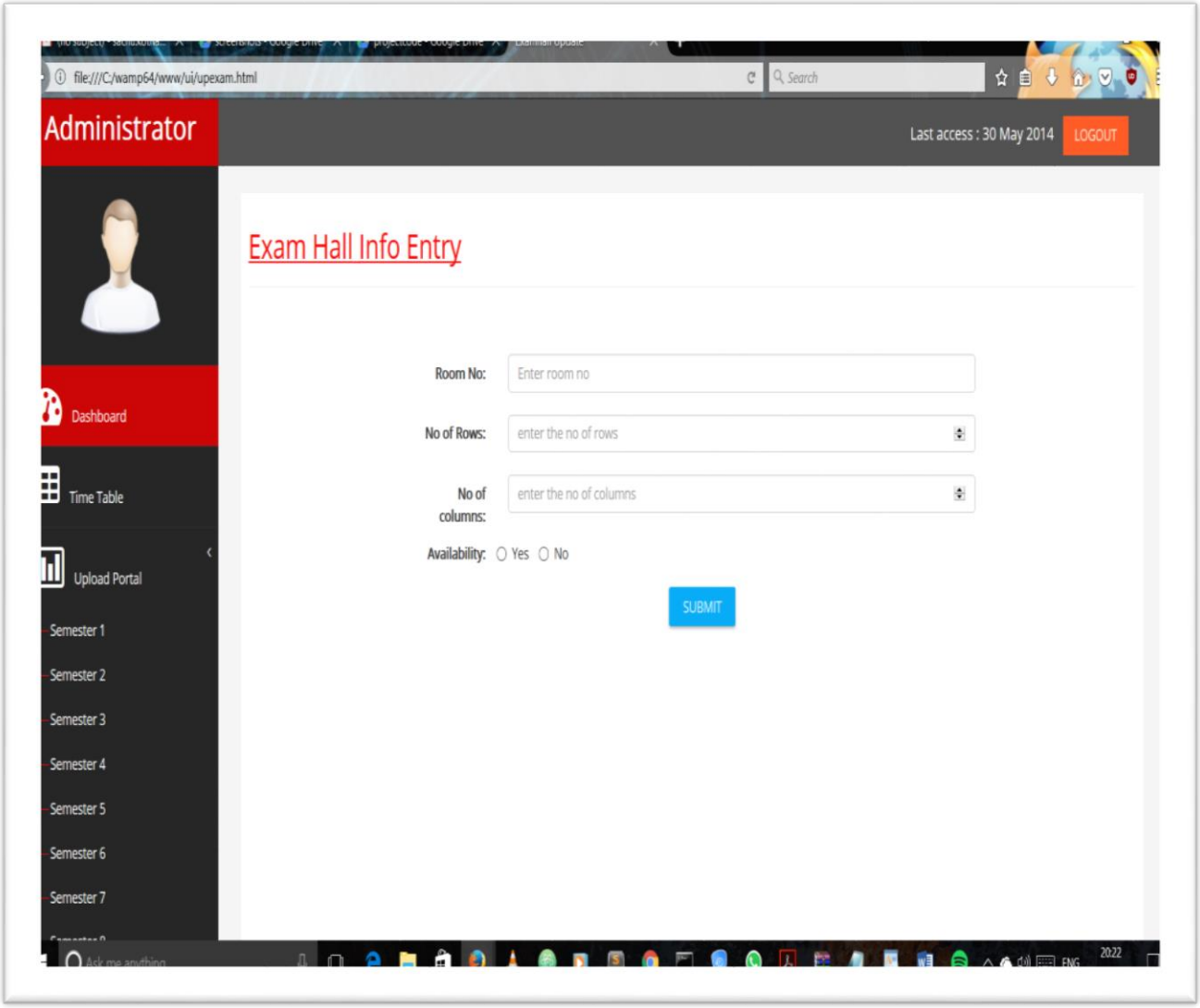
8.12 Series Seating



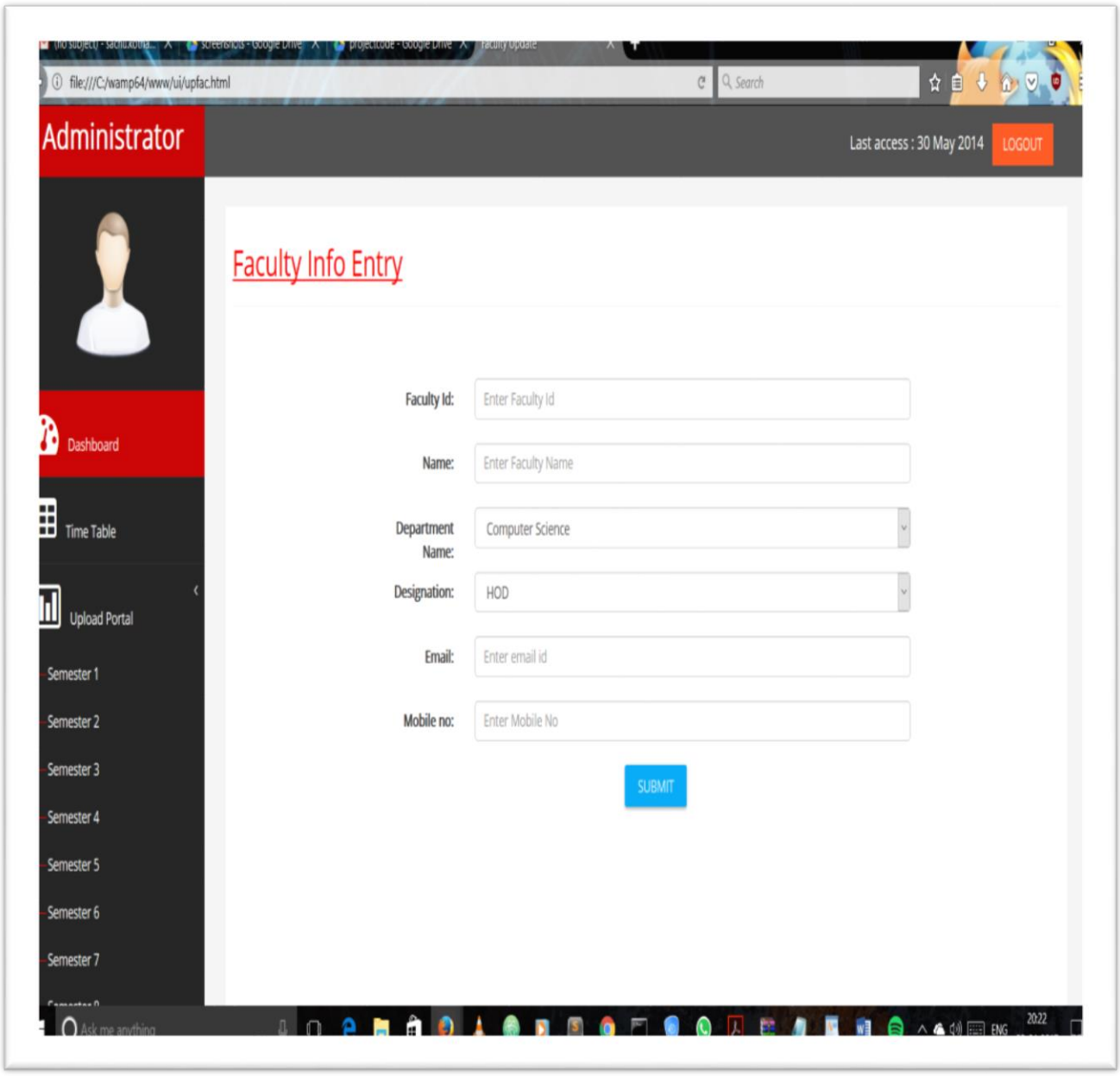
CE101

S7	S3	S7	S3	S7	S3
1	13	8	20	15	27
2	14	9	21	16	28
3	15	10	22	17	29
4	16	11	23	18	30
5	17	12	24	19	31
6	18	13	25	20	32
7	19	14	26		

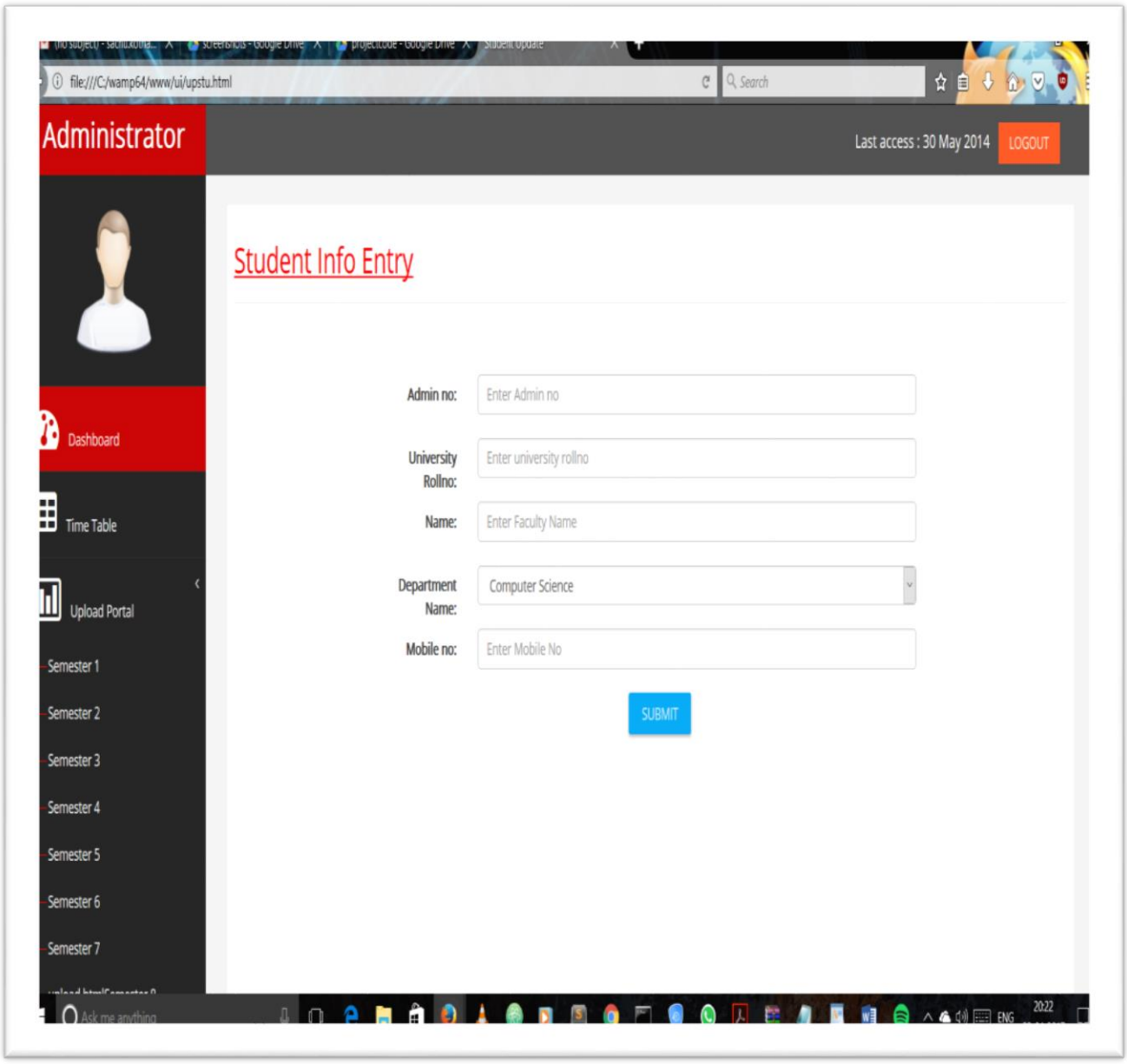
8.13 Exam Hall Database Update



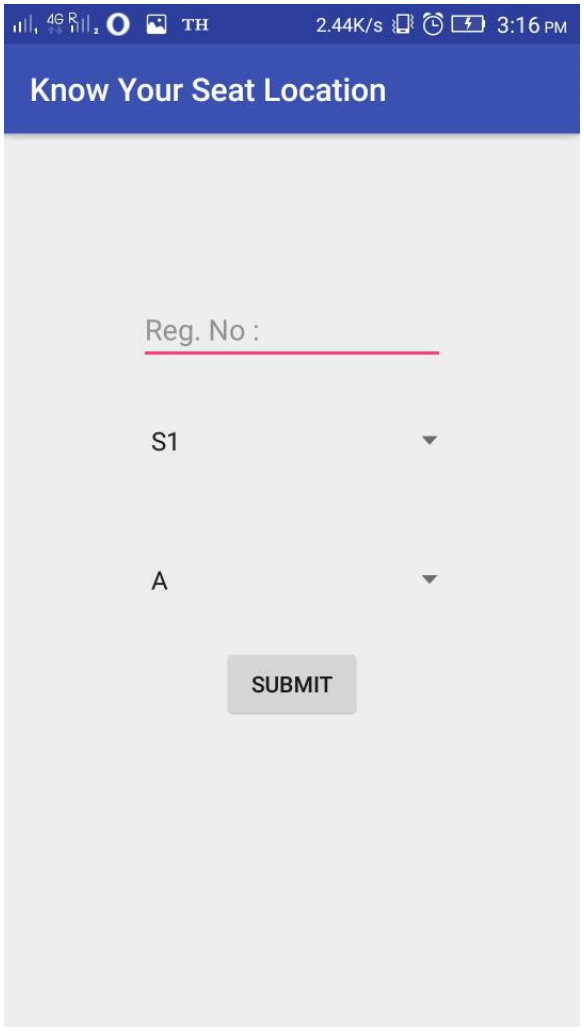
8.14 Faculty Database Update



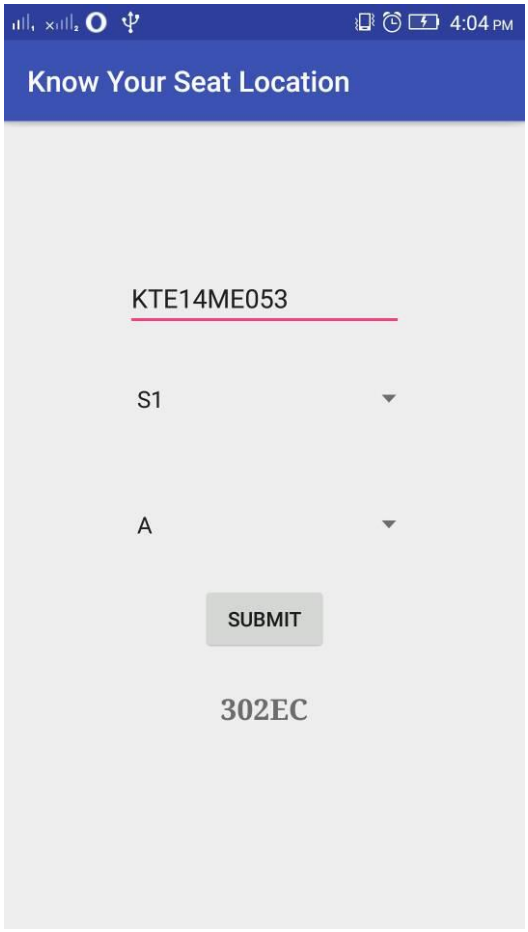
8.15 Student Database Update



8.16 Android App Submit Page



8.17 Seating Arrangement Info Page



9.FUTURE SCOPE

There is a large scope for improvement in the project and additional enhancements can be done to the project. The online portal can be transformed into a fully functioning mobile application which can be used to manipulate the portal in mobile itself rather than in a working pc. An online discussion forum can be developed so that the faculty and students can interact with each other and discuss about the examinations which are conducted in the college.

10.CONCLUSION

The Examination cell website is completed as per the requirements of the user. The development of the examination cell website has undergone through various stages like requirement analysis, system design and implementation. The project work is done as per the requirement of the users and has proved to be working successfully. The testing of our project for different context have been done. Given more time the same could have been developed with a lot more of built-in features. However as an initial venture in this field, we feel our project has been a successful attempt.

Since there were no similar system which was developed for this purpose, it took a great deal of research and effort to develop the project. The portal involves accepting the necessary detail of exams which includes timetables, students enrolled for the exams, and the necessary information about the faculty which are available for invigilating the exams. The given input data is manipulated by the algorithm which was intended to generate the seating arrangement and the required output is generated in a printable format.

The project is flexible, that is, it is designed and coded in such a way that any further modifications that are needed in the future can be easily implemented without affecting the functionality of the existing system. This project is purely user friendly and platform independent, so user can run this tool in any environment provided they have a working internet connection and a browser. It is very easy to implement or add many features to this tool. Finally, it is a very needful and enables to carry out the functions of examination cell more effectively.

11.REFERENCE

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2. *PHP manual - www.php.net/manual/en/*

3. *Software Engineering* - **Roger Pressman**

4. *Stackoverflow – www.stackoverflow.com*

5. *W3Schools – www.w3schools.com*