

Introduction

1.1 Introduction

The impact of computers and internet, on the lives of people today is probably much more than what is really know. Getting information and quickly turning it into a product that consumers want is the essential key to staying in business and all of this is done nowadays using computers and applications or information systems.

The information systems will continue to change businesses and the way the life is being lived. Many corporate leaders are making use of this technology to manage every aspect of their organization, from product creation to customer service. It has brought evolution in almost every field, it changed the ways of teaching, administration of activities such as e-learning, e-library and online portals where teachers and students communicate, and sharing of information has never been better.

Student result declaration and management are amongst the most important activities within a university or any educational institution, since all other activities depend on it. Hence implementing an information system can be declared a significance result.

The main objective of this project is to enhance and automate the management and declaration of students' results using a computerized system.

1.2 Justification

This project will focus on computerizing the Results of a Student published by the Institution. This intervention can be achieved using the currently available software's and technologies which will provide support to the system. The support for the project is provided by the humans using their intellect power and the currently available technologies by using it efficiently.

Hence, the institution can manage large number of student results at ease using this system.

1.3 Problem Statement

To Develop a system that will manage

- Information about various users
- Information about subjects offered in various semesters
- Marks obtained by students in internals and final exam
- Generation of reports

Back End Design

2.1 ER Diagram

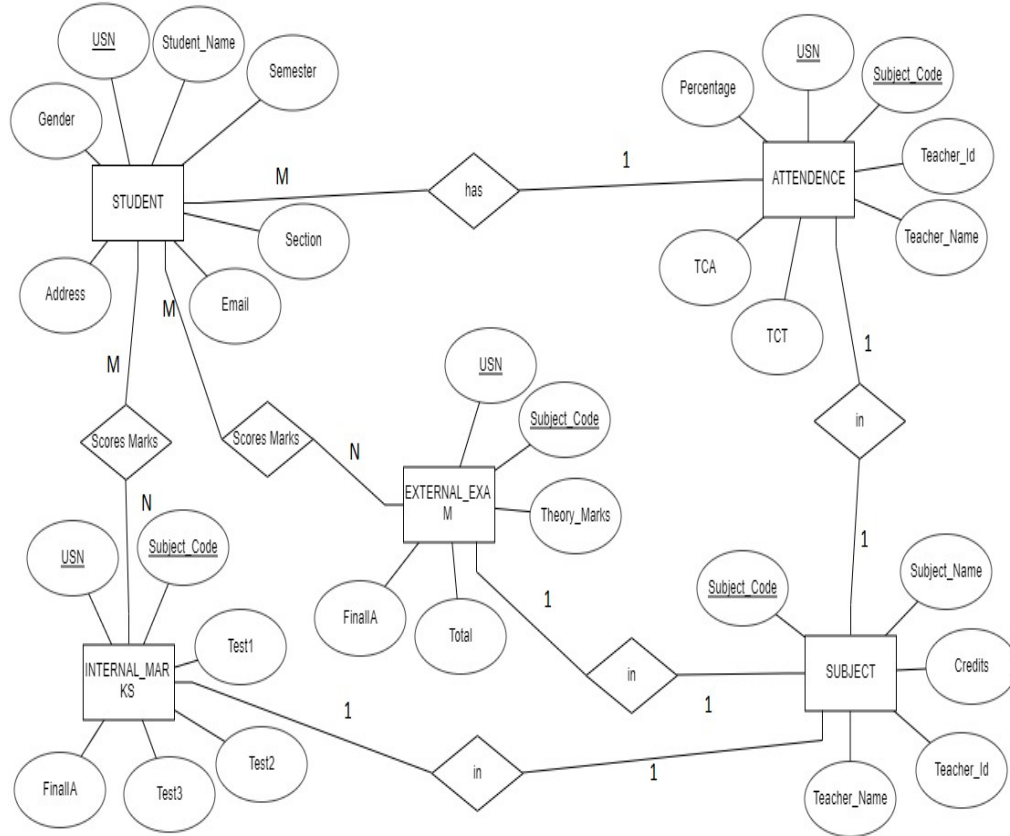


Figure 2.1: ER Diagram for Student Result Management System

2.2 ER to Relational Mapping

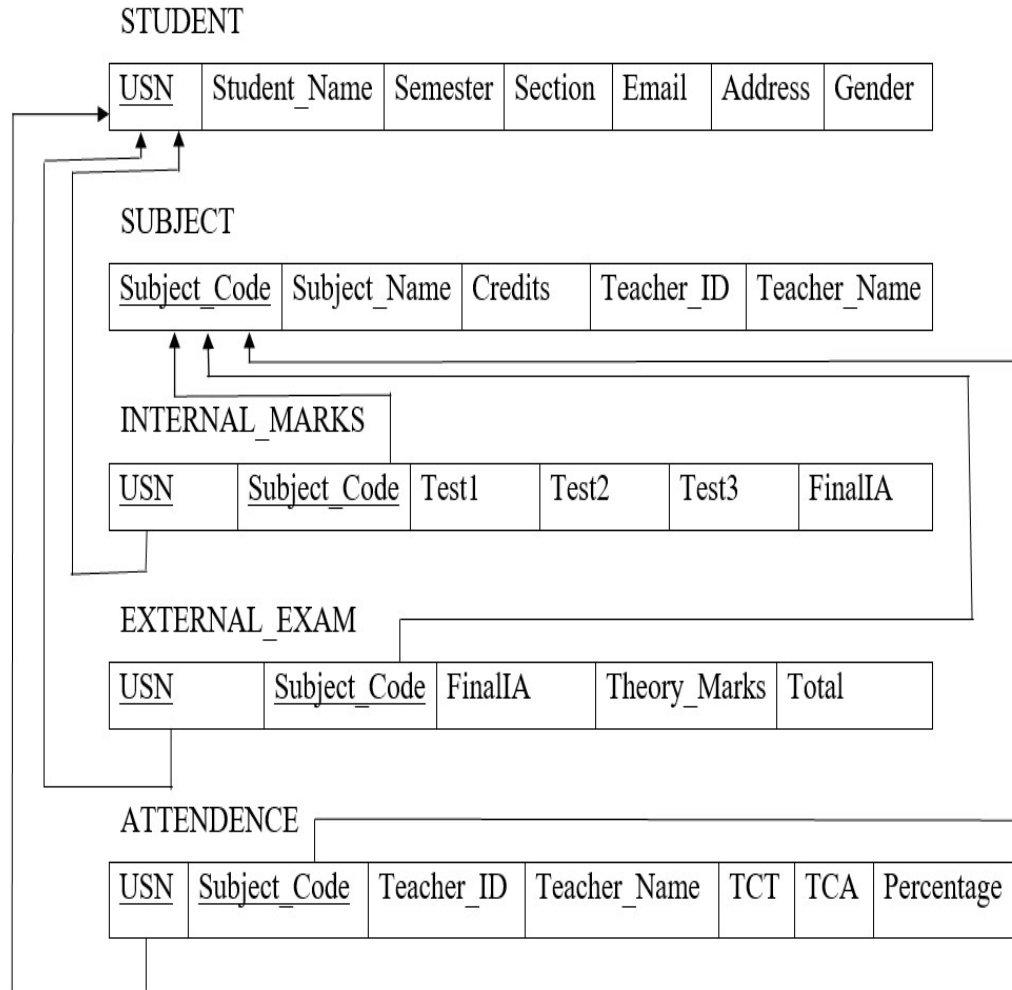


Figure 2.2: ER to Relational Mapping for Student Result Management System

2.3 Normalization

STUDENT

<u>USN</u>	Student_Name	Semester	Section	Email	Address	Gender
------------	--------------	----------	---------	-------	---------	--------

Functional Dependencies-

USN-> (Student_Name, Semester, Section, Email, Address, Gender)

USN+= (USN, Student_Name, Semester, Section, Email, Address, Gender)

Candidate key= USN

Justification-

- The above-mentioned dependencies we can observe that the STUDENT relation is in 1NF as all the attributes are atomic in nature.
- The relation is in 2NF as all the Non-Prime attributes are fully functionally dependent on the Prime attribute and there is no partial dependency.
- The relation is also in 3NF as there is no Transitive dependency between the Non-Prime attributes and the Prime attribute.

SUBJECT

<u>Subject_Code</u>	Subject_Name	Credits	Teacher_ID	Teacher_Name
---------------------	--------------	---------	------------	--------------

Functional Dependencies-

Subject_Code-> (Subject_Name, Credits, Teacher_ID, Teacher_Name)

Subject_Code+= (Subject_Code, Subject_Name, Credits, Teacher_ID, Teacher_Name)

Candidate Key= Subject_Code

Justification-

- The above-mentioned dependencies we can observe that the SUBJECT relation is in 1NF as all the attributes are atomic in nature.
- The relation is in 2NF as all the Non-Prime attributes are fully functionally dependent on the Prime attribute and there is no partial dependency.
- The relation is also in 3NF as there is no Transitive dependency between the Non-Prime attributes and the Prime attribute.

INTERNAL_MARKS

<u>USN</u>	<u>Subject_Code</u>	Test1	Test2	Test3	FinalIA
------------	---------------------	-------	-------	-------	---------

Functional Dependencies-

(USN, Subject_Code) → (Test1, Test2, Test3, FinalIA)

(USN, Subject_Code) ⇨ (USN, Subject_Code, Test1, Test2, Test3, FinalIA)

Candidate Key = (USN, Subject_Code)

Justification-

- The above relation is in 1NF as all the attributes are atomic in nature.
- The relation is in 2NF as all the Non-Prime attributes are fully functionally dependent on the Prime attribute and there is no partial dependency.
- The relation is also in 3NF as there is no Transitive dependency between the Non-Prime attributes and the Prime attribute.

EXTERNAL_EXAM

<u>USN</u>	<u>Subject_Code</u>	FinalIA	Theory_Marks	Total
------------	---------------------	---------	--------------	-------

Functional Dependencies-

(USN, Subject_Code) → (FinalIA, Theory_Marks, Total)

(USN, Subject_Code) ⇨ (USN, Subject_Code, FinalIA, Theory_Marks, Total)

Candidate Key = (USN, Subject_Code)

Justification-

- The above relation is in 1NF as all the attributes are atomic in nature.
- The relation is in 2NF as all the Non-Prime attributes are fully functionally dependent on the Prime attribute and there is no partial dependency.
- The relation is also in 3NF as there is no Transitive dependency between the Non-Prime attributes and the Prime attribute.

ATTENDANCE

<u>USN</u>	<u>Subject_Code</u>	Teacher_ID	Teacher_Name	TCT	TCA	Percentage
------------	---------------------	------------	--------------	-----	-----	------------

Functional Dependencies-

(USN, Subject_Code) → (Teacher_ID, Teacher_Name, TCT, TCA, Percentage)

(USN, Subject_Code) ⇨ (USN, Subject_Code, Teacher_ID, Teacher_Name, TCT, TCA, Percentage)

Candidate Key = (USN, Subject_Code)

Justification-

- The above relation is in 1NF as all the attributes are atomic in nature.
- The relation is in 2NF as all the Non-Prime attributes are fully functionally dependent on the Prime attribute and there is no partial dependency.
- The relation is also in 3NF as there is no Transitive dependency between the Non-Prime attributes and the Prime attribute.

Front End Design

3.1 Page Layout

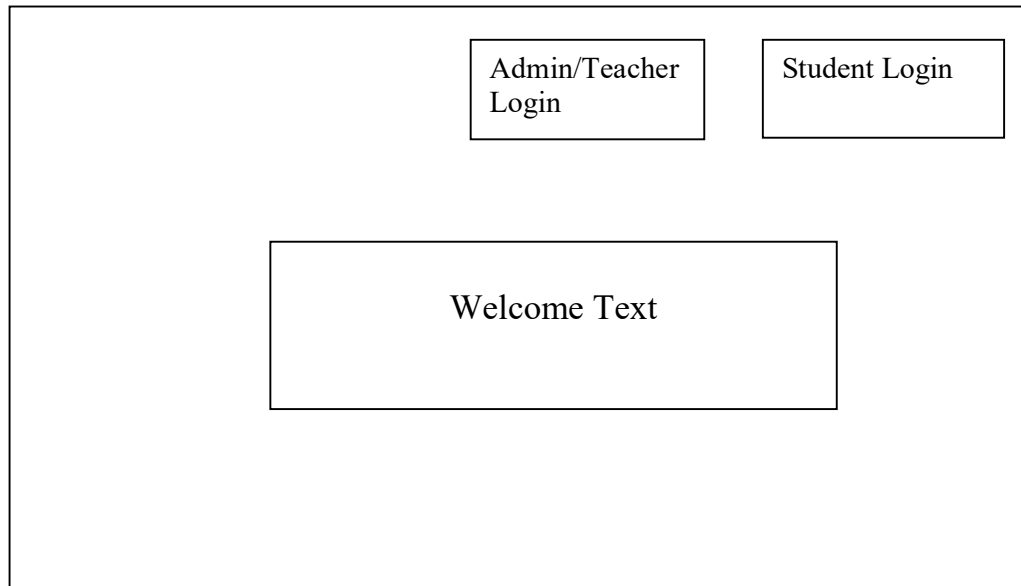


Figure 3.1: Welcome Page

First page contains a small introduction about the institution.

There are two buttons which takes us to the 'Admin/Teacher Login' and 'Student Login' page respectively.

There is a background image displaying the institution.

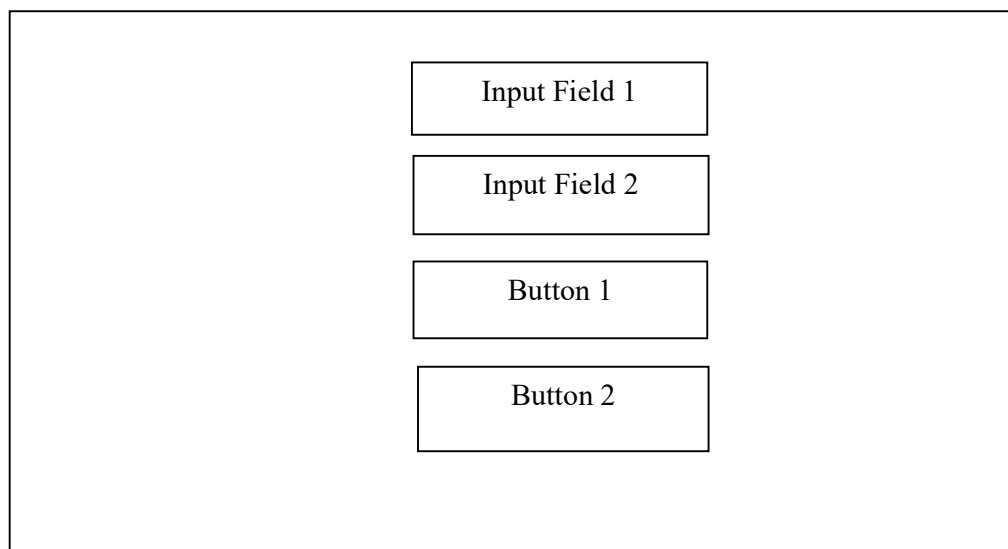


Figure 3.2: Admin/Teacher Login Page

The Admin/Teacher login page consists of: -

Two input fields: -

1. Username

2. Password

Two buttons: -

1. Submit
2. Back
- 3.

```
graph TD; subgraph Container; direction TB; IF1[Input Field 1]; B1[Button 1]; B2[Button 2]; end
```

Figure 3.3: STUDENT Login Page

The Student login page consists of: -

One input field: -

1. USN

Two buttons: -

1. Submit
2. Back

Brand	BUTTONS
MAIN CONTENT	
FOOTER	

Figure 3.4: Admin Welcome Page

BUTTONS: -

The Buttons field contain many options such as Insert of student result i.e, for Internal Marks, External Marks, Delete student data etc.

MAIN CONTENT: -

The Main Content contains the input fields for the respective contents

Footer: -

The Footer option contains the copyright information

3.2 Front end and Back end Connectivity

For the Back end, the creator has used JSP and MySQL.

For the Front end, the creator used HTML, CSS, Bootstrap, JavaScript.

For connecting the Back end and Front end, the creator used Java and with help of a server and hosting the Front end and Back end files and also connecting to the MySQL server.

The creator has created a ConnectionProvider.java file to connect the server with the MySQL server. The code for the above-mentioned file is shown below,

```
package Project;
import java.sql.*;
public class ConnectionProvider {
    public static Connection getCon() {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection
            con=DriverManager.getConnection("jdbc:mysql://localhost:3306/Project","root","968660@sugam");
            return con;
        }
        catch(Exception e)
        {
            System.out.println(e);
            return null;
        }
    }
}
```

Major Modules

4.1 Admin/Teacher Module

This module is only available for the admin.

This module is used for inserting student data along with their results scored in Internals and Externals.

The admin can also delete the student record.

During logging into the admin module, the admin input's two fields i.e., the username and the password fields. The Admin uses the submit button to log in if authorized.

After logging in, the admin can view various buttons indicating insertion of student data, inserting student Internal marks, inserting student Externals data, displaying registered students, displaying the student's Internal marks and displaying the student's External marks. All these buttons can be classified as sub-modules of the Admin/Teacher Module.

1. **Add Student Data** – The Admin uses this sub-module to add the student details.
2. **Insert Internal Marks** – The Admin uses this sub-module to add the marks scored by a student during the internals in a specific subject.
3. **Insert External Exam Marks** – The Admin uses this sub-module to add the marks scored by a student during the final external's exam in a specific subject.
4. **Attendance status of a Student** – The Admin uses this sub-module to record the attendance status of a student.
5. **Registered Students** – The Admin uses this sub-module to view the details of the student that he has added.
6. **All Students Internal Marks** – The Admin uses this sub-module to view the final IA marks scored by the student.
7. **All Student External Exam Marks** – The Admin uses this sub-module to view the total marks scored by a student in the final exam.
8. **All Students Attendance Status** – The Admin uses this sub-module to view the percentage of attendance secured by a student.
9. **Delete Student Data** – The Admin uses this sub-module to delete the details of a Student from all the modules.
10. **Logout** – The Admin uses this logout from the module.

4.2 Student Module

This module is for the students to view their results.

This module is used by the students to view their result scored in Internals and External Exam.

The student can also print their result using the print option provided.

The Student module has several sub-modules in it. They are-

1. **View Internal Marks** – The Student uses this sub-module to view his/her results scored in the internals in a particular subject.
2. **View External Exam Marks** - The Student uses this sub-module to view his/her results scored in the external exam in a particular subject.
3. **Logout** – The Student uses this to logout from the Student module.

Implementation

5.1 HTML, CSS, BOOTSTRAP, AND JSP IMPLEMENTATION

5.1.1 index.html-

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>Bangalore Institute of Technology</title>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <link rel="stylesheet" href="assets/css/main.css" />
  </head>
  <body>
    <!-- Header -->
    <header id="header">
      <div class="inner">
        <a href="index.html" class="logo"><strong>Sugam
          Chand M</strong></a>
        <nav id="nav">
          <a href="index.html">Home</a>
          <a href="studentView.html">Student</a>
          <a
            href="adminLogin.html">Admin/Teacher</a>
        </nav>
        <a href="#navPanel" class="navPanelToggle"><span
          class="fa
          fa-bars"></span></a>
      </div>
    </header>
    <!-- Banner -->
    <section id="banner">
      <div class="inner">
        <header>
          <h1>Welcome to Bangalore Institute of
            Technology</h1>
        </header>
        <div class="flex ">
          <div>
            <h3>Address</h3>
            <p>Krishna Rajendra Rd,
              Parvathipuram, Vishweshwarapura, <br> Basavanagudi, Bengaluru, Karnataka -
              560004</p>
          </div>
        </div>
      </div>
    </section>
  </body>
</html>
```

```

        <div>
            <h3>Contact Number</h3>
            <p>080 2661 5865</p>
        </div>
        <div>
            <h3>Web Page Address</h3>
            <p><a
                href="https://bitbangalore.edu.in/"
                target="_blank">https://bit-
                bangalore.edu.in/</a></p>
        </div>
    </div>
</div>
</section>
<!-- Three -->
<section id="three" class="wrapper align-center">
    <div class="inner">
        <div class="flex flex-2">
            <article>
                <div class="image round">
                    
                </div>
                <header>
                    <h3>Rajya Vokkaligara
                        Sangha</h3>
                </header>
                <p>Rajya Vokkaligara Sangha (RVS)
was founded in the year 1906 to promote social, cultural and educational aspirations
of the agricultural community. Rajya Vokkaligara Sangha with a commanding
presence in Bangalore, Ramanagara, Mandya, Mysore, Chikkamagalur, Hassan,
Tumkur, Chikkaballapura, Kolar and Chitradurga districts and with a fairly well
spread presence in other regions of Karnataka has been conducting number of regular
activities for the development and well being of the community in particular and to all
sections of the society in general. The sangha has also provided hostel facilities for
poor background student and students are making use of this hostel facilities during
their education career. The Rajya Vokkaligara Sangha comprise of 35 directors</p>
            </article>
            <article>
                <div class="image round">
                    
                </div>
            </article>
        </div>
    </div>
</section>

```

```

<header>
    <h3>About Our College</h3>
</header>
<p>Bangalore Institute of Technology
(BIT) was started in the year 1979 with the objective of providing quality education in
the field of Technology and thereby serving the society. It has reached enviable level
of excellence in technical education. This was achieved due to the unconditional
support of Rajya Vokkaligara Sangha, committed staff and students. The environment
of BIT motivates the student to quench their thirst for knowledge. The college thrives
to achieve the all-round development of the students.
<br>
BIT has always been at the forefront of modern technology and has the distinction of
being the first College to introduce a full-fledged degree in Computer Science and
Engineering in Karnataka. The institute has visualized the areas of future growth and
incorporated various courses over the years. At present BIT has 10 undergraduate, 10
post graduate and 13 research centers. BIT has an annual intake of 1300 students.
</p>

</article>
</div>
</div>
</section>
<!-- Scripts -->
<script src="assets/js/jquery.min.js"></script>
<script src="assets/js/skel.min.js"></script>
<script src="assets/js/util.js"></script>
<script src="assets/js/main.js"></script>
<hr class="new1">
<center><h1>All Right Reserved @ Sugam Chand M</h1></center>
</body>
</html>

```

5.1.2 adminHome2.jsp-

```

<%@include file="header.html" %>
<!DOCTYPE html>
<html>
    <title>Bangalore Institute of Technology</title>
    <body>
        
        <center>
        </center>
        <div class="w3-container">
            <div class="w3-bar w3-black">
                <button class="w3-bar-item w3-button tablink w3-red"
                onclick="openCity(event,'London')">Add New
                Student</button>

```

```

<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'NewYork')">Insert Internal
Test Result</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'Paris')">Insert Final Exam
Result</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'HongKong')">Attendance
Status of Student</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'Tokyo')">Registered
Students</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'Tokyo1')">All Student
Internal Tests Result</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'Tokyo2')">All Student
External Exam Result</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'Tokyo3')">All Student
Attendance Result</button>
<button class="w3-bar-item w3-button tablink"
onclick="openCity(event,'Tokyo4')">Delete Student
Data</button>
<a href="adminLogin.html" class="w3-bar-item w3-
button tablink">Logout</a>
</div>
<div id="London" class="w3-container w3-border city">
<br>
<link
href="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap
.min.css" rel="stylesheet" id="bootstrap-css">
<script
src="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.m
in.js"></script>
<script
src="//cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js
"></script>
<!-- Include the above in your HEAD tag ----->
<!doctype html>
<html lang="en">
<head>
<!-- Required meta tags -->
<meta charset="utf-8">

```

```
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
<!-- Fonts -->
<link rel="dns-prefetch" href="https://fonts.gstatic.com">
<link href="https://fonts.googleapis.com/css?family=Raleway:300,400,600"
rel="stylesheet" type="text/css">
<link rel="icon" href="Favicon.png">
<!-- Bootstrap CSS -->
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css"
">
</head>
<body>
<main class="my-form">
  <div class="cotainer">
    <div class="row justify-content-center">
      <div class="col-md-8">
        <div class="card">
          <div class="card-header">Add New Students</div>
          <div class="card-body">
            <form name="my-form" onsubmit="return validform()"
            action="addNewStudent.jsp" method="post">
              <div class="form-group row">
                <label for="full_name" class="col-md-4 col-form-label text-
                md-right">USN</label>
                <div class="col-md-6">
                  <input type="text" class="form-control" name="USN">
                </div>
              </div>
              <div class="form-group row">
                <label for="email_address" class="col-md-4 col-form-label
                text-md-right">Student Name</label>
                <div class="col-md-6">
                  <input type="text" class="form-control" name="SName">
                </div>
              </div>
              <div class="form-group row">
                <label for="user_name" class="col-md-4 col-form-label text-
                md-right">Semester</label>
                <div class="col-md-6">
                  <input type="text" class="form-control" name="Sem">
                </div>
              </div>
            </div>
          <div class="form-group row">
```



```
<label for="phone_number" class="col-md-4 col-form-label
text-md-right">Section</label>
<div class="col-md-6">
  <input type="text" class="form-control" name="Sec">
</div>
</div>

<div class="form-group row">
  <label for="permanent_address" class="col-md-4 col-form-
label text-md-right">Email</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="email">
  </div>
</div>

<div class="form-group row">
  <label for="email_address" class="col-md-4 col-form-label
text-md-right">Address</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="addr">
  </div>
</div>

<div class="form-group row">
  <label for="email_address" class="col-md-4 col-form-label
text-md-right">Gender</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="gender">
  </div>
</div>

  <div class="col-md-6 offset-md-4">
    <button type="submit" class="btn btn-primary">
      Save
    </button>
  </div>
</div>
</form>
</div>
</div>
</div>
</main>
```

```

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"></scr
ipt>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"></script
>
</body>
</div>

<div id="NewYork" class="w3-container w3-border city" style="display:none">
<br>
    <link href="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap.min.css"
rel="stylesheet" id="bootstrap-css">
<script
src="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"></script>
<script src="//cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<!------- Include the above in your HEAD tag ----->
<!doctype html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <!-- Fonts -->
    <link rel="dns-prefetch" href="https://fonts.gstatic.com">
    <link href=https://fonts.googleapis.com/css?family=Raleway:300,400,600
rel="stylesheet" type="text/css">
    <link rel="icon" href="Favicon.png">
    <!-- Bootstrap CSS -->
    <link
rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css
">
</head>
<body>
<main class="my-form">
    <div class="cotainer">
        <div class="row justify-content-center">
            <div class="col-md-8">
                <div class="card">
                    <div class="card-header">Insert Internal Test Result</div>
                    <div class="card-body">
                        <form name="my-form" onsubmit="return validform()"
action="insertStudentResultIA.jsp" method="">

```

```
<div class="form-group row">
  <label for="full_name" class="col-md-4 col-form-label text-
md-right">USN</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="USN">
  </div>
</div>

<div class="form-group row">
  <label for="email_address" class="col-md-4 col-form-label
text-md-right">Subject Code</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="subCode">
  </div>
</div>

<div class="form-group row">
  <label for="user_name" class="col-md-4 col-form-label text-
md-right">Test 1</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="t1">
  </div>
</div>

<div class="form-group row">
  <label for="phone_number" class="col-md-4 col-form-label
text-md-right">Test 2</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="t2">
  </div>
</div>

<div class="form-group row">
  <label for="phone_number" class="col-md-4 col-form-label
text-md-right">Test 3</label>
  <div class="col-md-6">
    <input type="text" class="form-control" name="t3">
  </div>
</div>

<div class="col-md-6 offset-md-4">
  <button type="submit" class="btn btn-primary">
    Save
  </button>
</div>
```

```

        </div>
    </form>
</div>
</div>
</div>
</div>
<br>
</div>
</main>
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"></scr
ipt>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"></script
>
</body>
</html>
</div>
<div id="Paris" class="w3-container w3-border city" style="display:none">
<br>
<link      href="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap.min.css"
rel="stylesheet" id="bootstrap-css">
<script
src="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"></script>
<script src="//cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<!------- Include the above in your HEAD tag ----->
<!doctype html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-
fit=no">
    <!-- Fonts -->
    <link rel="dns-prefetch" href="https://fonts.gstatic.com">
    <link      href=https://fonts.googleapis.com/css?family=Raleway:300,400,600
rel="stylesheet" type="text/css">
    <link rel="icon" href="Favicon.png">
    <!-- Bootstrap CSS -->
    <link
rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
</head>
<body>
<main class="my-form">

```

```
<div class="cotainer">
  <div class="row justify-content-center">
    <div class="col-md-8">
      <div class="card">
        <div class="card-header">Insert Final Exam Result</div>
        <div class="card-body">
          <form name="my-form" onsubmit="return validform()"
            action="insertStudentResult.jsp" method="">
            <div class="form-group row">
              <label for="full_name" class="col-md-4 col-form-label text-
                md-right">USN</label>
              <div class="col-md-6">
                <input type="text" class="form-control" name="USN">
              </div>
            </div>
            <div class="form-group row">
              <label for="email_address" class="col-md-4 col-form-label text-md-
                right">Subject Code</label>
              <div class="col-md-6">
                <input type="text" class="form-control" name="subCode">
              </div>
            </div>
            <div class="form-group row">
              <label for="user_name" class="col-md-4 col-form-label text-
                md-right">Final IA</label>
              <div class="col-md-6">
                <input type="text" class="form-control" name="finalia">
              </div>
            </div>
            <div class="form-group row">
              <label for="phone_number" class="col-md-4 col-form-label
                text-md-right">Theory Marks</label>
              <div class="col-md-6">
                <input type="text" class="form-control" name="tm">
              </div>
            </div>
            <div class="col-md-6 offset-md-4">
              <button type="submit" class="btn btn-primary">
                Save
              </button>
            </div>
          </div>
        </form>
      </div>
    </div>
  </div>
```

```

        </div>
    </div>
</div>
<br>
</div>
</main>
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"></scr
ipt>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"></script
>
</body>
</html>
</div>
<div id="HongKong" class="w3-container w3-border city">
<br>
<link href="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap.min.css"
rel="stylesheet" id="bootstrap-css">
<script
src="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"></script>
<script src="//cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<!------- Include the above in your HEAD tag ----->
<!doctype html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-
fit=no">
    <!-- Fonts -->
    <link rel="dns-prefetch" href="https://fonts.gstatic.com">
    <link href="https://fonts.googleapis.com/css?family=Raleway:300,400,600
rel="stylesheet" type="text/css">
    <link rel="icon" href="Favicon.png">
    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">

</head>
<body>
<main class="my-form">
    <div class="cotainer">
        <div class="row justify-content-center">

```

```
<div class="col-md-8">
  <div class="card">
    <div class="card-header">Attendance Status Of Student</div>
    <div class="card-body">
      <form name="my-form" onsubmit="return validform()"
        action="insertStudentAttendance.jsp" method="">
        <div class="form-group row">
          <label for="full_name" class="col-md-4 col-form-label text-
            md-right">USN</label>
          <div class="col-md-6">
            <input type="text" class="form-control" name="USN">
          </div>
        </div>

        <div class="form-group row">
          <label for="email_address" class="col-md-4 col-form-label
            text-md-right">Subject Code</label>
          <div class="col-md-6">
            <input type="text" class="form-control" name="subCode">
          </div>
        </div>

        <div class="form-group row">
          <label for="user_name" class="col-md-4 col-form-label text-
            md-right">Teacher ID</label>
          <div class="col-md-6">
            <input type="text" class="form-control" name="TID">
          </div>
        </div>

        <div class="form-group row">
          <label for="user_name" class="col-md-4 col-form-label text-
            md-right">Teacher Name</label>
          <div class="col-md-6">
            <input type="text" class="form-control" name="TName">
          </div>
        </div>

        <div class="form-group row">
          <label for="user_name" class="col-md-4 col-form-label text-
            md-right">Total Classes Taken</label>
          <div class="col-md-6">
            <input type="text" class="form-control" name="TCT">
          </div>
        </div>
      </div>
    </div>
  </div>
</div>
```

```

        <div class="form-group row">
            <label for="user_name" class="col-md-4 col-form-label text-
md-right">Total Classes Attended</label>
            <div class="col-md-6">
                <input type="text" class="form-control" name="TCA">
            </div>
        </div>

        <div class="col-md-6 offset-md-4">
            <button type="submit" class="btn btn-primary">
                Save
            </button>
        </div>
    </div>
</form>
</div>
</div>
</div>
</div>
<br>
</div>
</main>
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"></scr
ipt>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"></script
>
</body>
</html>
</div>
    <div id="Tokyo" class="w3-container w3-border city" style="display:none">

<section>
    <!--for demo wrap-->
    <div class="tbl-header">
        <table cellpadding="0" cellspacing="0" border="0">
            <thead>
                <tr>
                    <th>USN</th>
                    <th>Student Name</th>
                    <th>Semester</th>
                    <th>Section</th>

```



```

        <th>Email</th>
        <th>Address</th>
        <th>Gender</th>
    </tr>
</thead>
</table>
</div>
<div class="tbl-content">
    <table cellpadding="0" cellspacing="0" border="0">
        <tbody>
            <%@page import="java.sql.*" %>
            <%@page import="Project.ConnectionProvider" %>
            <%try{
                Connection con=ConnectionProvider.getCon();
                Statement st=con.createStatement();
                ResultSet rs=st.executeQuery("Select * from STUDENT;");
                //ResultSet rs1=st.executeQuery("Select * from SEMESTER_SECTION;");
                while(rs.next())
                {
                    %>
                <tr>
                    <td><%=rs.getString(1) %></td>
                    <td><%=rs.getString(2) %></td>
                    <td><%=rs.getString(3) %></td>
                    <td><%=rs.getString(4) %></td>
                    <td><%=rs.getString(5) %></td>
                    <td><%=rs.getString(6) %></td>
                    <td><%=rs.getString(7) %></td>
                </tr>
            </tbody>
            <%}}
            catch(Exception e)
            {}%>
        </table>
    </div>
</section>
</div>
<div id="Tokyo1" class="w3-container w3-border city" style="display:none">

<section>
    <!--for demo wrap-->
    <div class="tbl-header">
        <table cellpadding="0" cellspacing="0" border="0">
            <thead>
                <tr>

```

```

        <th>USN</th>
        <th>Subject Code</th>
        <th>Test 1</th>
        <th>Test 2</th>
        <th>Test 3</th>
        <th>Final IA</th>
        <th>Total Credits for the Subject</th>
        <th>Teacher ID</th>
        <th>Teacher Name</th>
    </tr>
</thead>
</table>
</div>
<div class="tbl-content">
    <table cellpadding="0" cellspacing="0" border="0">
        <tbody>
            <%@page import="java.sql.*" %>
            <%@page import="Project.ConnectionProvider" %>
            <%try{
                Connection con=ConnectionProvider.getCon();
                Statement st=con.createStatement();
                ResultSet rs=st.executeQuery("Select
                    IA.USN,S.Subject_Code,IA.Test1,IA.Test2,IA.Test3,IA.FinalIA,S.Cre
                    dits,S.Teacher_ID,S.Teacher_Name from INTERNAL_MARKS IA
                    natural join SUBJECT S where IA.Subject_Code=S.Subject_Code;");
                while(rs.next())
                {

                    %>
                <tr>
                    <td><%=rs.getString(1) %></td>
                    <td><%=rs.getString(2) %></td>
                    <td><%=rs.getString(3) %></td>
                    <td><%=rs.getString(4) %></td>
                    <td><%=rs.getString(5) %></td>
                    <td><%=rs.getString(6) %></td>
                    <td><%=rs.getString(7) %></td>
                    <td><%=rs.getString(8) %></td>
                    <td><%=rs.getString(9) %></td>
                </tr>
            </tbody>
            <%}}
            catch(Exception e)
            {}%>
        </table>

```

```

</div>
</section>

</div>
<div id="Tokyo2" class="w3-container w3-border city" style="display:none">

<section>
  <!--for demo wrap-->
  <div class="tbl-header">
    <table cellpadding="0" cellspacing="0" border="0">
      <thead>
        <tr>
          <th>USN</th>
          <th>Subject Code</th>
          <th>Final IA</th>
          <th>Theory Marks</th>
          <th>Total</th>
          <th>Total Credits for the Subject</th>
          <th>Teacher ID</th>
          <th>Teacher Name</th>
        </tr>
      </thead>
    </table>
  </div>
  <div class="tbl-content">
    <table cellpadding="0" cellspacing="0" border="0">
      <tbody>
        <%@page import="java.sql.*" %>
        <%@page import="Project.ConnectionProvider" %>
        <%try{
          Connection con=ConnectionProvider.getCon();
          Statement st=con.createStatement();
          ResultSet rs=st.executeQuery("Select
          EE.USN,S.Subject_Code,EE.FinalIA,EE.Theory_Marks,EE.Total,S.Credits,S.
          Teacher_ID,S.Teacher_Name from EXTERNAL_EXAM EE natural join
          SUBJECT S where EE.Subject_Code=S.Subject_Code;");
          while(rs.next())
          {

            %>
          <tr>
            <td><%=rs.getString(1) %></td>
            <td><%=rs.getString(2) %></td>
            <td><%=rs.getString(3) %></td>
            <td><%=rs.getString(4) %></td>

```

```

        <td><%=rs.getString(5) %></td>
        <td><%=rs.getString(6) %></td>
        <td><%=rs.getString(7) %></td>
        <td><%=rs.getString(8) %></td>
    </tr>
</tbody>
<%}}
catch(Exception e)
{ }%>
</table>
</div>
</section>
</div>
<div id="Tokyo3" class="w3-container w3-border city" style="display:none">
<section>
    <!--for demo wrap-->
    <div class="tbl-header">
        <table cellpadding="0" cellspacing="0" border="0">
            <thead>
                <tr>
                    <th>USN</th>
                    <th>Subject Code</th>
                    <th>Teacher ID</th>
                    <th>Teacher Name</th>
                    <th>Total Classes Taken</th>
                    <th>Total Classes Attended</th>
                    <th>Percentage</th>
                </tr>
            </thead>
        </table>
    </div>
    <div class="tbl-content">
        <table cellpadding="0" cellspacing="0" border="0">
            <tbody>
                <%@page import="java.sql.*" %>
                <%@page import="Project.ConnectionProvider" %>
                <%try{
                    Connection con=ConnectionProvider.getCon();
                    Statement st=con.createStatement();
                    ResultSet rs=st.executeQuery("Select * from ATTENDENCE;");
                    while(rs.next())
                    {
                <tr>
                    <td><%=rs.getString(1) %></td>

```

```

        <td><%=rs.getString(2) %></td>
        <td><%=rs.getString(3) %></td>
        <td><%=rs.getString(4) %></td>
        <td><%=rs.getString(5) %></td>
        <td><%=rs.getString(6) %></td>
        <td><%=rs.getString(7) %></td>
    </tr>
</tbody>
<%}}
catch(Exception e)
{ }%>
</table>
</div>
</section>
</div>
<div id="Tokyo4" class="w3-container w3-border city">
<br>
    <link href="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap.min.css"
rel="stylesheet" id="bootstrap-css">
<script
src="//maxcdn.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"></script>
<script src="//cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<!------- Include the above in your HEAD tag ----->
<!doctype html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-
fit=no">
    <!-- Fonts -->
    <link rel="dns-prefetch" href="https://fonts.gstatic.com">
    <link href="https://fonts.googleapis.com/css?family=Raleway:300,400,600"
rel="stylesheet" type="text/css">
    <link rel="icon" href="Favicon.png">
    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
</head>
<body>
<main class="my-form">
    <div class="cotainer">
        <div class="row justify-content-center">
            <div class="col-md-8">
                <div class="card">

```

30

5.2 Implementation of SQL query using JSP

5.2.1 insertStudentResult.jsp-

```

<%@page import="Project.ConnectionProvider" %>
<%@page import="java.sql.*" %>
<%
String usn=request.getParameter("USN");
String subCode=request.getParameter("subCode");
//String subName=request.getParameter("subName");
int finalia=Integer.valueOf(request.getParameter("finalia"));
int tm=Integer.valueOf(request.getParameter("tm"));
//int total=Integer.valueOf(request.getParameter("total"));
try
{
    Connection con=ConnectionProvider.getCon();
    Statement st=con.createStatement();
    st.executeUpdate("Insert                                into
EXTERNAL_EXAM(USN,Subject_Code,FinalIA,Theory_Marks)
values('"+usn+"','"+subCode+"','"+finalia+"','"+tm+"')");
    st.executeUpdate("Update                                EXTERNAL_EXAM      set
Total=(FinalIA+Theory_Marks)");
    response.sendRedirect("adminHome2.jsp");
}

catch(Exception e)
{
    System.out.println(e);
}
%>

```

5.2.2 insertStudentResultIA.jsp-

```

<%@page import="Project.ConnectionProvider" %>
<%@page import="java.sql.*" %>
<%
String usn=request.getParameter("USN");
String subCode=request.getParameter("subCode");
//String subName=request.getParameter("subName");
int t1=Integer.valueOf(request.getParameter("t1"));
int t2=Integer.valueOf(request.getParameter("t2"));
int t3=Integer.valueOf(request.getParameter("t3"));
//int finalia=Integer.valueOf(request.getParameter("finalia"));

```

```
try
{
    Connection con=ConnectionProvider.getCon();
    Statement st=con.createStatement();
    st.executeUpdate("Insert                                into
INTERNAL_MARKS(USN,Subject_Code,Test1,Test2,Test3)
values('"+usn+"','"+subCode+"','"+t1+"','"+t2+"','"+t3+"')");
    st.executeUpdate("Update                                set
FinalIA=((Test1+Test2+Test3)/3);");
    response.sendRedirect("adminHome2.jsp");
}
catch(Exception e)
{
    System.out.println(e);
}
%>
```


5.3 Create Table Statements

5.3.1 STUDENT-

Create table STUDENT

```
(USN varchar(15),  
Student_Name varchar(25),  
Semester int,  
Section varchar(3),  
Email varchar(30),  
Address varchar(30),  
Gender varchar(10),  
constraint PKS Primary Key(USN));
```

5.3.2 SUBJECT-

Create table SUBJECT

```
(Subject_Code varchar(10),  
Subject_Name varchar(50),  
Credits int,  
Teacher_ID varchar(10),  
Teacher_Name varchar(25),  
constraint PKSUB Primary Key(Subject_Code));
```

5.3.3 ATTENDENCE-

Create table ATTENDENCE

```
(USN varchar(15),  
Subject_Code varchar(10),  
Teacher_ID varchar(10),  
Teacher_Name varchar(25),  
TCT int,  
TCA int,  
Percentage int,  
constraint PKA Primary Key(USN,Subject_Code),  
constraint FKA Foreign Key(USN) references STUDENT(USN));
```

5.3.4 INTERNAL_MARKS-

Create table INTERNAL_MARKS

```
(USN varchar(15),  
Subject_Code varchar(10),  
Test1 int,  
Test2 int,  
Test3 int,
```

```
FinalIA int,  
constraint PKIA Primary Key(USN,Subject_Code),  
constraint FKIA Foreign Key(USN) references STUDENT(USN),  
constraint FKIA1 Foreign Key(Subject_Code) references  
SUBJECT(Subject_Code));
```

5.3.5 EXTERNAL_EXAM-

```
Create table EXTERNAL_EXAM  
(USN varchar(15),  
Subject_Code varchar(10),  
FinalIA int,  
Theory_Marks int,  
Total int,  
constraint PKEE Primary Key(USN,Subject_Code),  
constraint FKEE Foreign Key(USN) references STUDENT(USN)),  
constraint FKEE1 Foreign Key(Subject_Code) references  
SUBJECT(Subject_Code));
```

Snapshots

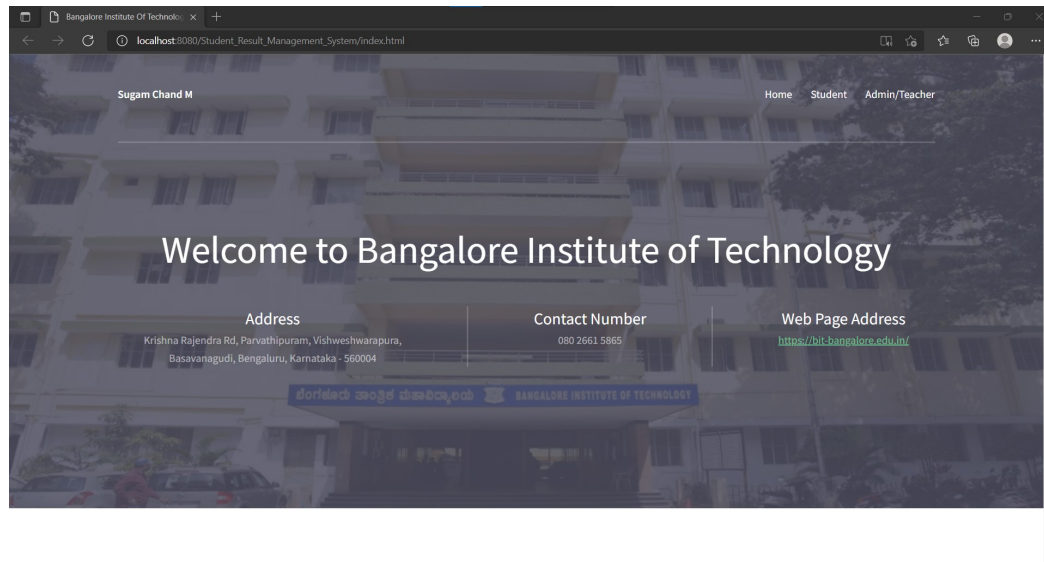


Figure 6.1: Welcome Page

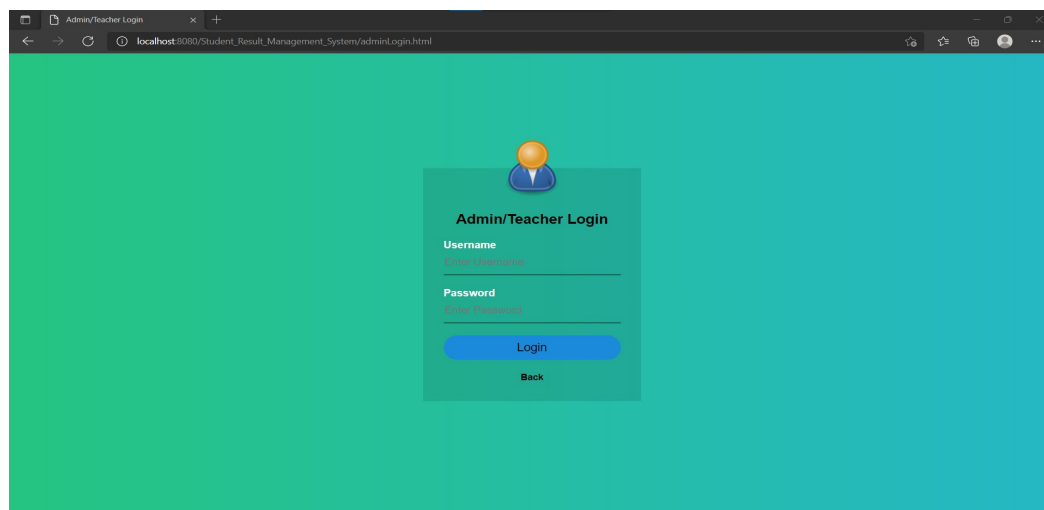


Figure 6.2: Admin/Teacher Login Page

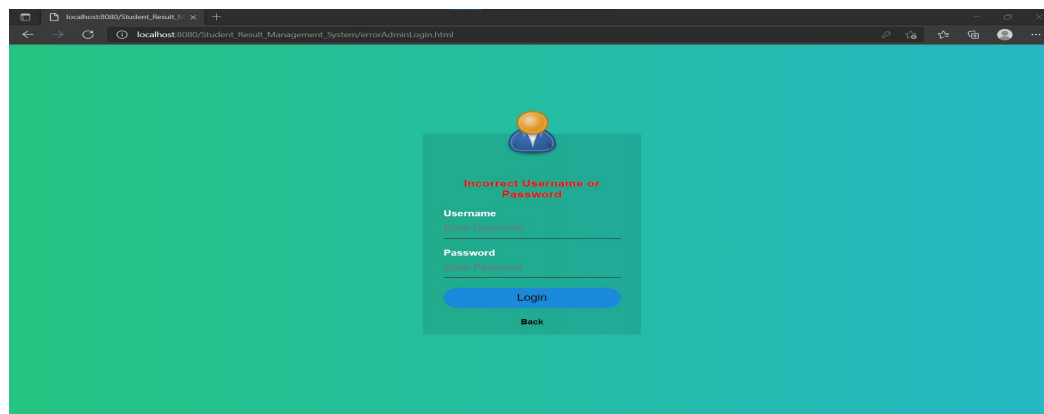


Figure 6.3: Error Admin/Teacher Login Page

Figure 6.4: Add New Student Data Page

Figure 6.5: Insert Internal Marks of a Student Page

Figure 6.6: Insert External Marks of a Student Page

Attendance Status Of Student

USN

Subject Code

Teacher ID

Teacher Name

Total Classes Taken

Total Classes Attended

Note: Any errors occur then contact Sugam Chand M. Designed & Developed by Sugam Chand M

Figure 6.7: Insert the Attendance status of a Student Page

USN	STUDENT NAME	SEMESTER	SECTION	EMAIL	ADDRESS	GENDER
1B119CS153	Sneha C S	5	C	snehacsd@gmail.com	Hanumanthnagar,Bangalore	Male
1B119CS155	Sugam Chand M	5	C	sugamgnews2646@gmail.com	Wahanka, Bangalore	Male

Note: Any errors occur then contact Sugam Chand M. Designed & Developed by Sugam Chand M

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Figure 6.8: View Registered Students Data Page

USN	SUBJECT CODE	TEST 1	TEST 2	TEST 3	FINAL IA	TOTAL CREDITS FOR THE SUBJECT	TEACHER ID	TEACHER NAME
1B119CS155	18CS31	37	37	40	38	3	1000	Mahalakshmi C V
1B119CS155	18CS32	40	38	40	39	4	1001	Dr J Girja
1B119CS155	18CS33	35	38	40	38	4	1002	Prathima M G
1B119CS155	18CS34	35	39	40	38	3	1003	Argys L
1B119CS155	18CS35	40	40	40	40	3	1004	Nithyaathya V
1B119CS155	18CS36	39	23	40	34	3	1005	Prashanth K N

Note: Any errors occur then contact Sugam Chand M. Designed & Developed by Sugam Chand M

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Figure 6.9: View Internal Marks of Registered Students

USN	SUBJECT CODE	FINAL IA	THEORY MARKS	TOTAL	TOTAL CREDITS FOR THE SUBJECT	TEACHER ID	TEACHER NAME
1BI19CS155	1BCS51	38	60	98	3	1000	Mahalakshmi C V
1BI19CS155	1BCS52	39	60	99	4	1001	Dr J Ganga
1BI19CS155	1BCS53	38	60	98	4	1002	Prathima M G
1BI19CS155	1BCS54	38	60	98	3	1003	Arjuni L
1BI19CS155	1BCS55	40	60	100	3	1004	Nethravathi V
1BI19CS155	1BCS56	34	60	94	3	1005	Prashanth K N

Note: Any errors occur then contact Sugam Chand M. Designed & Developed by Sugam Chand M

All Right Reserved @ Sugam Chand M

Figure 6.10: View External Exam Marks of Registered Students

USN	SUBJECT CODE	TEACHER ID	TEACHER NAME	TOTAL CLASSES TAKEN	TOTAL CLASSES ATTENDED	PERCENTAGE
1BI19CS155	1BCS51	1000	Mahalakshmi C V	40	35	88
1BI19CS155	1BCS52	1001	Dr J Ganga	40	40	100
1BI19CS155	1BCS53	1002	Prathima M G	40	35	88
1BI19CS155	1BCS54	1003	Arjuni L	40	36	90
1BI19CS155	1BCS55	1004	Nethravathi V	40	37	93
1BI19CS155	1BCS56	1005	Prashanth K N	40	33	83

Note: Any errors occur then contact Sugam Chand M. Designed & Developed by Sugam Chand M

All Right Reserved @ Sugam Chand M

Figure 6.11: View Attendance Status of Registered Students

Delete Student Record

USN

Note: Any errors occur then contact Sugam Chand M. Designed & Developed by Sugam Chand M

All Right Reserved @ Sugam Chand M

Figure 6.12: Delete Student Data Page

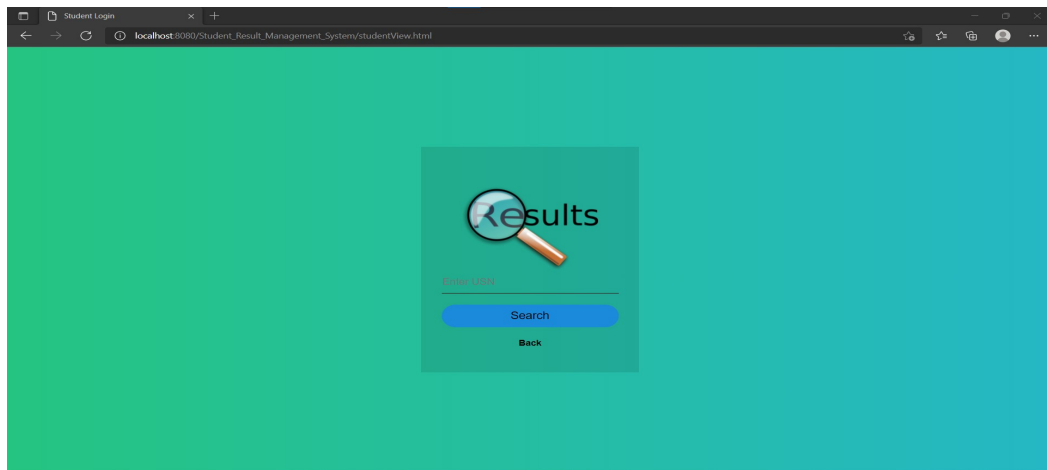


Figure 6.13: Student Login Page



Figure 6.14: Student View Internal Marks Page

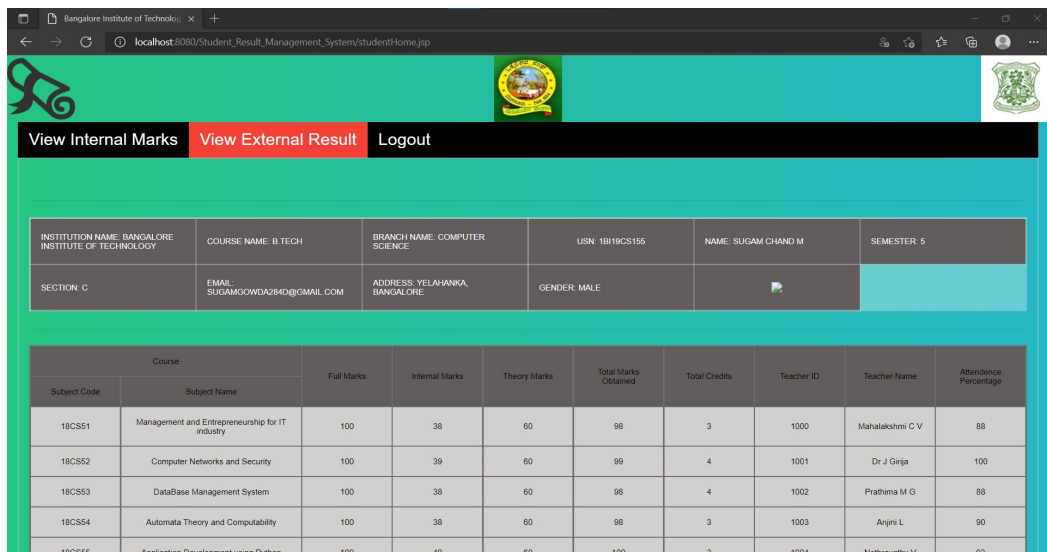


Figure 6.15: Student View External Marks Page

Applications

Overcomes the drawbacks of Conventional Result Management System such as no pen-paper work is need to be carried out. Processing will be faster.

- Students can easily check/retrieve their marks scored in a subject
- Teachers can easily add and update the marks of a student scored in a particular subject
- The data can be stored for a longer time without worrying for the damage caused by natural things

Conclusion

This project aims to automate the task of maintaining and manipulating database of various entities that helps to sustain the results of a big institution.

This application is developed using JSP, MySQL, HTML, CSS, Bootstrap, JavaScript.

This type of application can be used to maintain the results of students in a big organization.