Developing a Backend Admin for Learner's Academy.

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Project objective:

- As a Full Stack Developer, design and develop a backend administrative portal for the Learner's Academy. Use the GitHub repository to manage the project artifacts.

Background of the problem statement:

- Learner's Academy is a school that has an online management system. The system keeps track of its classes, subjects, students, and teachers. It has a back-office application with a single administrator login.

The administrator can:

- Set up a master list of all the subjects for all the classes.
- Set up a master list of all the teachers.
- Set up a master list of all the classes.
- Assign classes for subjects from the master list.
- Assign teachers to a class for a subject (A teacher can be assigned to different classes for different subjects).
- Get a master list of students (Each student must be assigned to a single class).

There will be an option to view a Class Report which will show all the information about the class, such as the list of students, subjects, and teachers.

The goal of the company is to deliver a high-end quality product as early as possible.

The flow and features of the application:

- Plan more than two sprints to complete the application.
- Plan more than two sprints to complete the application.
- List the core concepts and algorithms being used to complete this application.
- Implement the appropriate concepts, such as exceptions, collections, and sorting techniques for source code optimization and increased performance.

Sprints Work Details:

I have done project in 3 sprints; are as below

First Sprint: (done coding with Database connectivity using hibernate)

- Create Java Dynamic Web Application with name as Phase03_Learning_Academy_Project and configure with Maven.
- Create Database Name as LearningAcademy.
- Create Java Class on com.hibernate.util package with a name as HibernateUtil for configuring database.
- Create Html File name as Admin_Login For login purpose.
- If Admin has forgot password then click on Forgot password.., if don't have an account then click on sign up.
- Create Html File name as ForgotPassword For asking email address of admin.
- Create Java Servlet on com.servlets name as ForgotPasswordServlet For sending an email to the admin email address with contains as password.
- Create Html File name as Admin_Add for taking required field from admin to create account.
- Create Java Class on com.entity File name as admin for create entity/table in database and mapped in HibernateUtil class.
- Create Java Servlet on com.servlets name as AdminAddServlet For adding admin detail in to the database.
- Create Java Servlet on com.servlets name as LoginServlet For checking Admin enter Email address and password are match with database or not, also check email address and password are enter or not..,
- Create Java Servlet on com.servlets name as LogoutServlet for logout purpose.
- Create Java Servlet on com.servlets name as HomepageServlet after successfully login.

2nd Sprint: (done coding with Database connectivity using hibernate)

- Create Java Class on com.entity File name as Course for create `Course_Details` entity/table in database and mapped in HibernateUtil class.
- Create Java Servlet on com.servlets name as CourseDetailServlet, Display all available courses from database and also you can edit or delete unnecessary courses from data base using selecting appropriate action.
- Create Java Servlet on com.servlets name as CourseAddServlet, add course details in database.
- Create Java Servlet on com.servlets name as CourseUpdateServlet, update course details in database.
- Create Java Servlet on com.servlets name as CourseDeleteServlet, delete course details in database.

- Create Java Class on com.entity File name as Subject for create `Subject_Details` entity/table in database and mapped in HibernateUtil class.
- Create Java Servlet on com.servlets name as SubjectDetailServlet, Display all available Subjects from database and also you can edit or delete unnecessary Subjects from data base using selecting appropriate action.
- Create Java Servlet on com.servlets name as SubjectAddServlet, add Subject details in database.
- Create Java Servlet on com.servlets name as SubjectUpdateServlet, update Subject details in database.
- Create Java Servlet on com.servlets name as SubjectDeleteServlet, delete Subject details in database.
- Create Java Class on com.entity File name as Teacher for create `Teacher_Details` entity/table in database and mapped in HibernateUtil class.
- Create Java Servlet on com.servlets name as TeacherDetailServlet, Display all available Teachers from database and also you can edit or delete unnecessary Teachers from data base using selecting appropriate action.
- Create Java Servlet on com.servlets name as TeacherAddServlet, add Teacher details in database.
- Create Java Servlet on com.servlets name as TeacherUpdateServlet, update Teacher details in database.
- Create Java Servlet on com.servlets name as TeacherDeleteServlet, delete Teacher details in database.
- Create Java Class on com.entity File name as Student for create `Student_Details` entity/table in database and mapped in HibernateUtil class.
- Create Java Servlet on com.servlets name as StudentDetailServlet, Display all available Students from database and also you can edit or delete unnecessary Students from data base using selecting appropriate action.
- Create Java Servlet on com.servlets name as StudentAddServlet, add Student details in database.
- Create Java Servlet on com.servlets name as StudentUpdateServlet, update Student details in database.
- Create Java Servlet on com.servlets name as StudentDeleteServlet, delete Student details in database.

Third Sprint: (done coding with Database connectivity using hibernate)

- Create Java Class on com.entity File name as TeacherSubject for create `Teacher_Subject` entity/table in database and mapped in HibernateUtil class.

- Create Java Servlet on com.servlets name as TeacherSubjectAssignmetServlet, Display Teacher with assign course and subject.
- Create Java Servlet on com.servlets name as TeacherSubjectAddServlet, assign course and subject to the teacher.
- Create Java Servlet on com.servlets name as TeacherSubjectUpdateServlet, update assign subject or course to teacher.
- Create Java Servlet on com.servlets name as TeacherSubjectDeleteServlet, delete assign course and subject from the teacher.
- Create Java Class on com.entity File name as StudentCourse for create `Student_Course` entity/table in database and mapped in HibernateUtil class.
- Create Java Servlet on com.servlets name as StudentCourseServlet, Display Student with assign course.
- Create Java Servlet on com.servlets name as StudentCourseAddServlet, assign course to student.
- Create Java Servlet on com.servlets name as StudentCourseUpdateServlet, update assign course.
- Create Java Servlet on com.servlets name as StudentCourseDeleteServlet, delete assign course from Student.
- Prepare Documentation.
- Taking Screenshots of Application.
- Create GitHub repositories.
- Upload all documentation and src file into the GitHub Repositories.

Java Concepts used in Project:

- Variable: Local, Global and static variable
- Object
- Access Modifier
- Flow Control (if..else)
- Loop
- Function
- Collection (ArrayList)
- Exception Handling
- Servlet
- Html
- Hibernate
- Database(Mysql)
- Mapping

Coding:

I have Created so many files for learning academy.

Admin_Login.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Learning Academy Admin Login</title>
<style>
  .p1 {height:10px;   width:100%;}
  .p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}
  .p3{height: 175px;   width: 35%;    background-color:white;    margin-left:900px;}
  .b{font-family:cursive; font-size:130%;  border: 5px outset #7575FF; width:150px; height:
45px; }
  .p4{height: 30px;   width:40%; background-color:white;    margin-left:300px;text-
align:Center; font-family:cursive; font-size:120%;;}
</style>
</head>
<body bgcolor="#7575FF">
 <form action="login" method="post">
    <div class="p1"></div>
    <div class="p2"><b>LEARNING ACADEMY</b></div><br/>
    <div class="p3">
      <font style='font-family:cursive;font-size:120%;'><center><b>Admin Login:</b></center>
       <table>
        <tr><td width=150px>Email Address: <font style="color:red">*</font></td><td
width=250px><input type="text" name="email" style="height:22px; width:250px;"></td></tr>
        <tr><td width=150px>Password:<font style="color:red">*</font></td><td
width=250px><input type="password" name="pwd" style="height:22px; width:250px;"
pattern="(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{6,}" title="Must contain at least one number and one
uppercase and lowercase letter, and at least 6 or more characters"></td></tr>
         <tr><td width=150px height=10px colspan="2" align="right"><font size=3><a
href="ForgotPassword.html">Forgot Password?</a></font></td></tr>
        <tr><td colspan=2 align="center"><input type=submit value="Login" class="b"></td>
       </table>
                            
                   
        <lable>Don't have an account? </lable><a href="Admin_Add.html">Sign Up</a><br>
      </font>
    </div>
 </form>
</body>
</html>
```

Admin_Add.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Learning Academy Admin Login</title>
<style>
  .p1 {height:10px;   width:100%;}
  .p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}
  .p3{height: 250px;   width: 35%;    background-color:white;    margin-left:900px;}
  .b{font-family:cursive; font-size:130%;  border: 5px outset #7575FF; width:150px; height:
45px; }
```

```
  .p4{height: 30px;   width:40%; background-color:white;    margin-left:300px;text-
align:Center; font-family:cursive; font-size:120%;;}
</style>
</head>
<body bgcolor="#7575FF">
 <form action="admin_add" method="post">
    <div class="p1"></div>
    <div class="p2"><b>LEARNING ACADEMY</b></div><br/>
    <div class="p3">
      <font style='font-family:cursive;font-size:120%;'><center><b>Add Admin:</b></center>
       <table>
        <tr><td width=170px>First Name:</td><td width=250px><input type="text" name="fname"
style="height:22px; width:250px;"></td></tr>
        <tr> <td width=170px>Last Name:</td><td width=250px><input type="text" name="lname"
style="height:22px; width:250px;"></td></tr>
        <tr><td width=170px>Email Address:<font style="color:red">*</font></td><td
width=250px><input type="text" name="email" style="height:22px; width:250px;"></td></tr>
        <tr><td width=170px>Password:<font style="color:red">*</font></td><td
width=250px><input type="password" name="pwd" style="height:22px; width:250px;"
pattern="(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{6,}" title="Must contain at least one number and one
uppercase and lowercase letter, and at least 6 or more characters"></td></tr>
        <tr><td width=170px>Mobile_No:</td><td width=250px><input type="text" name="mobile"
style="height:22px; width:250px;"></td></tr>
        <tr><td width=170px height=1px></td></tr>
        <tr><td width=50px></td><td colspan=2 align="center"><input type=submit value="Add
Admin" class="b"></td>
       </table>
      </font>
    </div>

 </form>
</body>
</html>
```

ForgotPassword.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Forgot Password</title>
</head>
<body>
<style>
  .p1 {height:10px;   width:100%;}
  .p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}
  .p3{height: 113px;   width: 35%;    background-color:white;    margin-left:900px;}
  .b{font-family:cursive; font-size:130%;  border: 5px outset #7575FF; width:150px; height:
45px; }
  .p4{height: 30px;   width:40%; background-color:white;    margin-left:300px;text-
align:Center; font-family:cursive; font-size:120%;;}
</style>
</head>
<body bgcolor="#7575FF">
 <form action="forgot" method="post">
    <div class="p1"></div>
    <div class="p2"><b>LEARNING ACADEMY</b></div><br/>
    <div class="p3">
      <font style='font-family:cursive;font-size:120%;'><center><b>Forgot
Password:</b></center>
       <table>
         <tr><td width=150px>Email Address: <font style="color:red">*</font></td><td
width=250px><input type="text" name="email" style="height:22px; width:250px;"></td></tr>
```

```
          <tr><td width=150px height=2px></td></tr>
          <tr><td colspan=2 align="center"><input type=submit value="Send" class="b"></td>
        </table>
       </font>
     </div>
  </form>

</body>
</html>
```

HibernateUtil

```
package com.hibernate.util;

import java.util.Properties;

import org.hibernate.SessionFactory;

import org.hibernate.boot.registry.StandardServiceRegistryBuilder;

import org.hibernate.cfg.Configuration;

import org.hibernate.cfg.Environment;

import org.hibernate.service.ServiceRegistry;


import com.entity.Admin;

import com.entity.Course;

import com.entity.Student;

import com.entity.StudentCourse;

import com.entity.Subject;

import com.entity.Teacher;

import com.entity.TeacherSubject;

public class HibernateUtil {

	private static SessionFactory sessionFactory;

	public static SessionFactory buildSessionFactory() {

		if (sessionFactory == null) {

			try {

				Configuration configuration = new Configuration();

				// Hibernate settings equivalent to hibernate.cfg.xml's properties

				Properties properties = new Properties();

				properties.put(Environment.DRIVER, "com.mysql.jdbc.Driver");

				properties.put(Environment.URL,
"jdbc:mysql://localhost:3306/learningacademy");

				properties.put(Environment.USER, "root");

				properties.put(Environment.PASS, "root");
```

```
                                        properties.put(Environment.DIALECT,
"org.hibernate.dialect.MySQL5InnoDBDialect");


                                        properties.put(Environment.SHOW_SQL, "true");
                                        properties.put(Environment.CURRENT_SESSION_CONTEXT_CLASS, "thread");
                                        properties.put(Environment.HBM2DDL_AUTO, "update");
                                        configuration.setProperties(properties);
                                        configuration.addAnnotatedClass(Admin.class);
                                        configuration.addAnnotatedClass(Course.class);
                                        configuration.addAnnotatedClass(Subject.class);
                                        configuration.addAnnotatedClass(Teacher.class);
                                        configuration.addAnnotatedClass(Student.class);
                                        configuration.addAnnotatedClass(TeacherSubject.class);
                                        configuration.addAnnotatedClass(StudentCourse.class);
                                        ServiceRegistry serviceRegistry = new StandardServiceRegistryBuilder()
                                                                .applySettings(configuration.getProperties()).build();
                                        sessionFactory = configuration.buildSessionFactory(serviceRegistry);
                                        return sessionFactory;
                                } catch (Exception e) {
                                        e.printStackTrace();
                                }
                        }
                        return sessionFactory;
                }
}
```

com.entity:

Admin

```
package com.entity;
import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.Table;


@Entity
```

```
@Table(name="admin")
public class Admin {

@Id
@GeneratedValue()
@Column(name="Id")
private int adminid;

@Column(name="First_Name")
private String fname;

@Column(name="Last_Name")
private String lname;

@Column(name="Email")
private String email;

@Column(name="Password")
private String password;

@Column(name="mobile")
private String mobile;

public Admin() {
	super();
}

public Admin(String fname, String lname, String email, String password,String mobile) {
	super();
	this.fname = fname;
	this.lname = lname;
	this.email = email;
	this.password = password;
	this.mobile=mobile;
}
public String getMobile() {
```

```
        return mobile;
}

public void setMobile(String mobile) {
        this.mobile = mobile;
}

public int getAdminid() {
        return adminid;
}

public void setAdminid(int adminid) {
        this.adminid = adminid;
}

public String getFname() {
        return fname;
}

public void setFname(String fname) {
        this.fname = fname;
}

public String getLname() {
        return lname;
}

public void setLname(String lname) {
        this.lname = lname;
}

public String getEmail() {
        return email;
}

public void setEmail(String email) {
```

```
		this.email = email;
	}

	public String getPassword() {
		return password;
	}

	public void setPassword(String password) {
		this.password = password;
	}

}
```

Course

```
package com.entity;
import javax.persistence.CascadeType;
import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.OneToMany;
import javax.persistence.Table;

@Entity
@Table(name="Course_Details")
public class Course {

@GeneratedValue
@Column(name="Sr_No")
private int srno;

@Id
@Column(name="Course_Id")
private String Course_Id;

@Column(name="Course_Name")
```

```
private String Course_Name;
/*@OneToMany(cascade = CascadeType.ALL, mappedBy = "Subject")
private Subject subject;*/

public Course() {
	super();
}

public int getSrno() {
	return srno;
}

public void setSrno(int srno) {
	this.srno = srno;
}

public String getCourse_Id() {
	return Course_Id;
}

public void setCourse_Id(String course_Id) {
	Course_Id = course_Id;
}

public String getCourse_Name() {
	return Course_Name;
}

public void setCourse_Name(String course_Name) {
	Course_Name = course_Name;
}


}
```

Subject

```
package com.entity;
import javax.persistence.CascadeType;
import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.JoinColumn;
import javax.persistence.ManyToOne;
import javax.persistence.Table;

@Entity
@Table(name="Subject_Details")
public class Subject {

@GeneratedValue
@Column(name="Sr_No")
private int srno;

@Id
@Column(name="Subject_Id")
private String Subject_Id;

@Column(name="Subject_Name")
private String Subject_Name;

@Column(name="Cource_Id" , nullable=false)
private String Course_Id;

public Subject() {
	super();
}

public int getSrno() {
	return srno;
}
```

```
public void setSrno(int srno) {
        this.srno = srno;
}

public String getSubject_Id() {
        return Subject_Id;
}

public void setSubject_Id(String subject_Id) {
        Subject_Id = subject_Id;
}

public String getSubject_Name() {
        return Subject_Name;
}

public void setSubject_Name(String subject_Name) {
        Subject_Name = subject_Name;
}

public String getCourse_Id() {
        return Course_Id;
}

public void setCourse_Id(String course_Id) {
        Course_Id = course_Id;
}
}
```

Teacher

```
package com.entity;

import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
```

```
import javax.persistence.Table;

@Entity
@Table(name="Teacher_Details")
public class Teacher {

@GeneratedValue
@Column(name="Sr_No")
private int srno;

@Id
@Column(name="Teacher_Id")
private String Teacher_Id;

@Column(name="First_Name")
private String First_Name;

@Column(name="Last_Name")
private String Last_Name;

@Column(name="Qualification")
private String Qualification;

@Column(name="Address")
private String Address;

@Column(name="PhoneNo")
private String PhoneNo;

public Teacher() {
	super();
}

public int getSrno() {
	return srno;
}
```

```
public void setSrno(int srno) {
        this.srno = srno;
}

public String getTeacher_Id() {
        return Teacher_Id;
}

public void setTeacher_Id(String teacher_Id) {
        Teacher_Id = teacher_Id;
}

public String getFirst_Name() {
        return First_Name;
}

public void setFirst_Name(String first_Name) {
        First_Name = first_Name;
}

public String getLast_Name() {
        return Last_Name;
}

public void setLast_Name(String last_Name) {
        Last_Name = last_Name;
}

public String getQualification() {
        return Qualification;
}

public void setQualification(String qualification) {
        Qualification = qualification;
}
```

```
public String getAddress() {
        return Address;
}

public void setAddress(String address) {
        Address = address;
}

public String getPhoneNo() {
        return PhoneNo;
}

public void setPhoneNo(String phoneNo) {
        PhoneNo = phoneNo;
}
}
```

Student

```
package com.entity;

import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.Table;

@Entity
@Table(name="Student_Details")
public class Student {

@GeneratedValue
@Column(name="Sr_No")
private int srno;

@Id
```

```
@Column(name="Student_Id")
private String Student_Id;

@Column(name="First_Name")
private String First_Name;

@Column(name="Last_Name")
private String Last_Name;

@Column(name="Education")
private String Education;

@Column(name="Address")
private String Address;

@Column(name="PhoneNo")
private String PhoneNo;

public Student() {
	super();
}

public int getSrno() {
	return srno;
}

public void setSrno(int srno) {
	this.srno = srno;
}

public String getStudent_Id() {
	return Student_Id;
}

public void setStudent_Id(String student_Id) {
	Student_Id = student_Id;
```

```
}

public String getFirst_Name() {
        return First_Name;
}

public void setFirst_Name(String first_Name) {
        First_Name = first_Name;
}

public String getLast_Name() {
        return Last_Name;
}

public void setLast_Name(String last_Name) {
        Last_Name = last_Name;
}

public String getEducation() {
        return Education;
}

public void setEducation(String education) {
        Education = education;
}
public String getAddress() {
        return Address;
}
public void setAddress(String address) {
        Address = address;
}
public String getPhoneNo() {
        return PhoneNo;
}

public void setPhoneNo(String phoneNo) {
```

```
        PhoneNo = phoneNo;
} }
```

TeacherSubject

```
package com.entity;

import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.Table;

@Entity
@Table(name="Teacher_Subject")
public class TeacherSubject {

@Id
@Column(name="Sr_No")
private int srno;

@Column(name="Teacher_Id")
private String Teacher_Id;

@Column(name="Course_Id")
private String Course_Id;

@Column(name="Subject_Id")
private String Subject_Id;

public TeacherSubject() {
        super();
}

public int getSrno() {
        return srno;
}
```

```
public void setSrno(int srno) {
	this.srno = srno;
}

public String getTeacher_Id() {
	return Teacher_Id;
}

public void setTeacher_Id(String teacher_Id) {
	Teacher_Id = teacher_Id;
}

public String getCourse_Id() {
	return Course_Id;
}

public void setCourse_Id(String course_Id) {
	Course_Id = course_Id;
}

public String getSubject_Id() {
	return Subject_Id;
}

public void setSubject_Id(String subject_Id) {
	Subject_Id = subject_Id;
}

}
```

StudentCourse

```
package com.entity;

import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.Table;
```

```
@Entity
@Table(name="Student_Course")
public class StudentCourse {

@Id
@GeneratedValue
@Column(name="Sr_No")
private int srno;

@Column(name="Student_Id")
private String Student_Id;

@Column(name="Course_Id")
private String Course_Id;

public int getSrno() {
	return srno;
}

public void setSrno(int srno) {
	this.srno = srno;
}

public String getStudent_Id() {
	return Student_Id;
}

public void setStudent_Id(String student_Id) {
	Student_Id = student_Id;
}

public String getCourse_Id() {
	return Course_Id;
}

public void setCourse_Id(String course_Id) {
	Course_Id = course_Id;
}

}
```

com.servlets

AdminAddServlet:

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Admin;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class AdminAdd
 */
@WebServlet("/admin_add")
public class AdminAddServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public AdminAddServlet() {
      super();
      // TODO Auto-generated constructor stub
   }

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */

	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException,
IOException {
		// TODO Auto-generated method stub
		//response.getWriter().append("Served at: ").append(request.getContextPath());
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException,
IOException {
		response.setContentType("text/html");
		PrintWriter out = response.getWriter();
		String fname = request.getParameter("fname");
		String lname = request.getParameter("lname");
		String email = request.getParameter("email");
		String password = request.getParameter("pwd");
		String mobile=request.getParameter("mobile");
		String regex = "^[\\w-_\\.+]*[\\w-_\\.]\\@([\\w]+\\.)+[\\w]+[\\w]$";
		int n=0;
		if(email.isBlank() || password.isBlank())
		{
			request.getRequestDispatcher("Admin_Add.html").include(request, response);
			out.println("<br/><br/><div class=p4><font style=color:red> Email and Password field
are mandatory....</font></div>");
		}
```

```
                else if(!email.matches(regex))
                {
                        request.getRequestDispatcher("Admin_Add.html").include(request, response);
                        out.println("<br/><br/><div class=p4><font style=color:red> Enter Email Address is not
Valid..,Please enter Valid one..</font></div>");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
                        String hql="Select * from Admin where email=:email";
                        Query q=session.createSQLQuery(hql);
                        q.setParameter("email", email);
                        List l =q.list();
                        n=l.size();
                        if(n==0)
                        {
                                Transaction tx = session.beginTransaction();
                                Admin a=new Admin(fname,lname,email,password,mobile);
                                session.save(a);
                                tx.commit();
                                response.sendRedirect("Admin_Login.html");
                        }
                        else
                        {
                                request.getRequestDispatcher("Admin_Add.html").include(request, response);
                                out.println("<br/><br/><div class=p4><font style=color:red>Already have an
account?
</font>");
                                out.print("<a href=Admin_Login.html> Login </a></div>");
                        }
                        session.close();
                }
        }

}
```

LoginServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Admin;
import com.hibernate.util.HibernateUtil;
```

```
/**
 * Servlet implementation class LoginServlet
 */
@WebServlet("/login")
public class LoginServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public LoginServlet() {
      super();
      // TODO Auto-generated constructor stub
   }

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException,
 IOException {
		PrintWriter out=response.getWriter();
		String email=request.getParameter("email");
		String pwd=request.getParameter("pwd");
		String regex = "^[\\w-_\\.+]*[\\w-_\\.]\\@([\\w]+\\.)+[\\w]+[\\w]$";
		int n=0;
		HttpSession hsession=request.getSession();
		if(email.isBlank() || pwd.isBlank())
		{
			request.getRequestDispatcher("Admin_Login.html").include(request, response);
			out.println("<br/><br/><div class=p4><font style=color:red> Either Email or Password are
missing.. Please enter..</font></div>");
		}
		else if(!email.matches(regex))
		{
			request.getRequestDispatcher("Admin_Login.html").include(request, response);
			out.println("<br/><br/><div class=p4><font style=color:red> Enter Email Address is not
Valid..,
Please enter Valid one..</font></div>");
		}
		else
		{
			SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Admin where email=:email and password=:password";

			/*Query q=session.createQuery(hql);
			q.setParameter("email", email);
			q.setParameter("password", pwd);
			List l=q.list();
			n=l.size();*/
			List<Admin>
a=session.createQuery(hql).setParameter("email",email).setParameter("password",pwd).list();
			System.out.print(n);
			if(a.size()>=1)
```

```
                        {
                                for(Admin admin:a)
                                 {
                                        String name=admin.getFname() + " " + admin.getLname();
                                        hsession.setAttribute("AdminName", name);
                                        hsession.setAttribute("Error",null);
                                        response.sendRedirect("HomePage");
                                 }
                        }
                        else
                        {

                                request.getRequestDispatcher("Admin_Login.html").include(request, response);
                                out.println("<br/><br/><div class=p4><font style=color:red>Please Enter Valid
Credential..</font></div>");
                        }
                        session.close();
                }

        }
}
```

ForgotPasswordServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;
import java.util.Properties;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Admin;
import com.hibernate.util.HibernateUtil;

import javax.mail.*;
import javax.mail.internet.*;

/**
 * Servlet implementation class ForgotPasswordServlet
 */
@WebServlet("/forgot")
public class ForgotPasswordServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public ForgotPasswordServlet() {
      super();
```

```
    // TODO Auto-generated constructor stub
  }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException,
 IOException {
                // TODO Auto-generated method stub
                response.getWriter().append("Served at: ").append(request.getContextPath());
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException,
IOException {
                PrintWriter out=response.getWriter();
                String email=request.getParameter("email");
                String regex = "^[\\w-_\\.+]*[\\w-_\\.]\\@([\\w]+\\.)+[\\w]+[\\w]$";
                String pwd,name = null;
                if(email.isBlank())
                {
                        request.getRequestDispatcher("ForgotPassword.html").include(request, response);
                        out.println("<br/><br/><div class=p4><font style=color:red>Please Enter Email
Address:</font></div>");
                }
                else if(!email.matches(regex))
                {
                        request.getRequestDispatcher("ForgotPassword.html").include(request, response);
                        out.println("<br/><br/><div class=p4><font style=color:red> Enter Email Address is not
Valid..,
Please enter Valid one..</font></div>");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        org.hibernate.Session session = sessionFactory.openSession();
                        String hql="from Admin where email=:email";
                        List<Admin> a=session.createQuery(hql).setParameter("email",email).list();
                        if(a.size()==0)
                        {
                                request.getRequestDispatcher("ForgotPassword.html").include(request,
response);
                                out.println("<br/><br/><div class=p4><font style=color:red> Email Address does
not
 found please <a href=Add_Admin.html>Sign Up</a></font></div>");
                        }
                        else
                        {
                         for(Admin admin:a)
                          {
            name=admin.getFname() + " " + admin.getLname();
                            pwd=admin.getPassword();
```

```
                                String sender="paimasternaaz786@gmail.com"; // please mention your gmail
                                String spwd="******"; //your gmail password

                                Properties proper = System.getProperties();
                                proper.put("mail.smtp.auth", "true");
                                proper.put("mail.smtp.starttls.enable","true");
                                proper.put("mail.smtp.host", "smtp.gmail.com");
                                proper.put("mail.smtp.port", "587");


                                javax.mail.Session s=javax.mail.Session.getDefaultInstance(proper,
                                      new javax.mail.Authenticator() {
                                      protected PasswordAuthentication getPasswordAuthentication() {
                                      return new PasswordAuthentication(sender,spwd);
                                      }});
                                try
                                {
                                  Message message=new MimeMessage(s);
                                  message.setFrom(new InternetAddress("paimasternaaz786@gmail.com"));
                                  message.setRecipients(Message.RecipientType.TO,InternetAddress.parse(email));
                                  message.setSubject("Learning Academy");
                                  message.setText("\nDear "+ name + "\n\n\t Your Learning Academy Password is : " +
pwd);
                                  Transport.send(message);

                                  request.getRequestDispatcher("ForgotPassword.html").include(request, response);
                                          out.println("<br/><br/><div class=p4><font style=color:red>Password has been
sent
to your email Address please check..<a href=Admin_Login.html>Login</a></font></div>");

                                }catch(MessagingException e) {throw new RuntimeException(e);}
                              }
                            }
                    }
          }
}
```

HomepageServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

/**
 * Servlet implementation class HomepageServlet
 */
@WebServlet("/HomePage")
public class HomepageServlet extends HttpServlet {
```

```
        private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public HomepageServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                // TODO Auto-generated method stub
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String name=(String) hsession.getAttribute("AdminName");

                out.print("<html><head><title>Learning Academy</title>");
                out.print("<style>.p1 {height:10px;   width:100%;}");
                out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:550px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
            out.print("</style></head><body bgcolor=#7575FF>");
            out.println("<div class=p1></div>");
            out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
            out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
            out.println("<div class=p3>");

//out.print("               "
);
            out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
            out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
            out.print("<a href=StudentMain>Student</a>");

out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
```

```
		out.println("</div><div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
		out.println("</body>");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		// TODO Auto-generated method stub
		doGet(request, response);
	}

}
```

CourseDetailServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Course;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/CourseMain")
public class CourseDetailServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public CourseDetailServlet() {
      super();
      // TODO Auto-generated constructor stub
   }

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
```

```
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String name=(String) hsession.getAttribute("AdminName");

                out.print("<html><head><title>Learning Academy</title>");
                out.print("<style>.p1 {height:10px;   width:100%;}");
                out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
        out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
        out.print("</style></head><body bgcolor=#7575FF>");
        out.println("<div class=p1></div>");
        out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
        out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
        out.println("<div class=p3>");

//out.print("               "
);
        out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
        out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
        out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
        out.print("<a href=StudentMain>Student</a>");

out.print("               ");
        out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
        out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
        out.println("</div><br>");

        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                Session session = sessionFactory.openSession();
                String hql="from Course";
                List<Course> course=session.createQuery(hql).list();
                if(course.size()>=1)
                {
                        out.println("<div class=main>");
                        out.print("<br><table border=2 align=center>");
                        out.print("<tr>");
```

```
                        out.print("<th align=center width=150px>Course Id</th>");
                        out.print("<th align=center width=250px>Course Name</th>");
                        out.print("</tr>");
                        for(Course c:course)
                        {
                                out.print("<tr>");
                                out.print("<td align=center width=150px>"+ c.getCourse_Id() +"</td>");
                                out.print("<td align=center width=250px>"+ c.getCourse_Name()+"</td>");
                                out.print("<td align=center width=100px><a href=EditCourse?cid="+c.getCourse_Id() +
">Edit</a></td>");
                                out.print("<td align=center width=100px><a
href=DeleteCourse?cid="+c.getCourse_Id() + ">Delete</a></td>");
                                out.print("</tr>");
                        }
                        out.print("</table>");
                        out.print("<br><a href=AddCourse>Are You want to add course?</a>");
                        String error=(String) hsession.getAttribute("Error");
                        if(error!=null)
                        {
                                out.print("<br><font style=color:red>"+ error + "</font>");
                                hsession.setAttribute("Error",null);
                        }
                        out.print("</div>");
                        out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                }
                else
                {
                        out.print("<br><div class=p6>");
                        out.print("<font style=color:red> No Course Details Found </font>
     ");
                        out.print("<a href=AddCourse>Are You want to add course?</a></div>");
                        out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                }

                out.print("</body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                // TODO Auto-generated method stub
                doGet(request, response);
        }

}
```

CourseAddServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;
```

```
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/AddCourse")
public class CourseAddServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public CourseAddServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 70%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
```

```
		out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
		out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
		out.print("</style></head><body bgcolor=#7575FF><form action=AddCourse method=post>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
		out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
		out.print("<a href=StudentMain>Student</a>");

out.print("               ");
		out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
		out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
		out.println("</div><br>");
		out.println("<div class=main>");
			out.print("<br><table border=2 align=center>");
		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Course";
			List<Course> course=session.createQuery(hql).list();

				out.print("<tr>");
				out.print("<th align=center width=150px>Course Id</th>");
				out.print("<th align=center width=250px>Course Name</th>");
				out.print("</tr>");
				for(Course c:course)
				{
					out.print("<tr>");
					out.print("<td align=center width=150px>"+ c.getCourse_Id() +"</td>");
					out.print("<td align=center width=250px>"+ c.getCourse_Name()+"</td>");
					out.print("<td align=center width=100px><a href=EditCourse?cid="+c.getCourse_Id()
+ ">Edit</a></td>");
					out.print("<td align=center width=100px><a
href=DeleteCourse?cid="+c.getCourse_Id() + ">Delete</a></td>");
					out.print("</tr>");
				}
			out.print("<tr>");
			int n=course.size()+1;
			String cid;
			if(n<10) { cid="C0"+n;} else { cid="C"+n;}
			out.print("<td align=center width=150px><input class=txt type=text name=\"cid\"
style=\"height:30px; width:150px;\" value="+cid +"></td>");
			out.print("<td align=center width=150px><input class=txt type=text name=\"cname\"
style=\"height:30px; width:250px;\"/></td>");
			out.print("<td colspan=2 align=center><input type=submit value=Add class=b></td>");
```

```
		out.print("</table>");

		String error=(String) hsession.getAttribute("Error");
		if(error!=null)
		{
			out.print("<font style=color:red>"+ error + "</font>");
			hsession.setAttribute("Error",null);
		}
		out.print("</div>");
		out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
		out.print("</form></body>");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String cid=request.getParameter("cid");
		String cname=request.getParameter("cname");
		if(cid.isBlank() || cname.isEmpty())
		{
			hsession.setAttribute("Error", "Please Enter Mandatory Details For Course");
			response.sendRedirect("AddCourse");
		}
		else
		{
			SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Course where Course_Name=:Course_Name";
			List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
			if(course.size()==0)
			{
				Transaction tx=session.beginTransaction();
				Course c=new Course();
				c.setCourse_Id(cid);
				c.setCourse_Name(cname);
				session.save(c);
				tx.commit();
				session.close();
				response.sendRedirect("CourseMain");
			}
			else
			{
				hsession.setAttribute("Error", "Please Check Course Details are already exist..");
				response.sendRedirect("AddCourse");
			}

		}
	}

}
```

CourseDeleteServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Subject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/DeleteCourse")
public class CourseDeleteServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public CourseDeleteServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
```

```
                    out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                    out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:100px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.print(".p7{height: 30px;   width: 70%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
          out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
          out.print("</style></head><body bgcolor=#7575FF>");
          out.println("<div class=p1></div>");
          out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
          out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
          out.println("<div class=p3>");

//out.print("               "
);
          out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
          out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
          out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
          out.print("<a href=StudentMain>Student</a>");

out.print("               ");
          out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
          out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
          out.println("</div><br>");

          SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    Transaction tx=session.beginTransaction();
                    Course course=session.load(Course.class,request.getParameter("cid"));
                    session.delete(course);

                    String hql="Delete from Subject where Course_Id=:Course_Id";
                    Query q=session.createQuery(hql).setParameter("Course_Id",request.getParameter("cid"));
                    int n=q.executeUpdate();
                    tx.commit();

                    tx=session.beginTransaction();
                    hql="Delete from TeacherSubject where Course_Id=:Course_Id";
                    q=session.createQuery(hql).setParameter("Course_Id",request.getParameter("cid"));
                    n=q.executeUpdate();
                    tx.commit();

                    session.close();
                    out.print("<br><div class=p6>");
                    out.print("<font style=color:red> Successfully Deleted </font> </div>");
```

```
                out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                // TODO Auto-generated method stub
                doGet(request, response);
        }

}
```

CourseUpdateServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/EditCourse")
public class CourseUpdateServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public CourseUpdateServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
```

```
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String name=(String) hsession.getAttribute("AdminName");

		out.print("<html><head><title>Learning Academy</title>");
		out.print("<style>.p1 {height:10px;   width:100%;}");
		out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-family:cursive; font-size:170%;}");
		out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-family:cursive; font-size:120%;}");
		out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-align:Center; font-family:cursive; font-size:120%;}");
		out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white; text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
		out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white; text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
		out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center; font-family:cursive; font-size:120%;}");
	out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-family:cursive; font-size:120%;}");
	out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-family:cursive; }");
	out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
	out.print("</style></head><body bgcolor=#7575FF><form action=EditCourse method=post>");
	out.println("<div class=p1></div>");
	out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
	out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
	out.println("<div class=p3>");

//out.print("               ");
	out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
	out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
	out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
	out.print("<a href=StudentMain>Student</a>");

out.print("               ");
	out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
	out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
	out.println("</div><br>");
	out.println("<div class=main>");
		out.print("<br><table border=2 align=center>");
		String cid=request.getParameter("cid");
	SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
		Session session = sessionFactory.openSession();
```

```
		String hql="from Course";
		List<Course> course=session.createQuery(hql).list();
		if(course.size()>=1)
		{
			out.print("<tr>");
			out.print("<th align=center width=150px>Course Id</th>");
			out.print("<th align=center width=250px>Course Name</th>");
			out.print("</tr>");
			for(Course c:course)
			{
				if(c.getCourse_Id().equalsIgnoreCase(cid))
				{
				 out.print("<tr>");
				 out.print("<td align=center width=150px><input type=text class=txt name=\"cid\"
style=\"height:30px; width:150px;\" value=\""+c.getCourse_Id()+"\"></td>");
				 out.print("<td align=center width=150px><input type=text class=txt name=\"cname\"
style=\"height:30px; width:250px;\" value=\""+c.getCourse_Name() +"\"></td>");
				 out.print("<td colspan=2 align=center><input type=submit value=Update
class=b></td></tr>");
				}
				else
				{
				 out.print("<tr>");
				 out.print("<td align=center width=150px>"+ c.getCourse_Id() +"</td>");
				 out.print("<td align=center width=250px>"+ c.getCourse_Name()+"</td>");
				 out.print("<td align=center width=100px><a href=EditCourse?cid="+c.getCourse_Id() +
">Edit</a></td>");
				 out.print("<td align=center width=100px><a
href=DeleteCourse?cid="+c.getCourse_Id() + ">Delete</a></td>");
				 out.print("</tr>");
				}
			}

		}

		out.print("</table>");

		String error=(String) hsession.getAttribute("Error");
		if(error!=null)
		{
			out.print("<font style=color:red>"+ error + "</font>");
			hsession.setAttribute("Error", null);
		}
		out.print("</div>");
		out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
		out.print("</form></body>");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
```

```
		HttpSession hsession=request.getSession();
		String cid=request.getParameter("cid");
		String cname=request.getParameter("cname");
		if(cid.isBlank() || cname.isEmpty())
		{
			hsession.setAttribute("Error", "Please Enter Mandatory Details For Course");
			response.sendRedirect("EditCourse");
		}
		else
		{
			SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Course where Course_Name=:Course_Name";
			List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
			if(course.size()==0)
			{
				Transaction tx=session.beginTransaction();
				Course c=new Course();
				c.setCourse_Id(cid);
				c.setCourse_Name(cname);
				session.update(c);
				tx.commit();
				session.close();
				response.sendRedirect("CourseMain");
			}
			else
			{
				hsession.setAttribute("Error", "Please Check Course Details are already exist..");
				response.sendRedirect("EditCourse");
			}

		}
	}

}
```

SubjectDetailServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Course;
import com.entity.Subject;
import com.hibernate.util.HibernateUtil;
```

```
/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/SubjectMain")
public class SubjectDetailServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public SubjectDetailServlet() {
      super();
      // TODO Auto-generated constructor stub
   }

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String name=(String) hsession.getAttribute("AdminName");

		out.print("<html><head><title>Learning Academy</title>");
		out.print("<style>.p1 {height:10px;   width:100%;}");
		out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
		out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
		out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
		out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
		out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print("</style></head><body bgcolor=#7575FF>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");

//out.print("               "
);
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
```

```
		out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
		out.print("<a href=StudentMain>Student</a>");

out.print("               ");
		out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
		out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
		out.println("</div><br>");

		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Subject";
			List<Subject> subject=session.createQuery(hql).list();
			if(subject.size()>=1)
			{
				out.println("<div class=main>");
				out.print("<br><table border=2 align=center>");
				out.print("<tr>");
				out.print("<th align=center width=150px>Subject Id</th>");
				out.print("<th align=center width=250px>Subject Name</th>");
				out.print("<th align=center width=250px>Course Detail</th>");
				out.print("</tr>");
				for(Subject s:subject)
				{
					out.print("<tr>");
					out.print("<td align=center width=150px>"+ s.getSubject_Id() +"</td>");
					out.print("<td align=center width=250px>"+ s.getSubject_Name()+"</td>");
					hql="from Course where Course_Id=:Course_Id";
					List<Course> course=session.createQuery(hql).setParameter("Course_Id",
s.getCourse_Id()).list();
					for(Course c:course)
					{
						out.print("<td align=center width=250px>"+ c.getCourse_Name()+"</td>");
					}
					out.print("<td align=center width=100px><a href=EditSubject?sid="+
s.getSubject_Id()+ ">Edit</a></td>");
					out.print("<td align=center width=100px><a href=DeleteSubject?sid="+
s.getSubject_Id()+ ">Delete</a></td>");
					out.print("</tr>");
				}
				out.print("</table>");
				out.print("<br><a href=AddSubject>Are You want to add subject?</a>");
				String error=(String) hsession.getAttribute("Error");
				if(error!=null)
				{
					out.print("<br><font style=color:red>"+ error + "</font>");
					hsession.setAttribute("Error",null);
				}
				out.print("</div>");
				out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
			}
			else
```

```
		{
			out.print("<br><div class=p6>");
			out.print("<font style=color:red> No Subject Details Found  </font>
     ");
			out.print("<a href=AddSubject>Are You want to add subject?</a></div>");
			out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
		}

		out.print("</body>");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		// TODO Auto-generated method stub
		doGet(request, response);
	}

}
```

SubjectAddServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Subject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/AddSubject")
public class SubjectAddServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public SubjectAddServlet() {
```

```
    super();
    // TODO Auto-generated constructor stub
  }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                    response.setContentType("Text/Html");
                    PrintWriter out =response.getWriter();
                    HttpSession hsession=request.getSession();
                    String name=(String) hsession.getAttribute("AdminName");

                    out.print("<html><head><title>Learning Academy</title>");
                    out.print("<style>.p1 {height:10px;   width:100%;}");
                    out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                    out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                    out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                    out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
            out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
            out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
            out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
            out.print("</style></head><body bgcolor=#7575FF><form action=AddSubject method=post>");
            out.println("<div class=p1></div>");
            out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
            out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
            out.println("<div class=p3>");
           //
out.print("               ");
            out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
            out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
            out.print("<a href=StudentMain>Student</a>");

out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
```

```
            out.println("</div><br>");
            out.println("<div class=main>");
                    out.print("<br><table border=2 align=center>");
            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from Subject";
                    List<Subject> subject=session.createQuery(hql).list();
                    out.print("<tr>");
                    out.print("<th align=center width=150px>Subject Id</th>");
                    out.print("<th align=center width=250px>Subject Name</th>");
                    out.print("<th align=center width=250px>Course Detail</th>");
                    out.print("</tr>");
                    for(Subject s:subject)
                    {
                     out.print("<tr>");
                     out.print("<td align=center width=150px>"+ s.getSubject_Id() +"</td>");
                     out.print("<td align=center width=250px>"+ s.getSubject_Name()+"</td>");
                     hql="from Course where Course_Id=:Course_Id";
                     List<Course> course=session.createQuery(hql).setParameter("Course_Id", s.getCourse_Id()).list();
                      for(Course c:course)
                              {
                                out.print("<td align=center width=250px>"+ c.getCourse_Name()+"</td>");
                              }
                      out.print("<td align=center width=100px><a href=EditSubject?sid="+ s.getSubject_Id()+
">Edit</a></td>");
                      out.print("<td align=center width=100px><a href=DeleteSubject?sid="+ s.getSubject_Id()+
">Delete</a></td>");
                      out.print("</tr>");
                    }
                    out.print("<tr>");
                    String sid;
                    if(subject.size()<10) { sid="S0"+(subject.size()+1);} else { sid="S"+(subject.size()+1);}
                    out.print("<td align=center width=150px><input class=txt type=text name=\"sid\"
style=\"height:30px; width:150px;\" value="+sid +"></td>");
                    out.print("<td align=center width=150px><input  class=txt type=text name=\"sname\"
style=\"height:30px; width:250px;\"/></td>");
                    out.print("<td align=center width=150px><select class=txt name=\"cname\"style=\"height:30px;
width:250px;\"><option> Select Course </option>");
                    hql="from Course";
                    List<Course> course=session.createQuery(hql).list();
                    for(Course c:course)
                    {
                              out.print("<option>" + c.getCourse_Name() +"</option>");
                    }
                    out.print("</select></td>");
                    out.print("<td colspan=2 align=center><input type=submit value=Add class=b></td>");

                    out.print("</table>");

                    String error=(String) hsession.getAttribute("Error");
                    if(error!=null)
                    {
                              out.print("<br><font style=color:red>"+ error + "</font>");
                              hsession.setAttribute("Error",null);
                    }
                    out.print("</div>");
```

```
		out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
		out.print("</form></body>");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String sid=request.getParameter("sid");
		String sname=request.getParameter("sname");
		String cname=request.getParameter("cname");

		if(sid.isBlank() || sname.isEmpty() || cname.equals("Select Course") )
		{
			hsession.setAttribute("Error", "Mandatory Details are missing.., please Enter");
			response.sendRedirect("AddSubject");
		}
		else
		{
			SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Course where Course_Name=:Course_Name";
			List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
			for(Course c:course) {cname=c.getCourse_Id(); }

			hql="from Subject where (Subject_Id=:Subject_Id OR Subject_Name=:Subject_Name) and
Course_Id=:Course_Id";
			List<Subject> subject=session.createQuery(hql).setParameter("Subject_Name",
sname).setParameter("Subject_Id", sid).setParameter("Course_Id", cname).list();
			if(subject.size()==0)
			{
				Transaction tx=session.beginTransaction();
				Subject s=new Subject();
				s.setSubject_Id(sid);
				s.setSubject_Name(sname);
				s.setCourse_Id(cname);
				session.save(s);
				tx.commit();
				session.close();
				response.sendRedirect("SubjectMain");
			}
			else
			{
				hsession.setAttribute("Error", "Please Check Subject Details are already exist..");
				response.sendRedirect("AddSubject");
			}

		}
	}

}
```

SubjectDeleteServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Subject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/DeleteSubject")
public class SubjectDeleteServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public SubjectDeleteServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
```

```
                    out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:100px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
          out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
          out.print("</style></head><body bgcolor=#7575FF>");
          out.println("<div class=p1></div>");
          out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
          out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
          out.println("<div class=p3>");

//out.print("               "
);
          out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
          out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
          out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
          out.print("<a href=StudentMain>Student</a>");

out.print("               ");
          out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
          out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
          out.println("</div><br>");

          SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    Transaction tx=session.beginTransaction();
                    Subject subject=session.load(Subject.class,request.getParameter("sid"));
                    session.delete(subject);

                    String hql="Delete from TeacherSubject where Subject_Id=:Subject_Id";
                    Query q=session.createQuery(hql).setParameter("Subject_Id",request.getParameter("sid"));
                    int n=q.executeUpdate();
                    tx.commit();

                    session.close();
                    out.print("<br><div class=p6>");
                    out.print("<font style=color:red> Successfully Deleted </font> </div>");
                    out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                    out.print("</body>");
          }

          /**
           * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
           */
```

```
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		// TODO Auto-generated method stub
		doGet(request, response);
	}

}
```

SubjectUpdateServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Subject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/EditSubject")
public class SubjectUpdateServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public SubjectUpdateServlet() {
      super();
      // TODO Auto-generated constructor stub
   }

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String name=(String) hsession.getAttribute("AdminName");

		out.print("<html><head><title>Learning Academy</title>");
```

```
                out.print("<style>.p1 {height:10px;   width:100%;}");
                out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
            out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
            out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
            out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
            out.print("</style></head><body bgcolor=#7575FF><form action=EditSubject method=post>");
            out.println("<div class=p1></div>");
            out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
            out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
            out.println("<div class=p3>");
           //
out.print("               ");
            out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
            out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
            out.print("<a href=StudentMain>Student</a>");

out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");
            out.println("<div class=main>");
                out.print("<br><table border=2 align=center>");
            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                Session session = sessionFactory.openSession();
                String hql="from Subject";
                List<Subject> subject=session.createQuery(hql).list();
                out.print("<tr>");
                out.print("<th align=center width=150px>Subject Id</th>");
                out.print("<th align=center width=250px>Subject Name</th>");
                out.print("<th align=center width=250px>Course Detail</th>");
                out.print("</tr>");
                String sid=request.getParameter("sid");
                for(Subject s:subject)
                {
```

```
                    if(s.getSubject_Id().equals(sid))
                    {
                     out.print("<tr>");
                     out.print("<td align=center width=150px><input class=txt type=text name=\"sid\"
style=\"height:30px; width:150px;\" value=\""+s.getSubject_Id()+"\"></td>");
                     out.print("<td align=center width=150px><input class=txt type=text name=\"sname\"
style=\"height:30px; width:250px;\" value=\""+s.getSubject_Name()+"\"></td>");
                     hql="from Course";
                     List<Course> course=session.createQuery(hql).list();
                      for(Course c:course)
                              {
                               if(c.getCourse_Id().equals(s.getCourse_Id()))
                                {
                                        out.print("<td align=center width=150px><select class=txt
name=\"cname\"style=\"height:30px; width:250px;\"><option>"+c.getCourse_Name()+"</option>");
                                }
                              }
                      for(Course c:course)
                              {
                               if(!c.getCourse_Id().equals(s.getCourse_Id()))
                                {
                                        out.print("<option>"+c.getCourse_Name()+"</option>");
                                }
                              }

                     out.print("</select></td>");
                     out.print("<td colspan=2 align=center><input type=submit value=Update class=b></td></tr>");
                    }
                    else
                    {
                     out.print("<tr>");
                     out.print("<td align=center width=150px>"+ s.getSubject_Id() +"</td>");
                     out.print("<td align=center width=250px>"+ s.getSubject_Name()+"</td>");
                     hql="from Course where Course_Id=:Course_Id";
                     List<Course> course=session.createQuery(hql).setParameter("Course_Id", s.getCourse_Id()).list();
                      for(Course c:course)
                              {
                                out.print("<td align=center width=250px>"+ c.getCourse_Name()+"</td>");
                              }
                     out.print("<td align=center width=100px><a href=EditSubject?sid="+ s.getSubject_Id()+
">Edit</a></td>");
                     out.print("<td align=center width=100px><a href=DeleteSubject?sid="+ s.getSubject_Id()+
">Delete</a></td>");
                     out.print("</tr>");
                    }
                   }

                   out.print("</table>");

                   String error=(String) hsession.getAttribute("Error");
                   if(error!=null)
                   {
                           out.print("<br><font style=color:red>"+ error + "</font>");
                           hsession.setAttribute("Error",null);
                   }
                   out.print("</div>");
```

```
                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</form></body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String sid=request.getParameter("sid");
                String sname=request.getParameter("sname");
                String cname=request.getParameter("cname");

                if(sid.isBlank() || sname.isEmpty() || cname.equals("Select Course") )
                {
                        hsession.setAttribute("Error", "Mandatory Details are missing.., please Enter");
                        response.sendRedirect("EditSubject");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
                        String hql="from Course where Course_Name=:Course_Name";
                        List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
                        for(Course c:course) {cname=c.getCourse_Id(); }
                        hql="from Subject where Subject_Name=:Subject_Name and Course_Id=:Course_Id";
                        List<Subject> subject=session.createQuery(hql).setParameter("Subject_Name",
sname).setParameter("Course_Id", cname).list();
                        if(subject.size()==0)
                        {
                                Transaction tx=session.beginTransaction();
                                Subject s=new Subject();
                                s.setSubject_Id(sid);
                                s.setSubject_Name(sname);
                                s.setCourse_Id(cname);
                                session.update(s);
                                tx.commit();
                                session.close();
                                response.sendRedirect("SubjectMain");
                        }
                        else
                        {
                                hsession.setAttribute("Error", "Please Check Subject Details are already exist..");
                                response.sendRedirect("EditSubject");
                        }

                }
        }

}
```

TeacherDetailServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Course;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/TeacherMain")
public class TeacherDetailServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherDetailServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
```

```
                    out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:95%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
          out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
          out.print("</style></head><body bgcolor=#7575FF>");
          out.println("<div class=p1></div>");
          out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
          out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
          out.println("<div class=p3>");

//out.print("               "
);
          out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
          out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
          out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
          out.print("<a href=StudentMain>Student</a>");

out.print("               ");
          out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
          out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
          out.println("</div><br>");

          SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from Teacher";
                    List<Teacher> teacher=session.createQuery(hql).list();
                    if(teacher.size()>=1)
                    {
                              out.println("<div class=main>");
                              out.print("<br><table border=2 align=center>");
                              out.print("<tr>");
                              out.print("<th align=center width=100px>Teacher Id</th>");
                              out.print("<th align=center width=200px>First Name</th>");
                              out.print("<th align=center width=200px>Last Name</th>");
                              out.print("<th align=center width=200px>Qualification</th>");
                              out.print("<th align=center width=250px>Address</th>");
                              out.print("<th align=center width=200px>Phone_No</th>");
                              out.print("</tr>");
                              for(Teacher t:teacher)
                              {
                                        out.print("<tr>");
                                        out.print("<td align=center width=100px>"+ t.getTeacher_Id() +"</td>");
                                        out.print("<td align=center width=200px>"+ t.getFirst_Name()+"</td>");
                                        out.print("<td align=center width=200px>"+ t.getLast_Name()+"</td>");
                                        out.print("<td align=center width=200px>"+ t.getQualification()+"</td>");
                                        out.print("<td align=center width=250px>"+ t.getAddress()+"</td>");
```

```
                                        out.print("<td align=center width=200px>"+ t.getPhoneNo()+"</td>");
                                        out.print("<td align=center width=100px><a href=EditTeacher?tid="+t.getTeacher_Id()
+ ">Edit</a></td>");
                                        out.print("<td align=center width=100px><a
href=DeleteTeacher?tid="+t.getTeacher_Id() + ">Delete</a></td>");
                                        out.print("</tr>");
                                }
                                out.print("</table>");
                                out.print("<br><a href=AddTeacher>Are You want to add Teacher?</a>");
                                String error=(String) hsession.getAttribute("Error");
                                if(error!=null)
                                {
                                        out.print("<br><font style=color:red>"+ error + "</font>");
                                        hsession.setAttribute("Error",null);
                                }
                                out.print("</div>");
                                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        }
                        else
                        {
                                out.print("<br><div class=p6>");
                                out.print("<font style=color:red> No Teacher Details Found </font>
     ");
                                out.print("<a href=AddTeacher>Are You want to add Teacher?</a></div>");
                                out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        }

                        out.print("</body>");
                }

                /**
                 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
                 */
                protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                        // TODO Auto-generated method stub
                        doGet(request, response);
                }

}
```

TeacherAddServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
```

```
import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/AddTeacher")
public class TeacherAddServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherAddServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-
color:white; text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-
color:white; text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:100%;margin:auto;background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 95%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
		out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
		out.print("</style></head><body bgcolor=#7575FF><form action=AddTeacher method=post>");
		out.println("<div class=p1></div>");
```

```
            out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
            out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a
href=Logout>Logout</a></div><br/>");
            out.println("<div class=p3>");
           //
out.print("              &n
bsp");
            out.print("<a href=CourseMain>Courses</a>");

out.print("              &n
bsp");
            out.print("<a href=SubjectMain>Subjects</a>");

out.print("              &n
bsp");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("              &n
bsp");
            out.print("<a href=StudentMain>Student</a>");

out.print("              &n
bsp");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("              &n
bsp");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");
            out.println("<div class=main>");
                    out.print("<br><table border=2 align=center>");
            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from Teacher";
                    List<Teacher> teacher=session.createQuery(hql).list();

                            out.print("<tr>");
                            out.print("<th align=center width=100px>Teacher Id</th>");
                            out.print("<th align=center width=200px>First Name</th>");
                            out.print("<th align=center width=200px>Last Name</th>");
                            out.print("<th align=center width=200px>Qualification</th>");
                            out.print("<th align=center width=250px>Address</th>");
                            out.print("<th align=center width=200px>Phone_No</th>");
                            out.print("</tr>");

                            for(Teacher t:teacher)
                            {
                                    out.print("<tr>");
                                    out.print("<td align=center width=100px>"+ t.getTeacher_Id() +"</td>");
                                    out.print("<td align=center width=200px>"+ t.getFirst_Name()+"</td>");
                                    out.print("<td align=center width=200px>"+ t.getLast_Name()+"</td>");
                                    out.print("<td align=center width=200px>"+ t.getQualification()+"</td>");
                                    out.print("<td align=center width=250px>"+ t.getAddress()+"</td>");
                                    out.print("<td align=center width=200px>"+ t.getPhoneNo()+"</td>");
                                    out.print("<td align=center width=100px><a
href=EditTeacher?tid="+t.getTeacher_Id() + ">Edit</a></td>");
```

```
                                        out.print("<td align=center width=100px><a
href=DeleteTeacher?tid="+t.getTeacher_Id() + ">Delete</a></td>");
                                        out.print("</tr>");
                                }

                        out.print("<tr>");
                        int n=teacher.size()+1;
                        String tid;
                        if(n<10) { tid="T0"+n;} else { tid="T"+n;}
                        out.print("<td align=center width=100px><input type=text class=txt name=\"tid\"
style=\"height:30px; width:100px;\" value="+tid +"></td>");
                        out.print("<td align=center width=200px><input type=text class=txt name=\"fname\"
style=\"height:30px; width:200px;\"/></td>");
                        out.print("<td align=center width=200px><input type=text class=txt name=\"lname\"
style=\"height:30px; width:200px;\"/></td>");
                        out.print("<td align=center width=200px><input type=text class=txt name=\"qualification\"
style=\"height:30px; width:200px;\"/></td>");
                        out.print("<td align=center width=250px><textarea class=txt name=\"address\"
style=\"height:30px; width:250px;\"></textarea></td>");
                        out.print("<td align=center width=200px><input class=txt type=text name=\"phoneno\"
style=\"height:30px; width:200px;\"/></td>");

                        out.print("<td colspan=2 align=center><input type=submit value=Add class=b></td></tr>");
                        out.print("</table>");

                        String error=(String) hsession.getAttribute("Error");
                        if(error!=null)
                        {
                                out.print("<font style=color:red>"+ error + "</font>");
                                hsession.setAttribute("Error",null);
                        }
                        out.print("</div>");
                        out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        out.print("</form></body>");
                }

                /**
                 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
                 */
                protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
                        response.setContentType("Text/Html");
                        PrintWriter out =response.getWriter();
                        HttpSession hsession=request.getSession();
                        String tid=request.getParameter("tid");
                        String fname=request.getParameter("fname");
                        String lname=request.getParameter("lname");
                        String qualification=request.getParameter("qualification");
                        String address=request.getParameter("address");
                        String phoneno=request.getParameter("phoneno");
                        if(tid.isBlank() || fname.isEmpty() || lname.isEmpty() || qualification.isEmpty() ||
address.isEmpty() || phoneno.isEmpty())
                        {
                                hsession.setAttribute("Error", "Please Enter all Mandatory Details For Teacher");
                                response.sendRedirect("AddTeacher");
```

```
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
                        String hql="from Teacher where Teacher_Id=:Teacher_Id or (First_Name=:First_Name
and Last_Name=:Last_Name and Qualification=:Qualification and Address=:Address and PhoneNo=:PhoneNo)";
                        List<Teacher>
teacher=session.createQuery(hql).setParameter("Teacher_Id",tid).setParameter("First_Name",fname).setParam
eter("Last_Name",lname).setParameter("Qualification",qualification).setParameter("Address",address).setParam
eter("PhoneNo",phoneno).list();
                        if(teacher.size()==0)
                        {
                                Transaction tx=session.beginTransaction();
                                Teacher t=new Teacher();
                                t.setTeacher_Id(tid);
                                t.setFirst_Name(fname);
                                t.setLast_Name(lname);
                                t.setQualification(qualification);
                                t.setAddress(address);
                                t.setPhoneNo(phoneno);
                                session.save(t);
                                tx.commit();
                                session.close();
                                response.sendRedirect("TeacherMain");
                        }
                        else
                        {
                                hsession.setAttribute("Error", "Please Check Teacher Details are already exist..");
                                response.sendRedirect("AddTeacher");
                        }

                }
        }

}
```

TeacherDeleteServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
```

```
import com.entity.Course;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/DeleteTeacher")
public class TeacherDeleteServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherDeleteServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:100px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print("</style></head><body bgcolor=#7575FF>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");

//out.print("               "
);
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
```

```
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
		out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
		out.print("<a href=StudentMain>Student</a>");

out.print("               ");
		out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
		out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
		out.println("</div><br>");

		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			Transaction tx=session.beginTransaction();
			Teacher teacher=session.load(Teacher.class,request.getParameter("tid"));
			session.delete(teacher);
			tx.commit();
			session.close();
			out.print("<br><div class=p6>");
			out.print("<font style=color:red> Successfully Deleted </font> </div>");
			out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
			out.print("</body>");
		}

		/**
		 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			// TODO Auto-generated method stub
			doGet(request, response);
		}

}
```

TeacherUpdateServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
```

```
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/EditTeacher")
public class TeacherUpdateServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherUpdateServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:95%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
		out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
		out.print("</style></head><body bgcolor=#7575FF><form action=EditTeacher method=post>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");
```

```
//out.print("               "
);
            out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
            out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
            out.print("<a href=StudentMain>Student</a>");

out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");
            out.println("<div class=main>");
                    out.print("<br><table border=2 align=center>");
                    String tid=request.getParameter("tid");
            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from Teacher";
                    List<Teacher> teacher=session.createQuery(hql).list();
                    out.print("<tr>");
                    out.print("<th align=center width=100px>Teacher Id</th>");
                    out.print("<th align=center width=200px>First Name</th>");
                    out.print("<th align=center width=200px>Last Name</th>");
                    out.print("<th align=center width=200px>Qualification</th>");
                    out.print("<th align=center width=250px>Address</th>");
                    out.print("<th align=center width=200px>Phone_No</th>");
                    out.print("</tr>");
                    for(Teacher t:teacher)
                    {
                     if(t.getTeacher_Id().equalsIgnoreCase(tid))
                     {
                                out.print("<tr>");
                                out.print("<td align=center width=100px><input class=txt type=text name=\"tid\"
style=\"height:30px; width:100px;\" value=\""+tid +"\"></td>");
                                out.print("<td align=center width=200px><input class=txt type=text name=\"fname\"
style=\"height:30px; width:200px;\"value=\""+t.getFirst_Name()+"\"></td>");
                                out.print("<td align=center width=200px><input class=txt type=text name=\"lname\"
style=\"height:30px; width:200px;\"value=\""+t.getLast_Name()+"\"></td>");
                                out.print("<td align=center width=200px><input class=txt type=text name=\"qualification\"
style=\"height:30px; width:200px;\"value=\""+t.getQualification()+"\"></td>");
                                out.print("<td align=center width=250px><textarea class=txt name=\"address\"
style=\"height:30px; width:250px;\">"+ t.getAddress() +"</textarea></td>");
                                out.print("<td align=center width=200px><input class=txt type=text name=\"phoneno\"
style=\"height:30px; width:200px;\" value=\""+t.getPhoneNo()+"\" ></td>");
                               out.print("<td colspan=2 align=center><input type=submit value=Update class=b></td></tr>");
                     }
                     else
                     {
```

```
                        out.print("<tr>");
                                out.print("<td align=center width=100px>"+ t.getTeacher_Id() +"</td>");
                                out.print("<td align=center width=200px>"+ t.getFirst_Name()+"</td>");
                                out.print("<td align=center width=200px>"+ t.getLast_Name()+"</td>");
                                out.print("<td align=center width=200px>"+ t.getQualification()+"</td>");
                                out.print("<td align=center width=250px>"+ t.getAddress()+"</td>");
                                out.print("<td align=center width=200px>"+ t.getPhoneNo()+"</td>");
                                out.print("<td align=center width=100px><a href=EditTeacher?tid="+t.getTeacher_Id()
+ ">Edit</a></td>");
                                out.print("<td align=center width=100px><a
href=DeleteTeacher?tid="+t.getTeacher_Id() + ">Delete</a></td>");
                                out.print("</tr>");

                        }

                }

                out.print("</table>");

                String error=(String) hsession.getAttribute("Error");
                if(error!=null)
                {
                        out.print("<font style=color:red>"+ error + "</font>");
                        hsession.setAttribute("Error", null);
                }
                out.print("</div>");
                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</form></body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String tid=request.getParameter("tid");
                String fname=request.getParameter("fname");
                String lname=request.getParameter("lname");
                String qualification=request.getParameter("qualification");
                String address=request.getParameter("address");
                String phoneno=request.getParameter("phoneno");
                if(tid.isBlank() || fname.isEmpty() || lname.isEmpty() || qualification.isEmpty() || address.isEmpty() ||
phoneno.isEmpty())
                {
                        hsession.setAttribute("Error", "Please Enter all Mandatory Details For Teacher");
                        response.sendRedirect("EditTeacher");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
```

```
                    String hql="from Teacher where (First_Name=:First_Name and Last_Name=:Last_Name and
Qualification=:Qualification and Address=:Address and PhoneNo=:PhoneNo)";
                    List<Teacher>
teacher=session.createQuery(hql).setParameter("First_Name",fname).setParameter("Last_Name",lname).setParamete
r("Qualification",qualification).setParameter("Address",address).setParameter("PhoneNo",phoneno).list();
                    if(teacher.size()==0)
                    {
                        Transaction tx=session.beginTransaction();
                        Teacher t=new Teacher();
                        t.setTeacher_Id(tid);
                        t.setFirst_Name(fname);
                        t.setLast_Name(lname);
                        t.setQualification(qualification);
                        t.setAddress(address);
                        t.setPhoneNo(phoneno);
                        session.update(t);
                        tx.commit();
                        session.close();
                        response.sendRedirect("TeacherMain");
                    }
                    else
                    {
                        hsession.setAttribute("Error", "Please Check Teacher Details are already exist..");
                        response.sendRedirect("EditTeacher");
                    }

                }
            }

}
```

StudentDetailServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Course;
import com.entity.Student;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
```

```
@WebServlet("/StudentMain")
public class StudentDetailServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public StudentDetailServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:95%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print("</style></head><body bgcolor=#7575FF>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");

//out.print("               "
);
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
		out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
		out.print("<a href=StudentMain>Student</a>");
```

```
out.print("               ");
		out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
		out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
		out.println("</div><br>");

		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Student";
			List<Student> student=session.createQuery(hql).list();
			if(student.size()>=1)
			{
				out.println("<div class=main>");
				out.print("<br><table border=2 align=center>");
				out.print("<tr>");
				out.print("<th align=center width=100px>Student Id</th>");
				out.print("<th align=center width=200px>First Name</th>");
				out.print("<th align=center width=200px>Last Name</th>");
				out.print("<th align=center width=200px>Education</th>");
				out.print("<th align=center width=250px>Address</th>");
				out.print("<th align=center width=200px>Phone_No</th>");
				out.print("</tr>");
				for(Student s:student)
				{
					out.print("<tr>");
					out.print("<td align=center width=100px>"+ s.getStudent_Id() +"</td>");
					out.print("<td align=center width=200px>"+ s.getFirst_Name()+"</td>");
					out.print("<td align=center width=200px>"+ s.getLast_Name()+"</td>");
					out.print("<td align=center width=200px>"+ s.getEducation()+"</td>");
					out.print("<td align=center width=250px>"+ s.getAddress()+"</td>");
					out.print("<td align=center width=200px>"+ s.getPhoneNo()+"</td>");
					out.print("<td align=center width=100px><a href=EditStudent?sid="+s.getStudent_Id()
+ ">Edit</a></td>");
					out.print("<td align=center width=100px><a
href=DeleteStudent?sid="+s.getStudent_Id() + ">Delete</a></td>");
					out.print("</tr>");
				}
				out.print("</table>");
				out.print("<br><a href=AddStudent>Are You want to add Student?</a>");
				String error=(String) hsession.getAttribute("Error");
				if(error!=null)
				{
					out.print("<br><font style=color:red>"+ error + "</font>");
					hsession.setAttribute("Error",null);
				}
				out.print("</div>");
				out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
			}
			else
			{
				out.print("<br><div class=p6>");
				out.print("<font style=color:red> No Student Details Found </font>
     ");
```

```
                    out.print("<a href=AddStudent>Are You want to add Student?</a></div>");

                                                                                                                                                                                                                                                                                                                                                out.print("<
div class=p7><marquee><b>Project By: Pai Najranabanu Yakub (M.C.A)</b></marquee></div>");
                    }

                    out.print("</body>");
          }

          /**
           * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
           */
          protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                    // TODO Auto-generated method stub
                    doGet(request, response);
          }

}
```

StudentAddServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Student;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/AddStudent")
public class StudentAddServlet extends HttpServlet {
          private static final long serialVersionUID = 1L;

   /**
    * @see HttpServlet#HttpServlet()
    */
   public StudentAddServlet() {
      super();
```

```
    // TODO Auto-generated constructor stub
  }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String name=(String) hsession.getAttribute("AdminName");

                out.print("<html><head><title>Learning Academy</title>");
                out.print("<style>.p1 {height:10px;   width:100%;}");
                out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.println(".main {height:400px;   width:100%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
        out.print(".p6{height: 30px;   width: 95%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
        out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
        out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
        out.print("</style></head><body bgcolor=#7575FF><form action=AddStudent method=post>");
        out.println("<div class=p1></div>");
        out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
        out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
        out.println("<div class=p3>");

//out.print("               "
);
        out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
        out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
        out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
        out.print("<a href=StudentMain>Student</a>");

out.print("               ");
        out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
        out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
```

```
		out.println("</div><br>");
		out.println("<div class=main>");
			out.print("<br><table border=2 align=center>");
			out.print("<tr>");
			out.print("<th align=center width=100px>Student Id</th>");
			out.print("<th align=center width=200px>First Name</th>");
			out.print("<th align=center width=200px>Last Name</th>");
			out.print("<th align=center width=200px>Education</th>");
			out.print("<th align=center width=250px>Address</th>");
			out.print("<th align=center width=200px>Phone_No</th>");
			out.print("</tr>");
		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Student";
			List<Student> student=session.createQuery(hql).list();
			for(Student s:student)
			{
				out.print("<tr>");
				out.print("<td align=center width=100px>"+ s.getStudent_Id() +"</td>");
				out.print("<td align=center width=200px>"+ s.getFirst_Name()+"</td>");
				out.print("<td align=center width=200px>"+ s.getLast_Name()+"</td>");
				out.print("<td align=center width=200px>"+ s.getEducation()+"</td>");
				out.print("<td align=center width=250px>"+ s.getAddress()+"</td>");
				out.print("<td align=center width=200px>"+ s.getPhoneNo()+"</td>");
				out.print("<td align=center width=100px><a href=EditStudent?sid="+s.getStudent_Id() +
">Edit</a></td>");
				out.print("<td align=center width=100px><a href=DeleteStudent?sid="+s.getStudent_Id() +
">Delete</a></td>");
				out.print("</tr>");
			}
			out.print("<tr>");
			int n=student.size()+1;
			String Studid;
			if(n<10) { Studid="Stud0"+n;} else { Studid="Stud"+n;}
			out.print("<td align=center width=100px><input type=text class=txt name=\"stid\"
style=\"height:30px; width:100px;\" value="+Studid+"></td>");
			out.print("<td align=center width=200px><input type=text class=txt name=\"sfname\"
style=\"height:30px; width:200px;\"/></td>");
			out.print("<td align=center width=200px><input type=text class=txt name=\"slname\"
style=\"height:30px; width:200px;\"/></td>");
			out.print("<td align=center width=200px><input type=text class=txt name=\"seducation\"
style=\"height:30px; width:200px;\"/></td>");
			out.print("<td align=center width=250px><textarea class=txt name=\"saddress\" style=\"height:30px;
width:250px;\"></textarea></td>");
			out.print("<td align=center width=200px><input class=txt type=text name=\"sphoneno\"
style=\"height:30px; width:200px;\"/></td>");

			out.print("<td colspan=2 align=center><input type=submit value=Add class=b></td></tr>");
			out.print("</table>");

			String error=(String) hsession.getAttribute("Error");
			if(error!=null)
			{
				out.print("<font style=color:red>"+ error + "</font>");
				hsession.setAttribute("Error",null);
			}
```

```
		out.print("</div>");
		out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
		out.print("</form></body>");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String sid=request.getParameter("stid");
		String fname=request.getParameter("sfname");
		String lname=request.getParameter("slname");
		String education=request.getParameter("seducation");
		String address=request.getParameter("saddress");
		String phoneno=request.getParameter("sphoneno");
		if(sid.isBlank() || fname.isEmpty() || lname.isEmpty() || education.isEmpty() || address.isEmpty() ||
phoneno.isEmpty())
		{
			hsession.setAttribute("Error", "Please Enter all Mandatory Details For Student");
			response.sendRedirect("AddStudent");
		}
		else
		{
			SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from Student where Student_Id=:Student_Id or (First_Name=:First_Name and
Last_Name=:Last_Name and Education=:Education and Address=:Address and PhoneNo=:PhoneNo)";
			List<Student>
student=session.createQuery(hql).setParameter("Student_Id",sid).setParameter("First_Name",fname).setParameter("L
ast_Name",lname).setParameter("Education",education).setParameter("Address",address).setParameter("PhoneNo",p
honeno).list();
			if(student.size()==0)
			{
				Transaction tx=session.beginTransaction();
				Student s=new Student();
				s.setStudent_Id(sid);
				s.setFirst_Name(fname);
				s.setLast_Name(lname);
				s.setEducation(education);
				s.setAddress(address);
				s.setPhoneNo(phoneno);
				session.save(s);
				tx.commit();
				session.close();
				response.sendRedirect("StudentMain");
			}
			else
			{
				hsession.setAttribute("Error", "Please Check Teacher Details are already exist..");
				response.sendRedirect("AddStudent");
			}
```

```
                }
        }

}
```

StudentDeleteServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Student;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/DeleteStudent")
public class StudentDeleteServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public StudentDeleteServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String name=(String) hsession.getAttribute("AdminName");
```

```
                out.print("<html><head><title>Learning Academy</title>");
                out.print("<style>.p1 {height:10px;   width:100%;}");
                out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:100px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
            out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
            out.print("</style></head><body bgcolor=#7575FF>");
            out.println("<div class=p1></div>");
            out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
            out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
            out.println("<div class=p3>");

//out.print("               "
);
            out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
            out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
            out.print("<a href=StudentMain>Student</a>");

out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");

            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                Session session = sessionFactory.openSession();
                Transaction tx=session.beginTransaction();
                Student student=session.load(Student.class,request.getParameter("sid"));
                session.delete(student);

                String hql="Delete From StudentCourse Where Student_Id=:Student_Id";
                Query q=session.createQuery(hql).setParameter("Student_Id", request.getParameter("sid"));
                int n=q.executeUpdate();

                tx.commit();
                session.close();
                out.print("<br><div class=p6>");
                out.print("<font style=color:red> Successfully Deleted </font> </div>");
```

```
                out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                // TODO Auto-generated method stub
                doGet(request, response);
        }

}
```

StudentUpdateServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Student;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/EditStudent")
public class StudentUpdateServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public StudentUpdateServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
```

```
	*/
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
		response.setContentType("Text/Html");
		PrintWriter out =response.getWriter();
		HttpSession hsession=request.getSession();
		String name=(String) hsession.getAttribute("AdminName");

		out.print("<html><head><title>Learning Academy</title>");
		out.print("<style>.p1 {height:10px;   width:100%;}");
		out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-family:cursive; font-size:170%;}");
		out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-family:cursive; font-size:120%;}");
		out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-align:Center; font-family:cursive; font-size:120%;}");
		out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white; text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
		out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white; text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
		out.println(".main {height:400px;   width:95%;margin:auto;background-color:white;text-align:Center; font-family:cursive; font-size:120%;}");
	out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-family:cursive; font-size:120%;}");
	out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-family:cursive; }");
	out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
	out.print("</style></head><body bgcolor=#7575FF><form action=EditStudent method=post>");
	out.println("<div class=p1></div>");
	out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
	out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
	out.println("<div class=p3>");

//out.print("               ");
	out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
	out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
	out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
	out.print("<a href=StudentMain>Student</a>");

out.print("               ");
	out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
	out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
	out.println("</div><br>");
	out.println("<div class=main>");
		out.print("<br><table border=2 align=center>");
		String sid=request.getParameter("sid");
	SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
```

```
Session session = sessionFactory.openSession();
String hql="from Student";
List<Student> student=session.createQuery(hql).list();
out.print("<tr>");
out.print("<th align=center width=100px>Student Id</th>");
out.print("<th align=center width=200px>First Name</th>");
out.print("<th align=center width=200px>Last Name</th>");
out.print("<th align=center width=200px>Education</th>");
out.print("<th align=center width=250px>Address</th>");
out.print("<th align=center width=200px>Phone_No</th>");
out.print("</tr>");
for(Student s:student)
{
 if(s.getStudent_Id().equals(sid))
 {
  out.print("<tr>");
  out.print("<td align=center width=100px><input type=text class=txt name=\"stid\"
style=\"height:30px; width:100px;\" value=\""+s.getStudent_Id()+"\"></td>");
        out.print("<td align=center width=200px><input type=text class=txt name=\"sfname\"
style=\"height:30px; width:200px;\" value=\""+s.getFirst_Name()+"\"></td>");
        out.print("<td align=center width=200px><input type=text class=txt name=\"slname\"
style=\"height:30px; width:200px;\" value=\""+s.getLast_Name()+"\"></td>");
        out.print("<td align=center width=200px><input type=text class=txt name=\"seducation\"
style=\"height:30px; width:200px;\" value=\""+s.getEducation()+"\"></td>");
        out.print("<td align=center width=250px><textarea class=txt name=\"saddress\"
style=\"height:30px; width:250px;\">"+s.getAddress()+"</textarea></td>");
        out.print("<td align=center width=200px><input class=txt type=text name=\"sphoneno\"
style=\"height:30px; width:200px;\"value=\""+s.getPhoneNo()+"\"></td>");

        out.print("<td colspan=2 align=center><input type=submit value=Update class=b></td></tr>");
 }
 else
 {
        out.print("<tr>");
            out.print("<td align=center width=100px>"+ s.getStudent_Id() +"</td>");
            out.print("<td align=center width=200px>"+ s.getFirst_Name()+"</td>");
            out.print("<td align=center width=200px>"+ s.getLast_Name()+"</td>");
            out.print("<td align=center width=200px>"+ s.getEducation()+"</td>");
            out.print("<td align=center width=250px>"+ s.getAddress()+"</td>");
            out.print("<td align=center width=200px>"+ s.getPhoneNo()+"</td>");
            out.print("<td align=center width=100px><a href=EditStudent?sid="+s.getStudent_Id()
+ ">Edit</a></td>");
            out.print("<td align=center width=100px><a
href=DeleteStudent?sid="+s.getStudent_Id() + ">Delete</a></td>");
            out.print("</tr>");
 }

}

out.print("</table>");

String error=(String) hsession.getAttribute("Error");
if(error!=null)
{
        out.print("<font style=color:red>"+ error + "</font>");
        hsession.setAttribute("Error", null);
```

```
                }
                out.print("</div>");
                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</form></body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String sid=request.getParameter("stid");
                String fname=request.getParameter("sfname");
                String lname=request.getParameter("slname");
                String education=request.getParameter("seducation");
                String address=request.getParameter("saddress");
                String phoneno=request.getParameter("sphoneno");
                if(sid.isBlank() || fname.isEmpty() || lname.isEmpty() || education.isEmpty() || address.isEmpty() ||
phoneno.isEmpty())
                {
                        hsession.setAttribute("Error", "Please Enter all Mandatory Details For Student");
                        response.sendRedirect("EditStudent");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
                        String hql="from Student where (First_Name=:First_Name and Last_Name=:Last_Name and
Education=:Education and Address=:Address and PhoneNo=:PhoneNo)";
                        List<Student>
student=session.createQuery(hql).setParameter("First_Name",fname).setParameter("Last_Name",lname).setParamete
r("Education",education).setParameter("Address",address).setParameter("PhoneNo",phoneno).list();
                        if(student.size()==0)
                        {
                                Transaction tx=session.beginTransaction();
                                Student s=new Student();
                                s.setStudent_Id(sid);
                                s.setFirst_Name(fname);
                                s.setLast_Name(lname);
                                s.setEducation(education);
                                s.setAddress(address);
                                s.setPhoneNo(phoneno);
                                session.update(s);
                                tx.commit();
                                session.close();
                                response.sendRedirect("StudentMain");
                        }
                        else
                        {
                                hsession.setAttribute("Error", "Please Check Teacher Details are already exist..");
                                response.sendRedirect("EditStudent");
                        }
```

```
                }
        }
}
```

StudentCourseServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Course;
import com.entity.Student;
import com.entity.StudentCourse;
import com.entity.Subject;
import com.entity.Teacher;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/StudentCourseMain")
public class StudentCourseServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public StudentCourseServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String name=(String) hsession.getAttribute("AdminName");

                out.print("<html><head><title>Learning Academy</title>");
                out.print("<style>.p1 {height:10px;   width:100%;}");
```

```
                    out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                    out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                    out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                    out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
          out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
          out.print("</style></head><body bgcolor=#7575FF>");
          out.println("<div class=p1></div>");
          out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
          out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
          out.println("<div class=p3>");

//out.print("               "
);
          out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
          out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
          out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
          out.print("<a href=StudentMain>Student</a>");

out.print("               ");
          out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
          out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
          out.println("</div><br>");

          SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from StudentCourse";
                    List<StudentCourse> studentcourse=session.createQuery(hql).list();
                    if(studentcourse.size()>=1)
                    {
                              out.println("<div class=main>");
                              out.print("<br><table border=2 align=center>");
                              out.print("<tr>");
                              out.print("<th align=center width=100px>No</th>");
                              out.print("<th align=center width=250px>Student Name</th>");
                              out.print("<th align=center width=250px>Course Name</th>");

                              out.print("</tr>");
                              for(StudentCourse sc:studentcourse)
                              {
```

```
                                        out.print("<tr>");
                                        out.print("<td align=center>"+ sc.getSrno() +"</td>");
                                        hql="From Student where Student_Id=:Student_Id";
                                        List<Student>
student=session.createQuery(hql).setParameter("Student_Id",sc.getStudent_Id()).list();
                                        for(Student s:student)
                                        {
                                                out.print("<td align=center>"+ s.getFirst_Name() + "  " +s.getLast_Name()
+"</td>");
                                        }
                                        hql="From Course Where Course_Id=:Course_Id";
                                        List<Course> cname=session.createQuery(hql).setParameter("Course_Id",
sc.getCourse_Id()).list();
                                        for(Course c: cname)
                                        {
                                                out.print("<td align=center>"+ c.getCourse_Name()  +"</td>");
                                        }

                                        out.print("<td align=center width=100px><a href=EditStudentAssignment?scid="+
sc.getSrno()+ ">Edit</a></td>");
                                        out.print("<td align=center width=100px><a
href=DeleteStudentAssignment?scid="+sc.getSrno() + ">Delete</a></td>");
                                        out.print("</tr>");
                                }
                                out.print("</table>");
                                out.print("<br><a href=AddStudentAssignment>Are You want to Assign Subject to
teacher?</a>");
                                String error=(String) hsession.getAttribute("Error");
                                if(error!=null)
                                {
                                        out.print("<br><font style=color:red>"+ error + "</font>");
                                        hsession.setAttribute("Error",null);
                                }
                                out.print("</div>");
                                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        }
                        else
                        {
                                out.print("<br><div class=p6>");
                                out.print("<font style=color:red> Nothing Assign to Student</font>
     ");
                                out.print("<a href=AddStudentAssignment>Are You want to Assign Subject to
teacher?</a></div>");
                                out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        }

                        out.print("</body>");
                }

                /**
                 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
                 */
                protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
```

```
                // TODO Auto-generated method stub
                doGet(request, response);
        }

}
```

StudentCourseAddServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Student;
import com.entity.StudentCourse;
import com.entity.Subject;
import com.entity.Teacher;
import com.entity.TeacherSubject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/EditStudentAssignment")
public class StudentCourseAddServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public StudentCourseAddServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

        /**
         * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                String name=(String) hsession.getAttribute("AdminName");
```

```
                    out.print("<html><head><title>Learning Academy</title>");
                    out.print("<style>.p1 {height:10px;   width:100%;}");
                    out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                    out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                    out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                    out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:80%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
          out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
          out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
          out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
          out.print("</style></head><body bgcolor=#7575FF><form action=AddStudentAssignment method=post>");
          out.println("<div class=p1></div>");
          out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
          out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
          out.println("<div class=p3>");
          out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
          out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
          out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
          out.print("<a href=StudentMain>Student</a>");

out.print("               ");
          out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
          out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
          out.println("</div><br>");
          out.println("<div class=main>");
                    out.print("<br><table border=2 align=center>");

                    SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();

                    String hql="from StudentCourse";
                    List<StudentCourse> studentcourse=session.createQuery(hql).list();
                    int scid=Integer.parseInt(request.getParameter("scid"));
                    out.print("<tr>");
                    out.print("<th align=center width=100px>No</th>");
                    out.print("<th align=center width=250px>Student Name</th>");
                    out.print("<th align=center width=250px>Course Name</th>");
                    out.print("</tr>");
```

```
                    for(StudentCourse sc:studentcourse)
                    {
                     if(sc.getSrno()==scid)
                     {
                      out.print("<tr>");
                      out.print("<td align=center><input class=txt type=text name=\"srno\" style=\"height:30px;
width:150px;\" value="+scid+"></td>");
                      out.print("<td align=center width=250px><select class=txt name=\"sname\"style=\"height:30px;
width:250px;\"><option> Select Student </option>");
                      hql="From Student";
              List<Student> student=session.createQuery(hql).list();
                      for(Student s:student)
                      {
                              out.print("<option>" + s.getFirst_Name() + " " +s.getLast_Name() + "</option>");
                     }
                      out.print("</select></td><td align=center width=250px><select class=txt
name=\"cname\"style=\"height:30px; width:250px;\"><option> Select Course </option>");
                      hql="From Course";
                      List<Course> cname=session.createQuery(hql).list();
                      for(Course c: cname)
                       {
                        out.print("<option>"+ c.getCourse_Name()  +"</option>");
                      }
                      out.print("</select></td>");
                      out.print("<td colspan=2 align=center><input type=submit value=Update class=b></td>");
                      out.print("</tr>");
                     }
                    else
                    {
                              out.print("<tr>");
                              out.print("<td align=center>"+ sc.getSrno() +"</td>");
                              hql="From Student where Student_Id=:Student_Id";
                              List<Student>
student=session.createQuery(hql).setParameter("Student_Id",sc.getStudent_Id()).list();
                              for(Student s:student)
                              {
                                      out.print("<td align=center>"+ s.getFirst_Name() + "  " +s.getLast_Name() +"</td>");
                              }
                              hql="From Course Where Course_Id=:Course_Id";
                              List<Course> cname=session.createQuery(hql).setParameter("Course_Id",
sc.getCourse_Id()).list();
                              for(Course c: cname)
                              {
                                      out.print("<td align=center>"+ c.getCourse_Name()  +"</td>");
                              }

                              out.print("<td align=center width=100px><a href=EditStudentAssignment?scid="+
sc.getSrno()+ ">Edit</a></td>");
                              out.print("<td align=center width=100px><a
href=DeleteStudentAssignment?scid="+sc.getSrno() + ">Delete</a></td>");
                              out.print("</tr>");
                    }
                    }


                    out.print("</table>");
```

```
                String error=(String) hsession.getAttribute("Error");
                if(error!=null)
                {
                        out.print("<font style=color:red>"+ error + "</font>");
                        hsession.setAttribute("Error",null);
                }
                out.print("</div>");
                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</form></body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                int srno=Integer.parseInt(request.getParameter("srno"));
                String sname=request.getParameter("sname");
                String cname=request.getParameter("cname");

                String cid=null,sid=null;
                if(cname.isEmpty() ||sname.isEmpty() )
                {
                        hsession.setAttribute("Error", "Please Select Mandatory details");
                        response.sendRedirect("AddStudentAssignment");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
                        String[] name=sname.split("\\s",2);
                        String fname=name[0];
                        String lname=name[1];
                        String hql="From Student Where First_Name=:First_Name and Last_Name=:Last_Name";
                        List<Student> student=session.createQuery(hql).setParameter("First_Name",
fname).setParameter("Last_Name",lname).list();
                        for(Student s:student)
                        {
                                sid=s.getStudent_Id();
                        }

                        hql="From Course Where Course_Name=:Course_Name";
                        List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
                        for(Course c: course)
                        {
                         cid=c.getCourse_Id();
                        }

                         hql="from StudentCourse where Student_Id=:Student_Id and Course_Id=:Course_Id";
                        List<StudentCourse>
studentcourse=session.createQuery(hql).setParameter("Student_Id",sid).setParameter("Course_Id",cid).list();
```

```
                        if(studentcourse.size()==0)
                        {
                                Transaction tx=session.beginTransaction();
                                StudentCourse sc=new StudentCourse();
                                sc.setSrno(srno);
                                sc.setStudent_Id(sid);;
                                sc.setCourse_Id(cid);
                                session.update(sc);
                                tx.commit();
                                session.close();
                                response.sendRedirect("StudentCourseMain");
                        }
                        else
                        {
                                hsession.setAttribute("Error", "Student have already assign same course please
check");
                                response.sendRedirect("AddStudentAssignment");
                        }


                }
        }

}
```

StudentCourseDeleteServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.StudentCourse;
import com.entity.Teacher;
import com.entity.TeacherSubject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/DeleteStudentAssignment")
public class StudentCourseDeleteServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;
```

```
  /**
   * @see HttpServlet#HttpServlet()
   */
  public StudentCourseDeleteServlet() {
     super();
     // TODO Auto-generated constructor stub
  }

         /**
          * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
          */
         protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                  response.setContentType("Text/Html");
                  PrintWriter out =response.getWriter();
                  HttpSession hsession=request.getSession();
                  String name=(String) hsession.getAttribute("AdminName");

                  out.print("<html><head><title>Learning Academy</title>");
                  out.print("<style>.p1 {height:10px;   width:100%;}");
                  out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
                  out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
                  out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
                  out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:100px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                  out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                  out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
         out.print(".p6{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
         out.print("</style></head><body bgcolor=#7575FF>");
         out.println("<div class=p1></div>");
         out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
         out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
         out.println("<div class=p3>");

//out.print("               "
);
         out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
         out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
         out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
         out.print("<a href=StudentMain>Student</a>");

out.print("               ");
         out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");
```

```
out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");

            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                Session session = sessionFactory.openSession();
                Transaction tx=session.beginTransaction();
                int scid=Integer.parseInt(request.getParameter("scid"));
                StudentCourse studencourse=session.load(StudentCourse.class, scid);
                session.delete(studencourse);
                tx.commit();
                session.close();
                out.print("<br><div class=p6>");
                out.print("<font style=color:red> Successfully Deleted </font> </div>");
                out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                // TODO Auto-generated method stub
                doGet(request, response);
        }

}
```

StudentCourseUpdateServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Student;
import com.entity.StudentCourse;
import com.entity.Subject;
import com.entity.Teacher;
import com.entity.TeacherSubject;
import com.hibernate.util.HibernateUtil;
```

```
/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/AddStudentAssignment")
public class StudentCourseUpdateServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public StudentCourseUpdateServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:80%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
		out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
		out.print("</style></head><body bgcolor=#7575FF><form action=AddStudentAssignment method=post>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
		out.print("<a href=TeacherMain>Teachers</a>");
```

```
out.print("               ");
		out.print("<a href=StudentMain>Student</a>");

out.print("               ");
		out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
		out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
		out.println("</div><br>");
		out.println("<div class=main>");
			out.print("<br><table border=2 align=center>");

			SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();

			String hql="from StudentCourse";
			List<StudentCourse> studentcourse=session.createQuery(hql).list();

			out.print("<tr>");
			out.print("<th align=center width=100px>No</th>");
			out.print("<th align=center width=250px>Student Name</th>");
			out.print("<th align=center width=250px>Course Name</th>");
			out.print("</tr>");
			for(StudentCourse sc:studentcourse)
			{
				out.print("<tr>");
				out.print("<td align=center>"+ sc.getSrno() +"</td>");
				hql="From Student where Student_Id=:Student_Id";
				List<Student>
student=session.createQuery(hql).setParameter("Student_Id",sc.getStudent_Id()).list();
				for(Student s:student)
				{
					out.print("<td align=center>"+ s.getFirst_Name() + "  " +s.getLast_Name() +"</td>");
				}
				hql="From Course Where Course_Id=:Course_Id";
				List<Course> cname=session.createQuery(hql).setParameter("Course_Id",
sc.getCourse_Id()).list();
				for(Course c: cname)
				{
					out.print("<td align=center>"+ c.getCourse_Name()  +"</td>");
				}

				out.print("<td align=center width=100px><a href=EditStudentAssignment?scid="+
sc.getSrno()+ ">Edit</a></td>");
				out.print("<td align=center width=100px><a
href=DeleteStudentAssignment?scid="+sc.getSrno() + ">Delete</a></td>");
				out.print("</tr>");
			}

			out.print("<tr>");
			out.print("<td align=center><input class=txt type=text name=\"srno\" style=\"height:30px;
width:150px;\" value="+studentcourse.size()+1+"></td>");
			out.print("<td align=center width=250px><select class=txt name=\"sname\"style=\"height:30px;
width:250px;\"><option> Select Student </option>");
			hql="From Student";
```

```
List<Student> student=session.createQuery(hql).list();
for(Student s:student)
{
	out.print("<option>" + s.getFirst_Name() + " " +s.getLast_Name() + "</option>");
}
out.print("</select></td><td align=center width=250px><select class=txt
name=\"cname\"style=\"height:30px; width:250px;\"><option> Select Course </option>");
hql="From Course";
List<Course> cname=session.createQuery(hql).list();
for(Course c: cname)
{
	out.print("<option>"+ c.getCourse_Name()  +"</option>");
}

out.print("</select></td>");
out.print("<td colspan=2 align=center><input type=submit value=Assign class=b></td>");
out.print("</tr>");
out.print("</table>");

String error=(String) hsession.getAttribute("Error");
if(error!=null)
{
	out.print("<font style=color:red>"+ error + "</font>");
	hsession.setAttribute("Error",null);
}
out.print("</div>");
out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
out.print("</form></body>");
}

/**
 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
 */
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
	response.setContentType("Text/Html");
	PrintWriter out =response.getWriter();
	HttpSession hsession=request.getSession();
	int srno=Integer.parseInt(request.getParameter("srno"));
	String sname=request.getParameter("sname");
	String cname=request.getParameter("cname");

	String cid=null,sid=null;
	if(cname.isEmpty() ||sname.isEmpty() )
	{
		hsession.setAttribute("Error", "Please Select Mandatory details");
		response.sendRedirect("AddStudentAssignment");
	}
	else
	{
		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
		Session session = sessionFactory.openSession();
		String[] name=sname.split("\\s",2);
		String fname=name[0];
```

```
                                String lname=name[1];
                                String hql="From Student Where First_Name=:First_Name and Last_Name=:Last_Name";
                                List<Student> student=session.createQuery(hql).setParameter("First_Name",
fname).setParameter("Last_Name",lname).list();
                                for(Student s:student)
                                {
                                        sid=s.getStudent_Id();
                                }

                                hql="From Course Where Course_Name=:Course_Name";
                                List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
                                for(Course c: course)
                                {
                                 cid=c.getCourse_Id();
                                }

                                 hql="from StudentCourse where Sr_No=:Sr_No or Student_Id=:Student_Id and
Course_Id=:Course_Id";
                                List<StudentCourse>
studentcourse=session.createQuery(hql).setParameter("Sr_No",srno).setParameter("Student_Id",sid).setParameter("C
ourse_Id",cid).list();
                                if(studentcourse.size()==0)
                                {
                                        Transaction tx=session.beginTransaction();
                                        StudentCourse sc=new StudentCourse();
                                        sc.setSrno(srno);
                                        sc.setStudent_Id(sid);;
                                        sc.setCourse_Id(cid);
                                        session.save(sc);
                                        tx.commit();
                                        session.close();
                                        response.sendRedirect("StudentCourseMain");
                                }
                                else
                                {
                                        hsession.setAttribute("Error", "Student have already assign same course please
check");
                                        response.sendRedirect("AddStudentAssignment");
                                }


                        }
                }

}
```

TeacherSubjectAssignmetServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
```

```
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

import com.entity.Course;
import com.entity.Subject;
import com.entity.Teacher;
import com.entity.TeacherSubject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/TeacherSubjectMain")
public class TeacherSubjectAssignmetServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherSubjectAssignmetServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:80%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print("</style></head><body bgcolor=#7575FF>");
		out.println("<div class=p1></div>");
```

```
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");

//out.print("               "
);
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
		out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
		out.print("<a href=StudentMain>Student</a>");

out.print("               ");
		out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
		out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
		out.println("</div><br>");

		SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
			Session session = sessionFactory.openSession();
			String hql="from TeacherSubject";
			List<TeacherSubject> ts=session.createQuery(hql).list();
			if(ts.size()>=1)
			{
				out.println("<div class=main>");
				out.print("<br><table border=2 align=center>");
				out.print("<tr>");
				out.print("<th align=center width=100px>No</th>");
				out.print("<th align=center width=250px>Teacher Name</th>");
				out.print("<th align=center width=250px>Course Name</th>");
				out.print("<th align=center width=250px>Subject Name</th>");
				out.print("</tr>");
				for(TeacherSubject t:ts)
				{
					out.print("<tr>");
					out.print("<td align=center>"+ t.getSrno() +"</td>");
					hql="From Teacher where Teacher_Id=:Teacher_Id";
					List<Teacher>
tname=session.createQuery(hql).setParameter("Teacher_Id",t.getTeacher_Id()).list();
					for(Teacher t2:tname)
					{
						out.print("<td align=center>"+ t2.getFirst_Name() + "  " +t2.getLast_Name()
+"</td>");
					}
					hql="From Course Where Course_Id=:Course_Id";
					List<Course> cname=session.createQuery(hql).setParameter("Course_Id",
t.getCourse_Id()).list();
					for(Course c: cname)
					{
						out.print("<td align=center>"+ c.getCourse_Name()  +"</td>");
```

```
                                        }
                                        hql="From Subject Where Subject_Id=:Subject_Id";
                                        List<Subject>
subject=session.createQuery(hql).setParameter("Subject_Id",t.getSubject_Id()).list();
                                        for(Subject s: subject)
                                        {
                                                out.print("<td align=center>"+ s.getSubject_Name()  +"</td>");
                                        }
                                        out.print("<td align=center width=100px><a href=EditTeacherSubject?tsid="+
t.getSrno()+ ">Edit</a></td>");
                                        out.print("<td align=center width=100px><a
href=DeleteTeacherSubject?tsid="+t.getSrno() + ">Delete</a></td>");
                                        out.print("</tr>");
                                }
                                out.print("</table>");
                                out.print("<br><a href=AssignTeacherSubject>Are You want to Assign Subject to
teacher?</a>");
                                String error=(String) hsession.getAttribute("Error");
                                if(error!=null)
                                {
                                        out.print("<br><font style=color:red>"+ error + "</font>");
                                        hsession.setAttribute("Error",null);
                                }
                                out.print("</div>");
                                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        }
                        else
                        {
                                out.print("<br><div class=p6>");
                                out.print("<font style=color:red> No Subject Assign to teacher Details Found </font>
     ");
                                out.print("<a href=AssignTeacherSubject>Are You want to Assign Subject to
teacher?</a></div>");
                                out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                        }

                        out.print("</body>");
                }

                /**
                 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
                 */
                protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                        // TODO Auto-generated method stub
                        doGet(request, response);
                }

}
```

TeacherSubjectAddServlet

```
package com.servlets;

import java.io.IOException;
```

```
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Subject;
import com.entity.Teacher;
import com.entity.TeacherSubject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/AssignTeacherSubject")
public class TeacherSubjectAddServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherSubjectAddServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
```

```
                    out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
                    out.println(".main {height:400px;   width:80%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
          out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
          out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
          out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
          out.print("</style></head><body bgcolor=#7575FF><form action=AssignTeacherSubject method=post>");
          out.println("<div class=p1></div>");
          out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
          out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
          out.println("<div class=p3>");
          out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
          out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
          out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
          out.print("<a href=StudentMain>Student</a>");

out.print("               ");
          out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
          out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
          out.println("</div><br>");
          out.println("<div class=main>");
                    out.print("<br><table border=2 align=center>");
                    SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from TeacherSubject";
                    List<TeacherSubject> teachersubject=session.createQuery(hql).list();


                    out.print("<tr>");
                    out.print("<th align=center width=100px>No</th>");
                    out.print("<th align=center width=250px>Teacher Name</th>");
                    out.print("<th align=center width=250px>Course Name</th>");
                    out.print("<th align=center width=250px>Subject Name</th>");
                    out.print("</tr>");
                    for(TeacherSubject ts:teachersubject)
                    {
                              out.print("<tr>");
                              out.print("<td align=center>"+ ts.getSrno() +"</td>");
                              hql="From Teacher where Teacher_Id=:Teacher_Id";
                              List<Teacher>
tname=session.createQuery(hql).setParameter("Teacher_Id",ts.getTeacher_Id()).list();
                              for(Teacher t2:tname)
                              {
                                        out.print("<td align=center>"+ t2.getFirst_Name() + "  " +t2.getLast_Name() +"</td>");
                              }
```

```
                                hql="From Course Where Course_Id=:Course_Id";
                                List<Course> cname=session.createQuery(hql).setParameter("Course_Id",
ts.getCourse_Id()).list();
                                for(Course c: cname)
                                {
                                        out.print("<td align=center>"+ c.getCourse_Name()  +"</td>");
                                }
                                hql="From Subject Where Subject_Id=:Subject_Id";
                                List<Subject>
subject=session.createQuery(hql).setParameter("Subject_Id",ts.getSubject_Id()).list();
                                for(Subject s: subject)
                                {
                                        out.print("<td align=center>"+ s.getSubject_Name()  +"</td>");
                                }
                                out.print("<td align=center width=100px><a href=EditTeacherSubject?tsid="+ ts.getSrno()+
">Edit</a></td>");
                                out.print("<td align=center width=100px><a href=DeleteTeacherSubject?tsid="+ts.getSrno() +
">Delete</a></td>");
                                out.print("</tr>");

                        }

                        out.print("<tr>");
                        out.print("<td align=center><input class=txt type=text name=\"srno\" style=\"height:30px;
width:150px;\" value="+(teachersubject.size()+1) +"></td>");
                        out.print("<td align=center width=250px><select class=txt name=\"tname\"style=\"height:30px;
width:250px;\"><option> Select Teacher </option>");
                        hql="From Teacher";
                        List<Teacher> tname=session.createQuery(hql).list();
                        for(Teacher t2:tname)
                        {
                                out.print("<option>" + t2.getFirst_Name() + " " +t2.getLast_Name() + "</option>");
                        }
                        out.print("</select></td><td align=center width=250px><select class=txt
name=\"cname\"style=\"height:30px; width:250px;\"><option> Select Course </option>");
                        hql="From Course";
                        List<Course> cname=session.createQuery(hql).list();
                        for(Course c: cname)
                        {
                                out.print("<option>"+ c.getCourse_Name()  +"</option>");
                        }
                        out.print("</select></td><td align=center width=250px><select class=txt
name=\"sname\"style=\"height:30px; width:250px;\"><option> Select Course </option>");
                        hql="From Subject";
                        List<Subject> subject=session.createQuery(hql).list();
                        for(Subject s: subject)
                        {
                                out.print("<option>"+ s.getSubject_Name()  +"</option>");
                        }
                        out.print("</select></td>");
                        out.print("<td colspan=2 align=center><input type=submit value=Add class=b></td>");
                        out.print("</tr>");
                        out.print("</table>");

                        String error=(String) hsession.getAttribute("Error");
                        if(error!=null)
```

```
                {
                        out.print("<font style=color:red>"+ error + "</font>");
                        hsession.setAttribute("Error",null);
                }
                out.print("</div>");
                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                out.print("</form></body>");
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                response.setContentType("Text/Html");
                PrintWriter out =response.getWriter();
                HttpSession hsession=request.getSession();
                int srno=Integer.parseInt(request.getParameter("srno"));
                String tname=request.getParameter("tname");
                String cname=request.getParameter("cname");
                String sname=request.getParameter("sname");
                String tid=null,sid=null,cid=null;
                if(cname.isEmpty() ||sname.isEmpty() || tname.isEmpty()  )
                {
                        hsession.setAttribute("Error", "Please Select Mandatory details");
                        response.sendRedirect("AssignTeacherSubject");
                }
                else
                {
                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                        Session session = sessionFactory.openSession();
                        String[] name=tname.split("\\s",2);
                        String fname=name[0];
                        String lname=name[1];
                        String hql="From Teacher Where First_Name=:First_Name and Last_Name=:Last_Name";
                        List<Teacher> teacher=session.createQuery(hql).setParameter("First_Name",
fname).setParameter("Last_Name",lname).list();
                        for(Teacher t2:teacher)
                        {
                                tid=t2.getTeacher_Id();
                        }

                        hql="From Course Where Course_Name=:Course_Name";
                        List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
                        for(Course c: course)
                        {
                         cid=c.getCourse_Id();
                        }
                        hql="From Subject Where Subject_Name=:Subject_Name";
                        List<Subject> subject=session.createQuery(hql).setParameter("Subject_Name",sname).list();
                        for(Subject s: subject)
                        {
                         sid=s.getSubject_Id();
                        }
```

```
                hql="From TeacherSubject where Sr_No=:Sr_No Or Teacher_Id=:Teacher_Id and
Course_Id=:Course_Id and Subject_Id=:Subject_Id";
                List<TeacherSubject> teachersubject=session.createQuery(hql).setParameter("Sr_No",
srno).setParameter("Teacher_Id", tid).setParameter("Course_Id", cid).setParameter("Subject_Id", sid).list();
                if(teachersubject.size()==0)
                {
                        Transaction tx=session.beginTransaction();
                        TeacherSubject ts=new TeacherSubject();
                        ts.setSrno(srno);
                        ts.setTeacher_Id(tid);
                        ts.setCourse_Id(cid);
                        ts.setSubject_Id(sid);
                        session.save(ts);
                        tx.commit();
                        session.close();
                        response.sendRedirect("TeacherSubjectMain");
                }
                else
                {
                        hsession.setAttribute("Error", "Subject is already assign to teacher please check");
                        response.sendRedirect("AssignTeacherSubject");
                }


            }
        }

}
```

TeacherSubjectDeleteServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Teacher;
import com.entity.TeacherSubject;
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
```

```
@WebServlet("/DeleteTeacherSubject")
public class TeacherSubjectDeleteServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherSubjectDeleteServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:100px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:70%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print("</style></head><body bgcolor=#7575FF>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");

//out.print("               "
);
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");

out.print("               ");
		out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
		out.print("<a href=StudentMain>Student</a>");
```

```
out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");

            SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    Transaction tx=session.beginTransaction();
                    int tid=Integer.parseInt(request.getParameter("tsid"));
                    TeacherSubject teachersubject=session.load(TeacherSubject.class,tid);
                    session.delete(teachersubject);
                    tx.commit();
                    session.close();
                    out.print("<br><div class=p6>");
                    out.print("<font style=color:red> Successfully Deleted </font> </div>");
                    out.print("<div class=p7><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                    out.print("</body>");
            }

            /**
             * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
             */
            protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                    // TODO Auto-generated method stub
                    doGet(request, response);
            }

}
```

TeacherSubjectUpdateServlet

```
package com.servlets;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;

import com.entity.Course;
import com.entity.Subject;
import com.entity.Teacher;
import com.entity.TeacherSubject;
```

```
import com.hibernate.util.HibernateUtil;

/**
 * Servlet implementation class CourseDetailServlet
 */
@WebServlet("/EditTeacherSubject")
public class TeacherSubjectUpdateServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public TeacherSubjectUpdateServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

		/**
		 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
		 */
		protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
			response.setContentType("Text/Html");
			PrintWriter out =response.getWriter();
			HttpSession hsession=request.getSession();
			String name=(String) hsession.getAttribute("AdminName");

			out.print("<html><head><title>Learning Academy</title>");
			out.print("<style>.p1 {height:10px;   width:100%;}");
			out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center; font-
family:cursive; font-size:170%;}");
			out.print(".p3{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center;
font-family:cursive; font-size:120%;}");
			out.print(".p4 {height:30px;   width:20%; margin-left:1200px; background-color:white;text-
align:Center; font-family:cursive; font-size:120%;}");
			out.print(".p5{height: 30px;   width: 80%; margin:auto; margin-top:130px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.print(".p7{height: 30px;   width: 80%; margin:auto; margin-top:490px;  background-color:white;
text-align:Center; font-family:cursive; font-size:120%;font-color:black;}");
			out.println(".main {height:400px;   width:80%;margin:auto;background-color:white;text-align:Center;
font-family:cursive; font-size:120%;}");
		out.print(".p6{height: 30px;   width: 80%; margin:auto;   background-color:white;   text-align:Center; font-
family:cursive; font-size:120%;}");
		out.print(".b{font-family:cursive; font-size:120%;  width:200px; height: 30px; text-align:Center; font-
family:cursive; }");
		out.print(".txt{font-family:cursive; font-size:100%;text-align:Center;}");
		out.print("</style></head><body bgcolor=#7575FF><form action=EditTeacherSubject method=post>");
		out.println("<div class=p1></div>");
		out.println("<div class=p2><b>LEARNING ACADEMY</b></div><br>");
		out.println("<div class=p4><b>Welcome:</b>"+name + "      " +"<a href=Logout>Logout</a></div><br/>");
		out.println("<div class=p3>");
		out.print("<a href=CourseMain>Courses</a>");

out.print("               ");
		out.print("<a href=SubjectMain>Subjects</a>");
```

```
out.print("               ");
            out.print("<a href=TeacherMain>Teachers</a>");

out.print("               ");
            out.print("<a href=StudentMain>Student</a>");

out.print("               ");
            out.print("<a href=TeacherSubjectMain>TeacherSubjectAssign</a>");

out.print("               ");
            out.print("<a href=StudentCourseMain>StudentCourseAssign</a>");
            out.println("</div><br>");
            out.println("<div class=main>");
                    out.print("<br><table border=2 align=center>");
                    SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                    Session session = sessionFactory.openSession();
                    String hql="from TeacherSubject";
                    List<TeacherSubject> teachersubject=session.createQuery(hql).list();
                    int tid=Integer.parseInt(request.getParameter("tsid"));
                    out.print("<tr>");
                    out.print("<th align=center width=100px>No</th>");
                    out.print("<th align=center width=250px>Teacher Name</th>");
                    out.print("<th align=center width=250px>Course Name</th>");
                    out.print("<th align=center width=250px>Subject Name</th>");
                    out.print("</tr>");
                    for(TeacherSubject ts:teachersubject)
                    {
                     if(ts.getSrno()==tid)
                     {
                                out.print("<tr>");
                                        out.print("<td align=center><input class=txt type=text name=\"srno\"
style=\"height:30px; width:150px;\" value="+ tid +"></td>");
                                        out.print("<td align=center width=250px><select class=txt
name=\"tname\"style=\"height:30px; width:250px;\">");
                                        hql="From Teacher";
                                        List<Teacher> tname=session.createQuery(hql).list();
                                        for(Teacher t2:tname)
                                        {
                                                if(t2.getTeacher_Id().equals(ts.getTeacher_Id()))
                                                 out.print("<option>" + t2.getFirst_Name() + " " +t2.getLast_Name() +
"</option>");
                                        }
                                        for(Teacher t2:tname)
                                        {
                                                if(!t2.getTeacher_Id().equals(ts.getTeacher_Id()))
                                                 out.print("<option>" + t2.getFirst_Name() + " " +t2.getLast_Name() +
"</option>");
                                        }
                                        out.print("</select></td><td align=center width=250px><select class=txt
name=\"cname\"style=\"height:30px; width:250px;\">");
                                        hql="From Course";
                                        List<Course> cname=session.createQuery(hql).list();
                                        for(Course c: cname)
                                        {
                                                if(c.getCourse_Id().equals(ts.getCourse_Id()))
```

```
                                        out.print("<option>"+ c.getCourse_Name()  +"</option>");
                                }
                                for(Course c: cname)
                                {
                                        if(!c.getCourse_Id().equals(ts.getCourse_Id()))
                                         out.print("<option>"+ c.getCourse_Name()  +"</option>");
                                }
                                out.print("</select></td><td align=center width=250px><select class=txt
name=\"sname\"style=\"height:30px; width:250px;\">");
                                hql="From Subject";
                                List<Subject> subject=session.createQuery(hql).list();
                                for(Subject s: subject)
                                {
                                        if(s.getSubject_Id().equals(ts.getSubject_Id()))
                                         out.print("<option>"+ s.getSubject_Name()  +"</option>");
                                }
                                for(Subject s: subject)
                                {
                                        if(!s.getSubject_Id().equals(ts.getSubject_Id()))
                                         out.print("<option>"+ s.getSubject_Name()  +"</option>");
                                }
                                out.print("</select></td>");
                                out.print("<td colspan=2 align=center><input type=submit value=Update
class=b></td>");
                                out.print("</tr>");
                        }
                        else
                        {
                                out.print("<tr>");
                                out.print("<td align=center>"+ ts.getSrno() +"</td>");
                                hql="From Teacher where Teacher_Id=:Teacher_Id";
                                List<Teacher>
tname=session.createQuery(hql).setParameter("Teacher_Id",ts.getTeacher_Id()).list();
                                for(Teacher t2:tname)
                                {
                                        out.print("<td align=center>"+ t2.getFirst_Name() + "  " +t2.getLast_Name()
+"</td>");
                                }
                                hql="From Course Where Course_Id=:Course_Id";
                                List<Course> cname=session.createQuery(hql).setParameter("Course_Id",
ts.getCourse_Id()).list();
                                for(Course c: cname)
                                {
                                        out.print("<td align=center>"+ c.getCourse_Name()  +"</td>");
                                }
                                hql="From Subject Where Subject_Id=:Subject_Id";
                                List<Subject>
subject=session.createQuery(hql).setParameter("Subject_Id",ts.getSubject_Id()).list();
                                for(Subject s: subject)
                                {
                                        out.print("<td align=center>"+ s.getSubject_Name()  +"</td>");
                                }
                                out.print("<td align=center width=100px><a href=EditTeacherSubject?tsid="+
ts.getSrno()+ ">Edit</a></td>");
                                out.print("<td align=center width=100px><a
href=DeleteTeacherSubject?tsid="+ts.getSrno() + ">Delete</a></td>");
```

```
                                        out.print("</tr>");

                                }
                                }


                                out.print("</table>");

                                String error=(String) hsession.getAttribute("Error");
                                if(error!=null)
                                {
                                        out.print("<font style=color:red>"+ error + "</font>");
                                        hsession.setAttribute("Error",null);
                                }
                                out.print("</div>");
                                out.print("<div class=p5><marquee><b>Project By: Pai Najranabanu Yakub
(M.C.A)</b></marquee></div>");
                                out.print("</form></body>");
                        }

                        /**
                         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
                         */
                        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
                                response.setContentType("Text/Html");
                                PrintWriter out =response.getWriter();
                                HttpSession hsession=request.getSession();
                                int srno=Integer.parseInt(request.getParameter("srno"));
                                String tname=request.getParameter("tname");
                                String cname=request.getParameter("cname");
                                String sname=request.getParameter("sname");
                                String tid=null,sid=null,cid=null;
                                if(cname.isEmpty() ||sname.isEmpty() || tname.isEmpty()  )
                                {
                                        hsession.setAttribute("Error", "Please Select Mandatory details");
                                        response.sendRedirect("AssignTeacherSubject");
                                }
                                else
                                {
                                        SessionFactory sessionFactory = HibernateUtil.buildSessionFactory();
                                        Session session = sessionFactory.openSession();
                                        String[] name=tname.split("\\s",2);
                                        String fname=name[0];
                                        String lname=name[1];
                                        String hql="From Teacher Where First_Name=:First_Name and Last_Name=:Last_Name";
                                        List<Teacher> teacher=session.createQuery(hql).setParameter("First_Name",
fname).setParameter("Last_Name",lname).list();
                                        for(Teacher t2:teacher)
                                        {
                                                tid=t2.getTeacher_Id();
                                        }

                                        hql="From Course Where Course_Name=:Course_Name";
                                        List<Course> course=session.createQuery(hql).setParameter("Course_Name", cname).list();
                                        for(Course c: course)
```

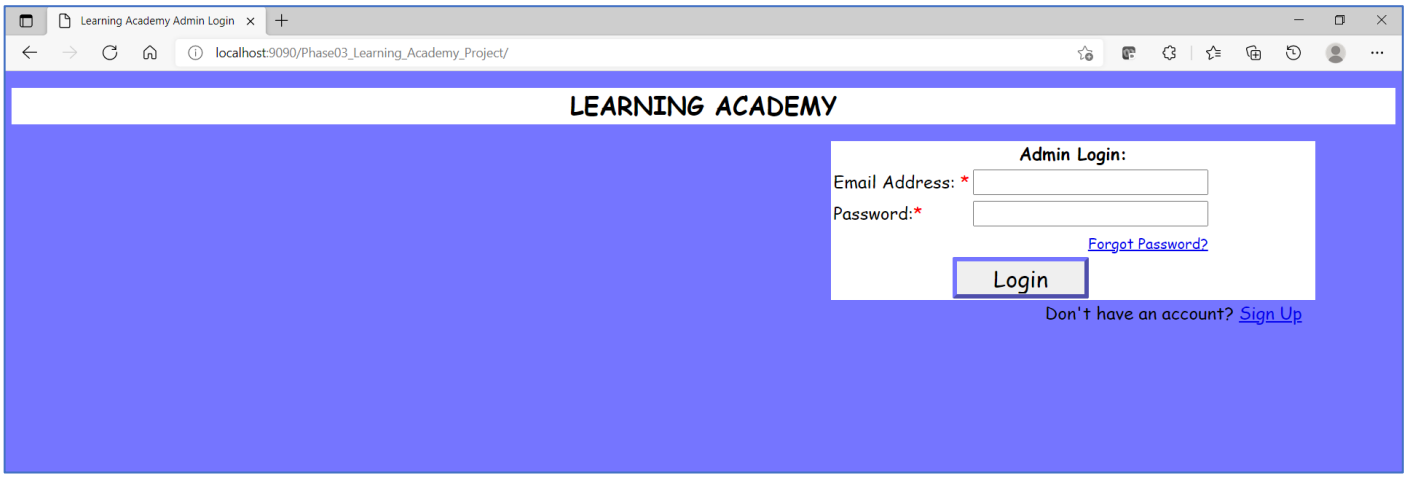
```
                                {
                                 cid=c.getCourse_Id();
                                }
                                hql="From Subject Where Subject_Name=:Subject_Name";
                                List<Subject> subject=session.createQuery(hql).setParameter("Subject_Name",sname).list();
                                for(Subject s: subject)
                                {
                                 sid=s.getSubject_Id();
                                }
                                hql="From TeacherSubject where Teacher_Id=:Teacher_Id and Course_Id=:Course_Id and
Subject_Id=:Subject_Id";
                                List<TeacherSubject> teachersubject=session.createQuery(hql).setParameter("Teacher_Id",
tid).setParameter("Course_Id", cid).setParameter("Subject_Id", sid).list();
                                if(teachersubject.size()==0)
                                {
                                        Transaction tx=session.beginTransaction();
                                        TeacherSubject ts=new TeacherSubject();
                                        ts.setSrno(srno);
                                        ts.setTeacher_Id(tid);
                                        ts.setCourse_Id(cid);
                                        ts.setSubject_Id(sid);
                                        session.update(ts);
                                        tx.commit();
                                        session.close();
                                        response.sendRedirect("TeacherSubjectMain");
                                }
                                else
                                {
                                        hsession.setAttribute("Error", "Subject is already assign to teacher please check");
                                        response.sendRedirect("AssignTeacherSubject");
                                }


                        }
                }

}
```

LogoutServlet

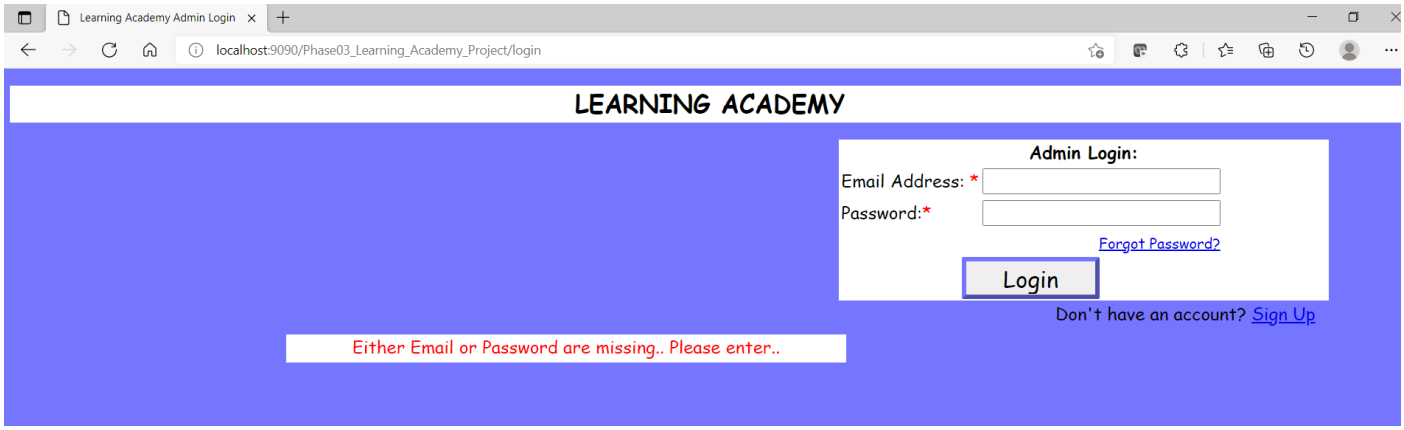
```
package com.servlets;
import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

/**
 * Servlet implementation class LogoutServlet
 */
@WebServlet("/Logout")
public class LogoutServlet extends HttpServlet {
        private static final long serialVersionUID = 1L;
```

```
  /**
   * @see HttpServlet#HttpServlet()
   */
  public LogoutServlet() {
     super();
     // TODO Auto-generated constructor stub
  }

         /**
          * @see HttpServlet#service(HttpServletRequest request, HttpServletResponse response)
          */
         protected void service(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
                  // TODO Auto-generated method stub
                  response.setContentType("Text/Html");
                  PrintWriter out =response.getWriter();
                  HttpSession hsession=request.getSession();
                  String name=(String) hsession.getAttribute("AdminName");
                  out.print("<html><head><title>Learning Academy</title>");
                  out.print("<style>.p1 {height:10px;   width:100%;}");
                  out.print(".p2{height: 40px;   width: 100%;   background-color:white;   text-align:Center;
font-family:cursive; font-size:170%;}");
                  out.print(".p3{height: 30px;   width: 70%; margin:auto;   background-color:white;   text-
align:Center; font-family:cursive; font-size:120%;}");
                  out.print("</style></head><body bgcolor=#7575FF>");
            out.println("<div class=p1></div>");
            out.println("<div class=p2><b>Thank You For Using Learning Academy Website..</b></div><br>");
            out.println("<div class=p3><a href=Admin_Login.html>Again Login</a></div>");
            out.println("</body>");


            hsession.invalidate();

         }

}
```

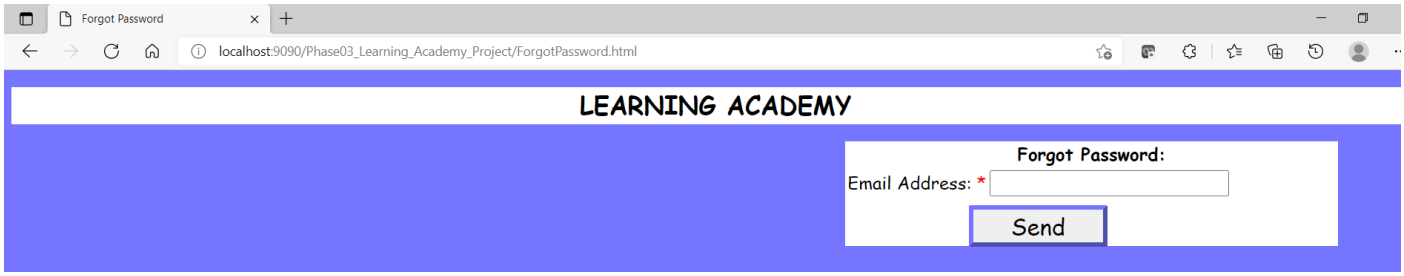
Execute the program:



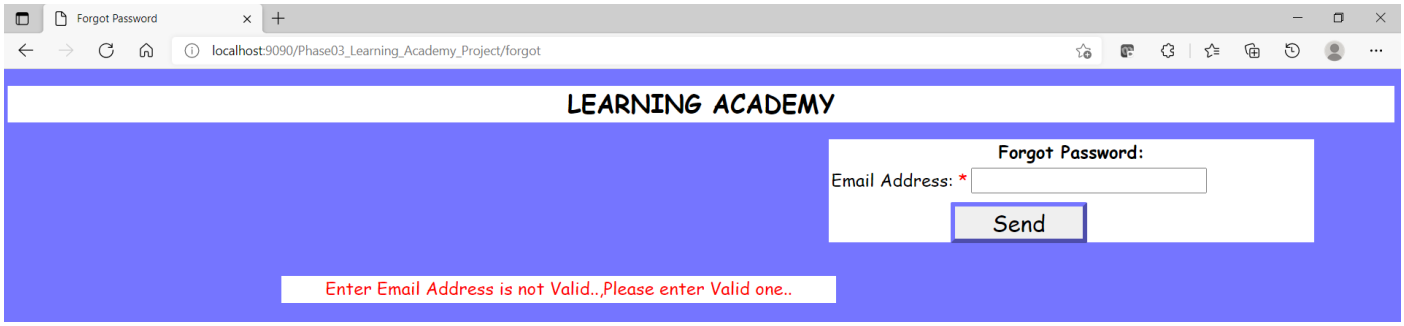
- If you don't enter anything then will generate error message like:



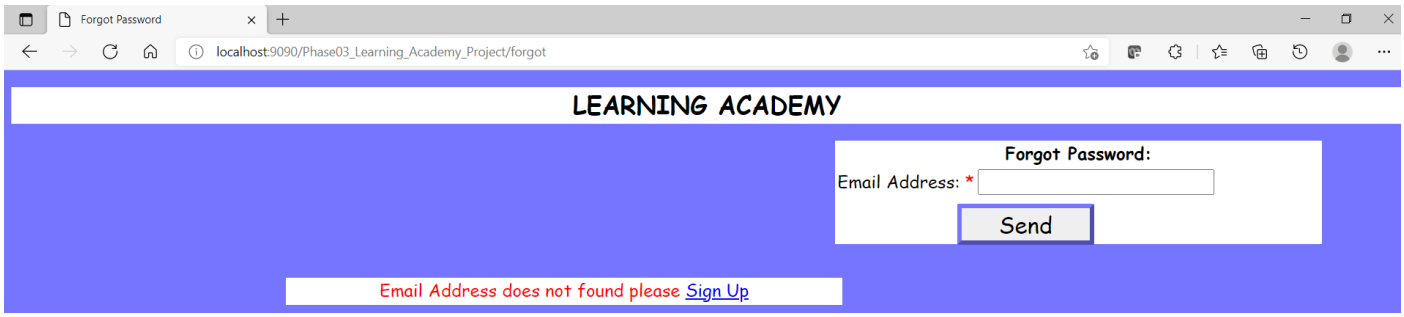
- If You Forget Password then click on forgot password.



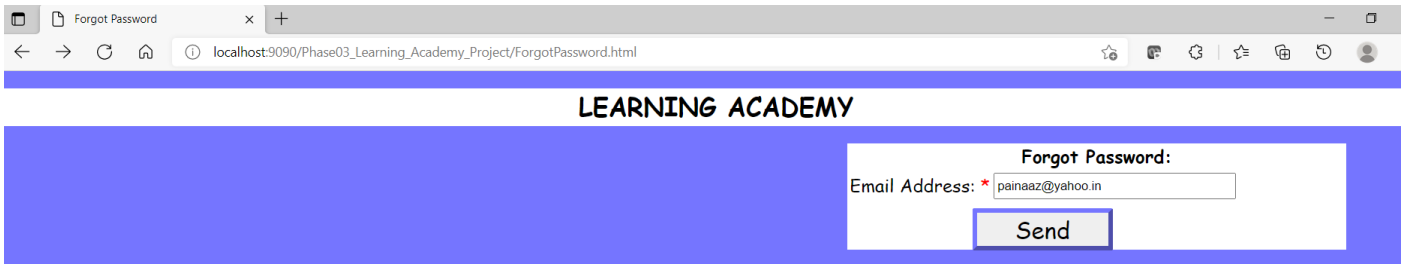
- If you enter invalid format of email then will generate message like.



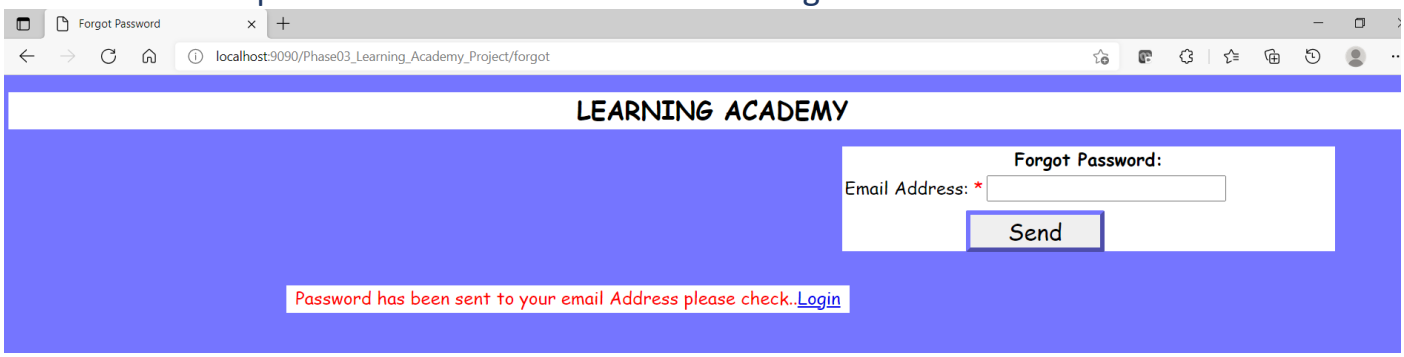
- If you enter another email that does not have an admin account then.



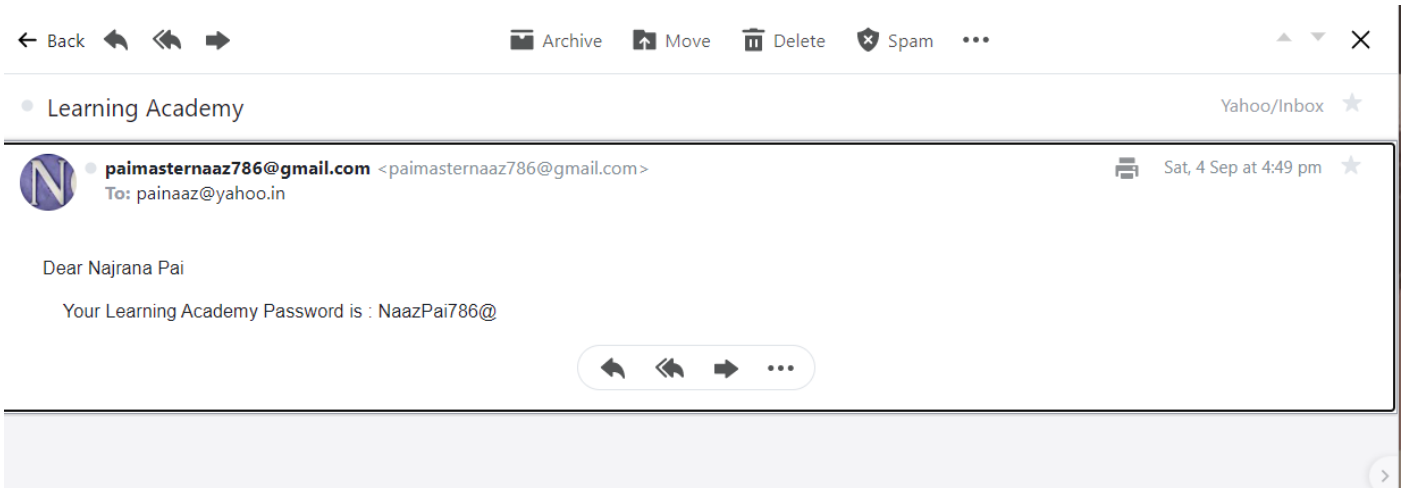
- Enter email Address and click on send.



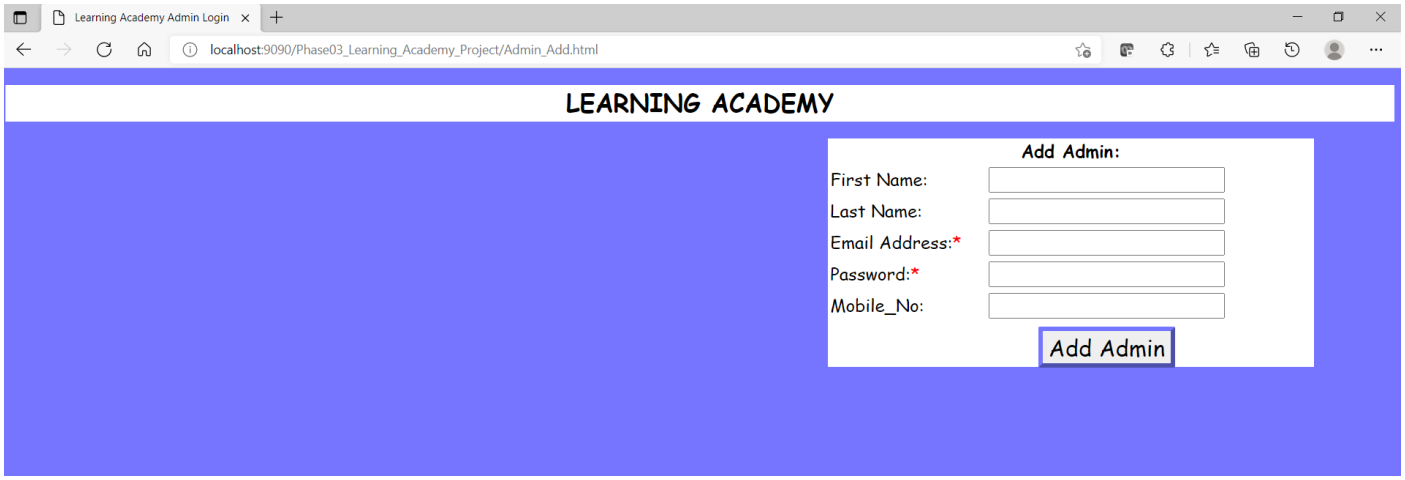
On Admin email password send and Generate message like



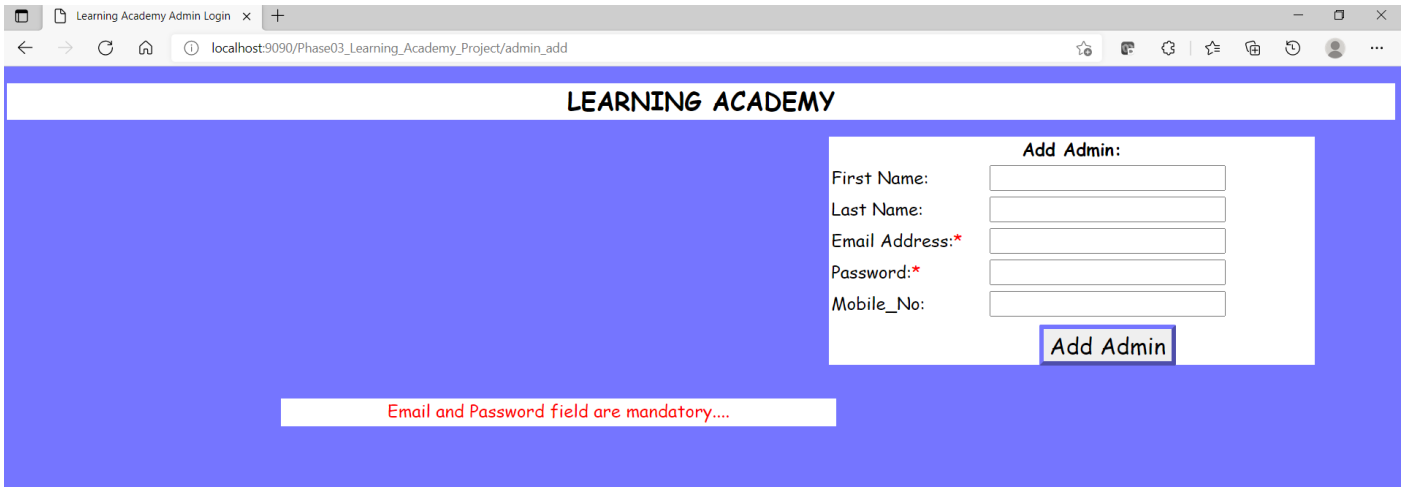
Email received forgot password as below format



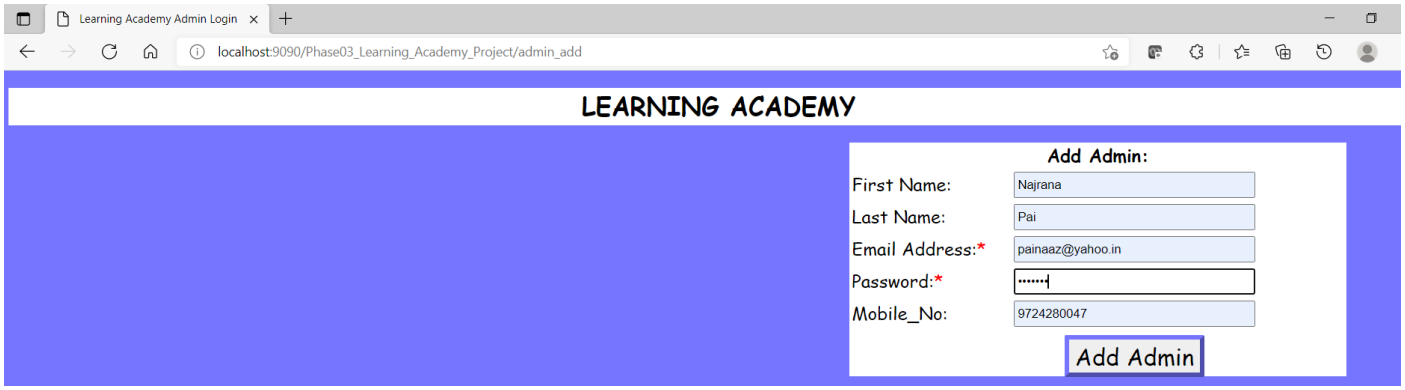
- If You don't have an admin account then click on Sign Up.



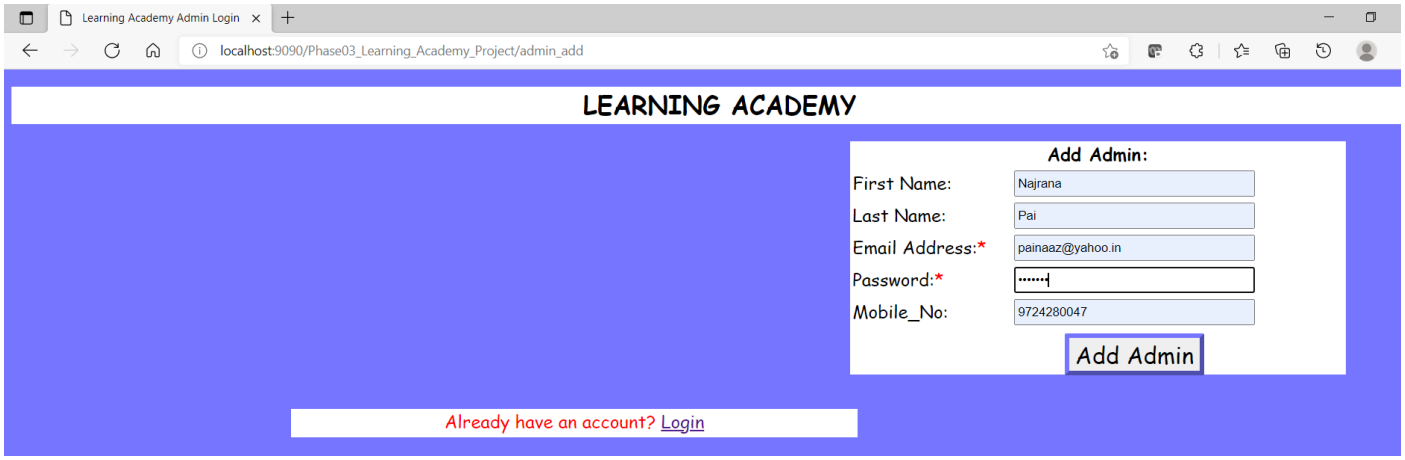
If you don't enter any value and just click on Add Admin then



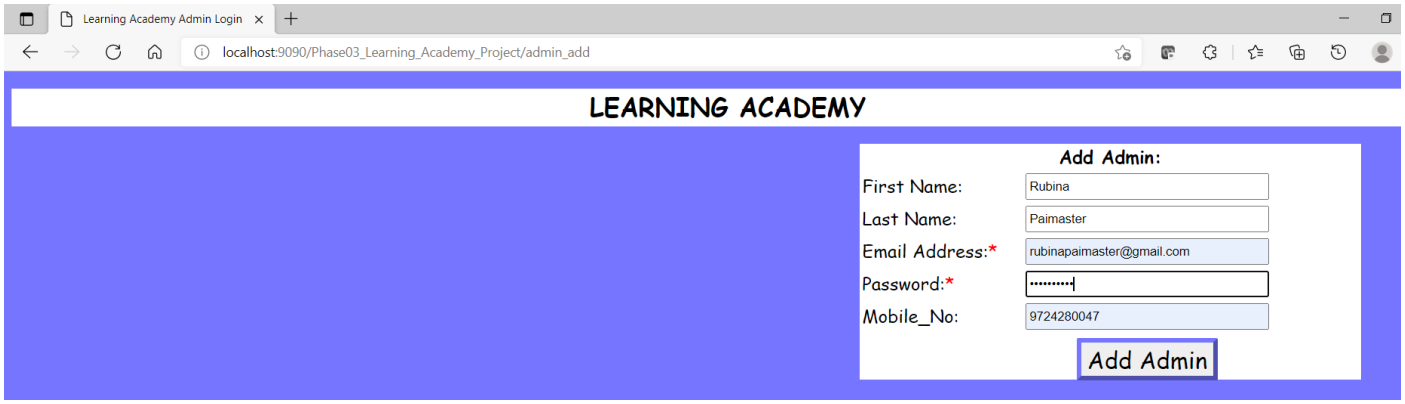
Means Email and Password are must be enter and password should be one Capital one small and one number and size must be greater then or 6.



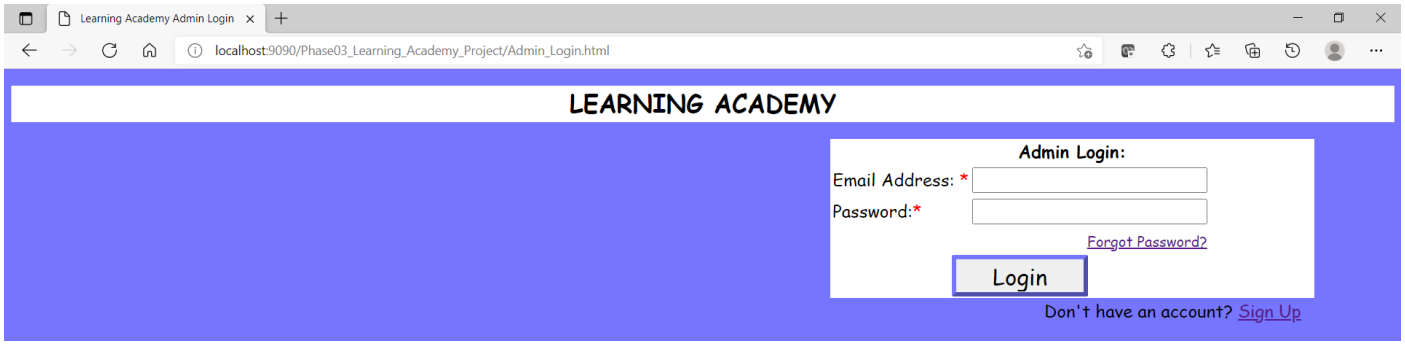
If admin email address are already in database then will generate message like



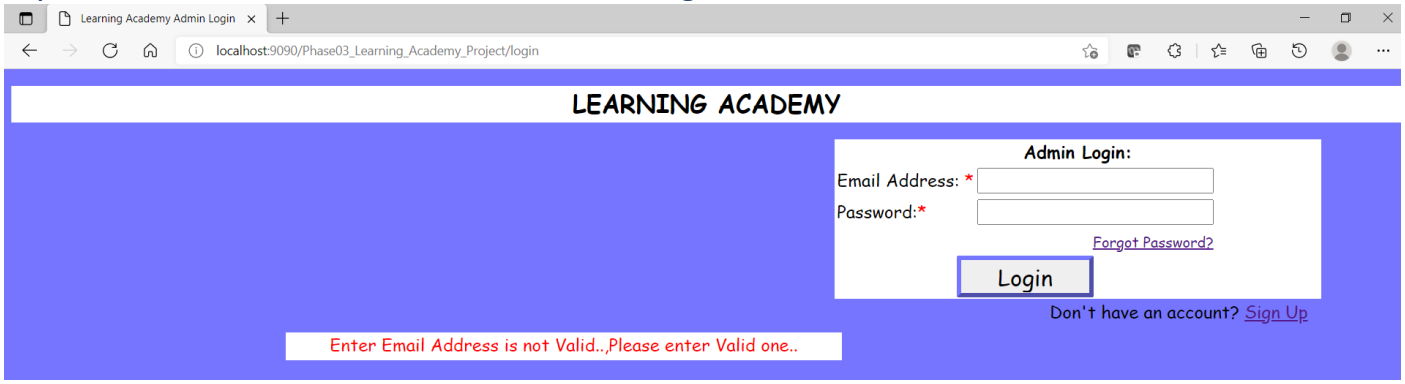
If not then

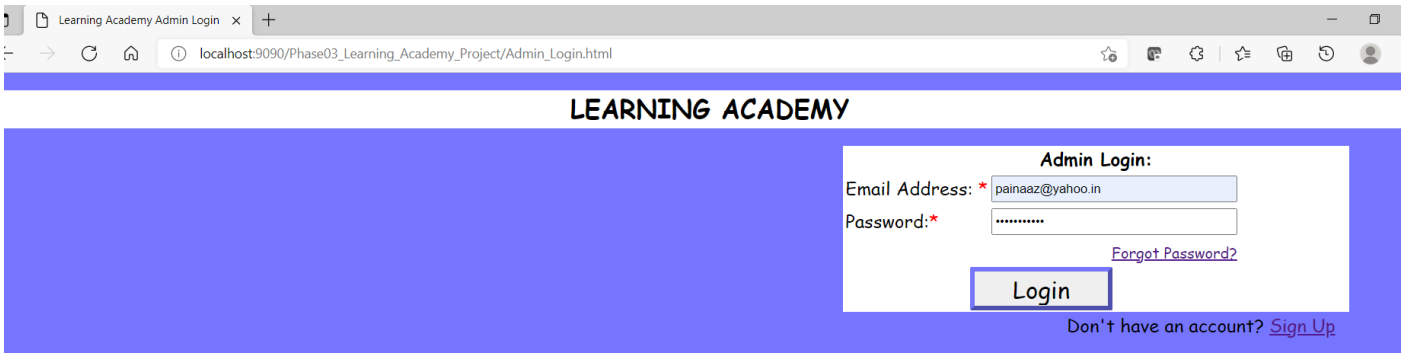


Click on Add Admin will redirect to the login page.

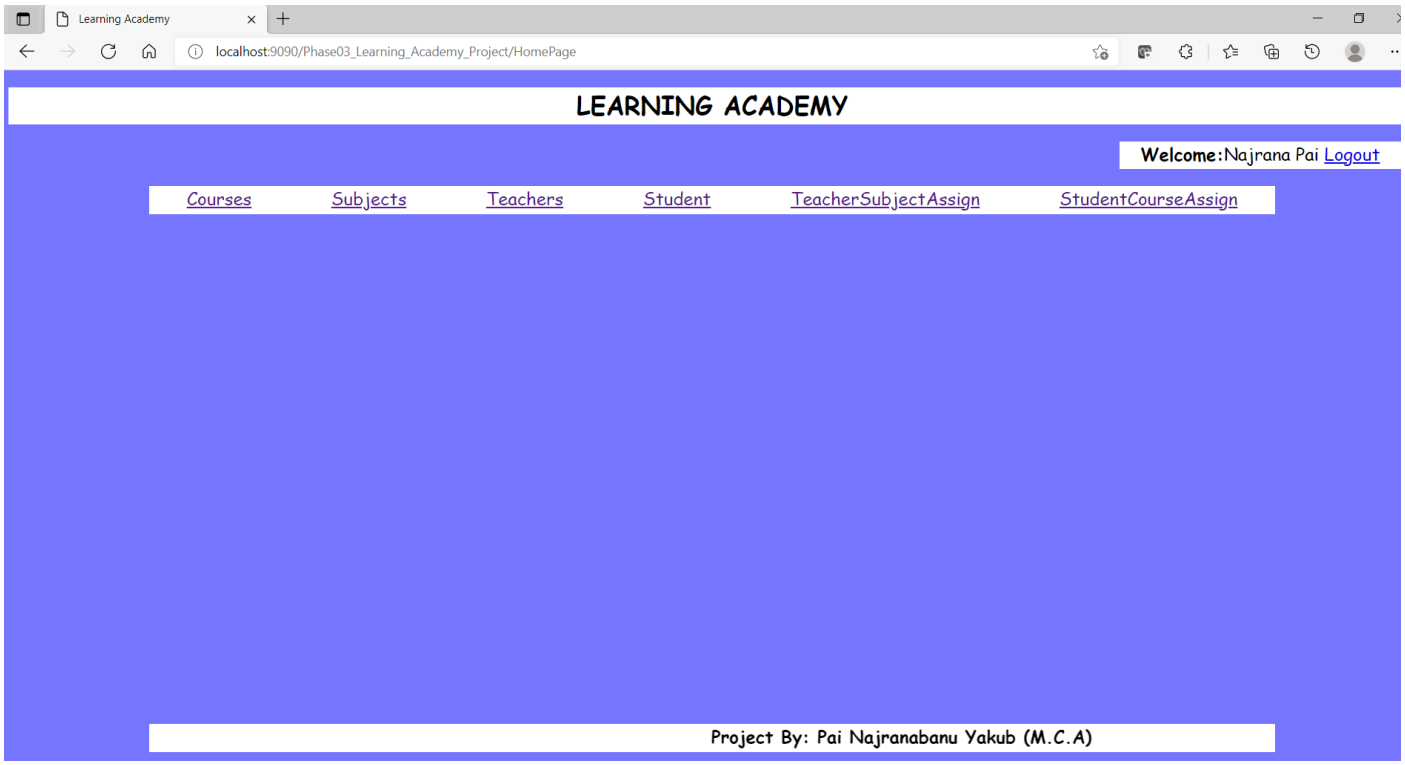


If you enter invalid format of email then will generate

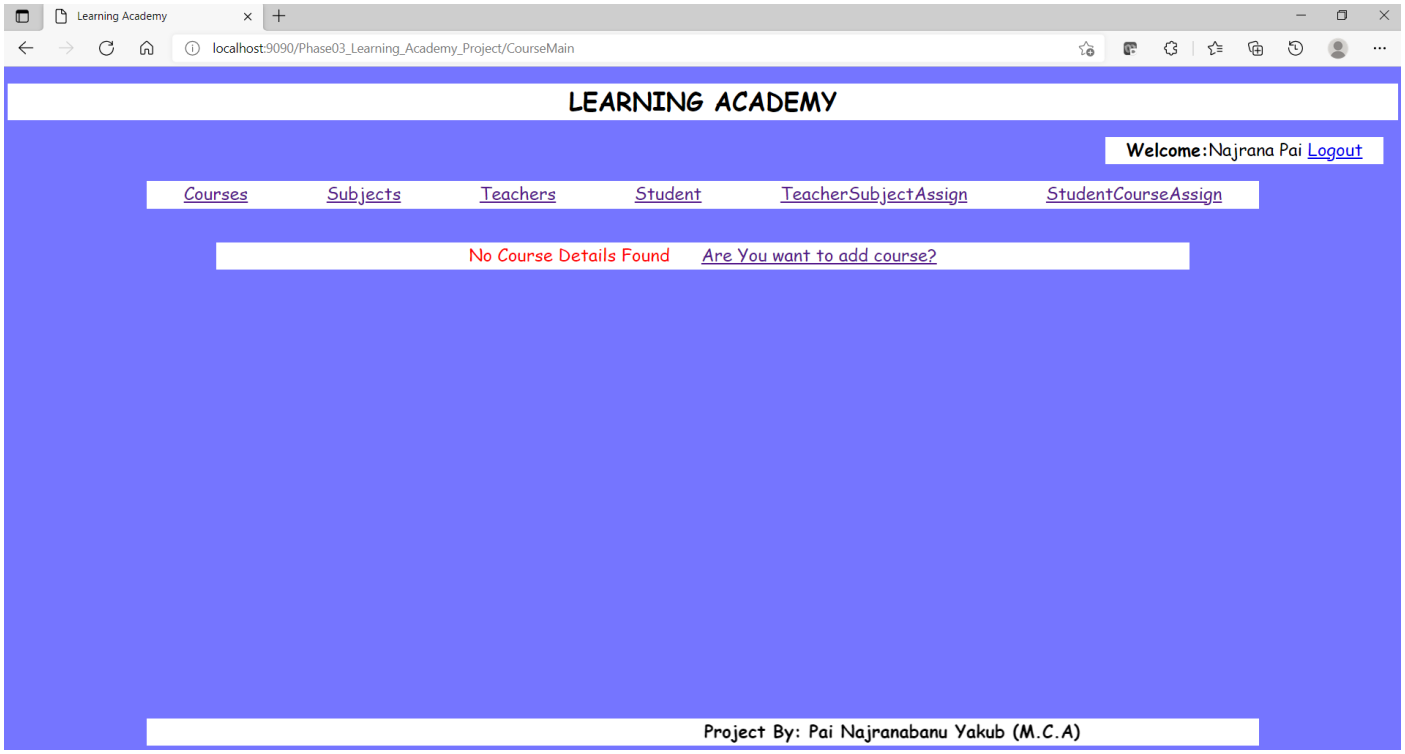




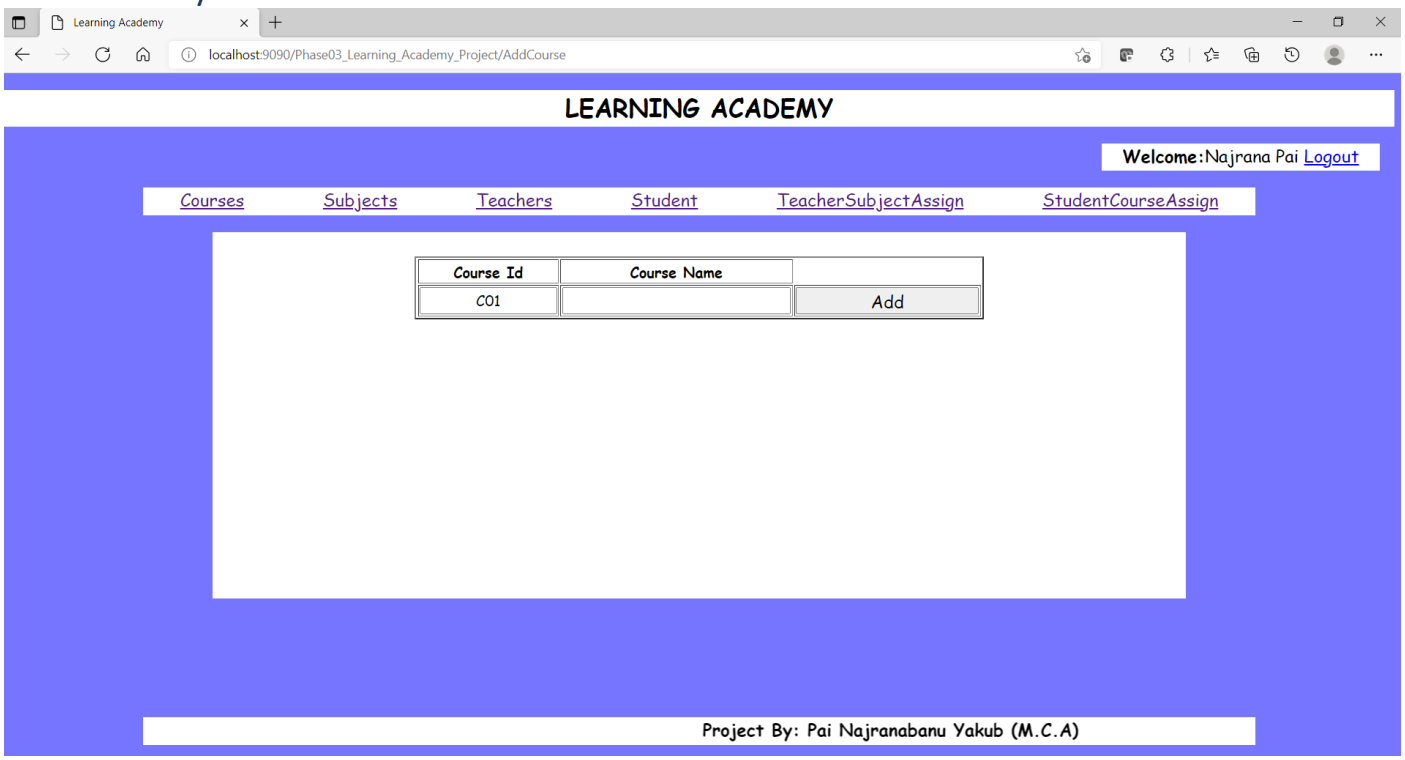
If you enter valid email and password for login then will move to the homepage with name from database first name and last name and project By is marquee.



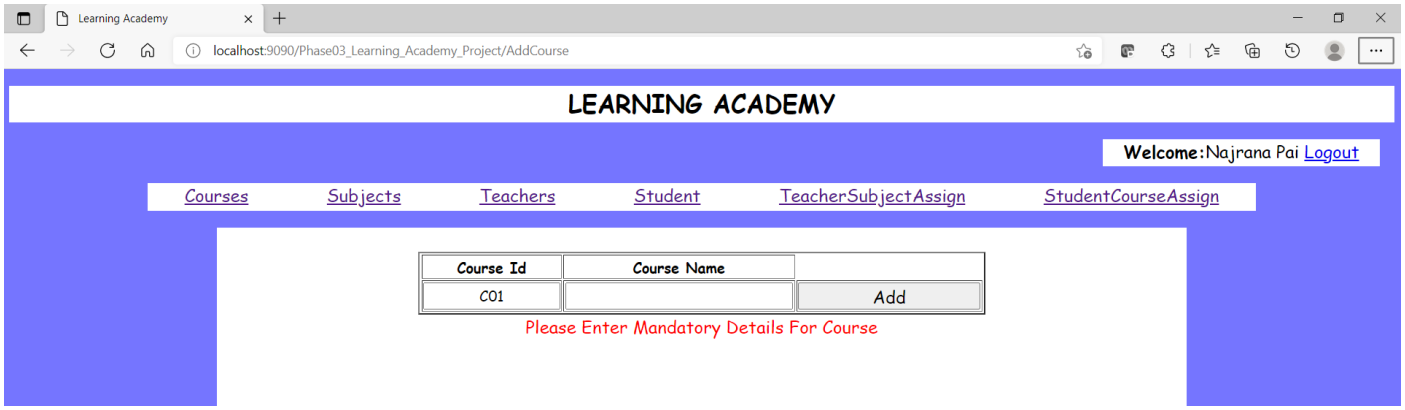
Click on Courses will redirect to the CourseMain Servlet., If Course entity have no data then will only generate one message like



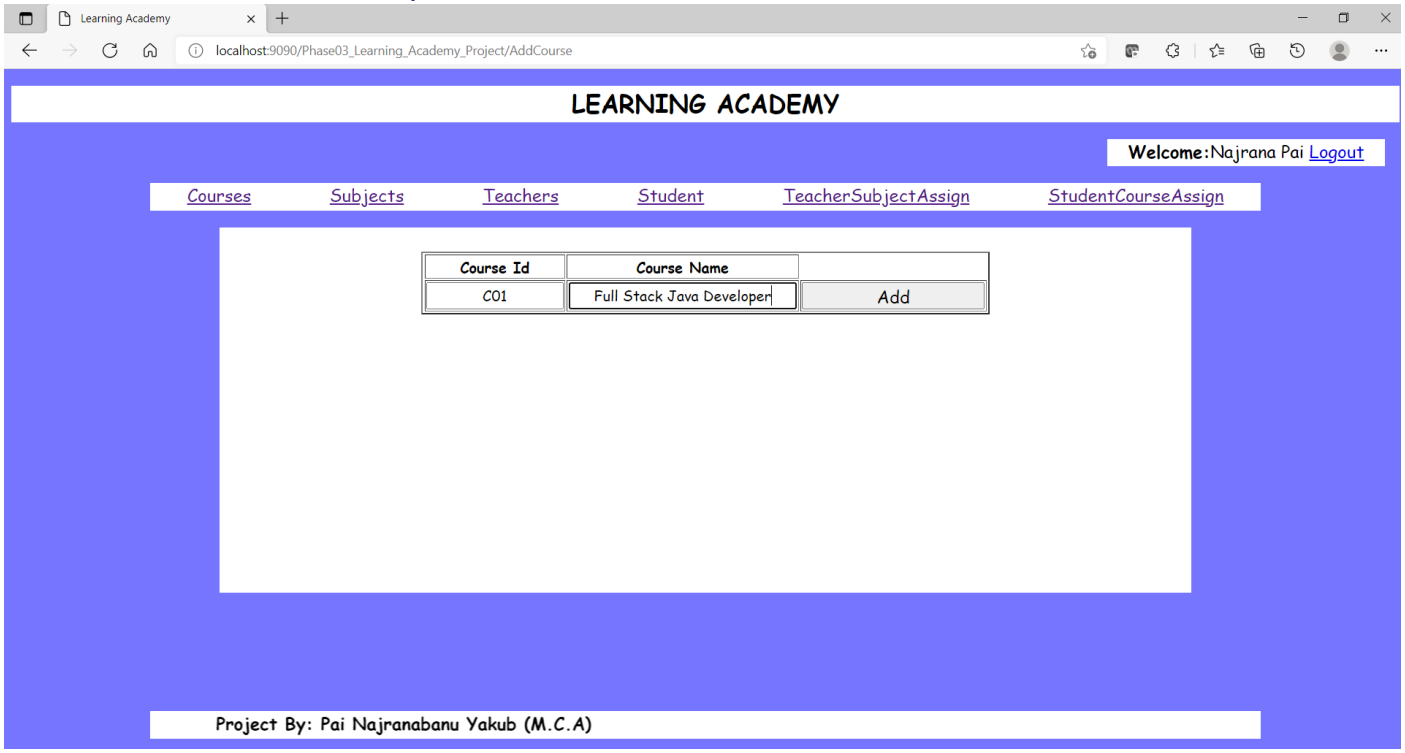
On click Are you want to add course then



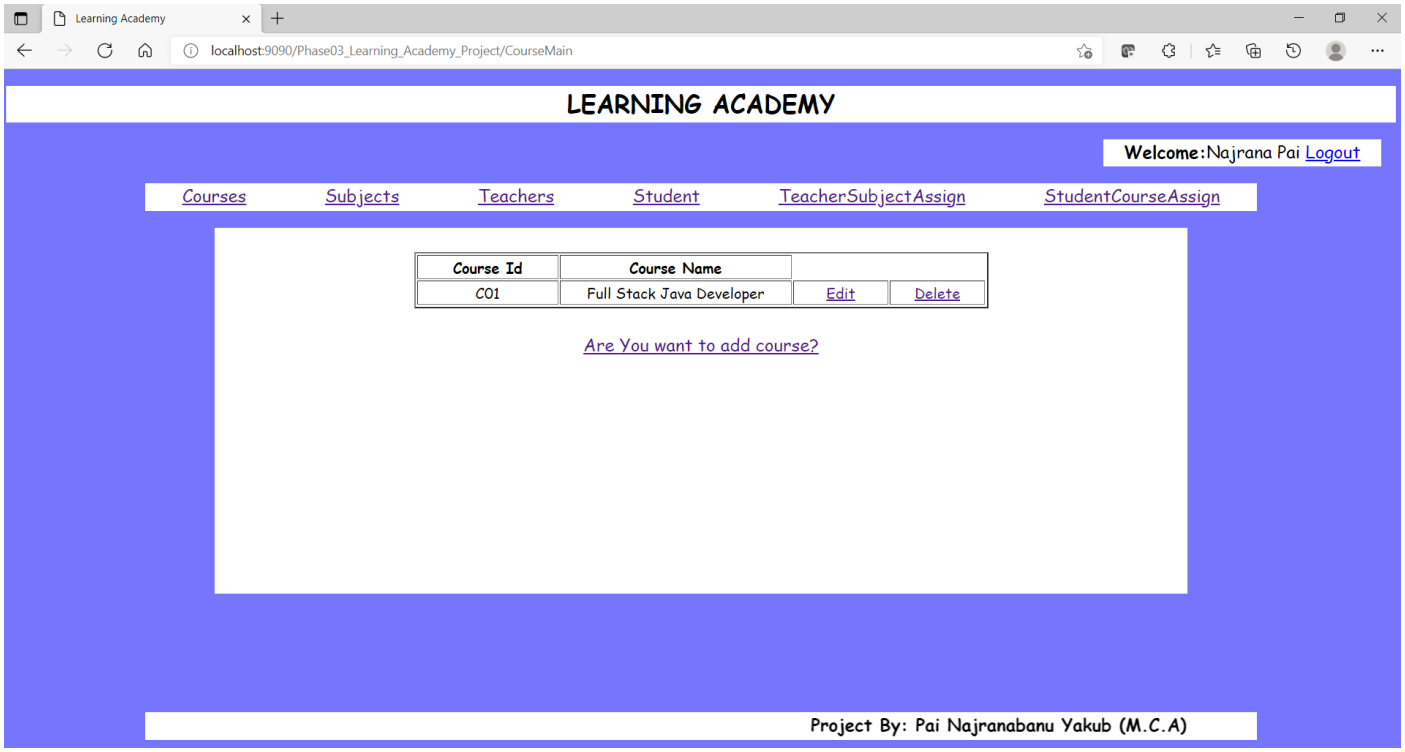
Without entering data click on Add then will generate error message like



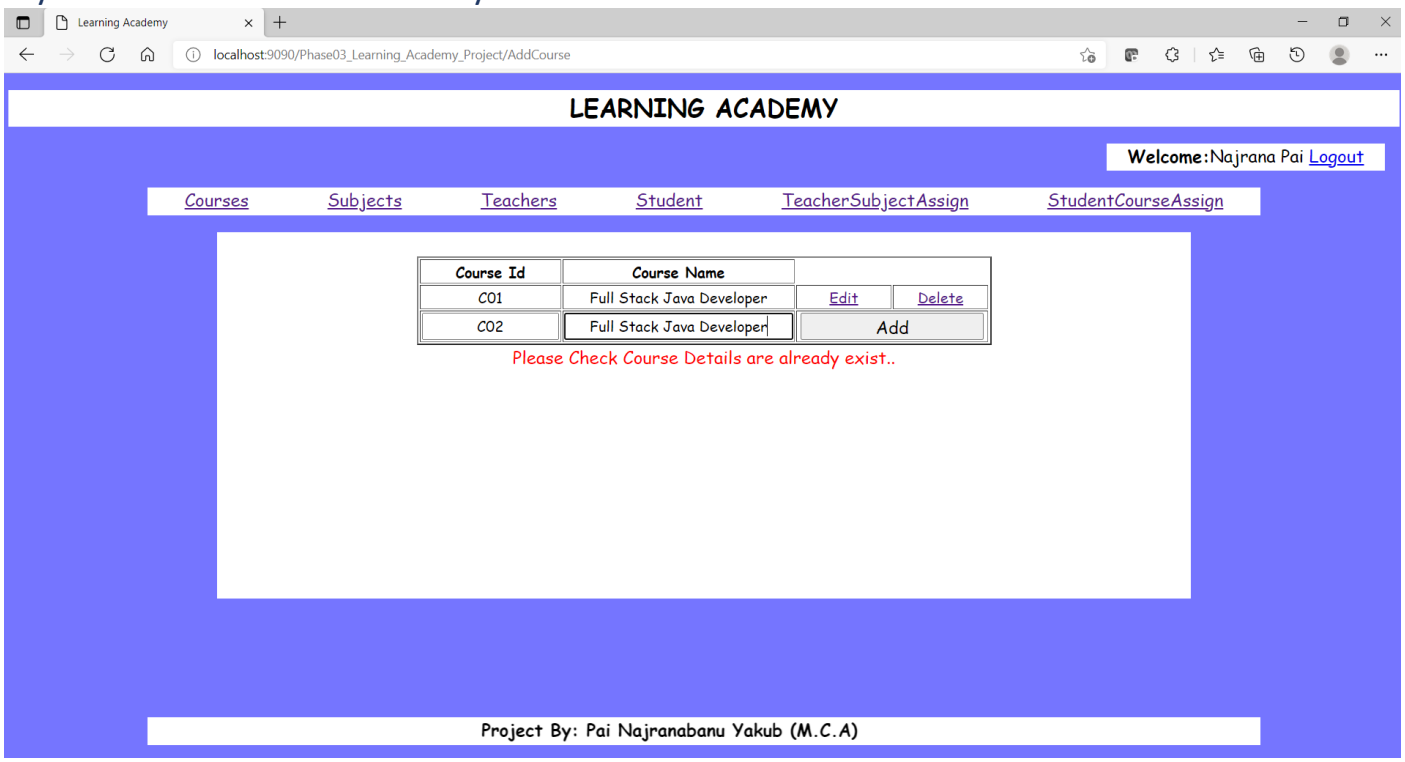
If you enter course Id and Course name first check course exist on database or not.., if not then add in to course entity into the database

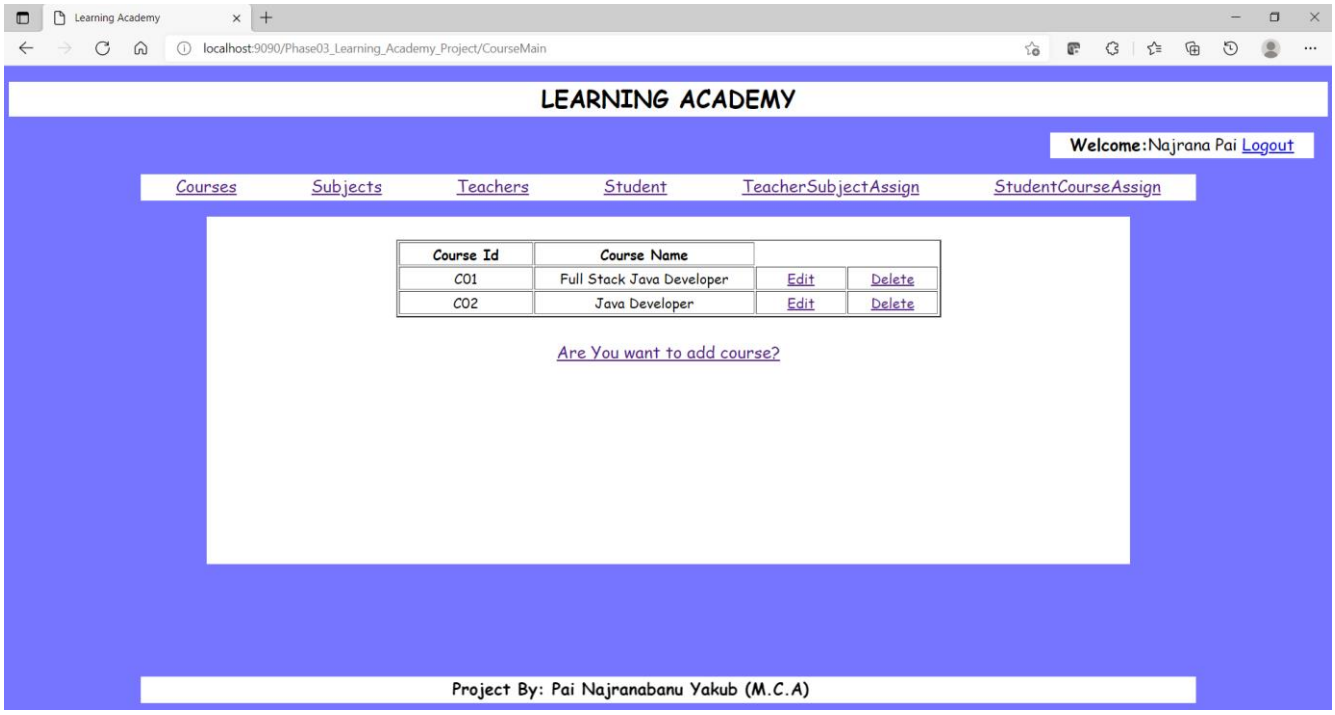


On Add will move to the CourseMain.

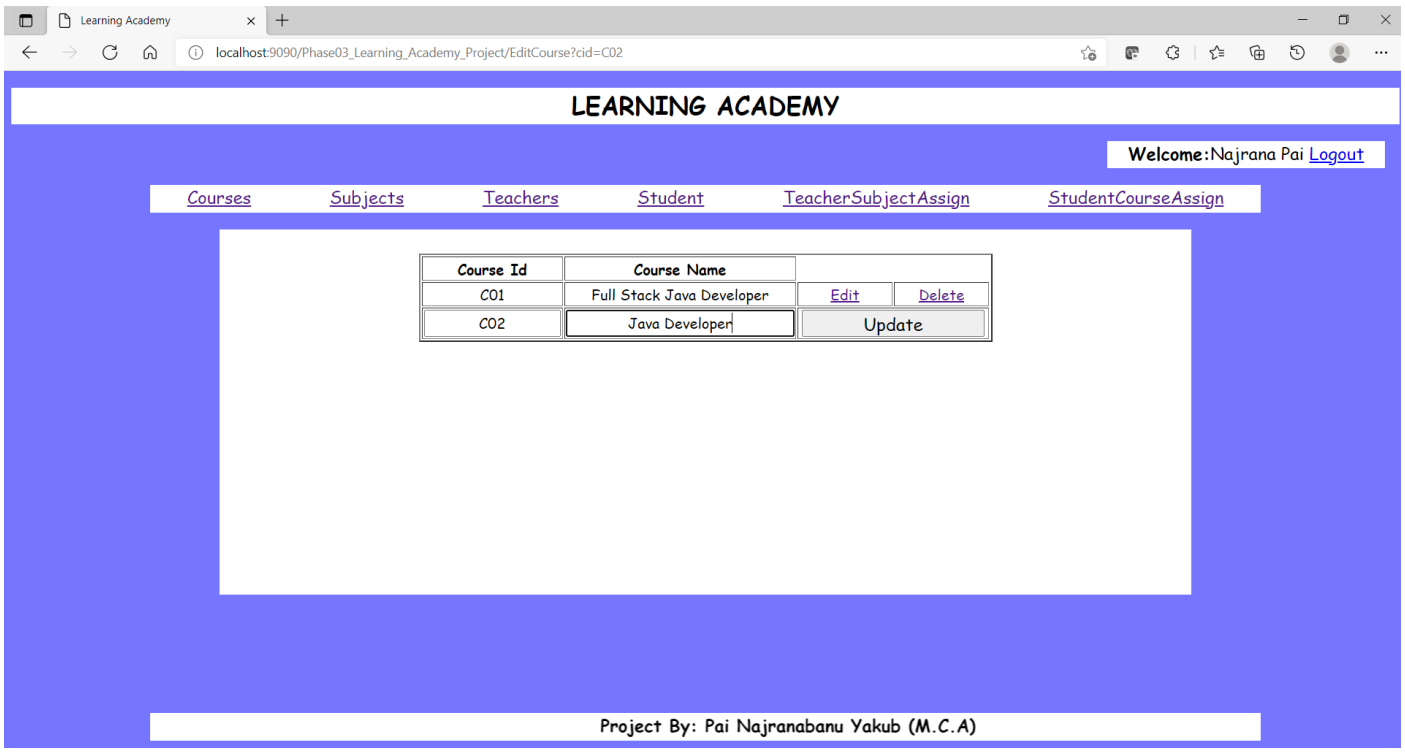


If you add course that is already exist then

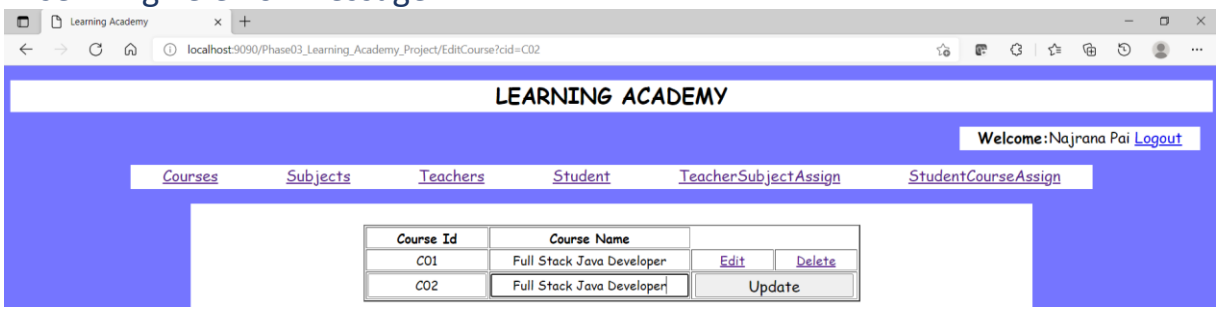


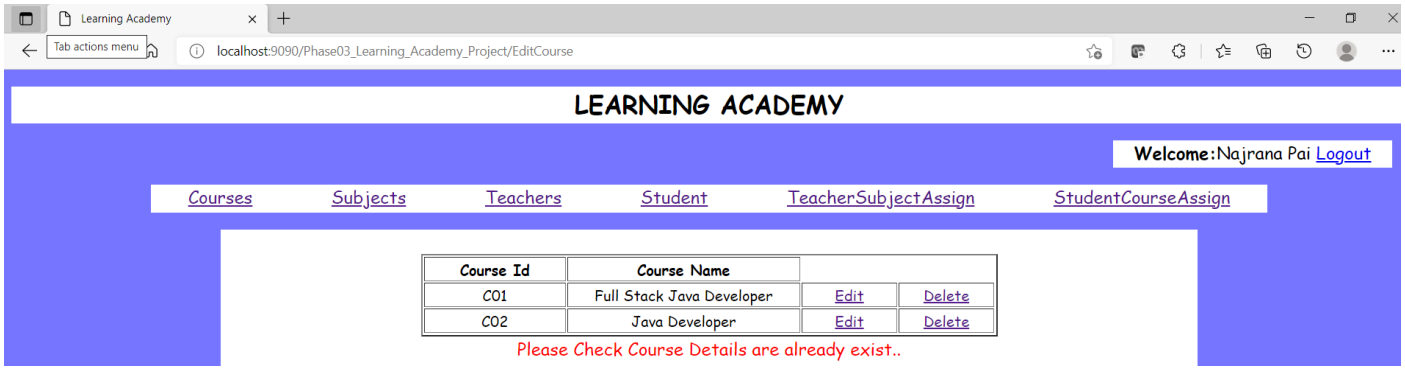


If you want to Edit any course then click on edit

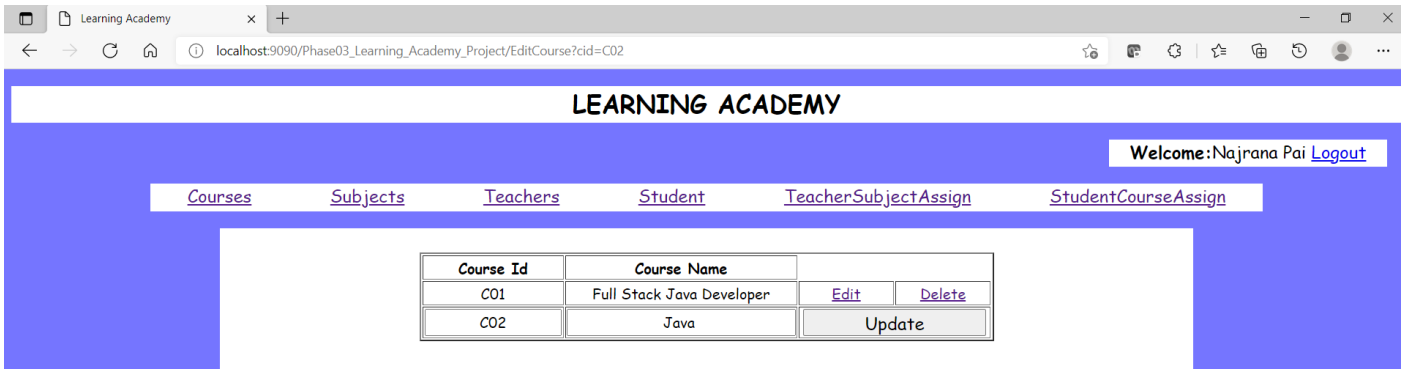


Its check course exist or not with new name and if not then update the course name other wise will give error message.

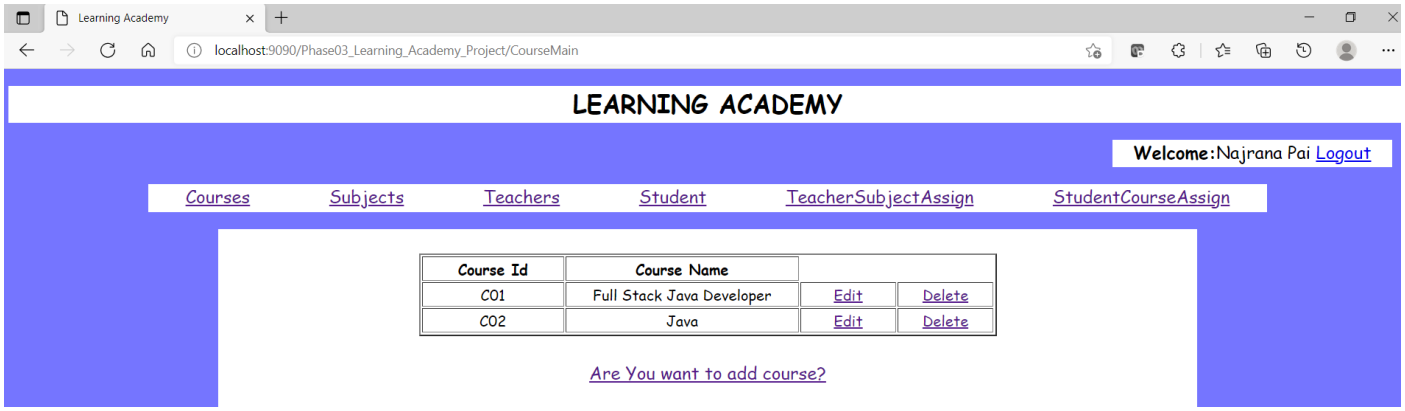




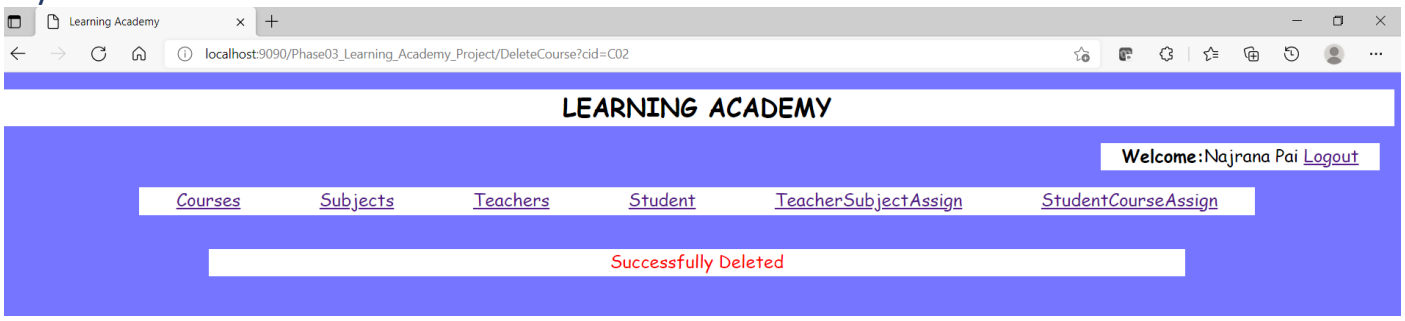
Edit with new name then



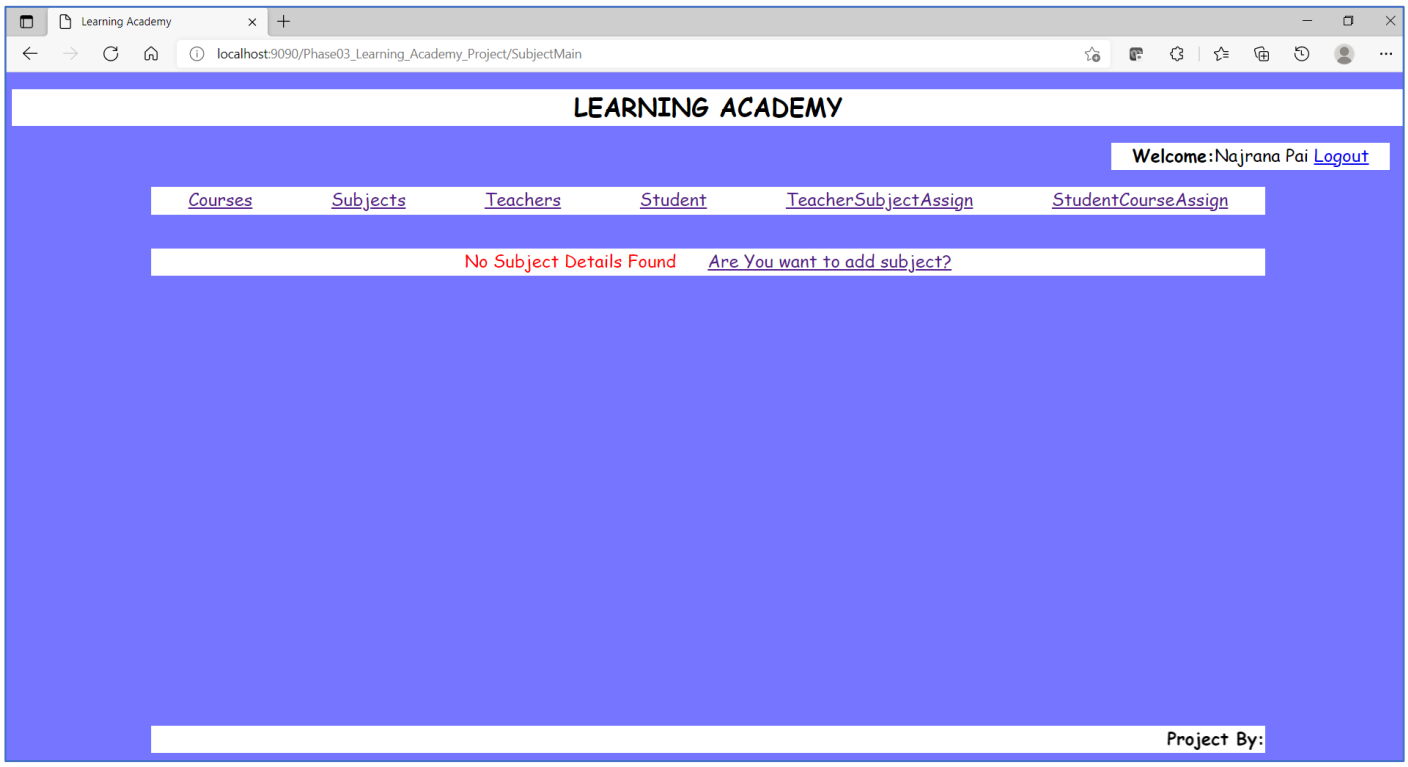
Successfully updated



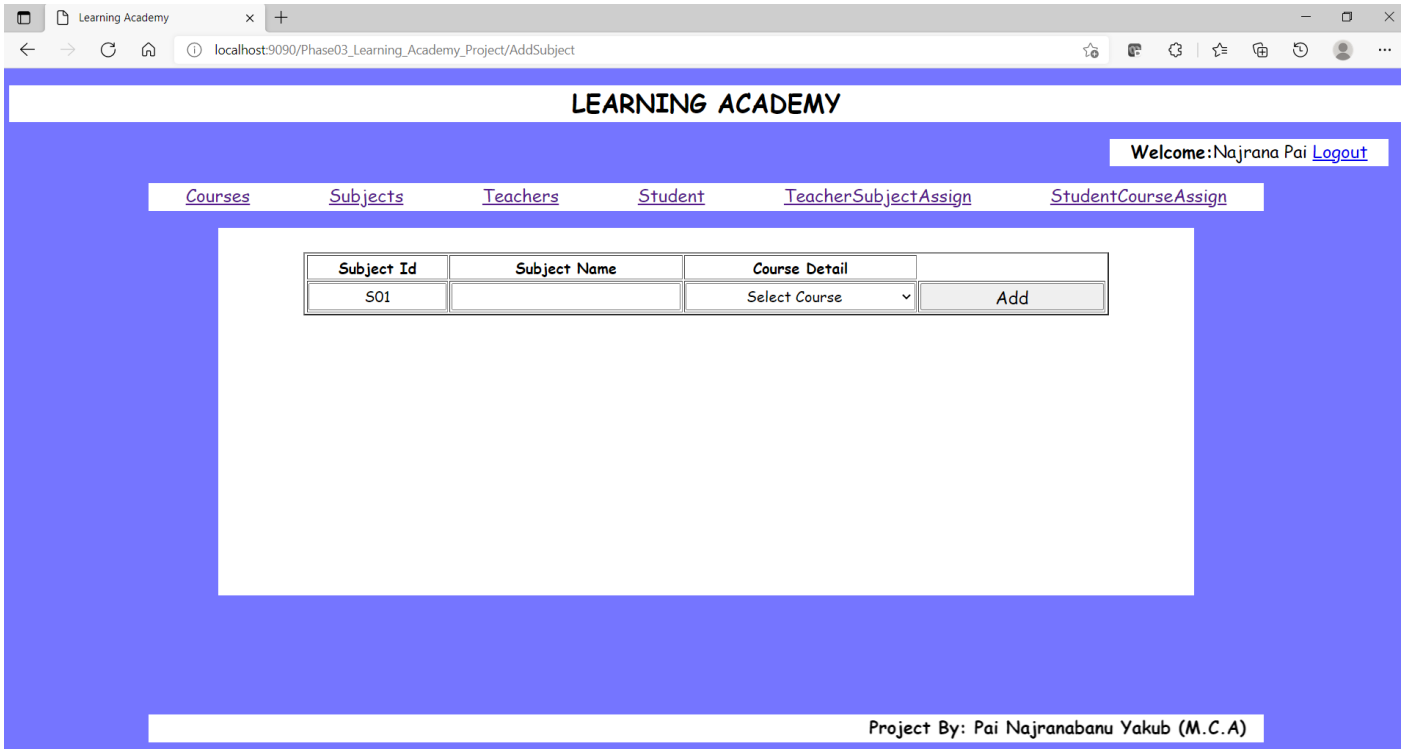
If you delete the course then click on delete :



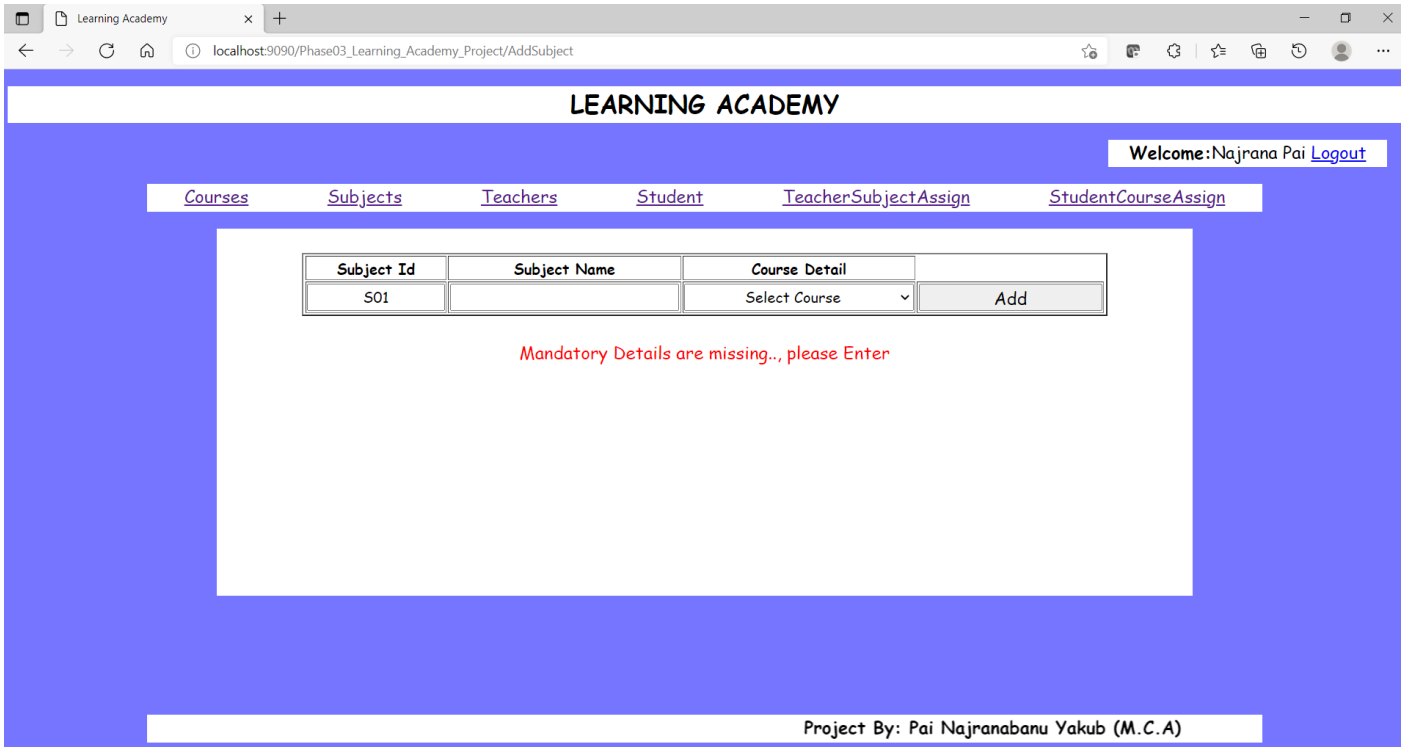
When you click on subject then



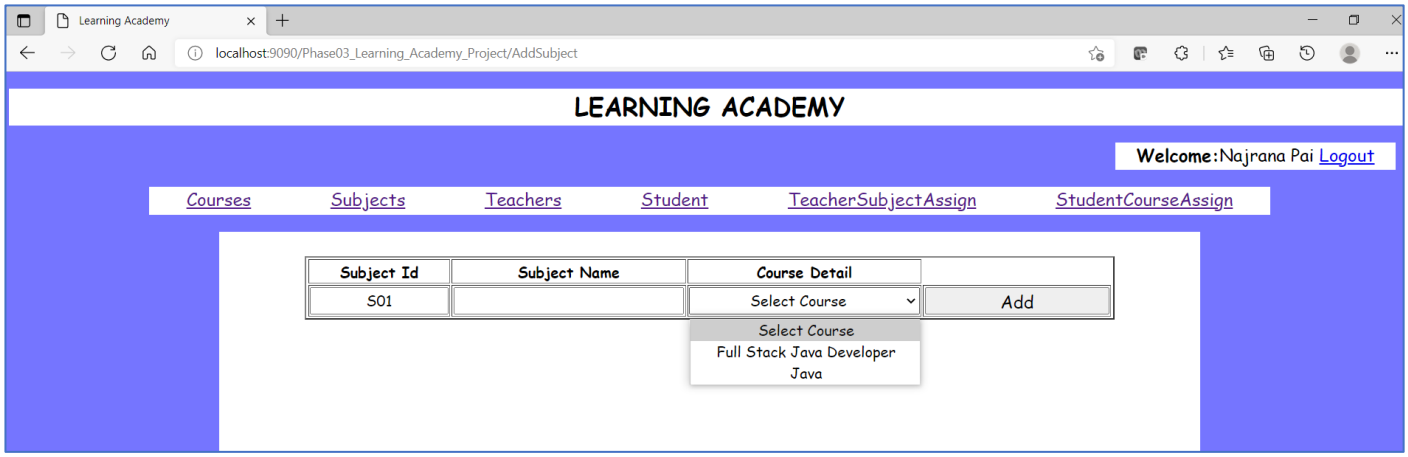
On clicking on Are you want to add subject ?



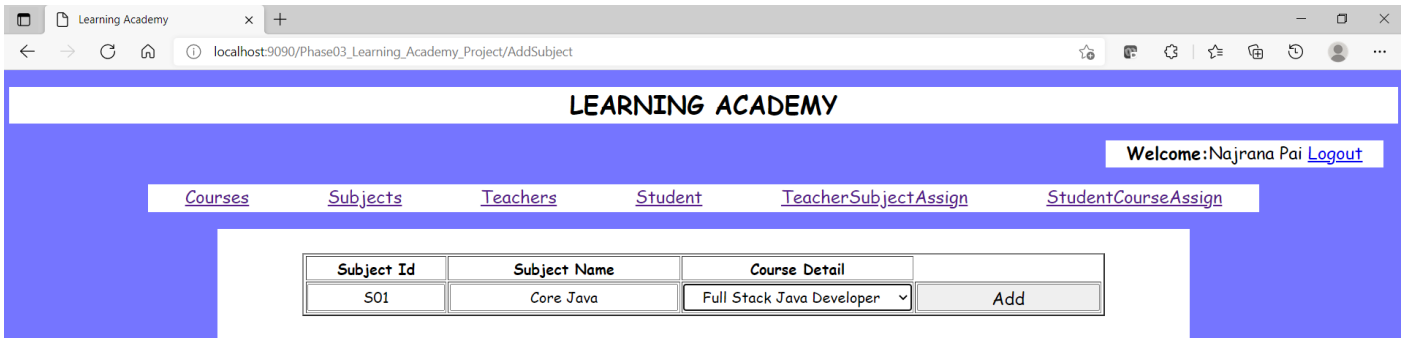
If you are Add subject without any subject name or Course Details then will generate message like :



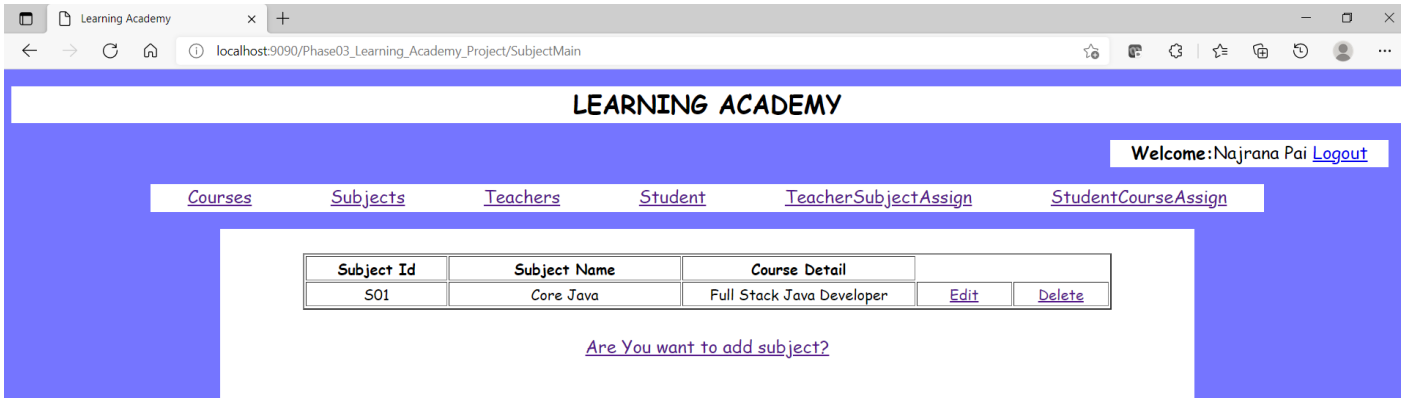
In a course Detail you have to select from the drop down and its contain only course name from course entity



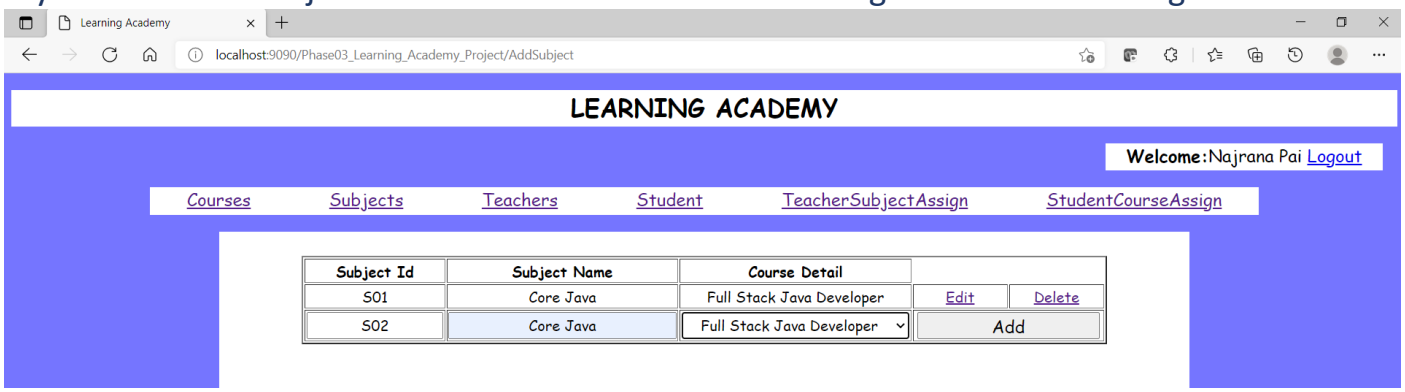
Enter the required detail



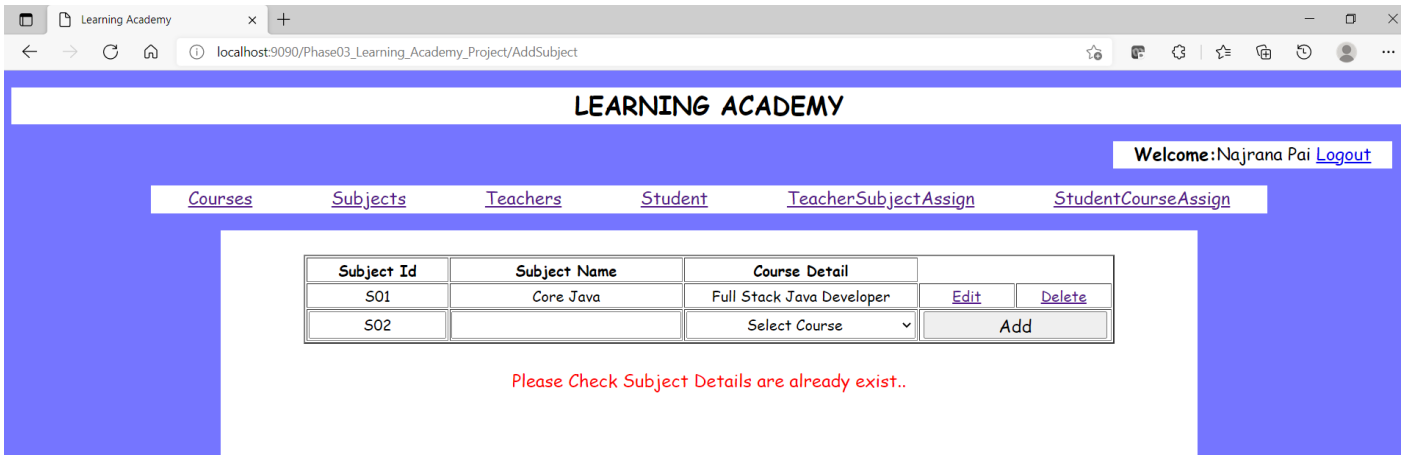
On add will add into the subject with course id not to the course name.

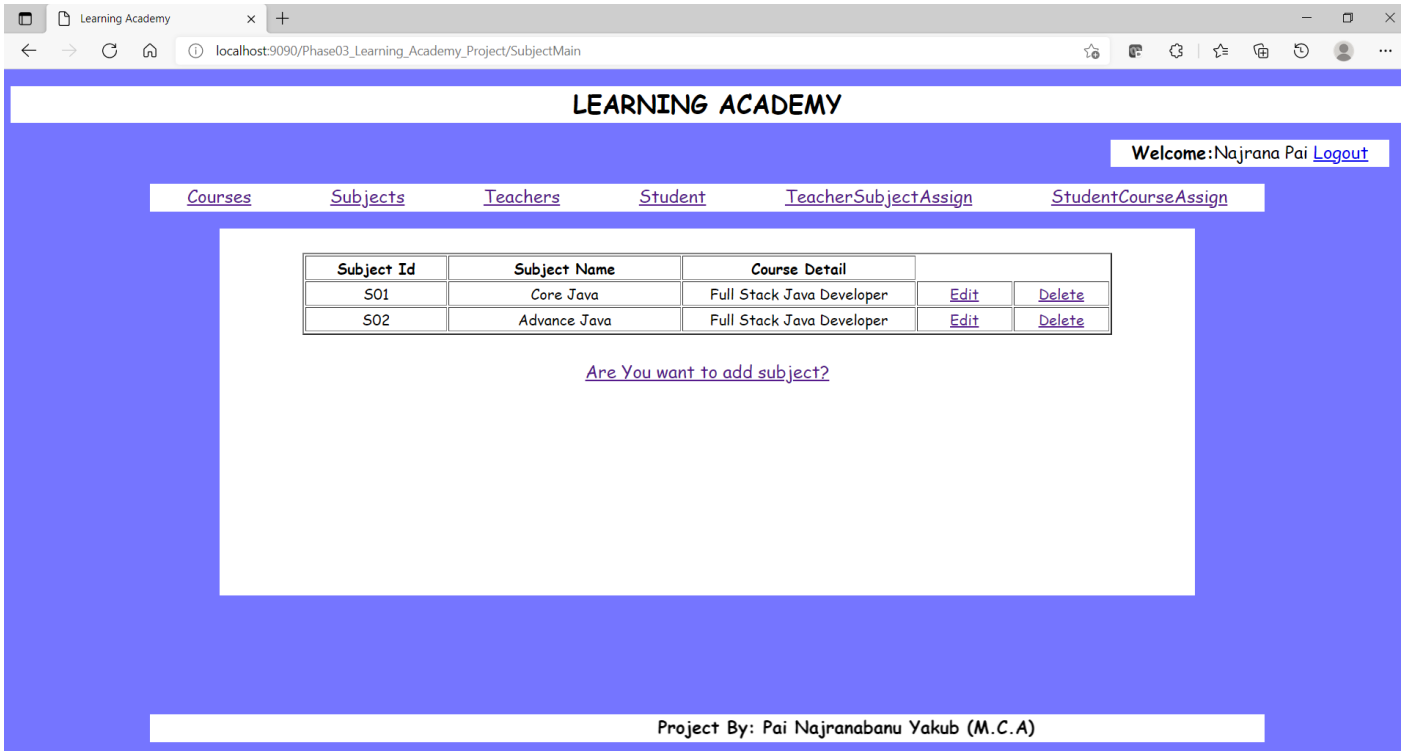


If you add same subject name and same course then will generate the message like

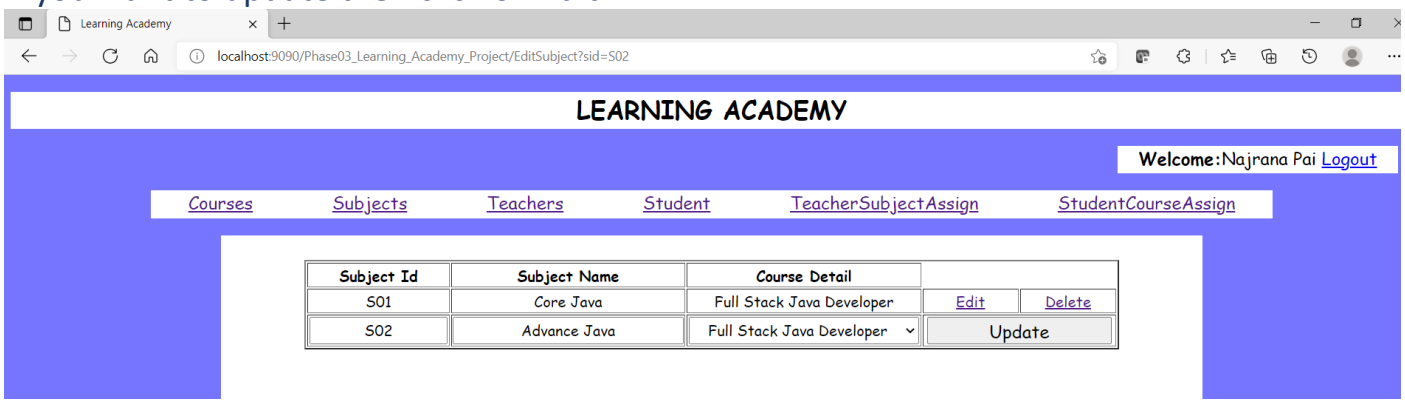


Then

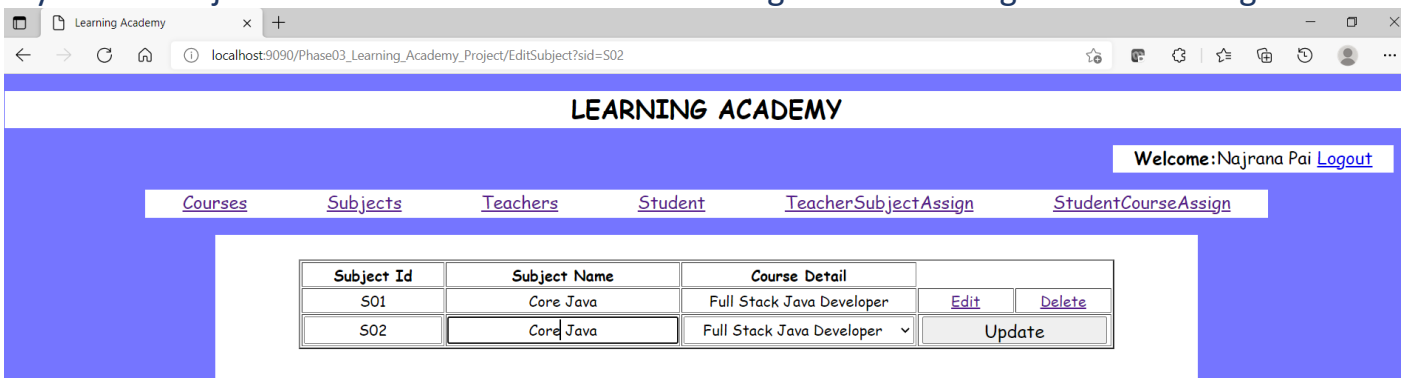


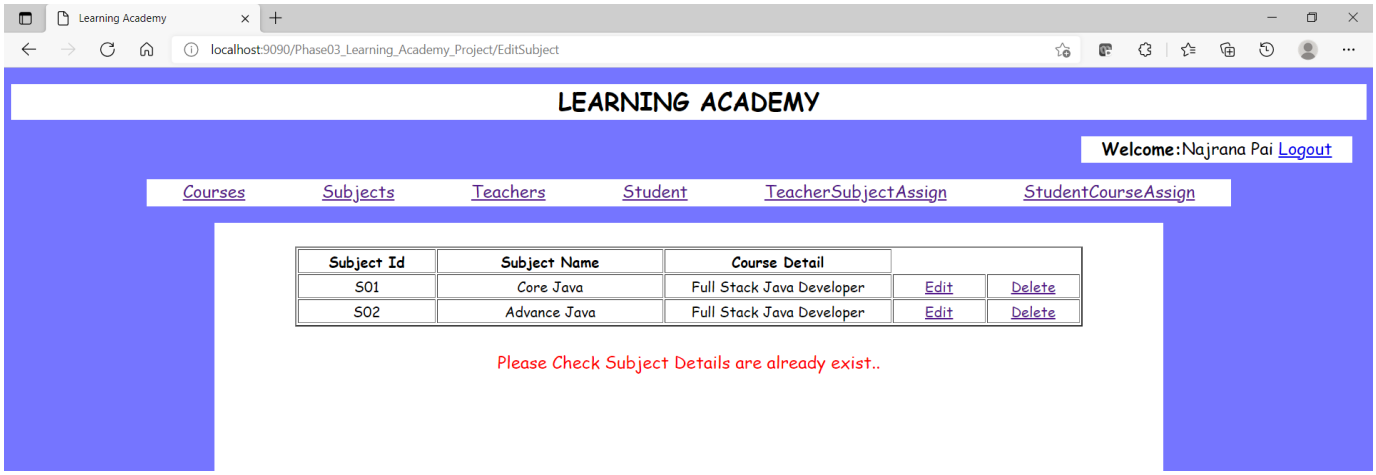


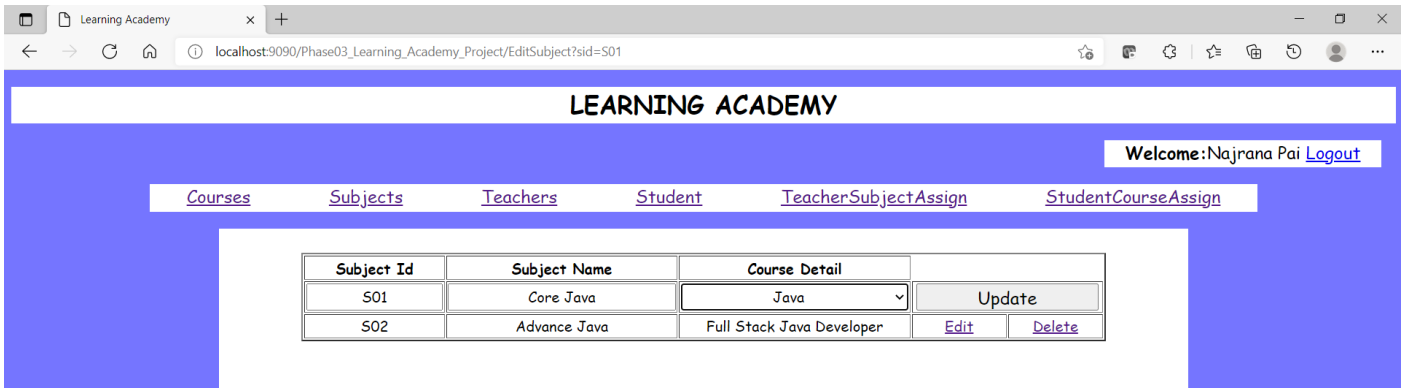
If you want to update then click on Edit



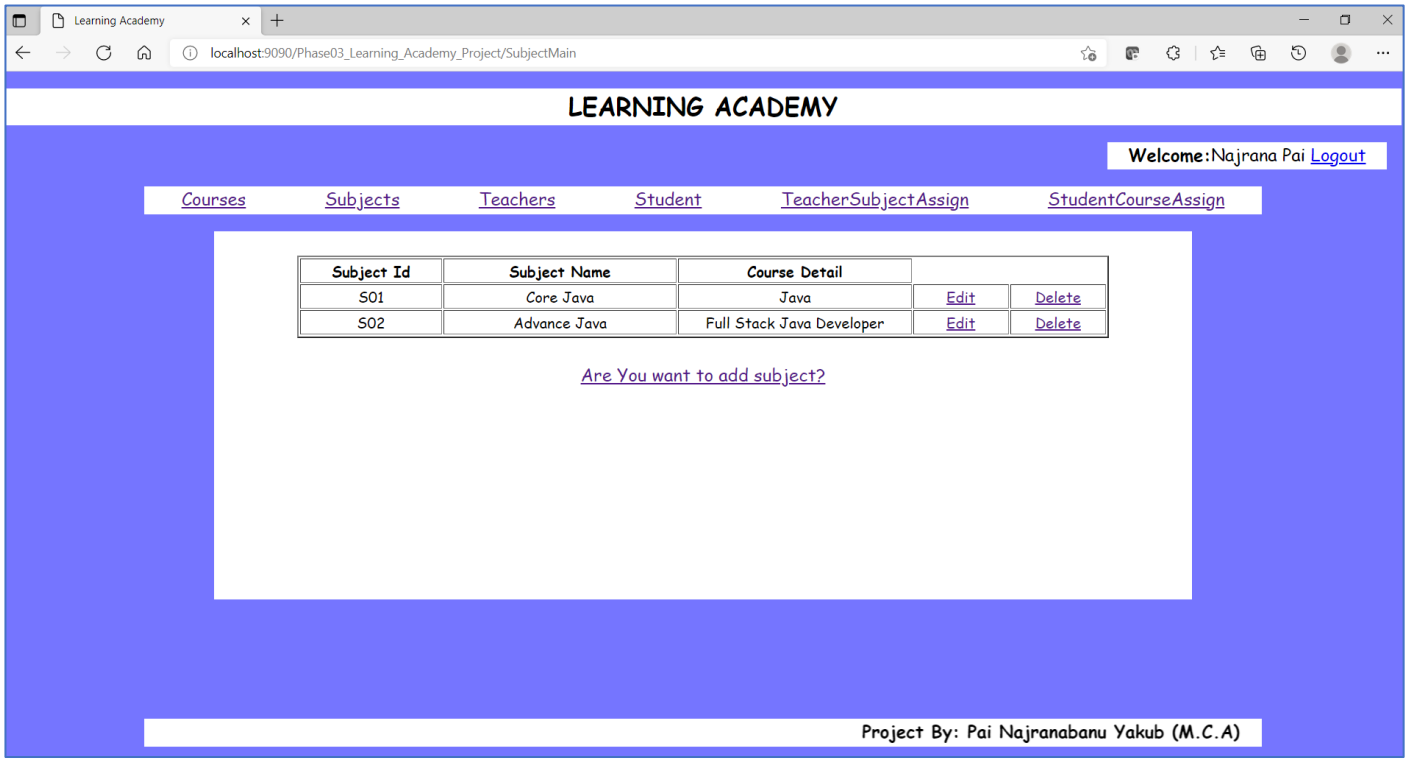
If you use subject name and course name if existing one then will generate message



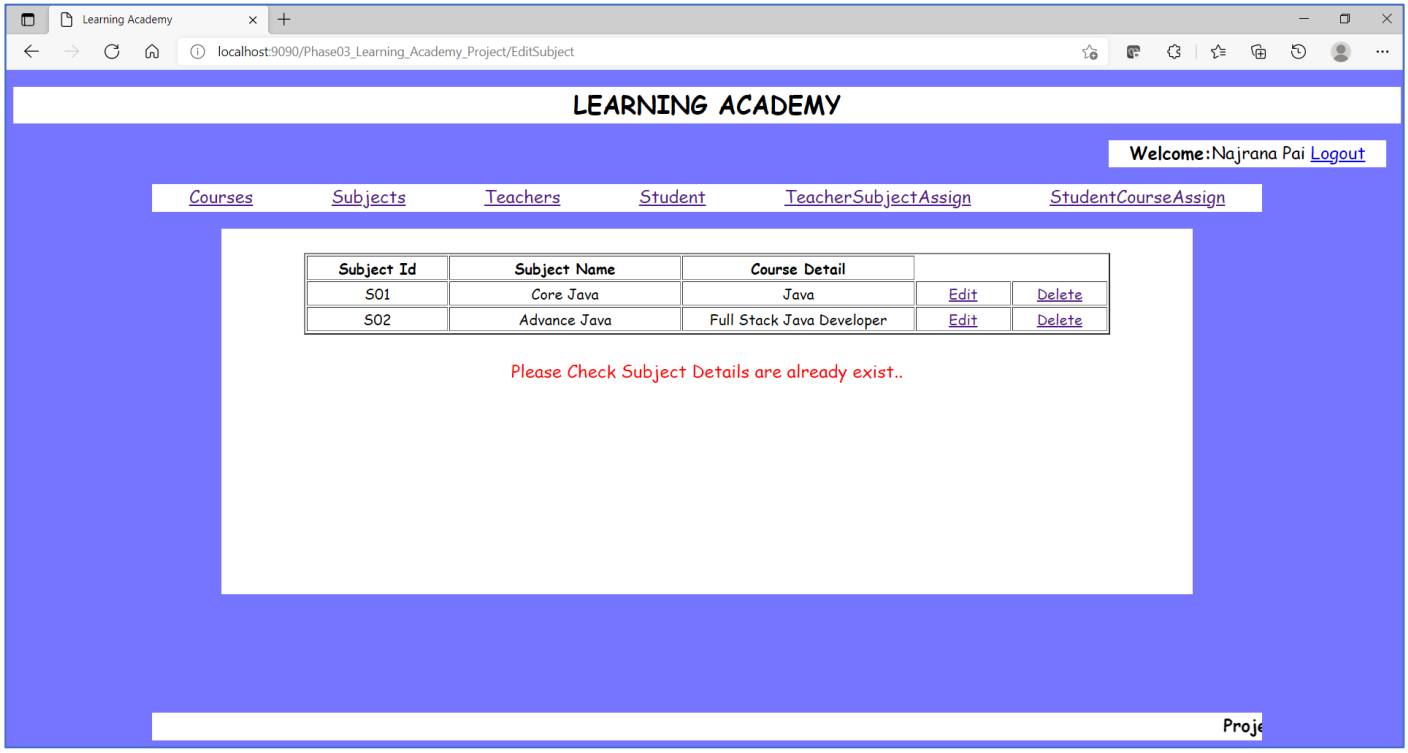




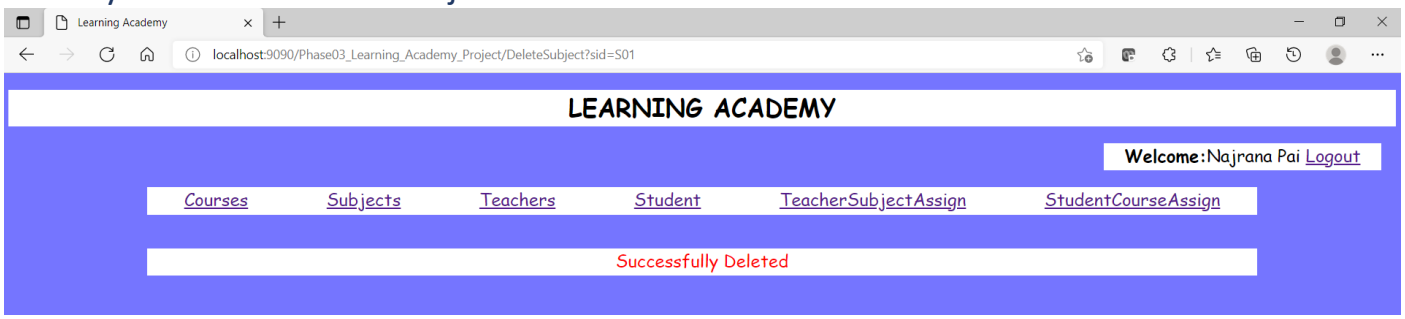
Click on Update then :



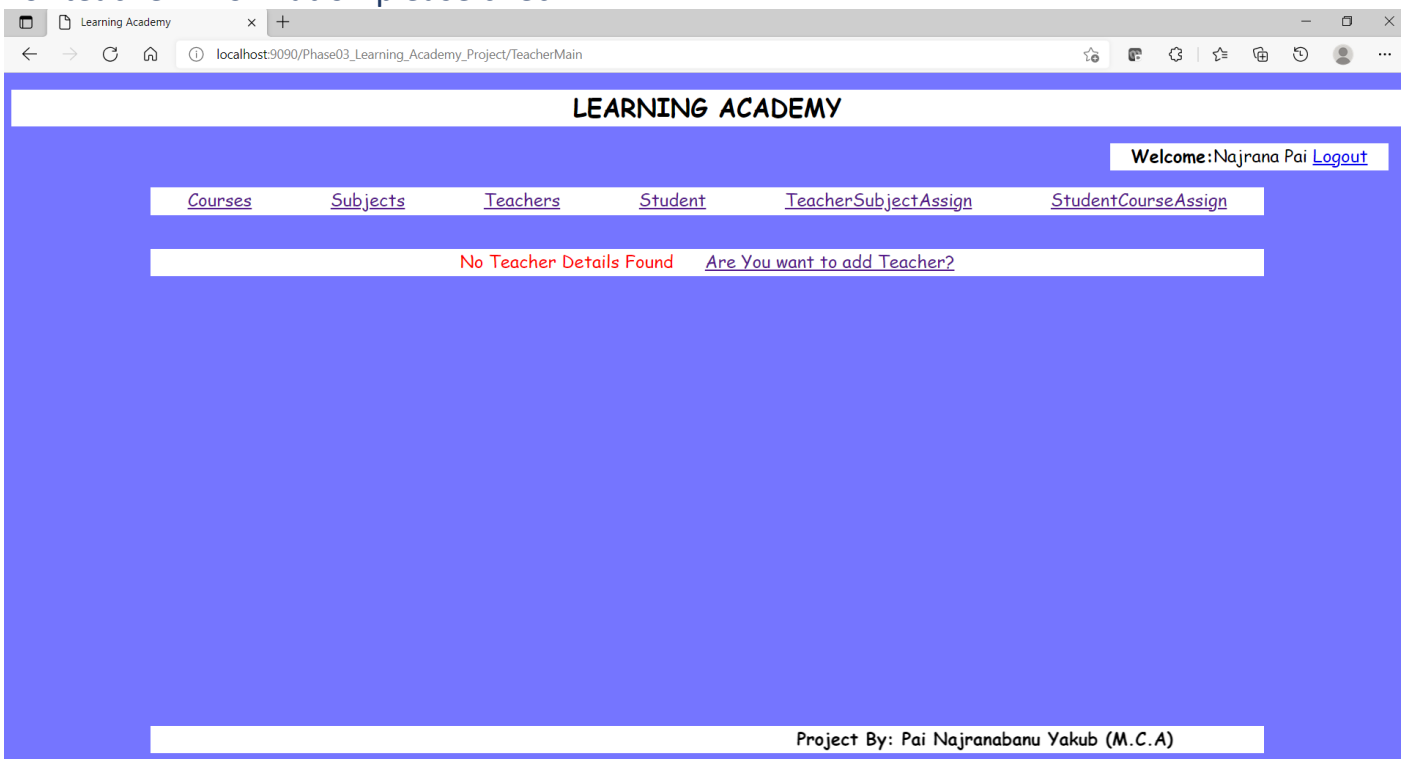
If update with existing data then



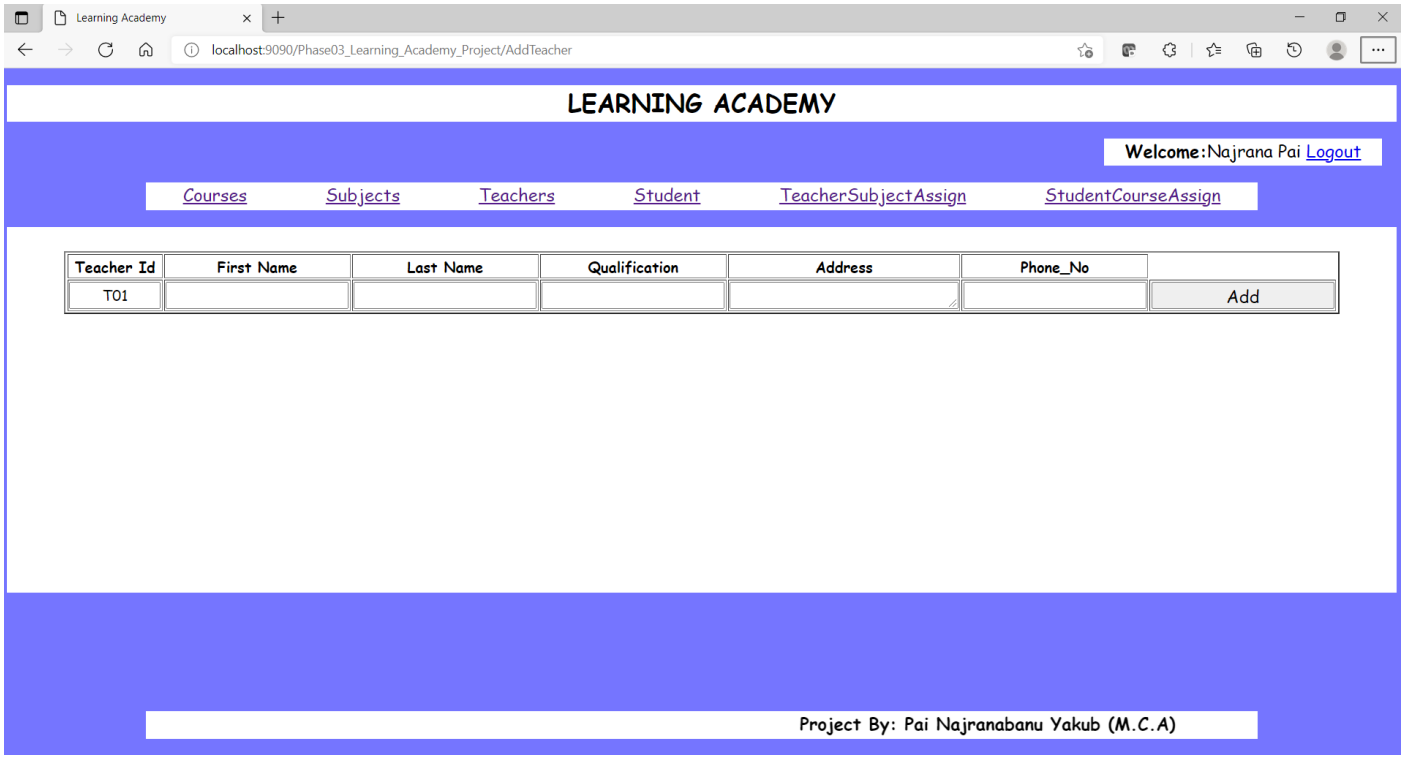
When you have to delete subject then click on delete



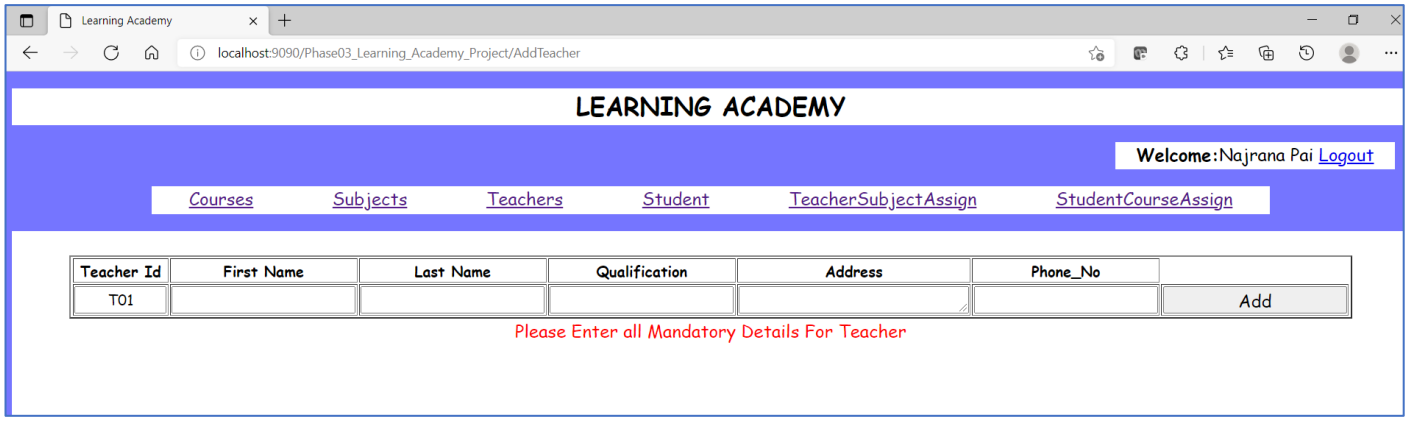
For teacher information please check:

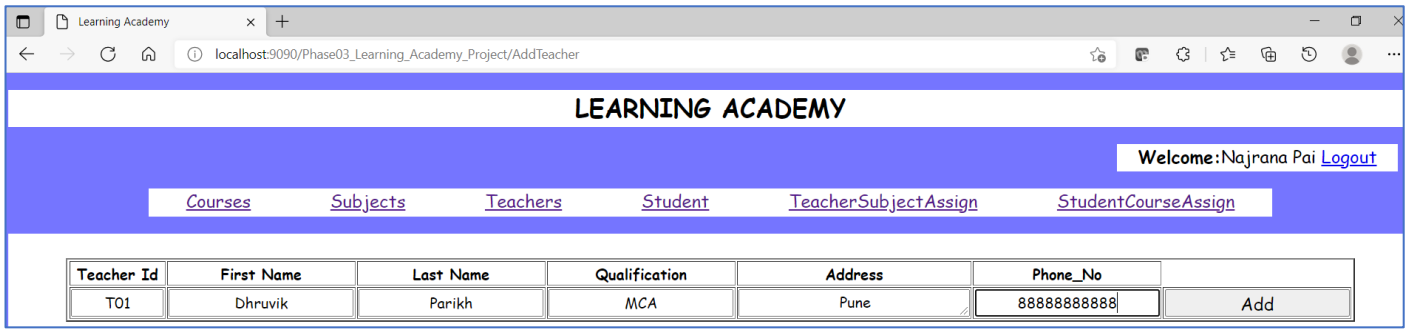


Have to add teacher then please click on Are you want to add Teacher?

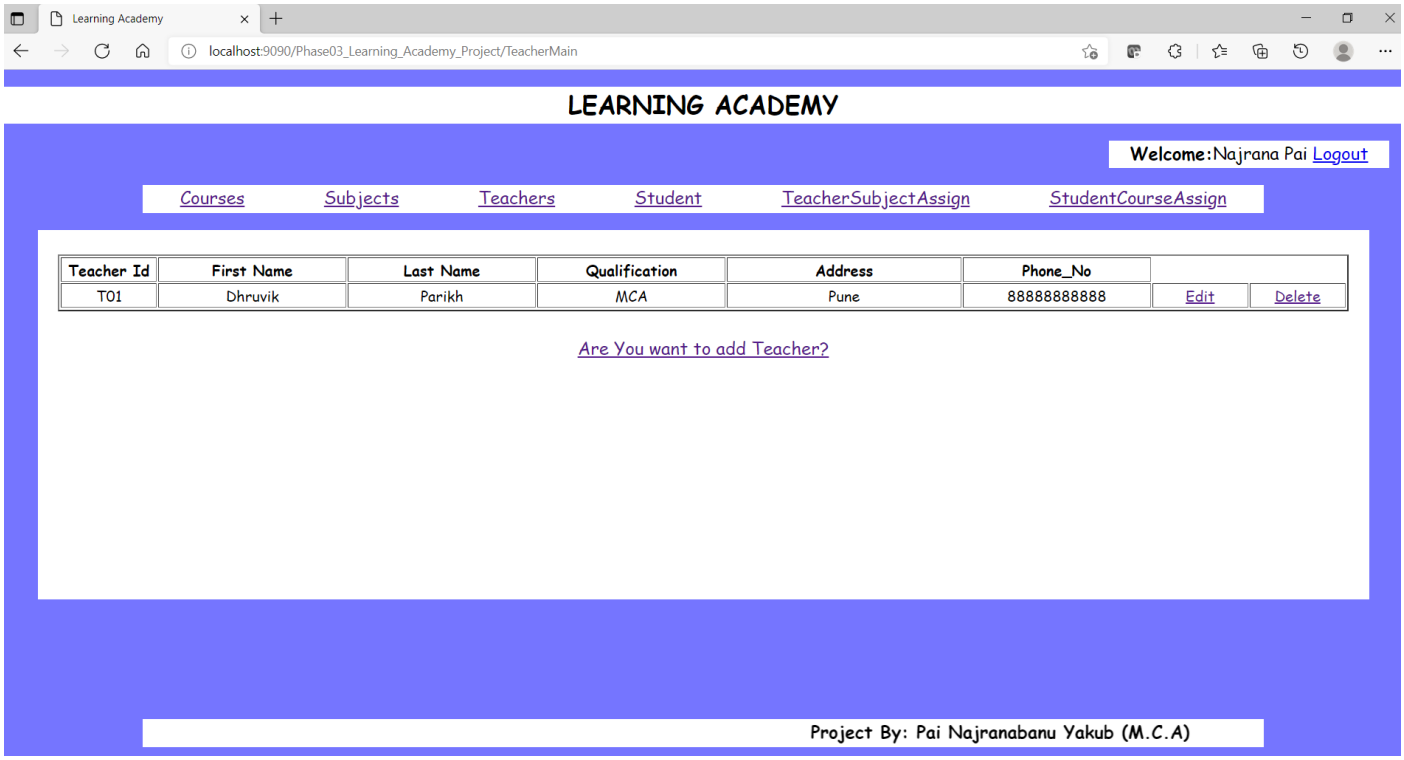


If you add teacher without entering any data then:

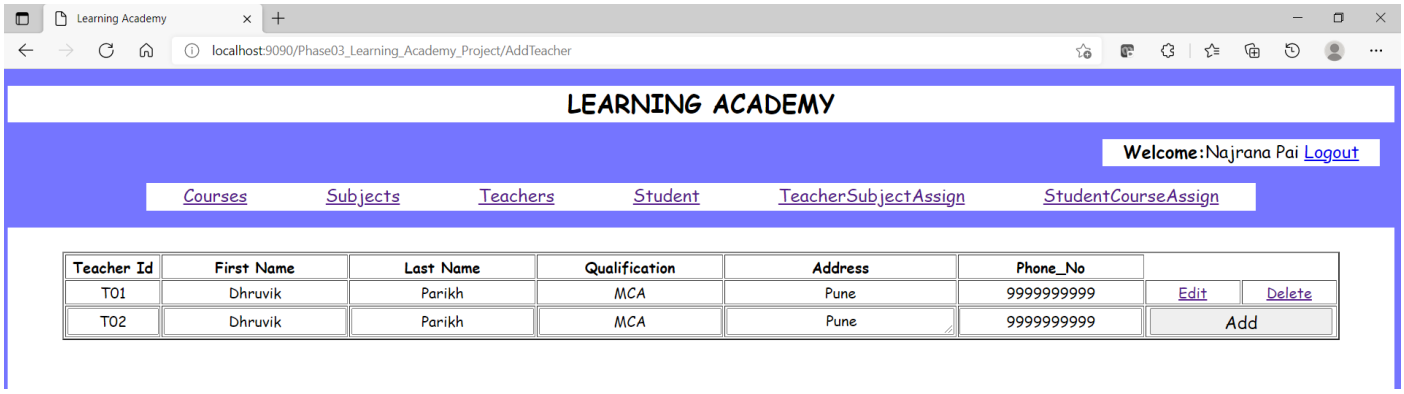




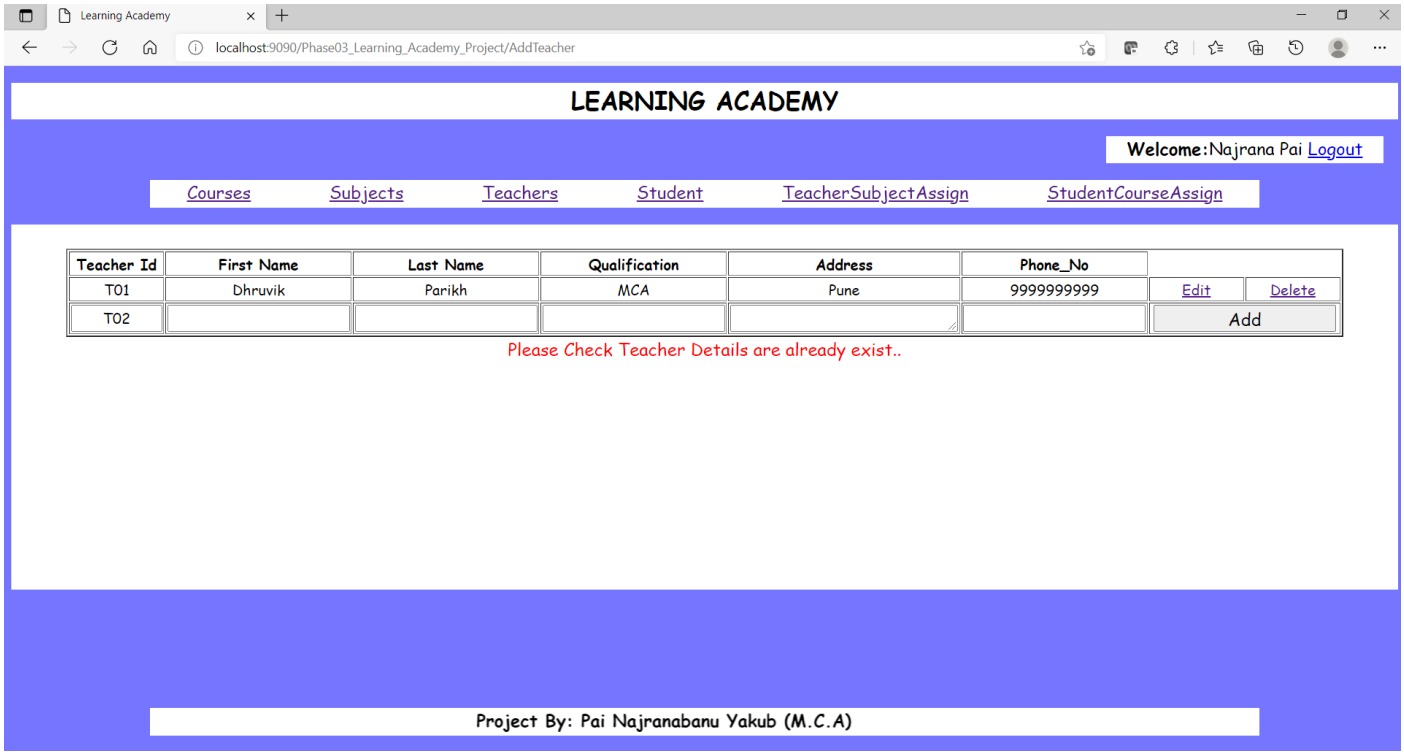
If click on add after entering data then will store data into the database



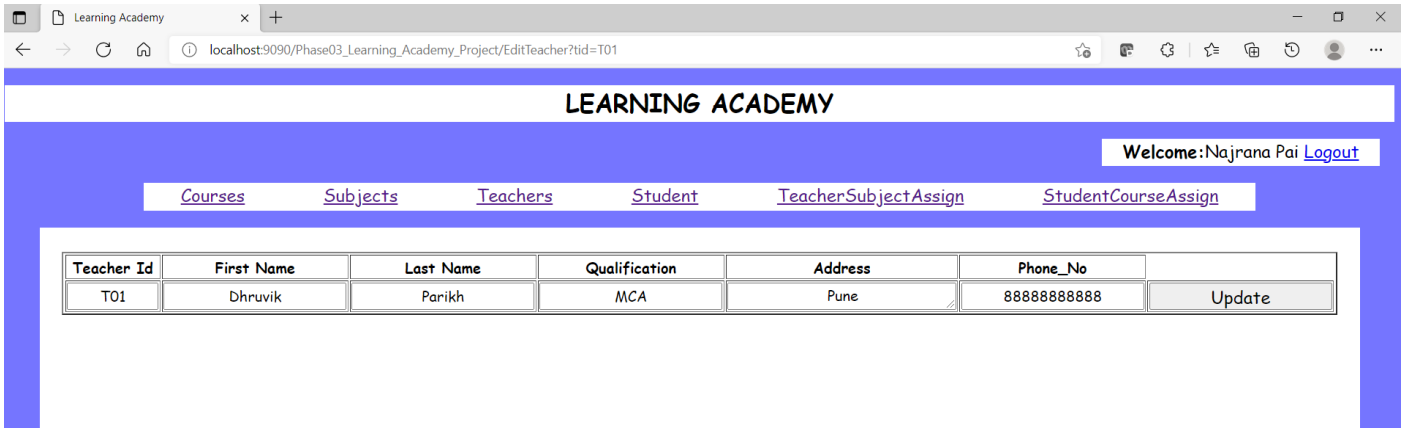
If you add same teacher again then:



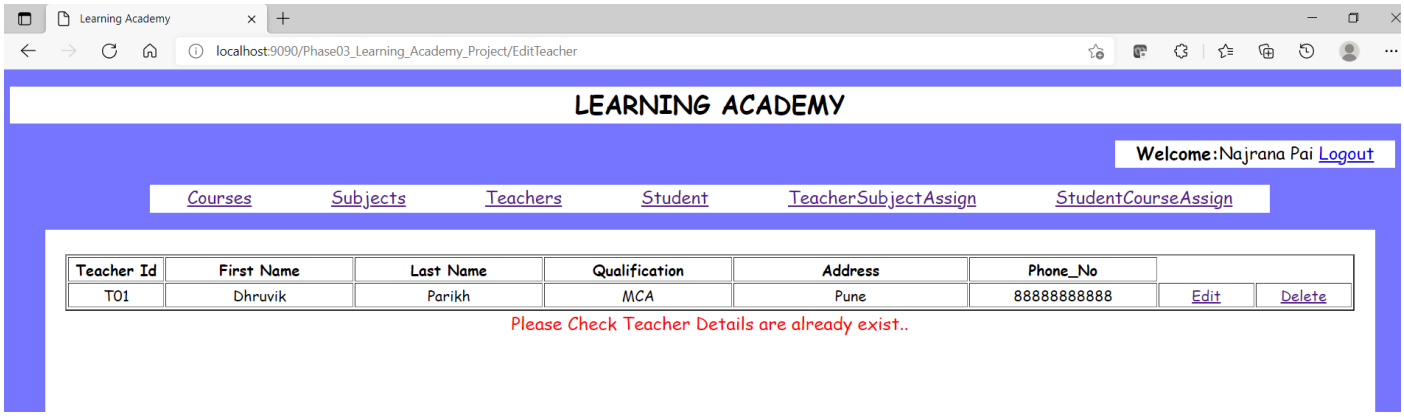
Then give error message as



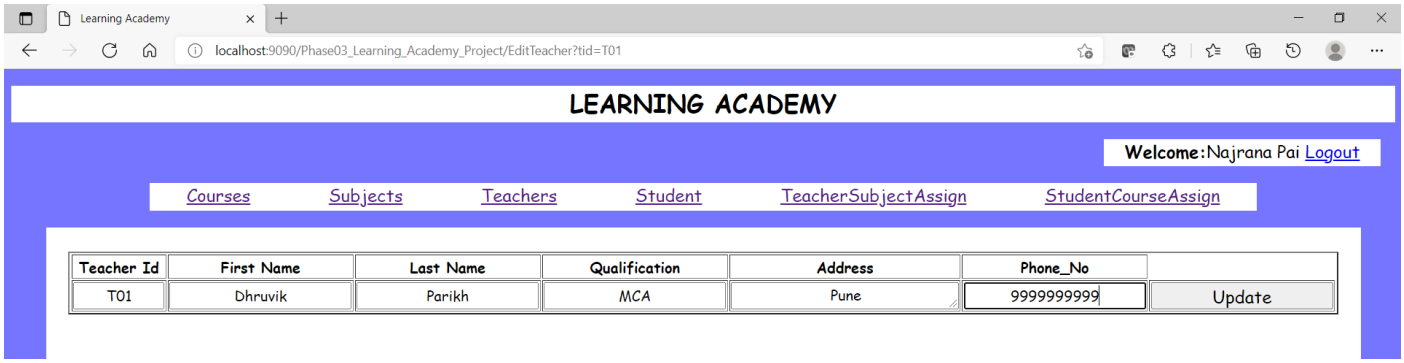
If you want to edit data then click on edit



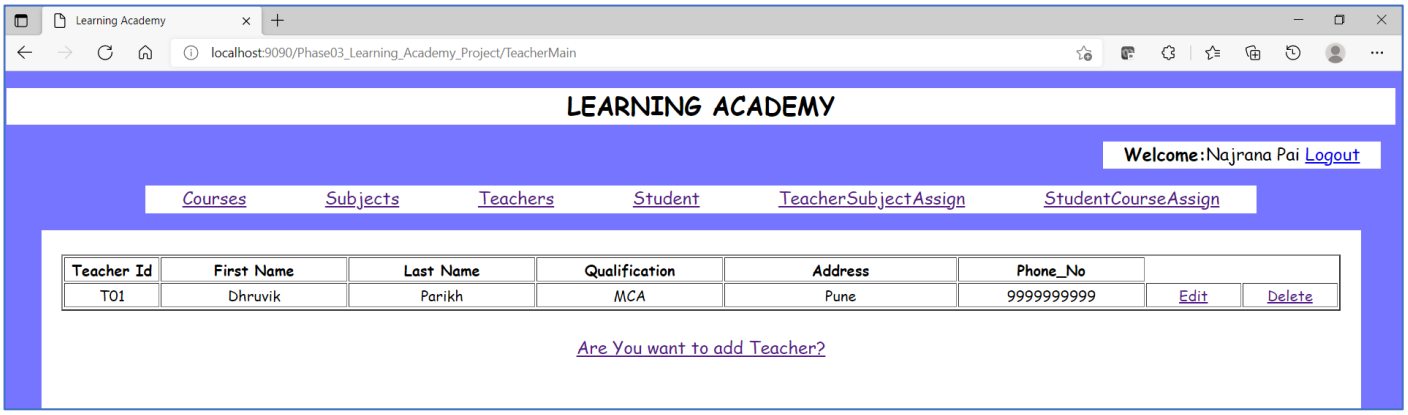
If you don't edit any data and click on Update then and if suppose the teacher exist then



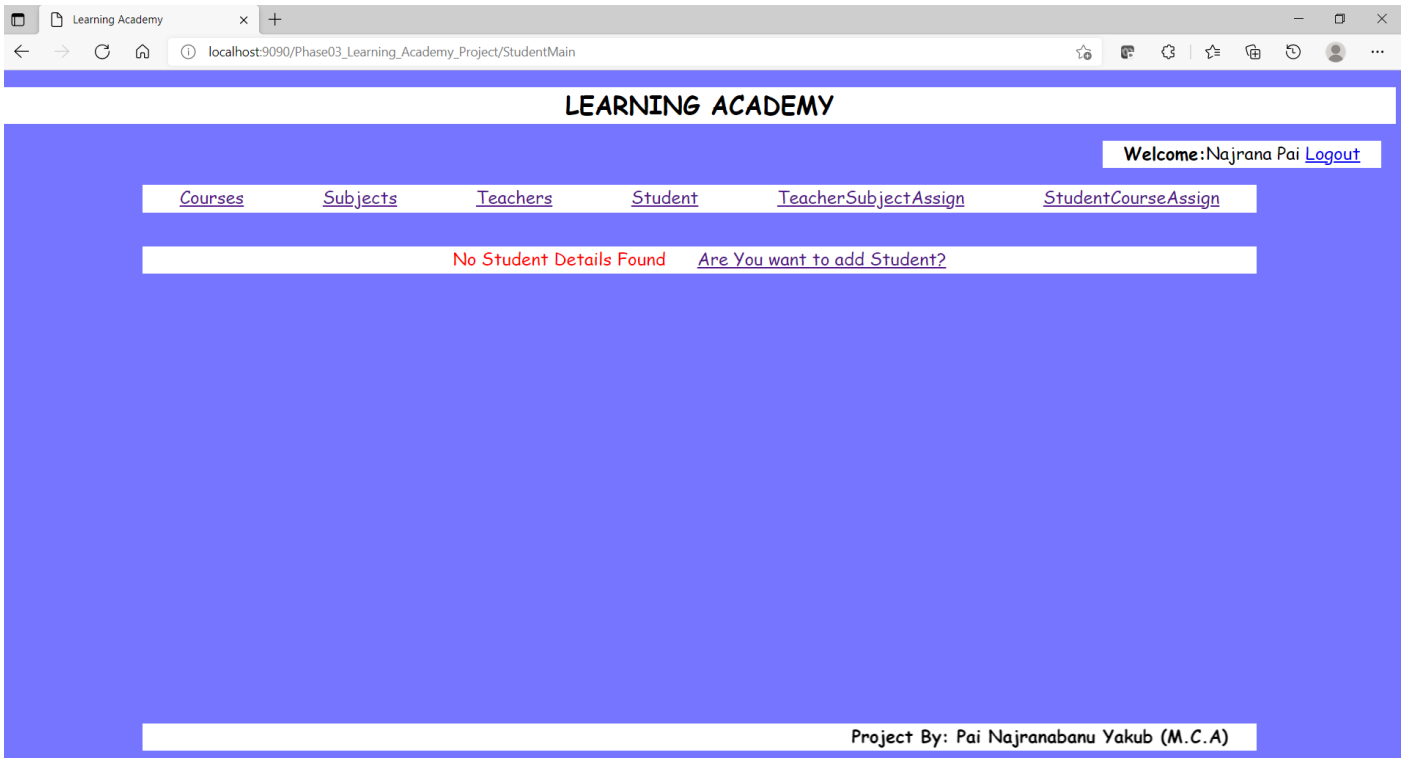
If you change data



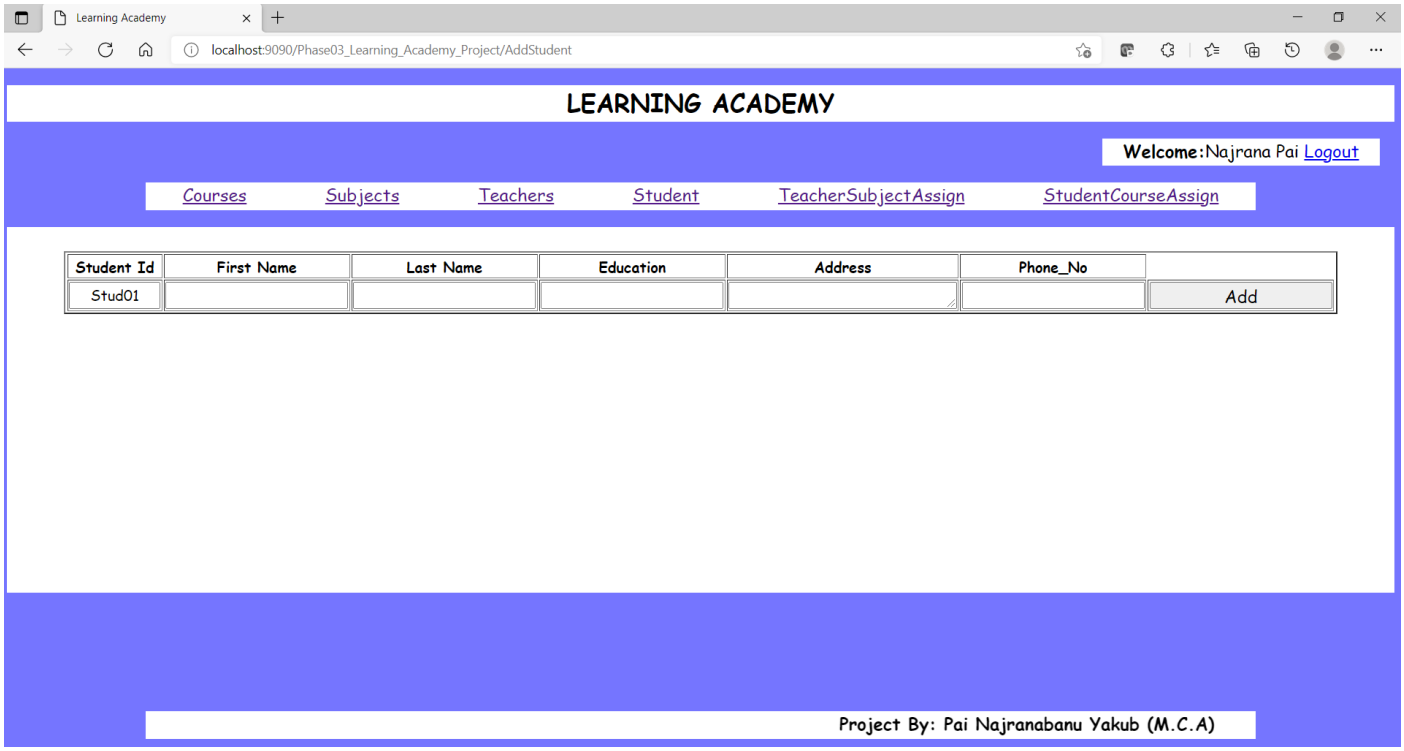
And now click on update then



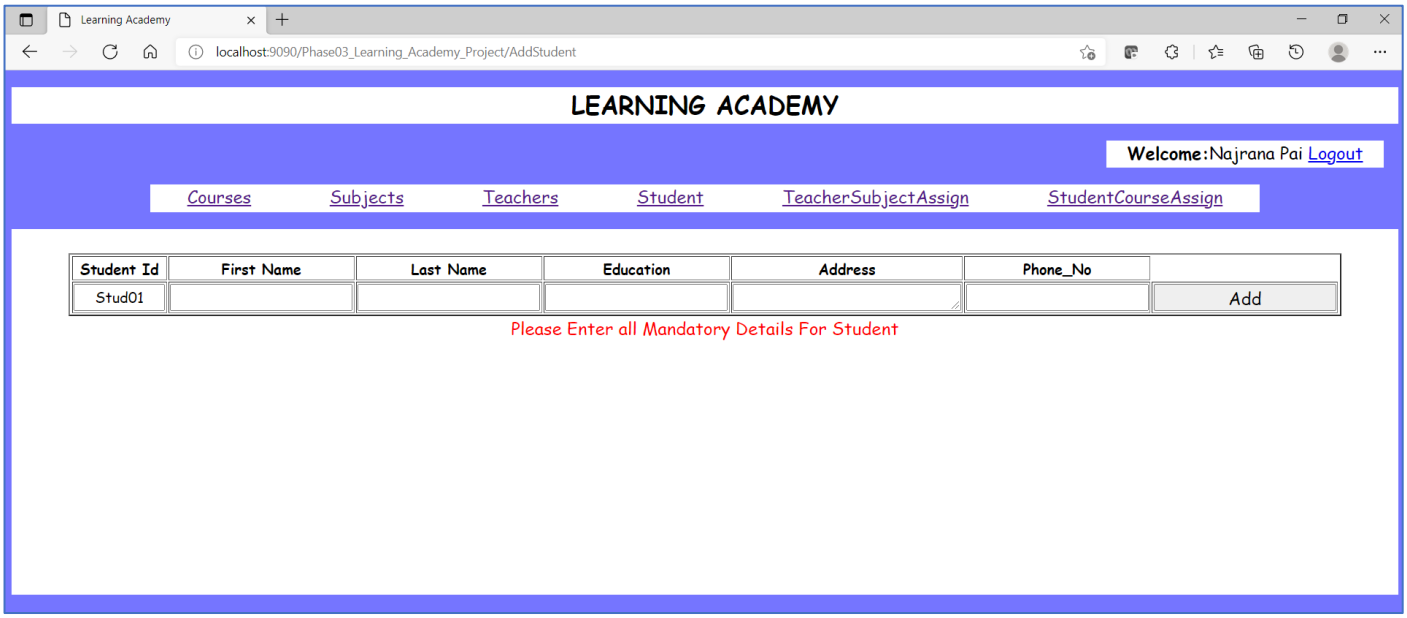
Now Student you can see all student in student tab.

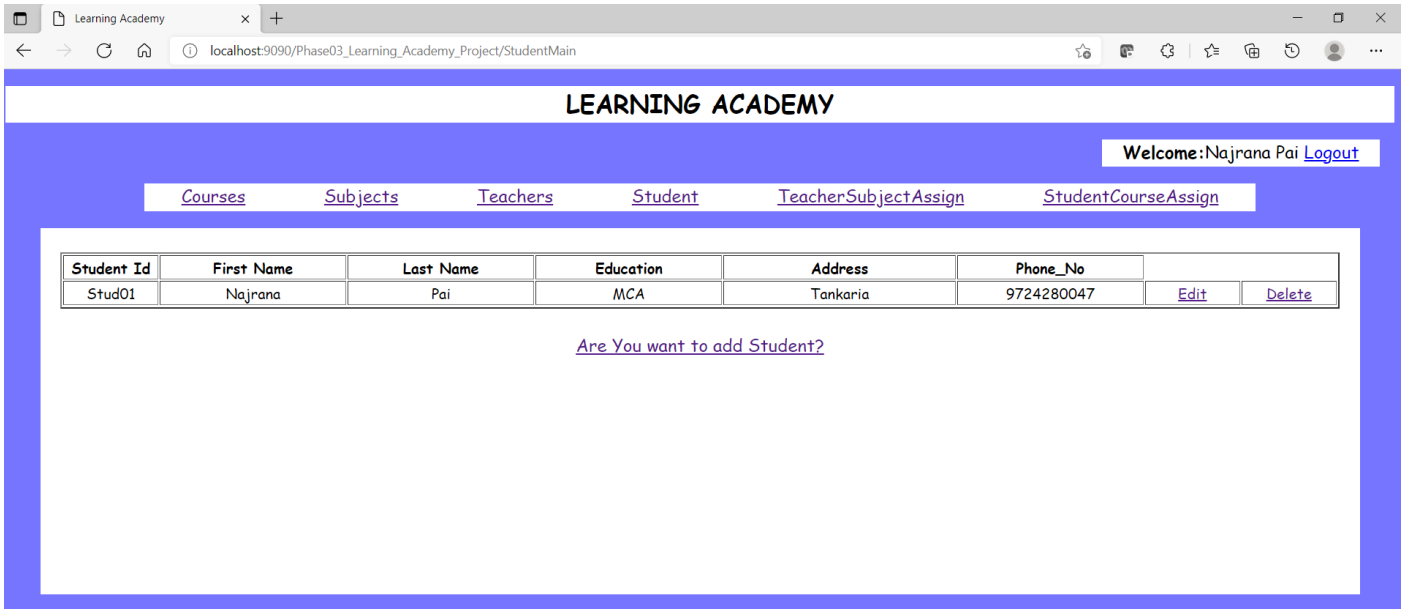


Click on add student will redirect to the Add student

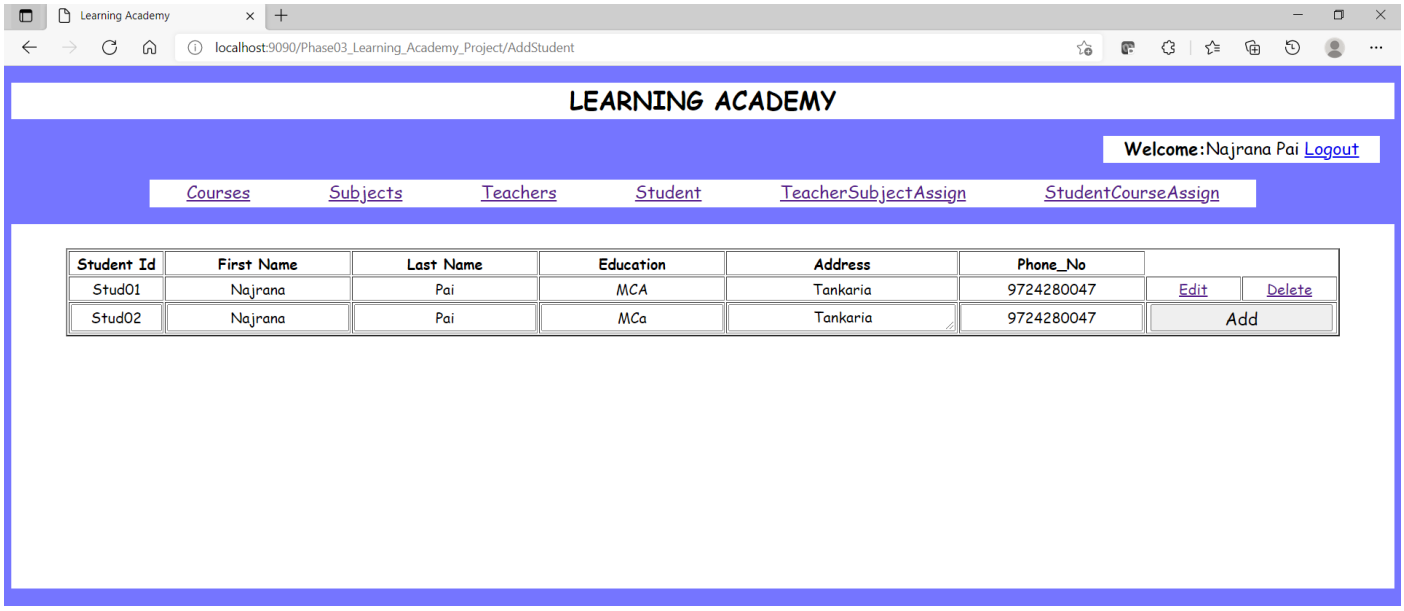


Same check all details are blanks or not

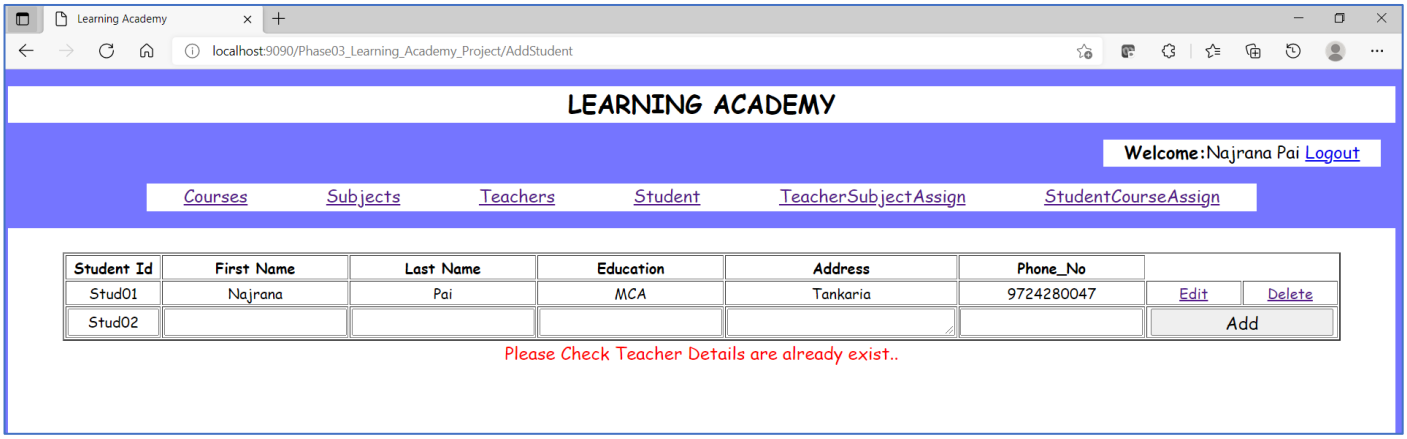




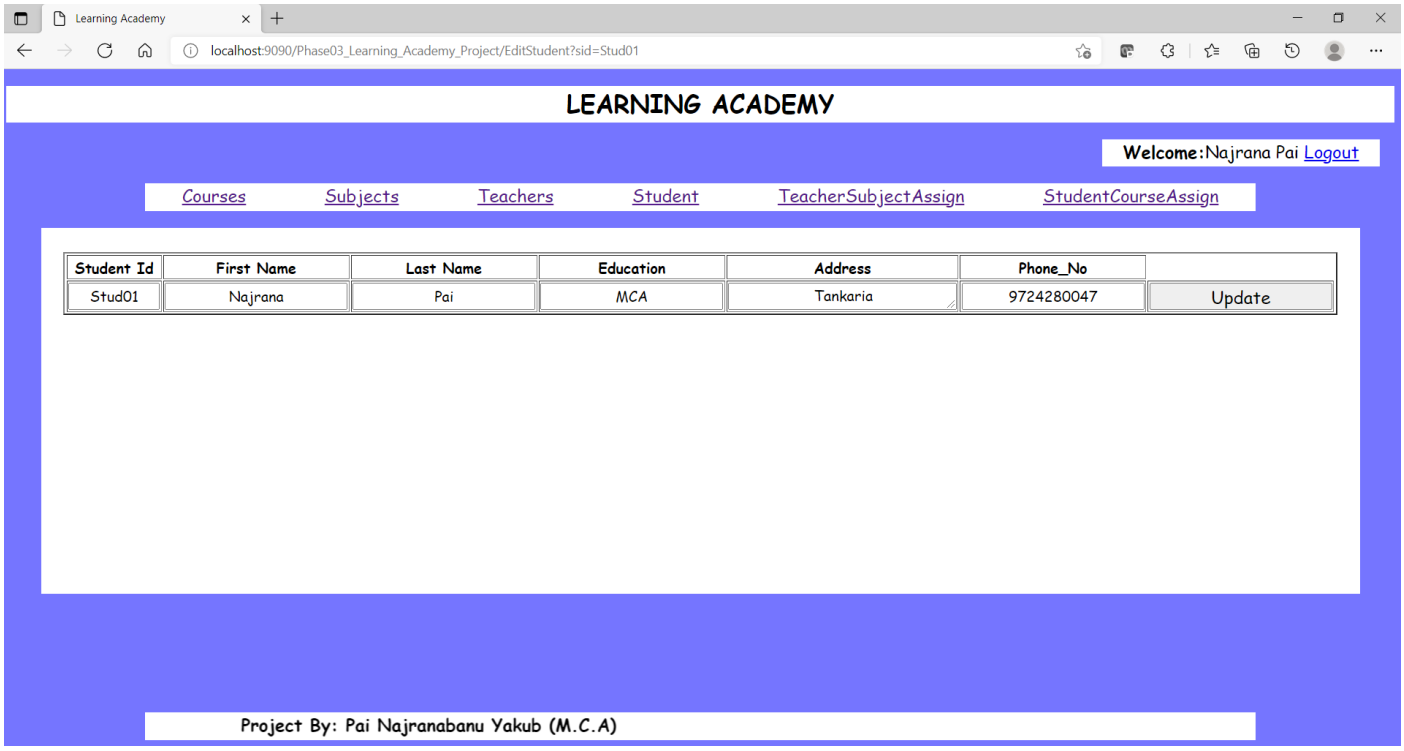
If you are enter all details same as existing one then



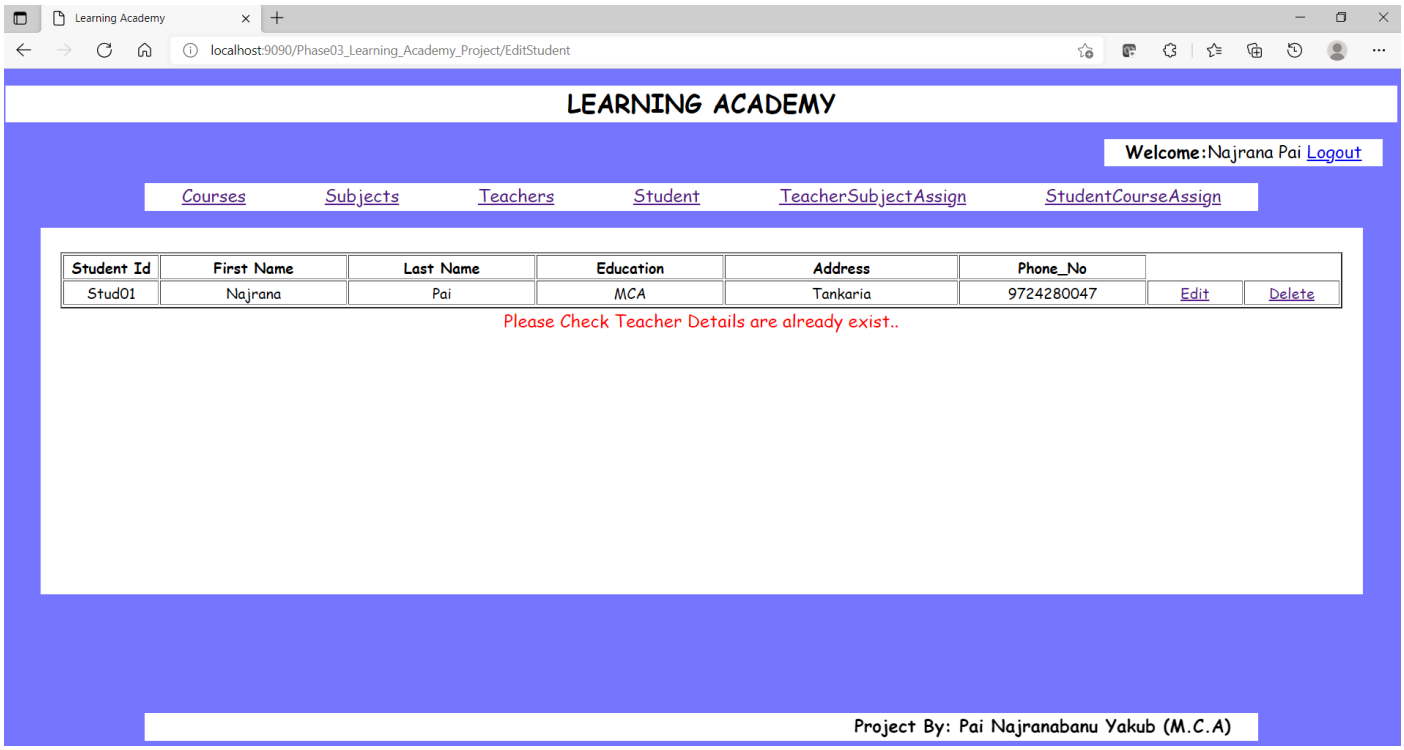
And click on Add then



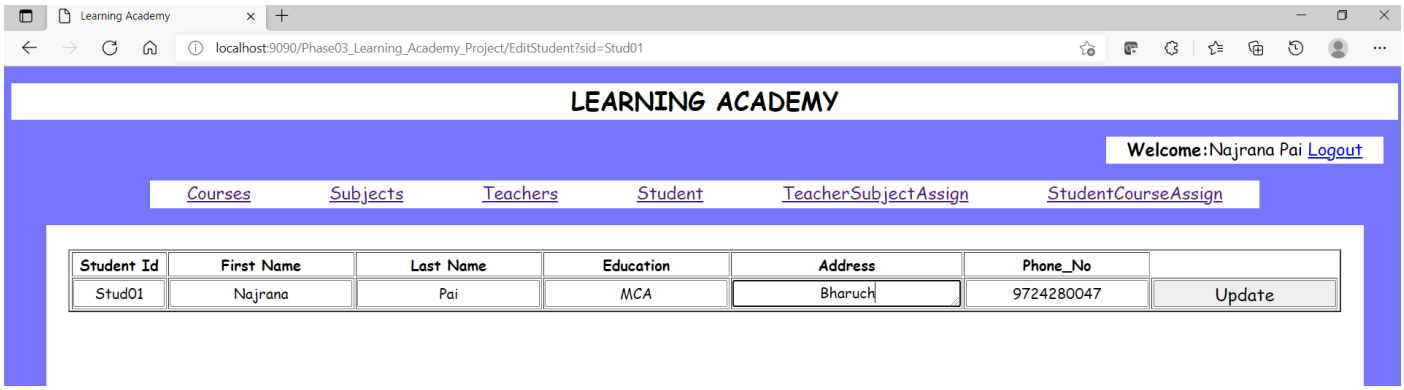
If you want to Edit Student details then click on edit



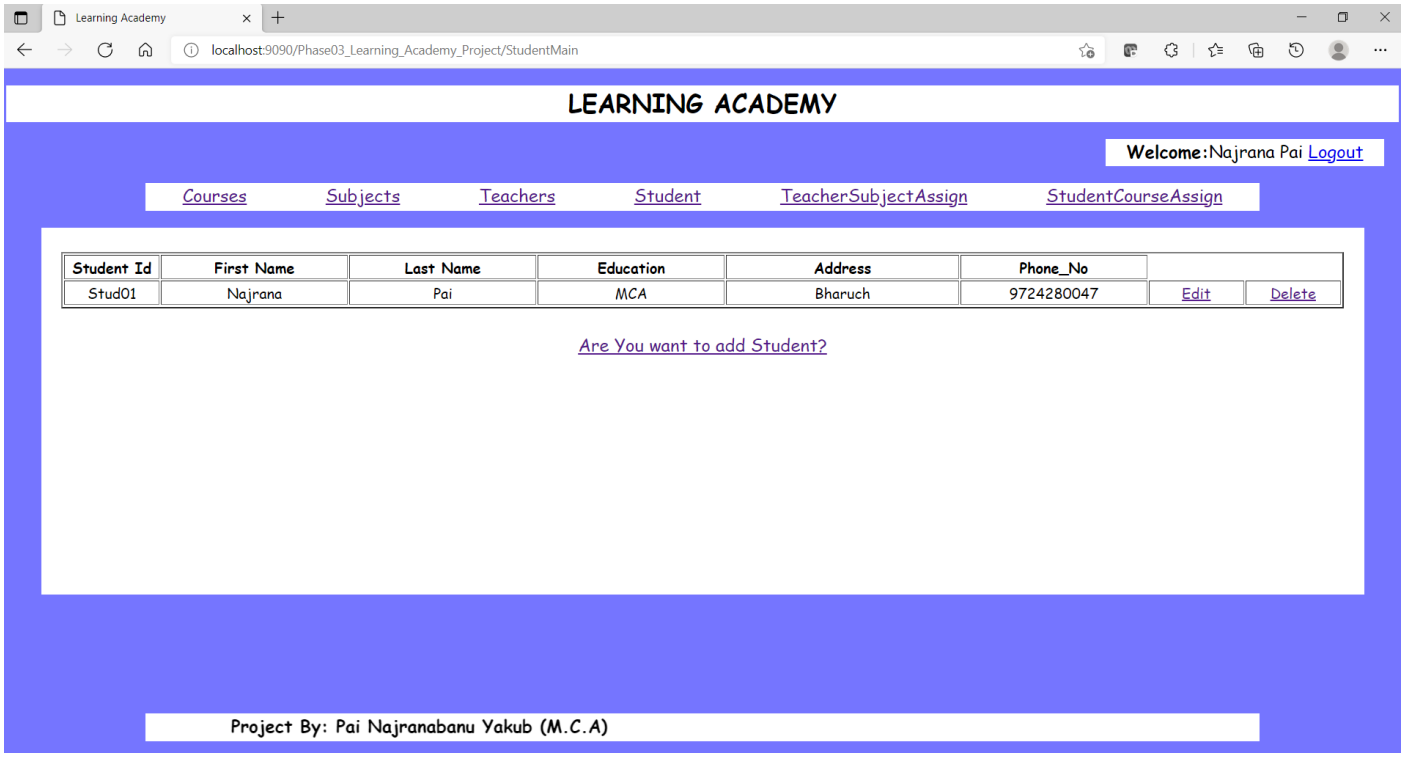
If you update data same as existing in a database then error



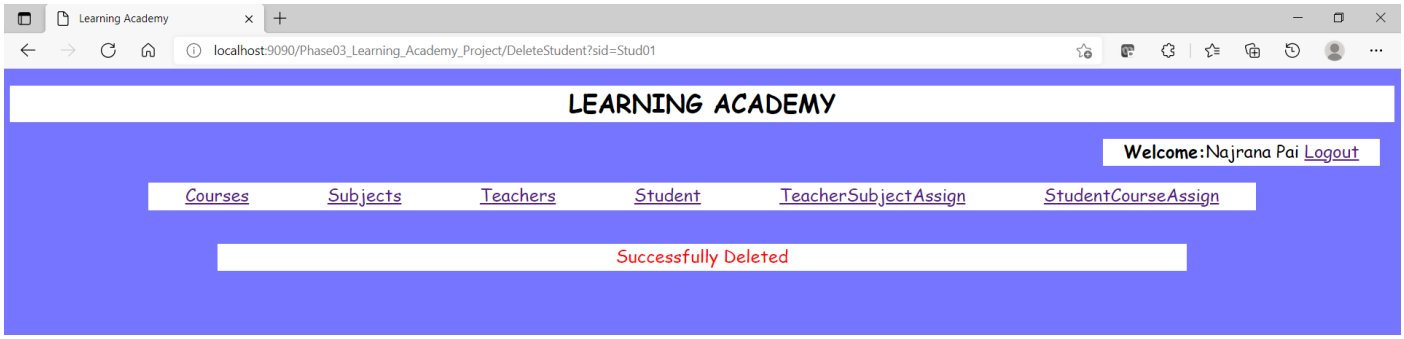
Change some data and then



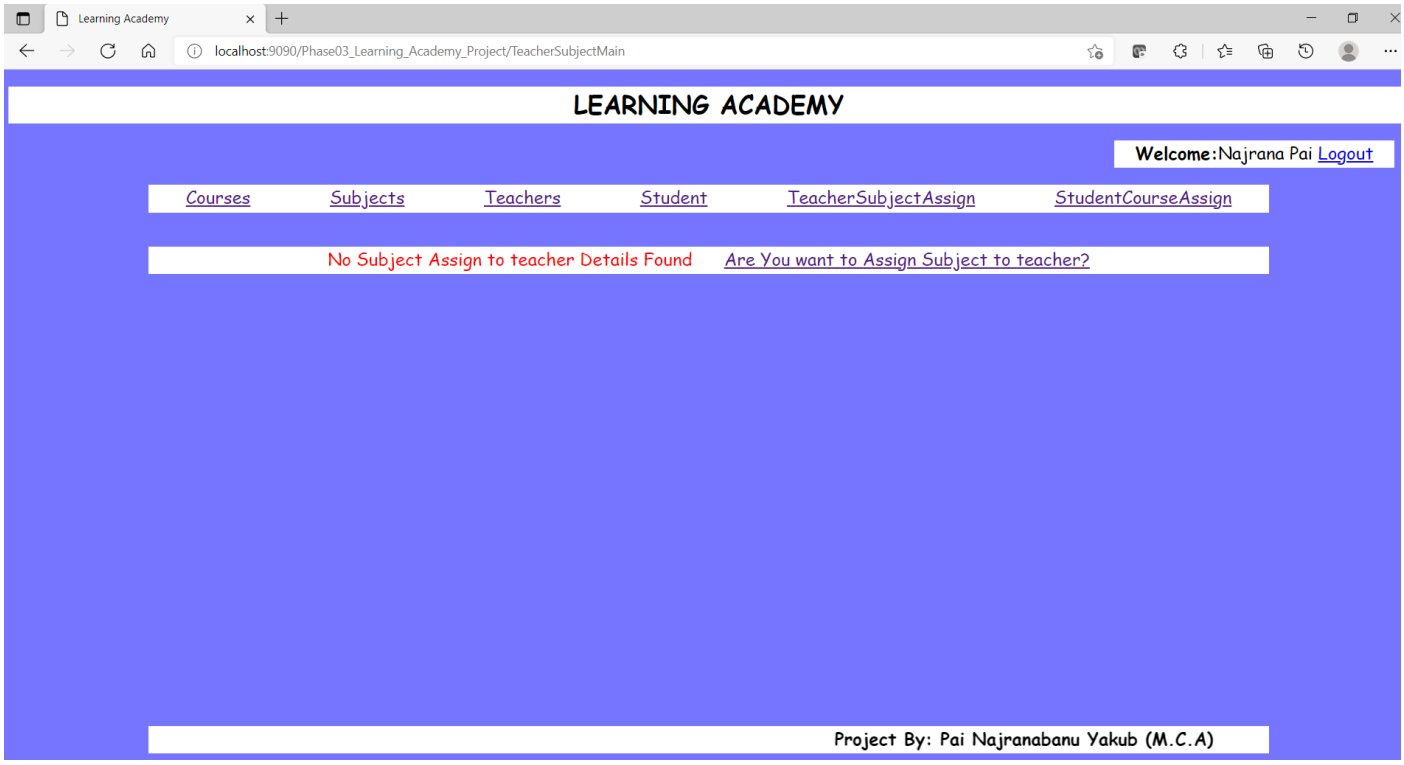
Click on update then will move to the studentMain



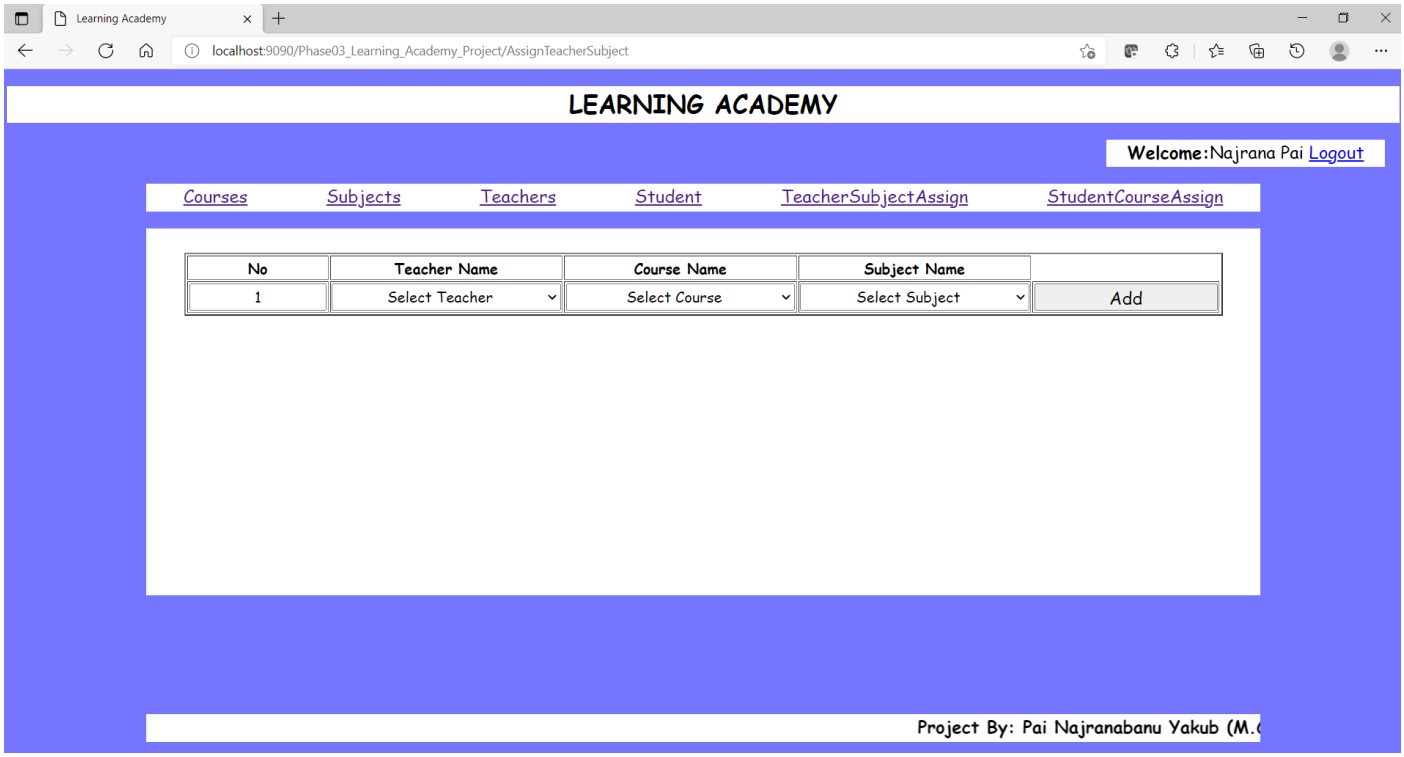
When you have to delete student then click on delete



If you have to assign subject to teacher then click on TeacherSubjectAssign

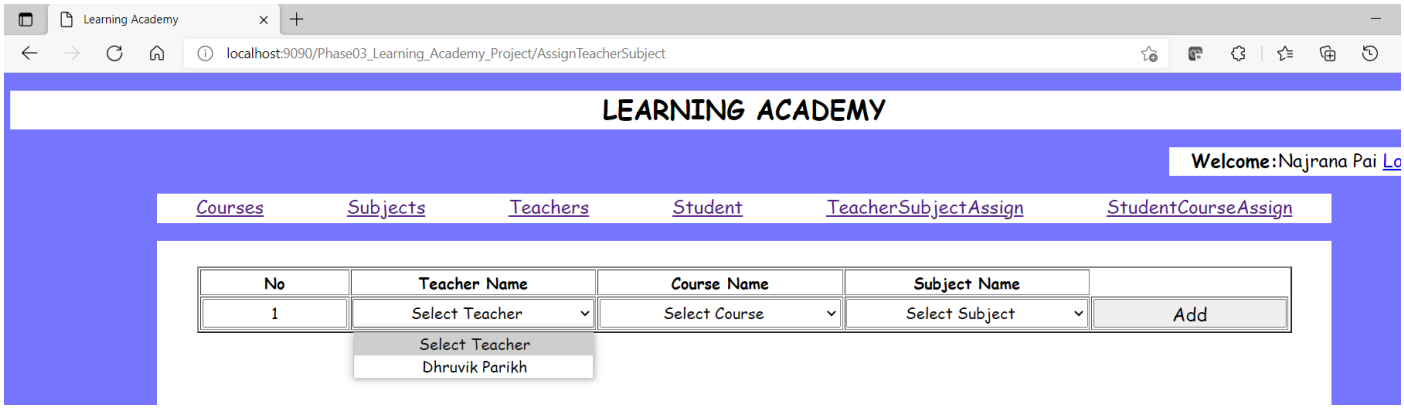

Learning Academy
localhost:9090/Phase03_Learning_Academy_Project/TeacherSubjectMain
LEARNING ACADEMY
Welcome:Najrana Pai Logout
Courses
Subjects
Teachers
Student
TeacherSubjectAssign
StudentCourseAssign
No Subject Assign to teacher Details Found
Are You want to Assign Subject to teacher?
Project By: Pai Najranabanu Yakub (M.C.A)

Please click on Are you want to assign subject to teacher for assign one:

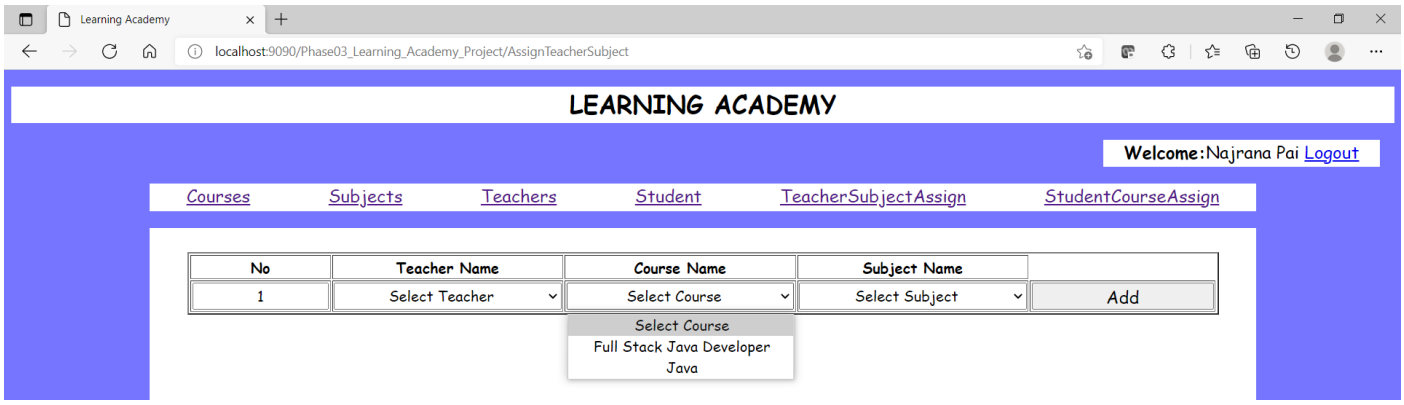


Teacher Name, Course name and subject name are coming from appropriate table teacher, course, subject

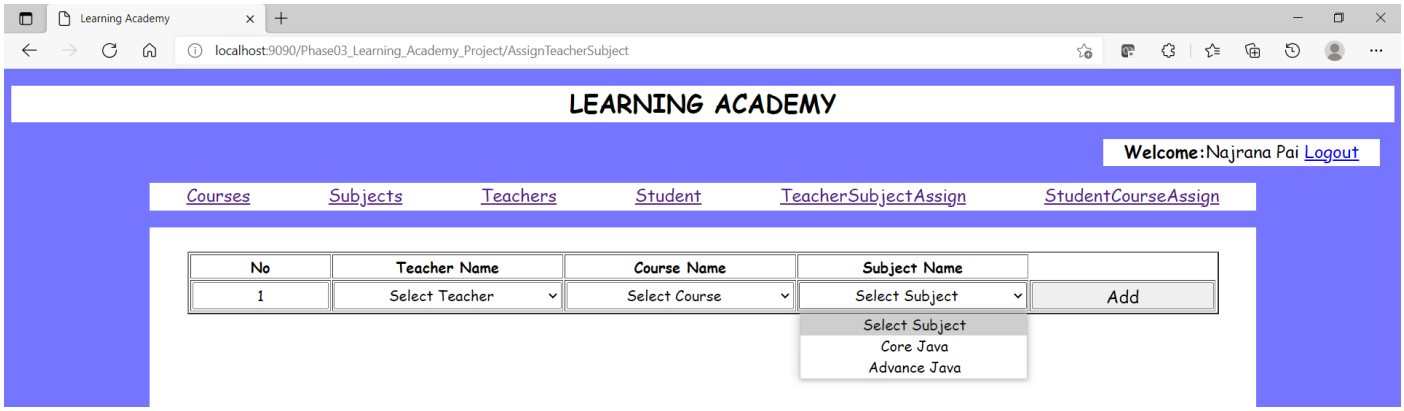
Teacher detail:



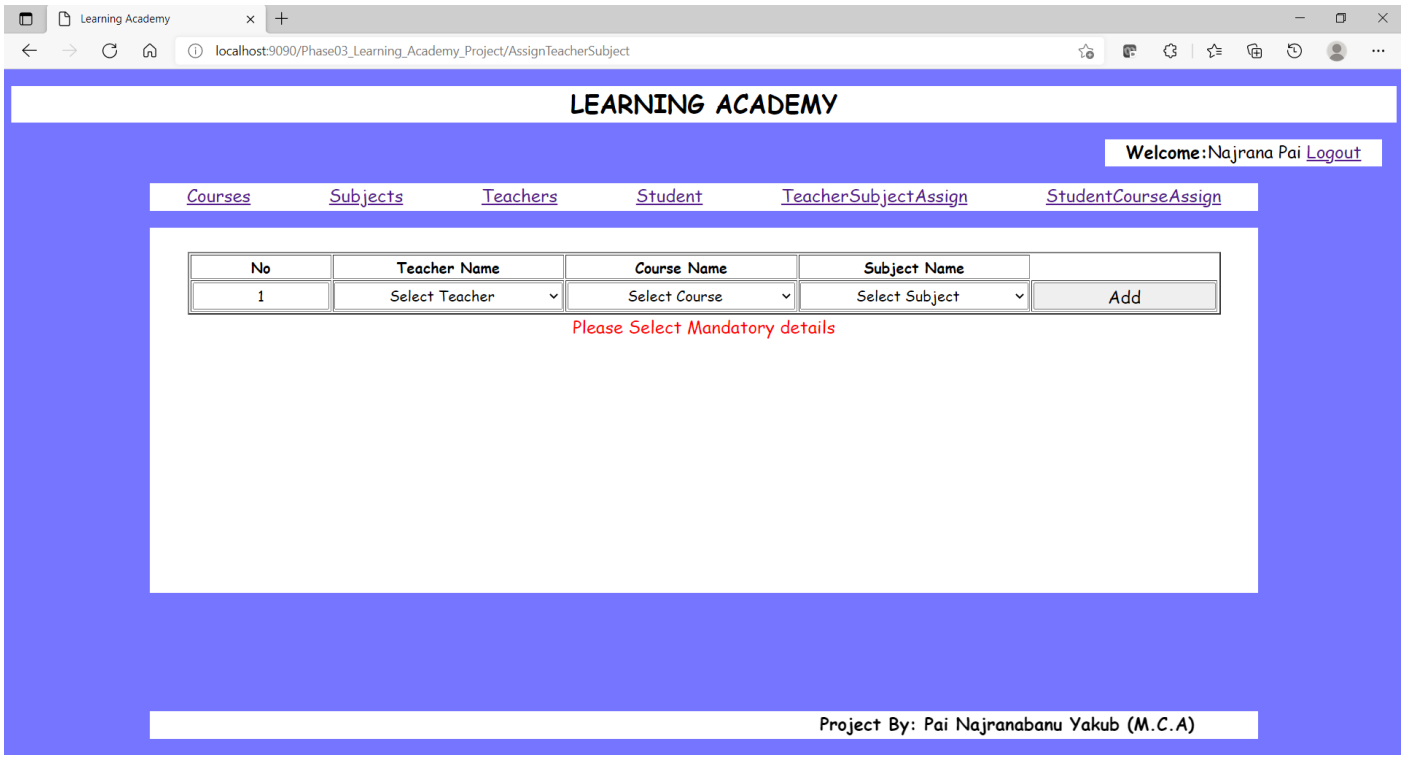
Course detail:

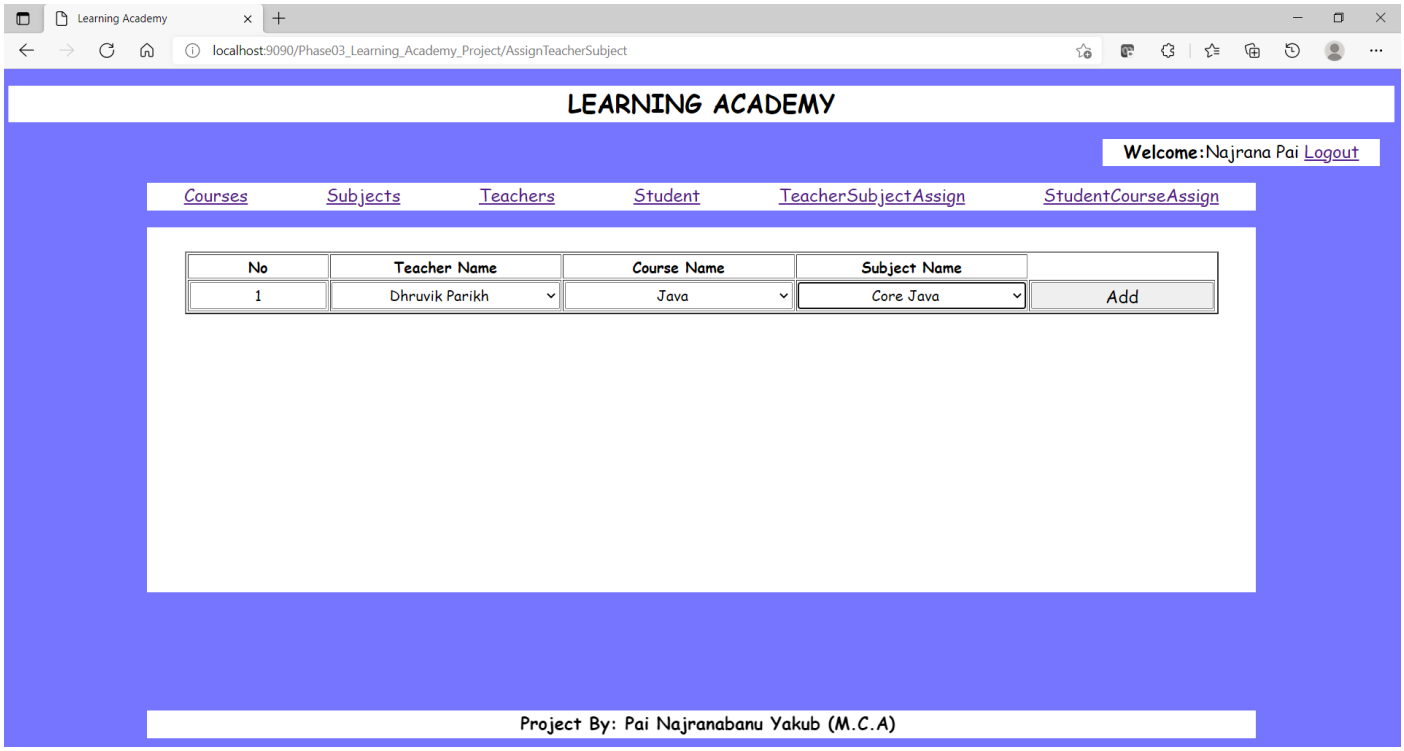


Subject Details:

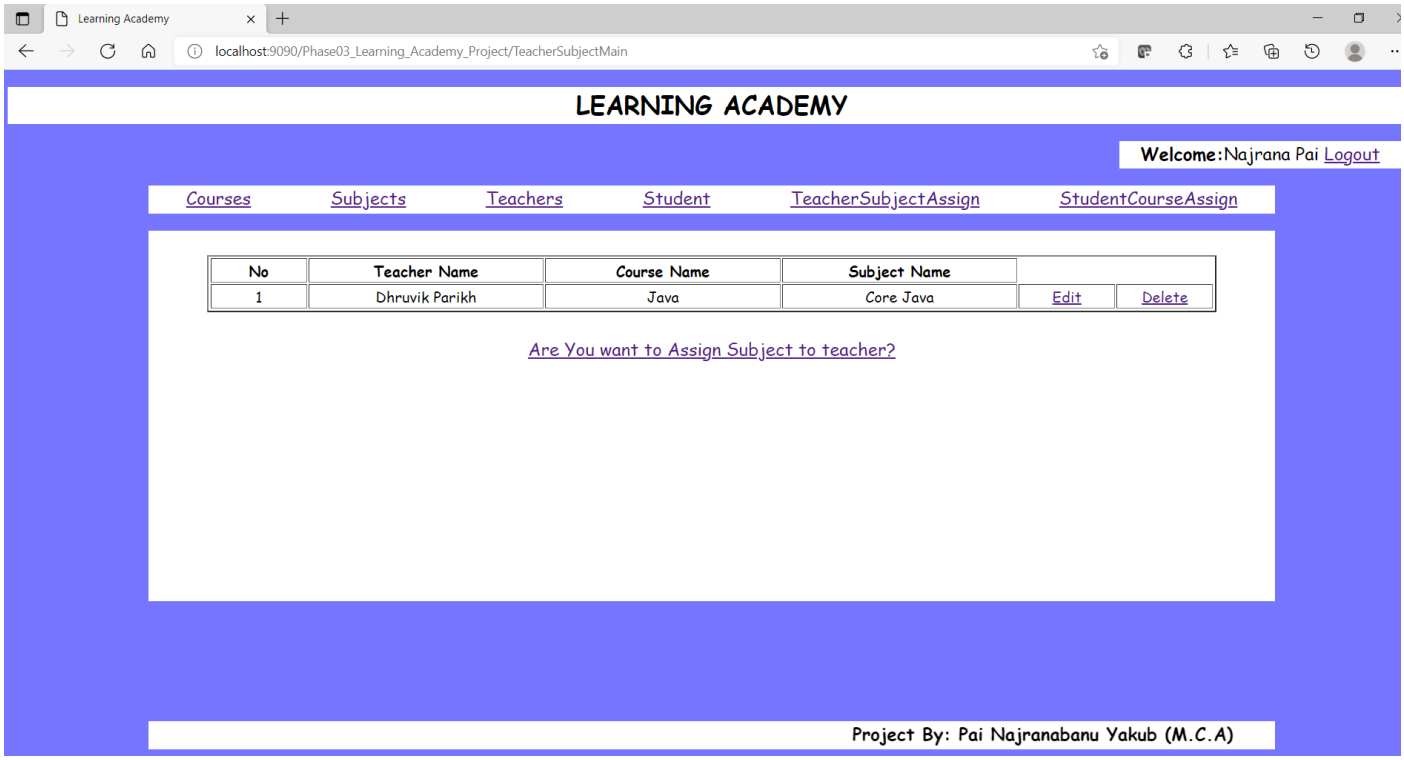


If you not enter any data and click on Add then

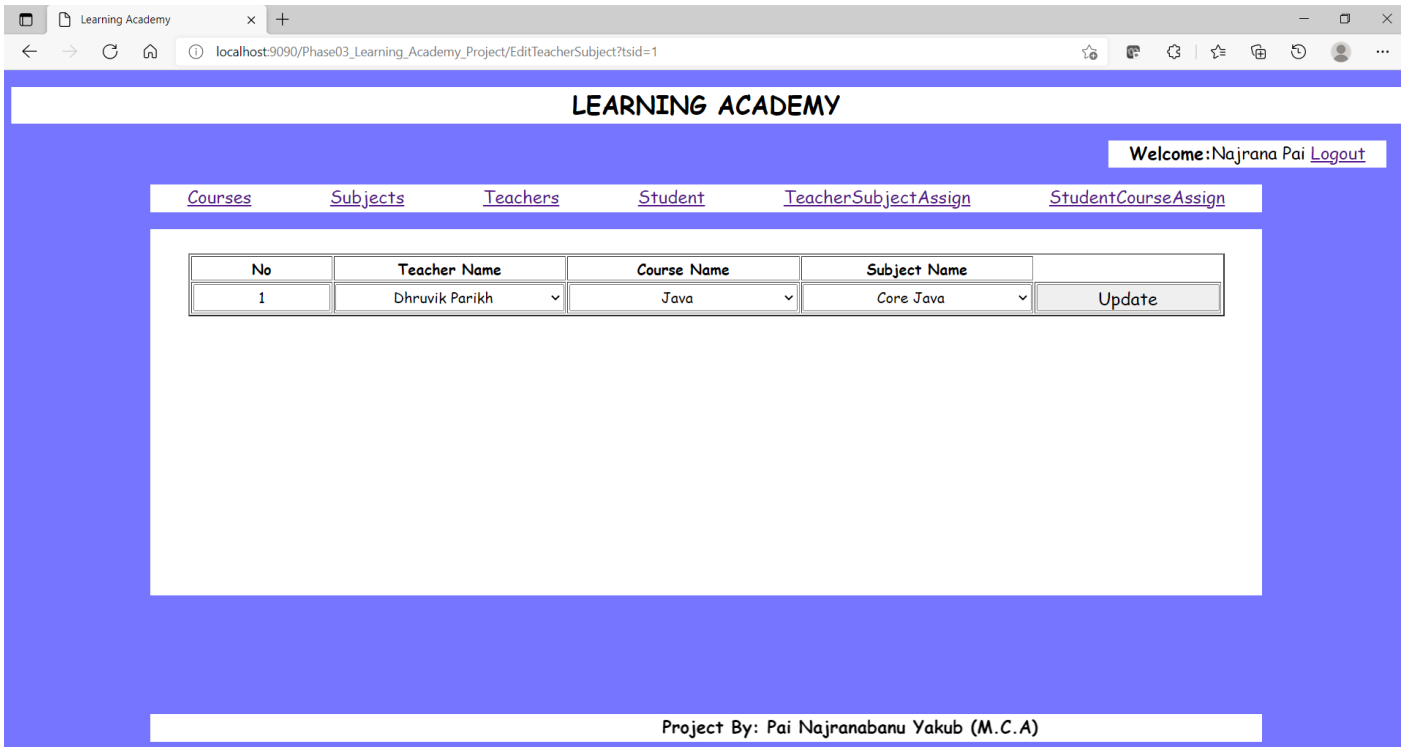


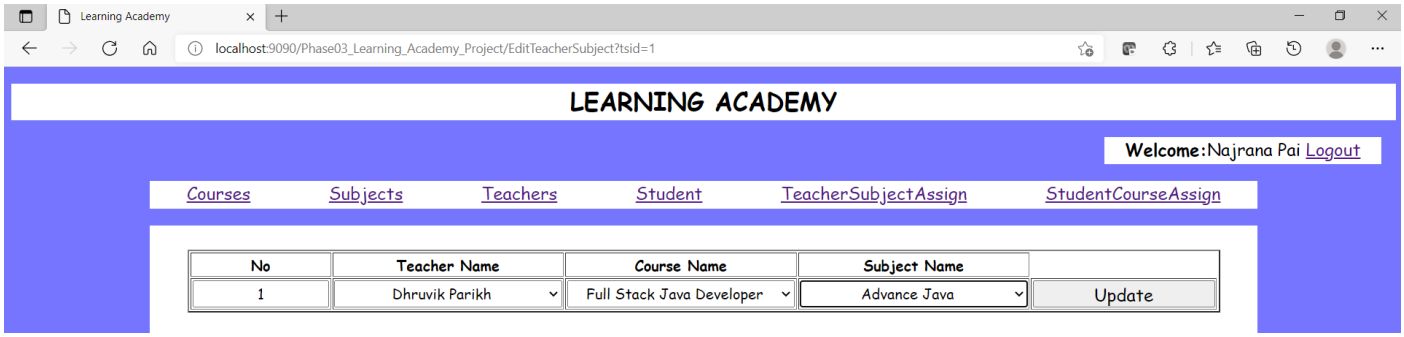


Select Data and Click on Add

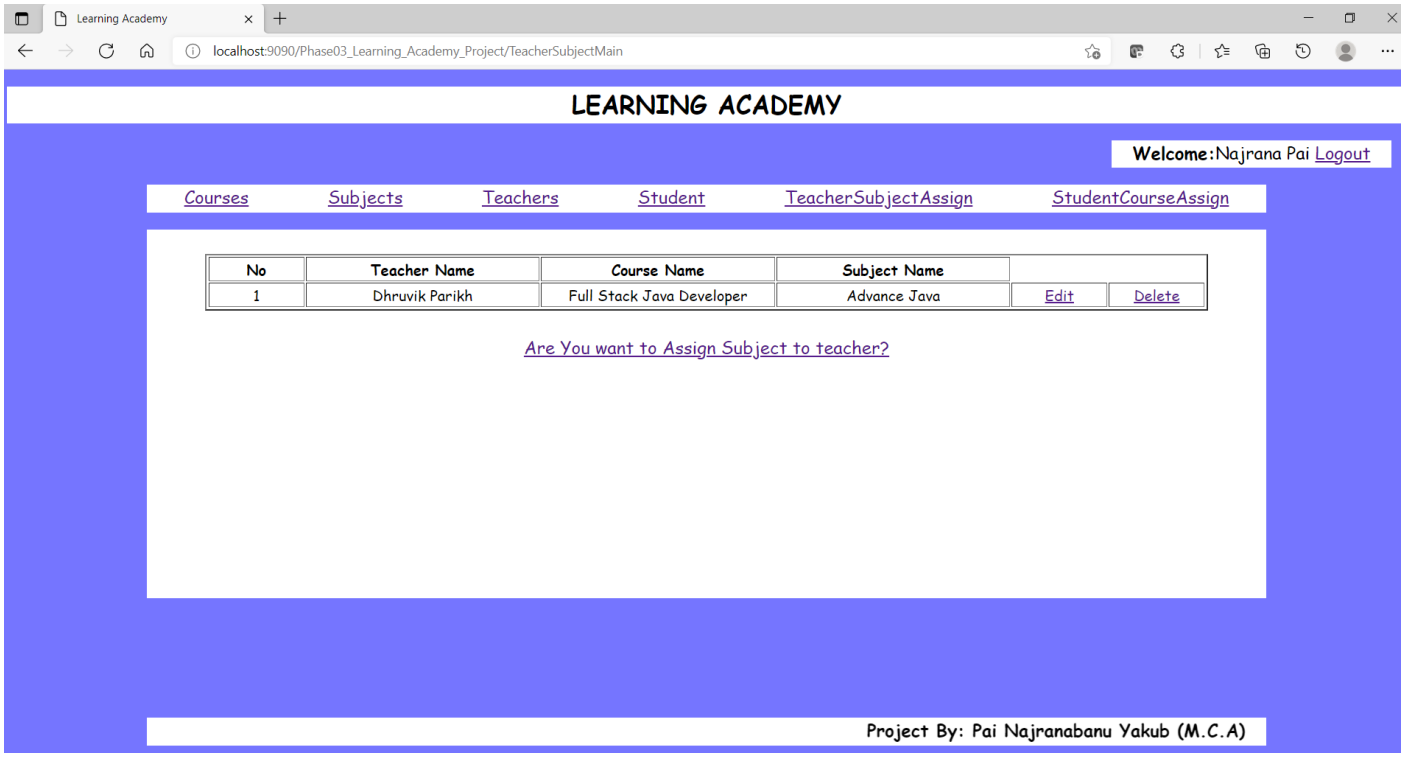


If you want to update then click on Edit

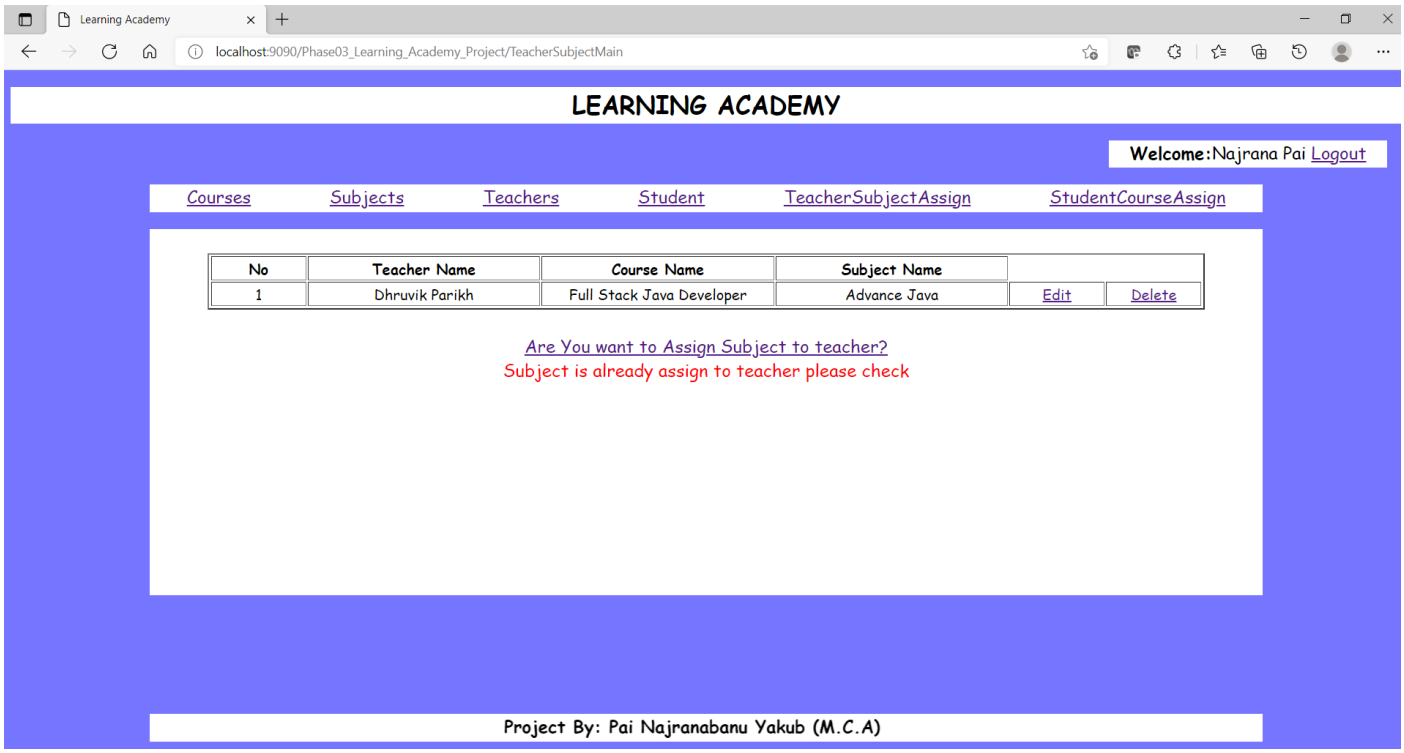




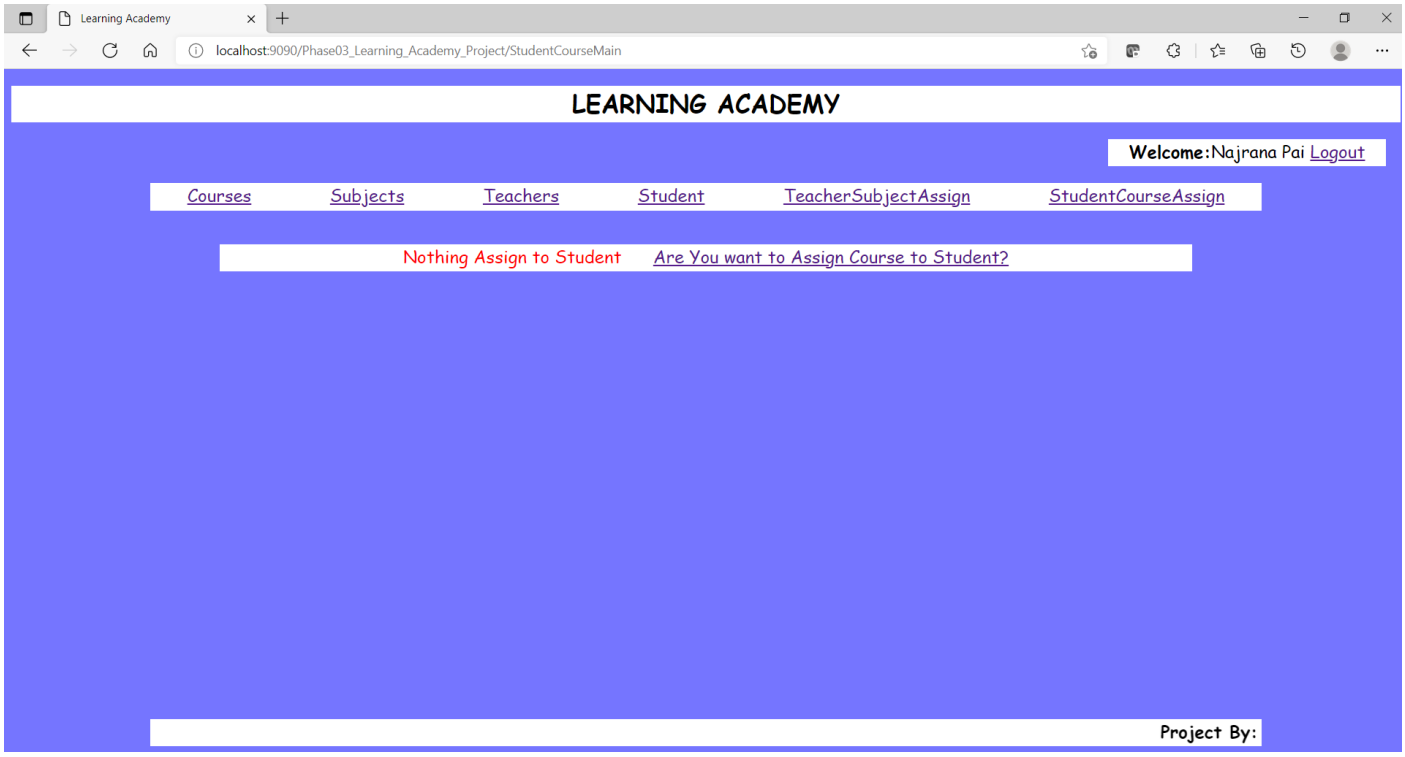
Click on Update



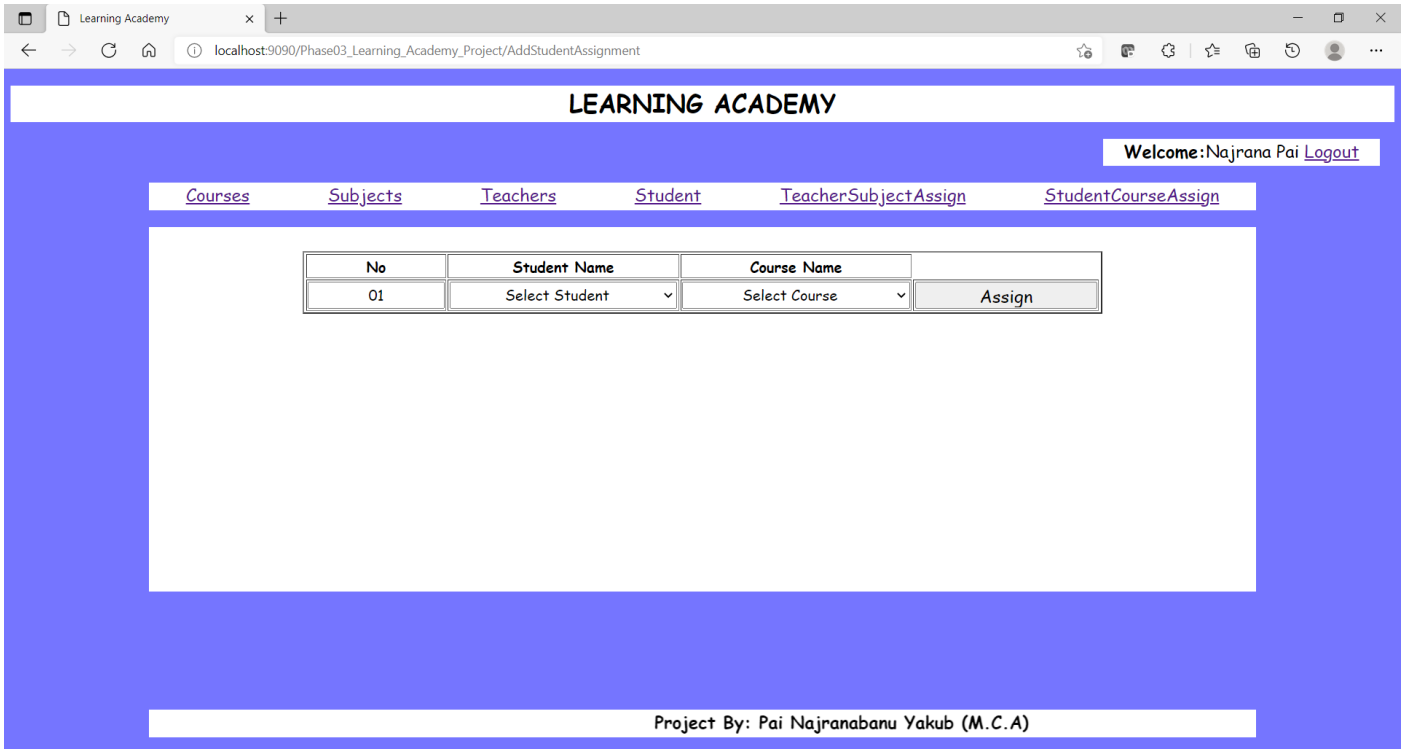
If you update existing record then will generate error



If course assign to student then click on StudentCourseAssign:

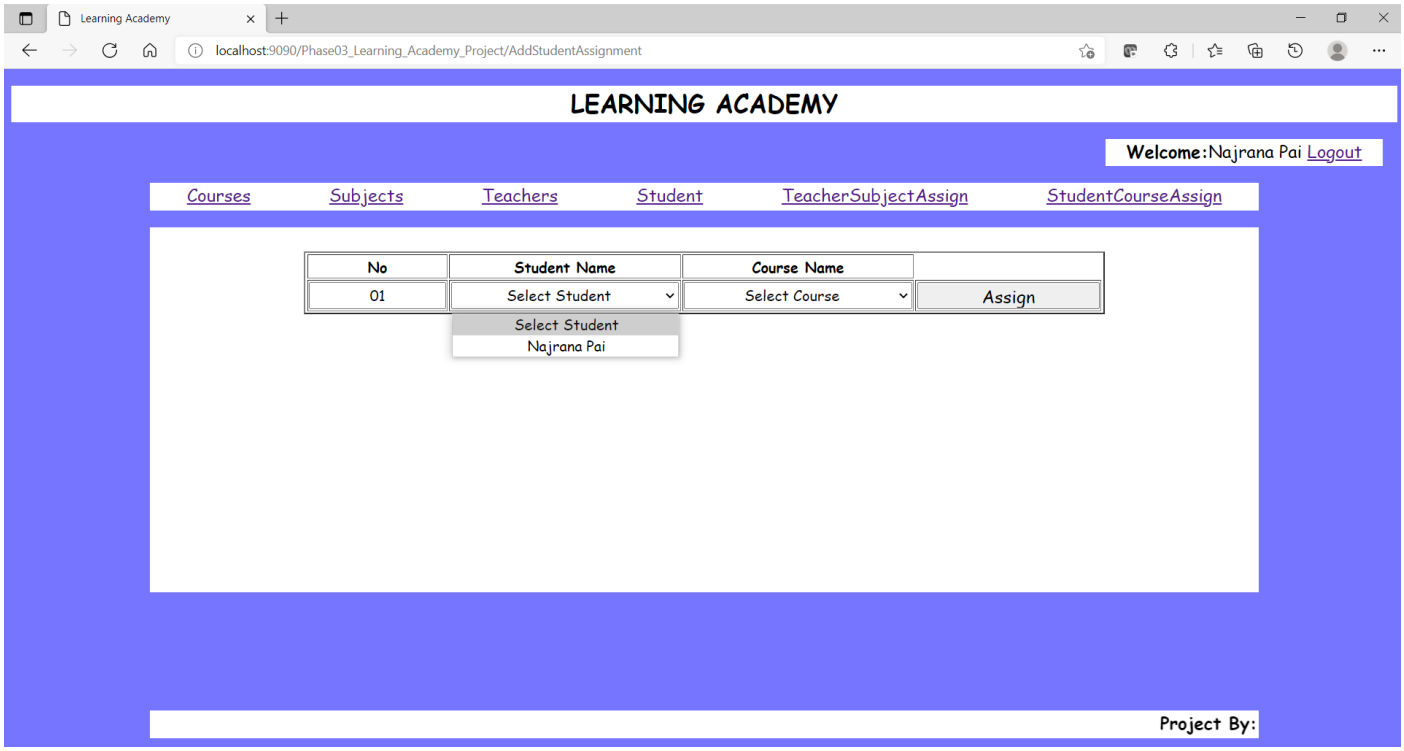


Please click on Are you want to assign course to student? Then

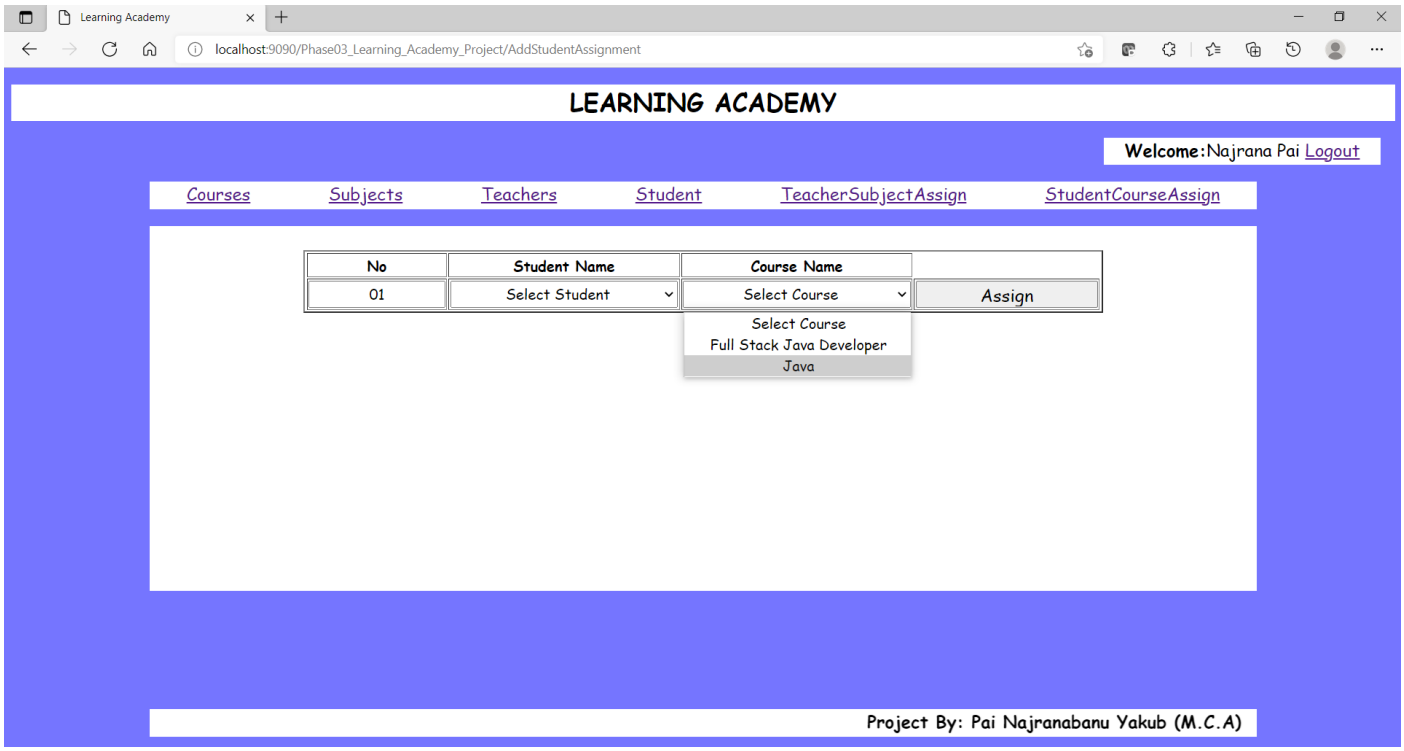


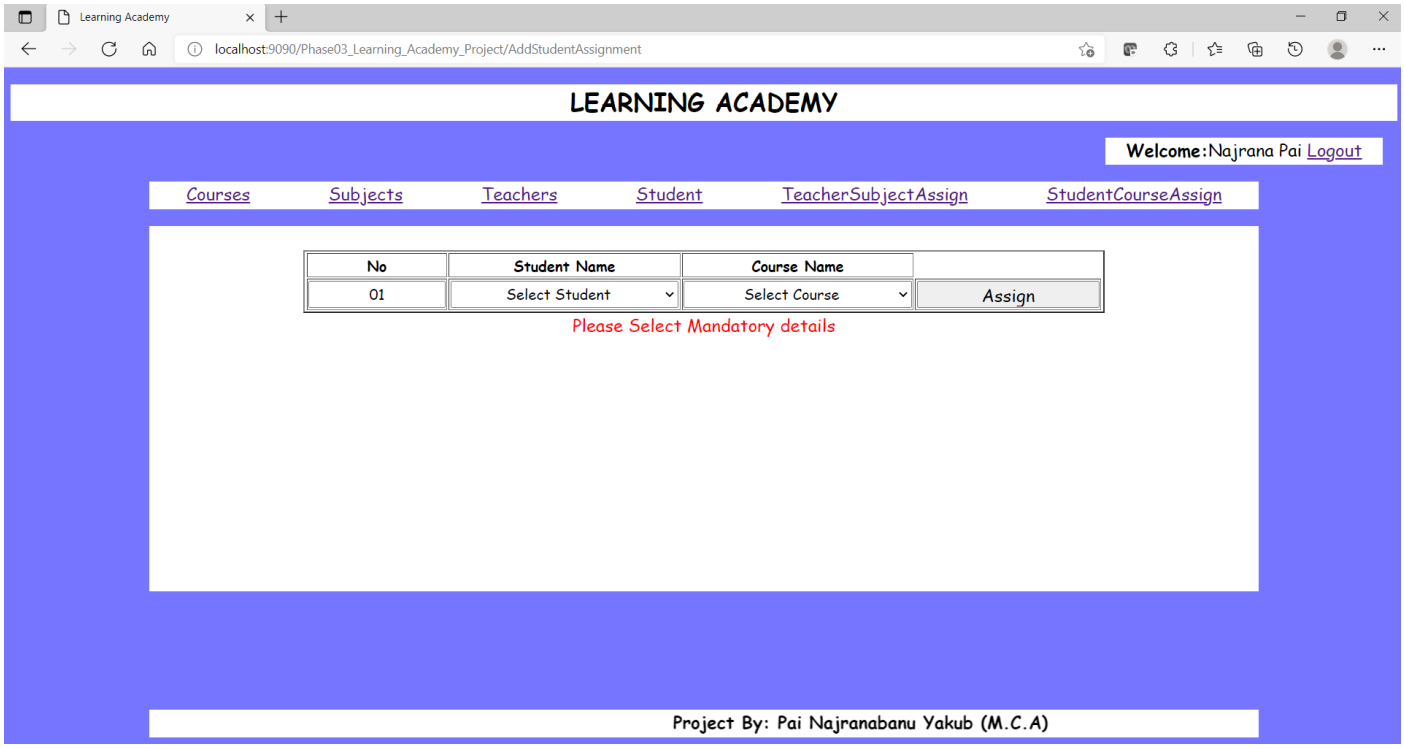
Student and Course Details are coming from student and course table.

Select student that you have to assign course:

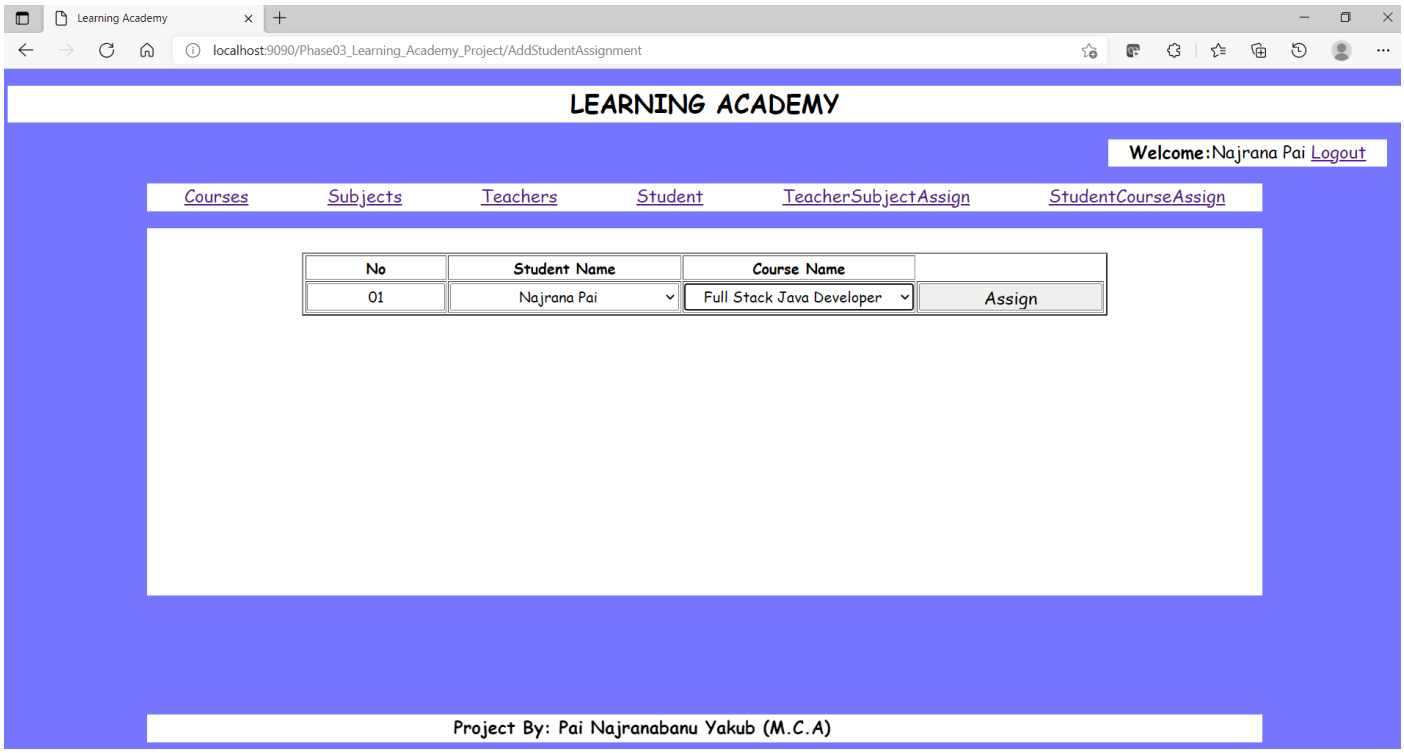


And select course that you have to assign student

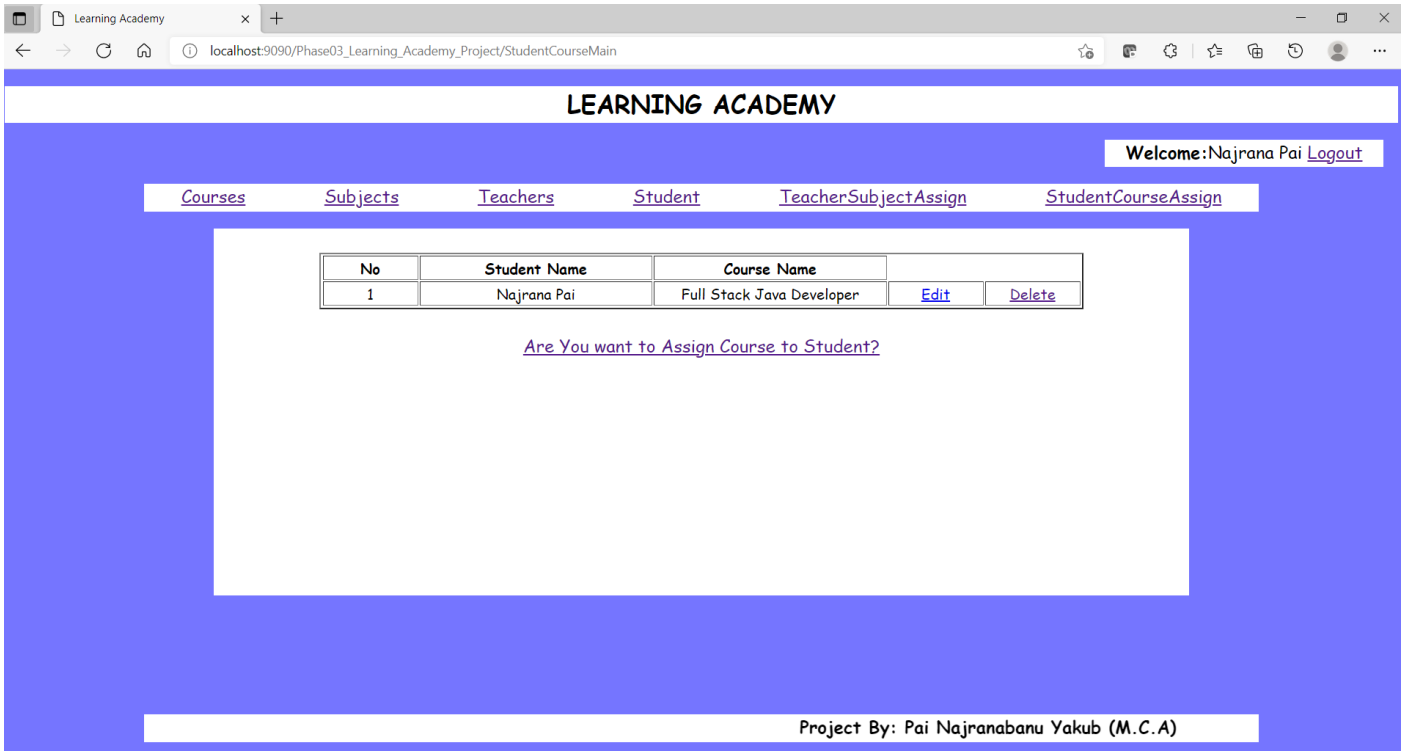




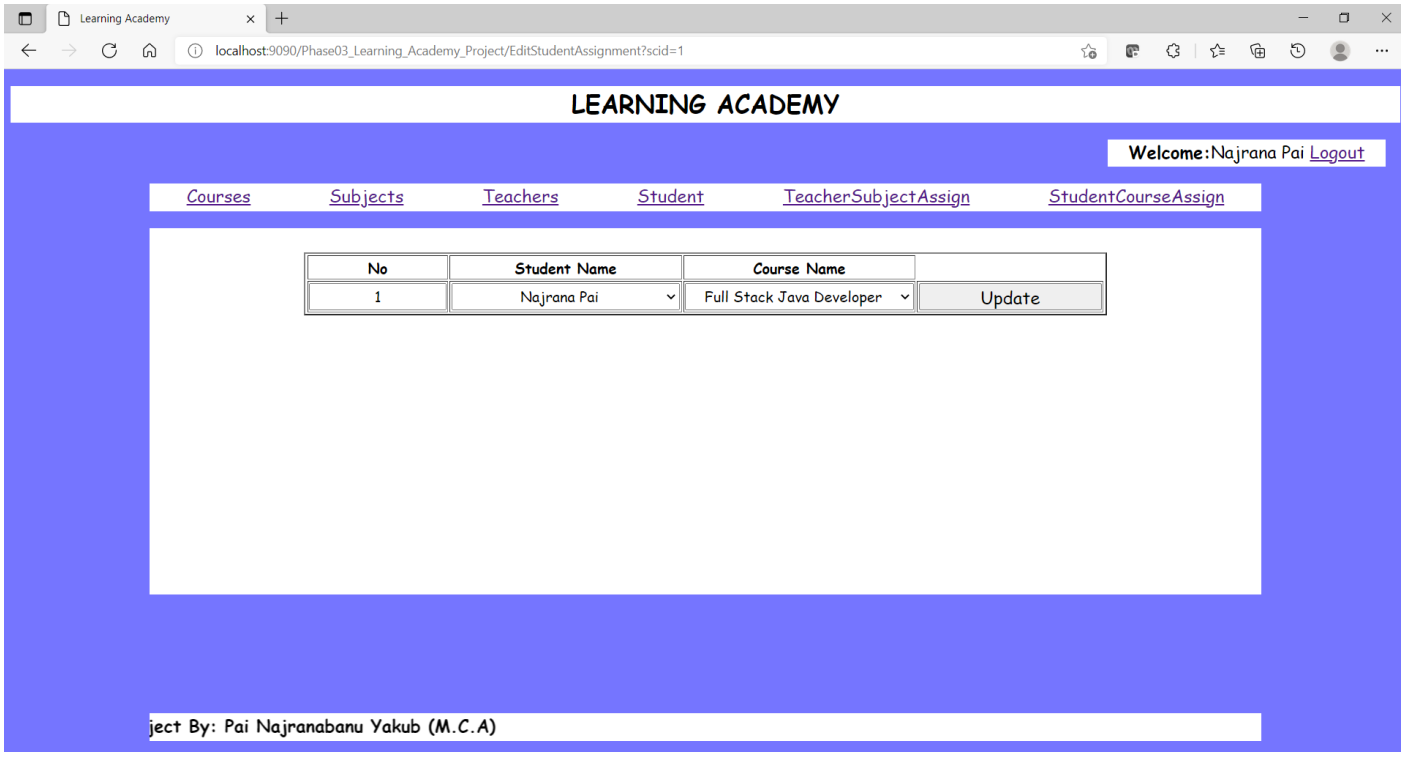
Select Student and course



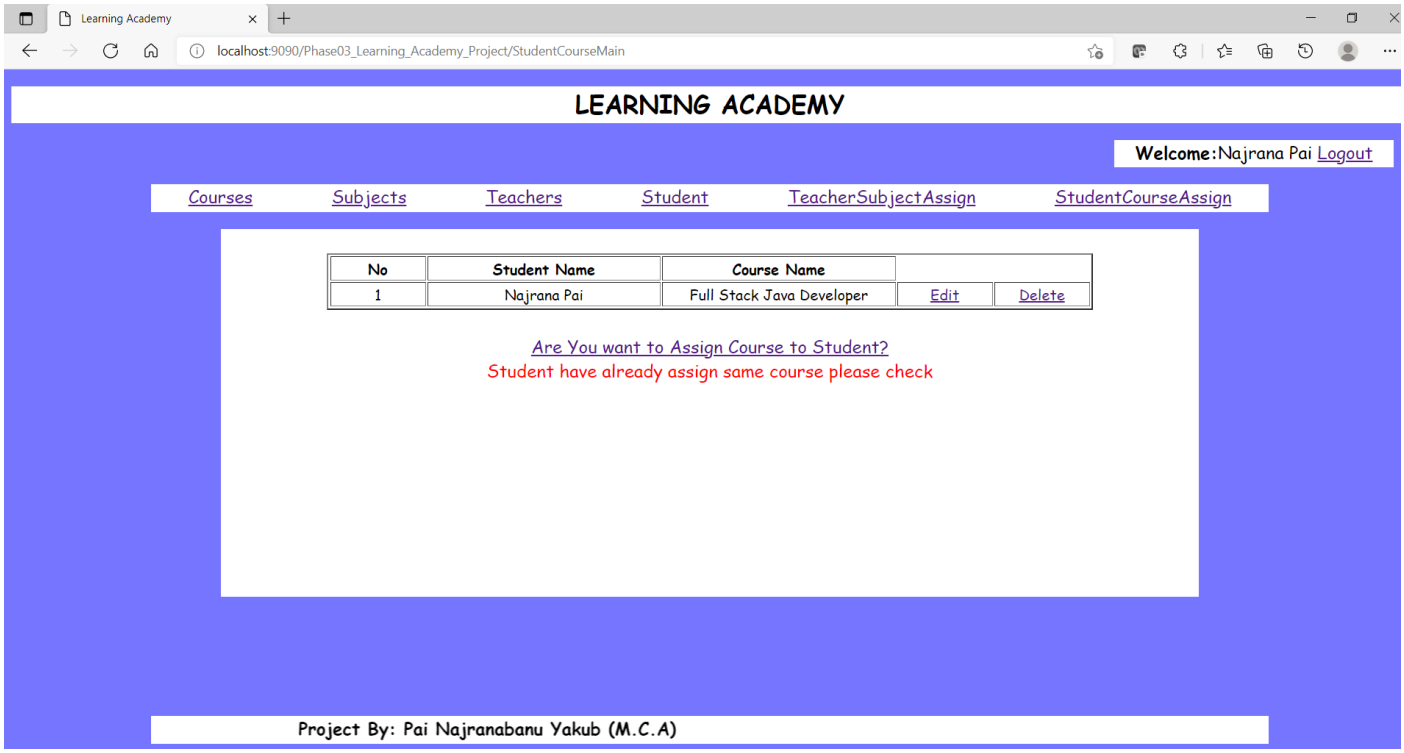
then click on assign

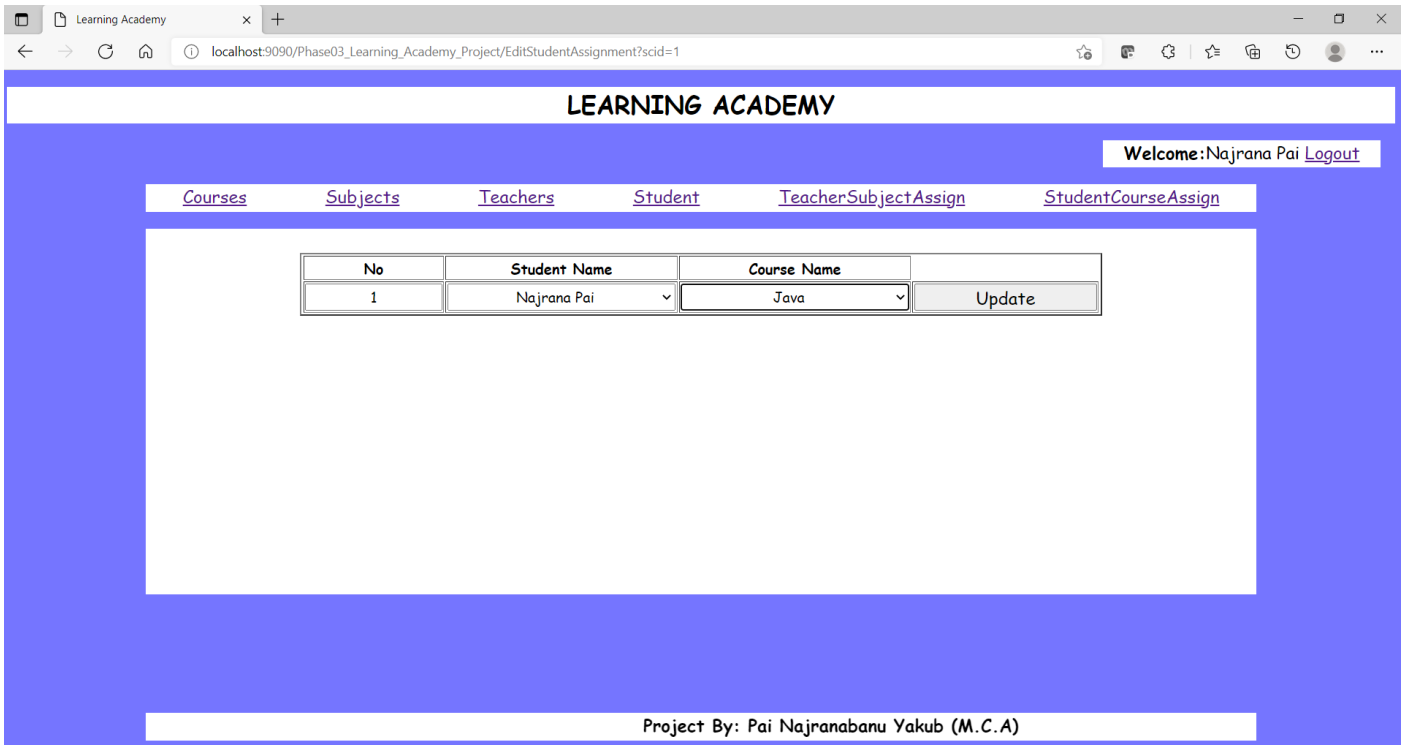


You can also edit the assignment

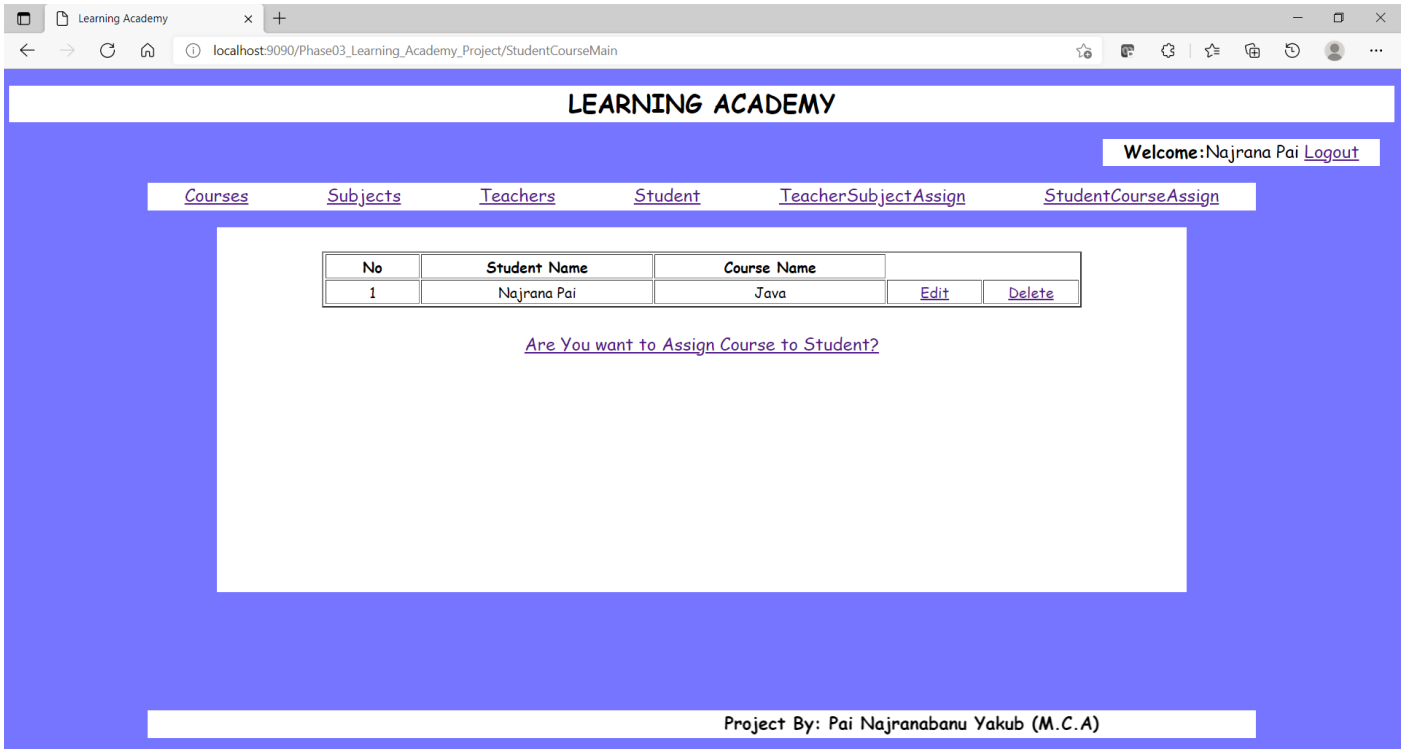


If updated value exist then

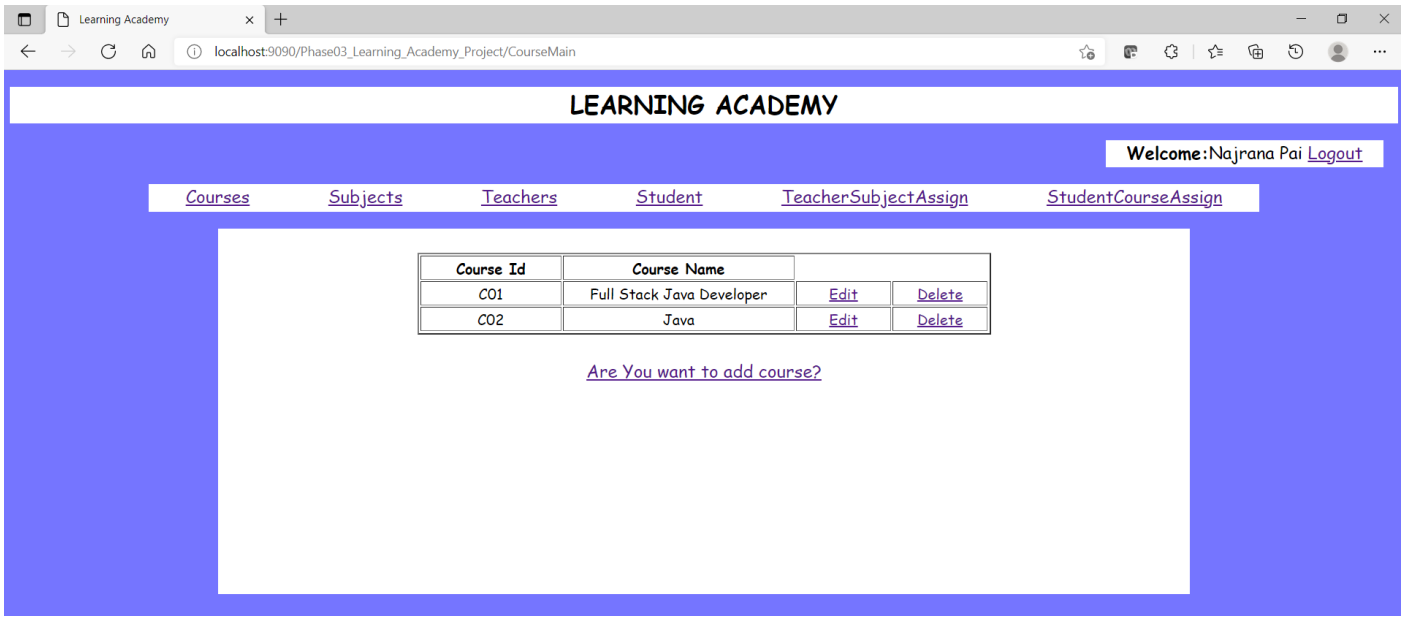




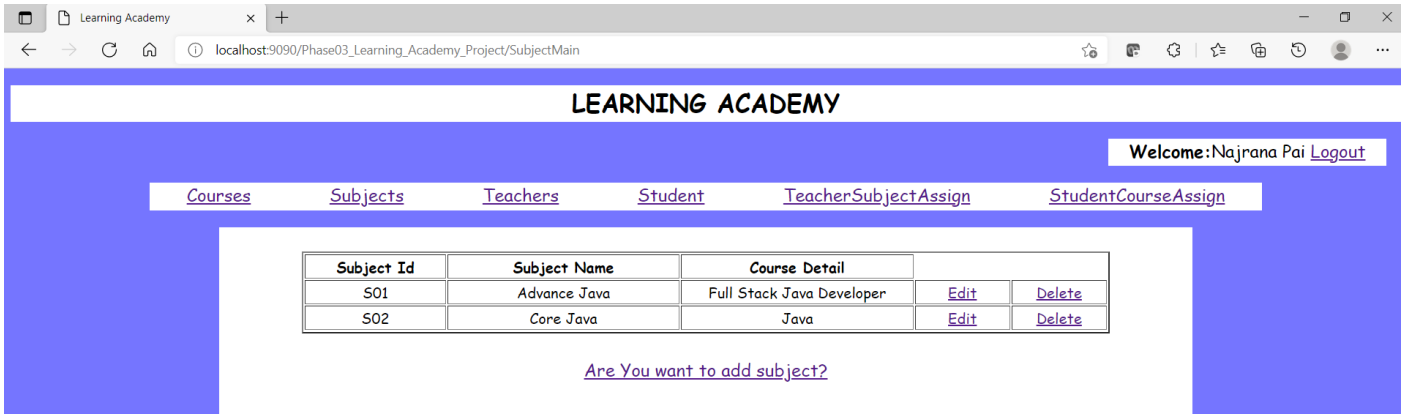
And then click on update



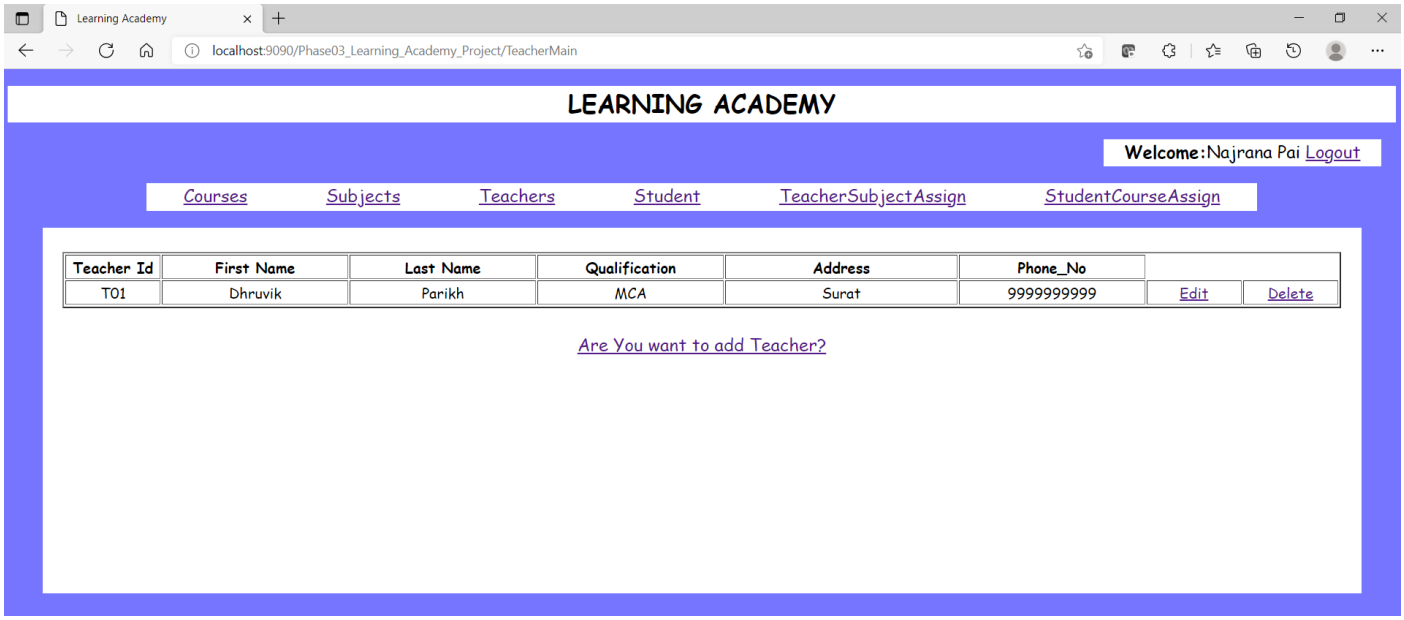
Courses:



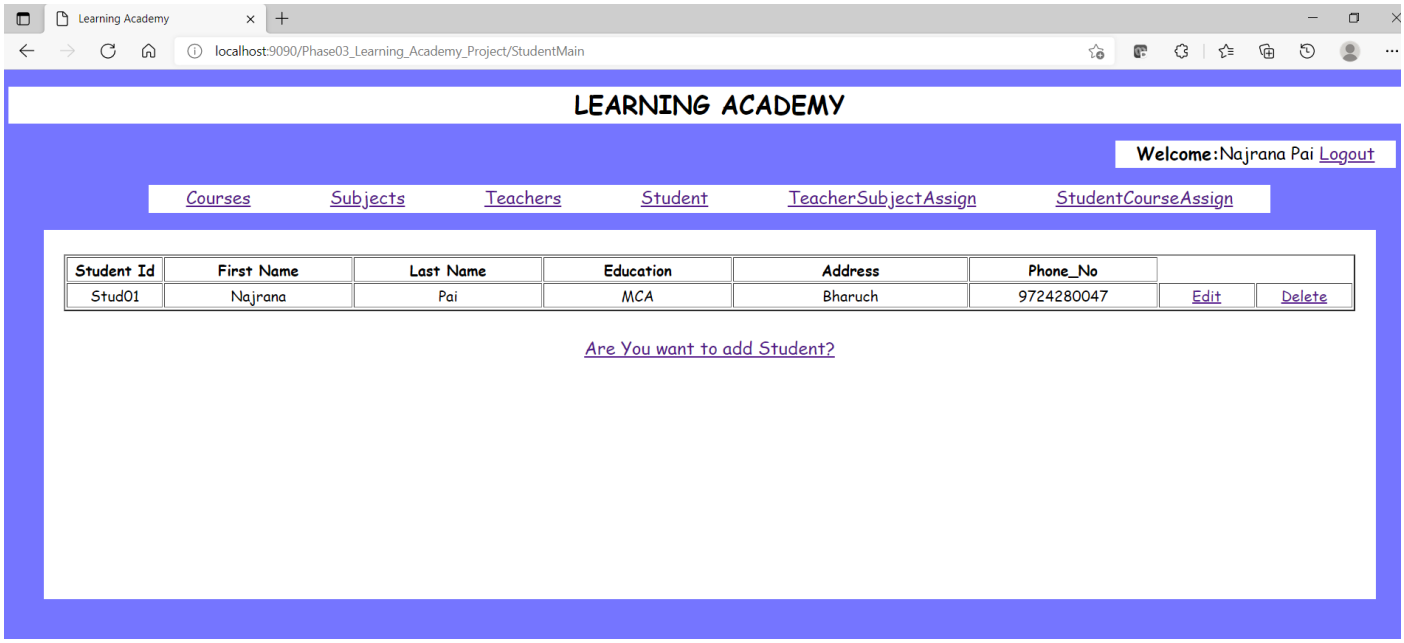
Subjects:



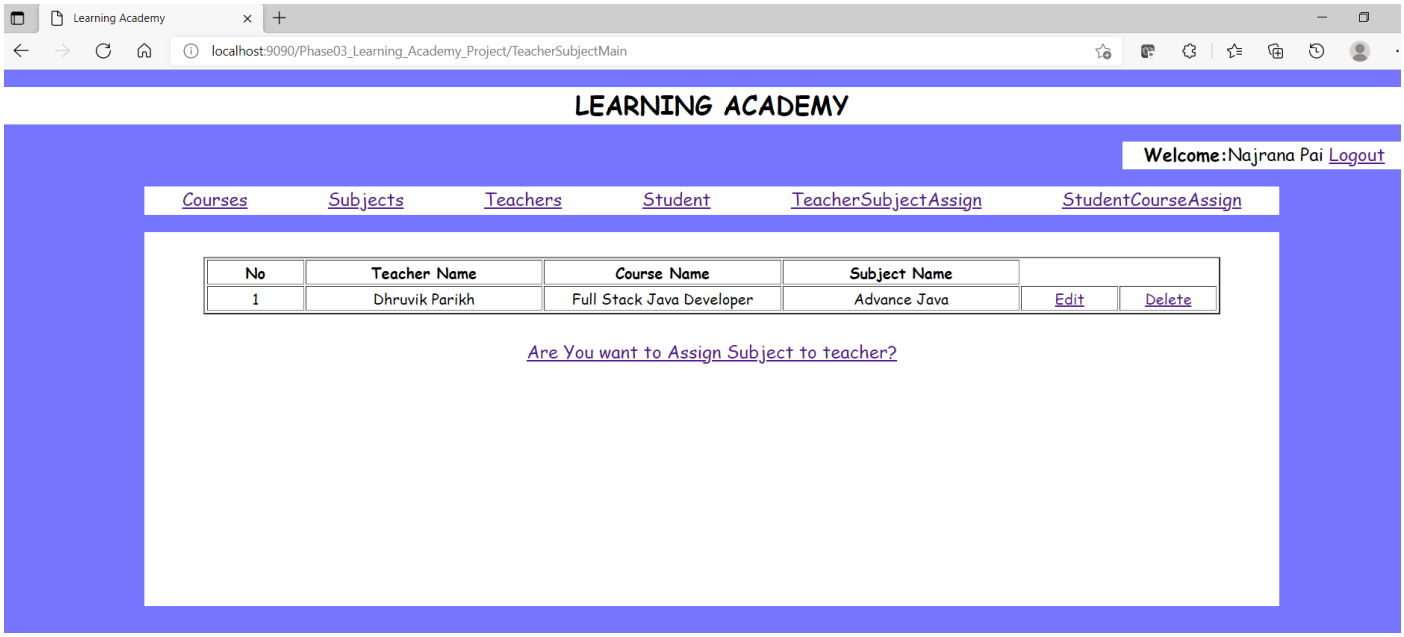
Teachers:



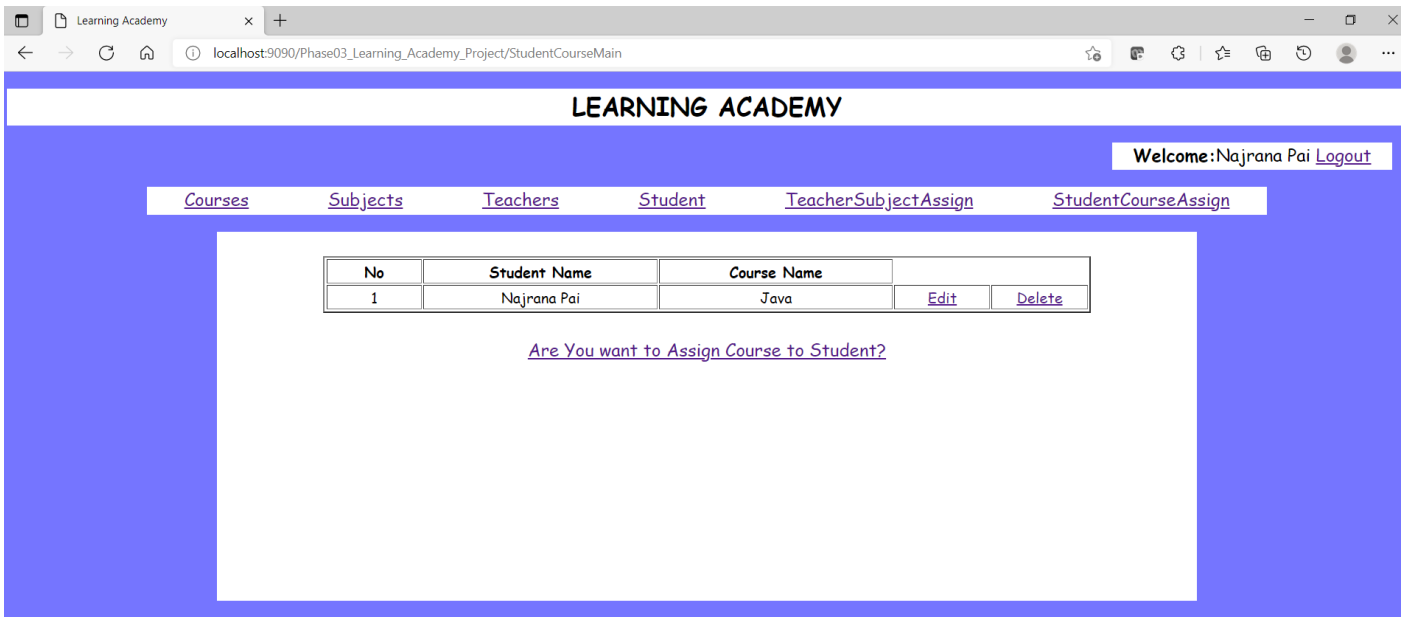
Students:



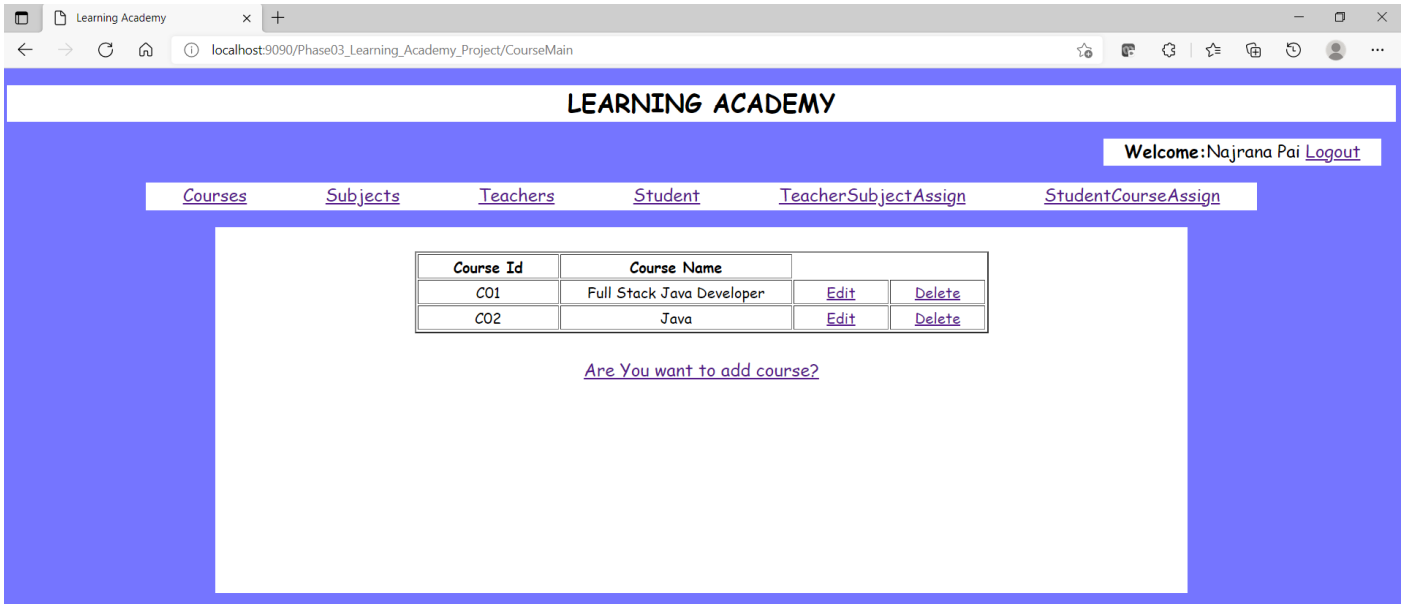
TeacherSubjectAssign:



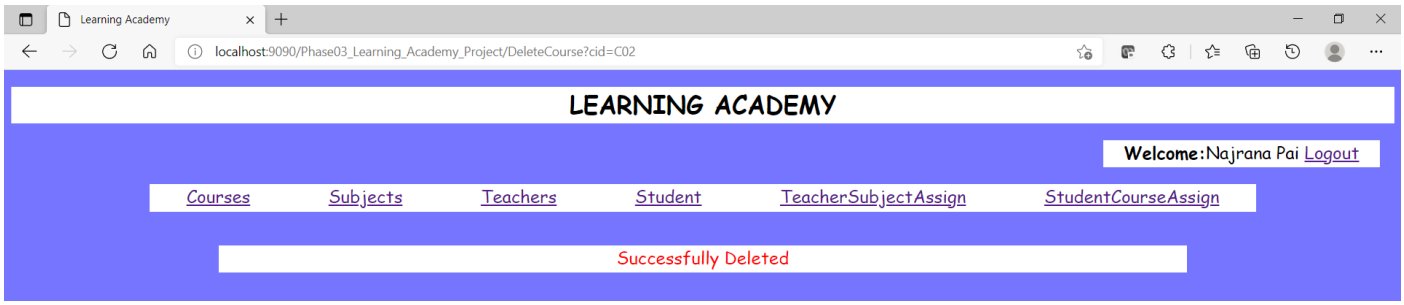
StudentCourseAssign:



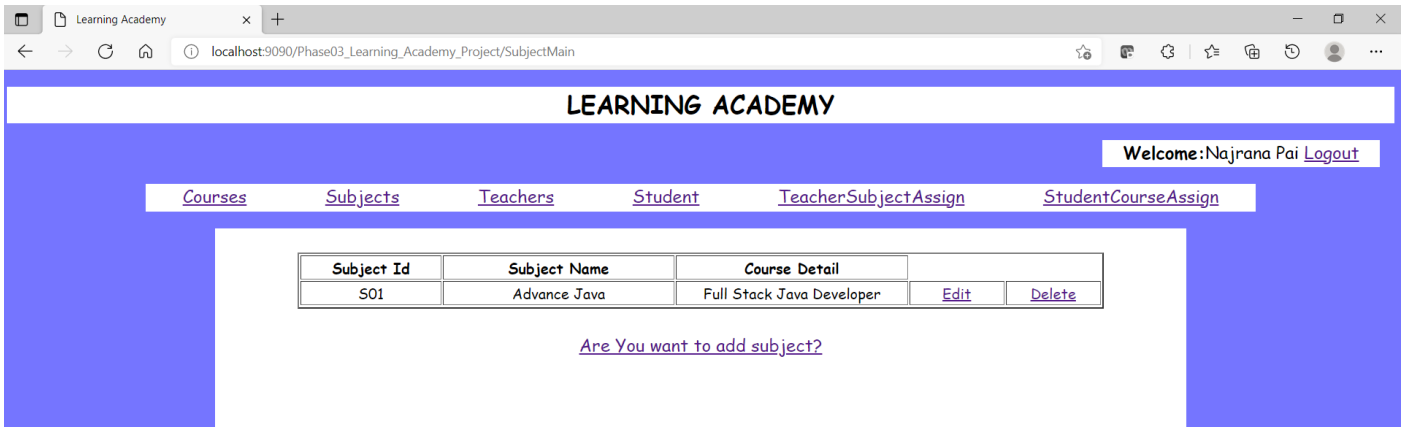
Now check if you delete parent then will automatically delete from child (I delete course(C02) and will delete from subject , Teacher Subject assign and also course assign to student)



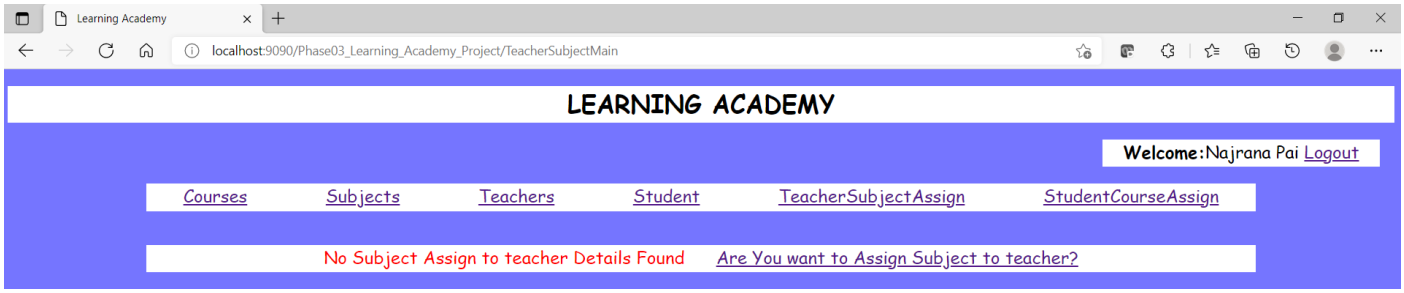
And now click on delete C02



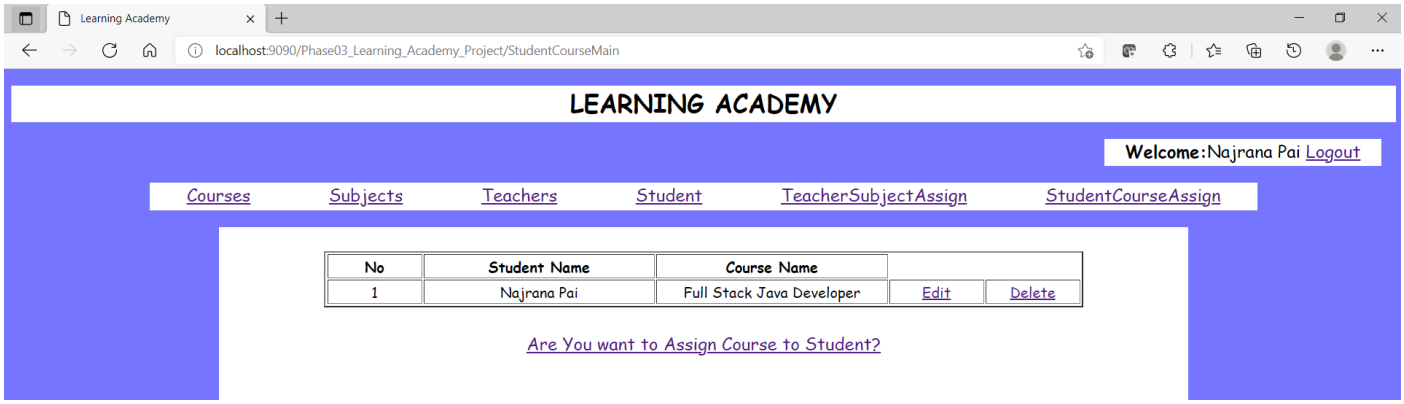
Related subject deleted



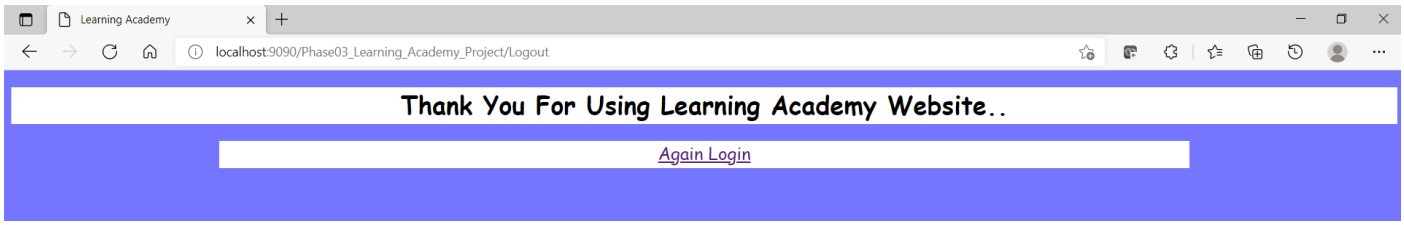
See Teacher subject assignment



Also see student course assignment



And last if you logout then



Pushing the Code in to GitHub Repository:

- Open Git Bash
- Create Directory name as Phase03_Project_Learning_Academy.

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~ (master)
$ mkdir Phase03_Project_Learning_Academy

Najrana@DESKTOP-4HJOMF5 MINGW64 ~ (master)
$ cd Phase03_Project_Learning_Academy

Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ |
```

- Initialize the git directory using ***git init*** Command.

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git init
Initialized empty Git repository in C:/Users/Najrana/Phase03_Project_Learning_Academy/.git/
```

- Check status using ***git status***:

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git status
On branch master

No commits yet

nothing to commit (create/copy files and use "git add" to track)
```

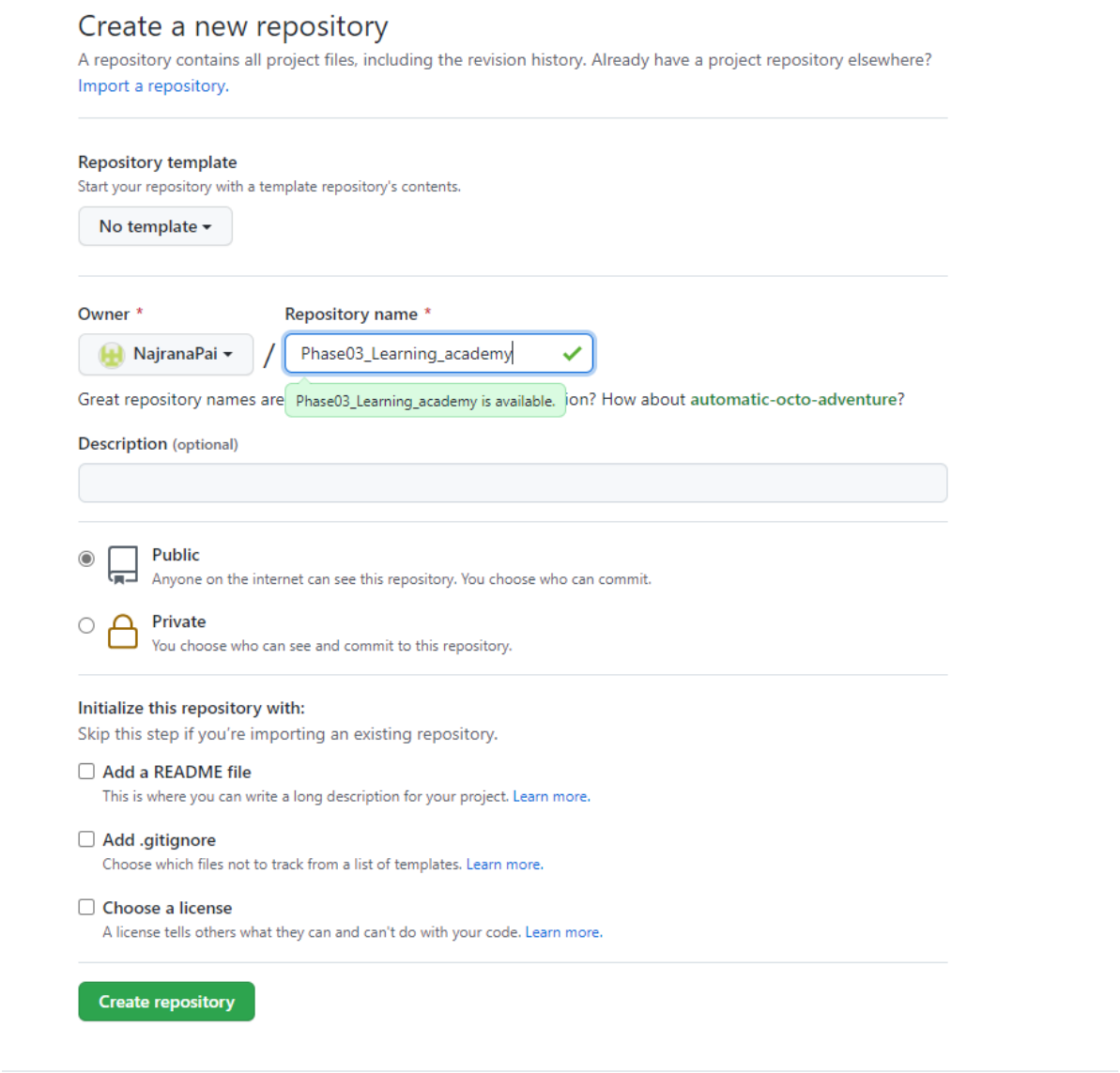
- Copy the files that you want to in GitHub Repositories:
- Now check status using ***git status***:

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Phase03_Learning_Academy_Project/

nothing added to commit but untracked files present (use "git add" to track)
```

- Perform ***git add .*** and ***git commit -m "Project done":***

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git commit -m "Project done"
error: pathspec 'done"' did not match any file(s) known to git

Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git commit -m "done"
[master (root-commit) df69d62] done
 95 files changed, 5359 insertions(+)
```

- Create New Repository in [Create a New Repository (github.com)]



- ***git clone*** repository link:

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git clone "https://github.com/NajranaPai/Phase03_Learning_academy.git"
Cloning into 'Phase03_Learning_academy'...
warning: You appear to have cloned an empty repository.
```

- ***git log --oneline***:

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git log --oneline
df69d62 (HEAD -> master) done
```

- ***git push -u***:

```
Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git remote add origin https://github.com/NajranaPai/Phase03_Learning_academy.git

Najrana@DESKTOP-4HJOMF5 MINGW64 ~/Phase03_Project_Learning_Academy (master)
$ git push -u --set-upstream origin master
Enumerating objects: 122, done.
Counting objects: 100% (122/122), done.
Delta compression using up to 12 threads
Compressing objects: 100% (106/106), done.
Writing objects: 100% (122/122), 91.37 KiB | 668.00 KiB/s, done.
Total 122 (delta 53), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (53/53), done.
To https://github.com/NajranaPai/Phase03_Learning_academy.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
```

https://github.com/NajranaPai/Phase03_Learning_academy.git