**ONLINE EXAMINATION**

**JAKARTA EE 8.0**

**CA2**

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**CLASS: TYBSC-IT**

**PLAN**:

When I first started designing the student module, I firstly created a database in which I have stored the student names, their UID’s and their class; this was later added by the admin. Another table was for questions that will be dynamically retrieved. I started coding it by using servlet’s. After the static code was complete I tried the database part, for the student login I have created a separate package named “projects” which has all the authentication of the

1. The connection provider:
   1. Driver
   2. Connection string
2. The student:
   1. Name
   2. UID
3. The admin:
   1. Name
   2. Password

After the connection authentication was complete I added the student login authentication in which it checks whether the students first name and uid are matching with the database or not.

After the student login when we were taught jstl, I thought of adding the admin module using this technology. Since jstl is a tag based language, it was a little easier to code than the servlets. The admin module has the following functions:

1. Add a question
2. View all questions
3. Update a question
4. Add a student
5. View all students.

I have used bootstrap for the ui design in jstl, while in the servlets I have simply used the body tag with background images.

* My main project name is: ca2
* In the web pages I have:
* Html pages
* Jsp pages
* Images
* In source packages I have 3 different packages:
  + Admin
    - Adminlogin.java
    - AdminLogout.java
  + Backend
    - Login.java
    - Instructions.java
    - Quiz\_start1.java
    - Quiz\_start2.java
    - Quiz\_start3.java
    - Done
    - Logout.java
  + Project
    - ConnectionProvider.java
    - SelectDetails.java
    - Admindetails.java

**CODE**

Connection provider

|  |
| --- |
| package project;  import com.mysql.jdbc.Connection;  import java.sql.\*;  import java.sql.DriverManager;  public class ConnectionProvider {  public static Connection getCon()  {  try{  Class.forName("com.mysql.jdbc.Driver");  Connection con = (Connection) DriverManager.getConnection("jdbc:mysql://localhost:3306/quiz","root","");  return con;  }  catch(Exception e)  {  return null;  }  }    } |

Admindetails

|  |
| --- |
| package project;  import com.mysql.jdbc.Connection;  import java.sql.DriverManager;  import java.sql.PreparedStatement;  import java.sql.ResultSet;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  public class admindetails {  public static boolean authenticateadmin(String name, String password)  {  boolean status=false;  try{  Class.forName("com.mysql.jdbc.Driver");  Connection con = (Connection) DriverManager.getConnection("jdbc:mysql://localhost:3306/quiz","root","");  //Connection con= GetConDao.getConnection();    PreparedStatement ps=con.prepareStatement("select \* from admin where name=? and password=?");  ;    ps.setString(1,name);  ps.setString(2, password);  ResultSet rs=ps.executeQuery();  if(rs.next()){  status= true;  }  con.close();  }  catch(Exception e){  System.out.println(e);  }    return status;  }  } |

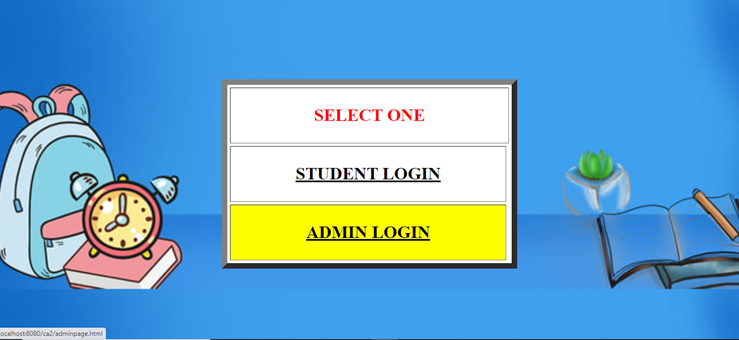
SelectDetalis.java

|  |
| --- |
| package project;  import com.mysql.jdbc.Connection;  import java.sql.DriverManager;  import java.sql.PreparedStatement;  import java.sql.ResultSet;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  public class SelectDetails {  public static boolean authenticate(String stufirstname, String uid)  {  boolean status=false;  try{  Class.forName("com.mysql.jdbc.Driver");  Connection con = (Connection) DriverManager.getConnection("jdbc:mysql://localhost:3306/quiz","root","");  //Connection con= GetConDao.getConnection();    PreparedStatement ps=con.prepareStatement("select \* from student where stufirstname=? and uid=?");  ps.setString(1,stufirstname);  ps.setString(2, uid);  ResultSet rs=ps.executeQuery();  if(rs.next()){  status= true;  }  con.close();  }  catch(Exception e){  System.out.println(e);  }    return status;  }  } |

* These java classes are for authentication and connection.
* The first connection class provides the connection.
* The second AdminDetails: provides the authentication for the admin user name and password from database.
* The third java class selectDetails: This provides the authentication for the user login for the first name and UID.

**Index.html**

|  |
| --- |
| <html>  <head>  <title>ONLINE EXAMINATION SYSTEM</title>  <style>  td:hover {  background-color: yellow;  }  </style>  </head>  <body style="background:url(index.jpg); background-size:cover;margin-top:150px;" >  <table border="10" cellspacing="5" cellpadding="10" align="center" width="40%" style="background-color:white;">  <thead>  <tr>  <th colspan="4" style="color:red; text:bold;"><h1>SELECT ONE</h1></th>  </tr>  </thead>  <tbody>  <tr>  <td align="center" >  <a href="student\_page.html" style="color:black"><h1>STUDENT LOGIN</h1></a>  </td>  </tr>  <tr>  <td align="center">  <a href="adminpage.html" style="color:black"><h1>ADMIN LOGIN</h1></a>  </td>  </tr>  </tbody>    </table>  </body>  </html> |



* This is the main index.html page in which I have provided 2 links:
* One link for the admin login and the other for student login.

**ADMIN MODULE**

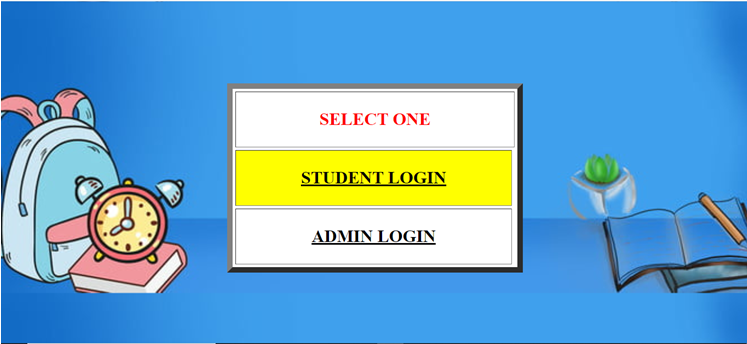
Login

|  |
| --- |
| **Adminpage.html**  <html>  <head>  <title>ADMIN PORTAL</title>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <style>  #res:hover {  background-color: red;  }  #image {    padding: 40px;  background:url(admin.jpg);  background-repeat: no-repeat;  background-size: 300px 100px;  }  </style>  </head>  <!--<h1 align="center" style="color:red;">ADMIN DASHBOARD</h1>-->  <body style="margin-top:100px; background-image: url(solidb.jpg); background-size:cover;" >    <form action="AdminLogin" method="post">  <table border="5" cellspacing="2" cellpadding="5" align="center" width="50%" style="background-color:white;" >  <thead >  <tr >  <th colspan="4"><h1 id="image"></h1></th>  </tr>  </thead>  <tbody>  <tr>  <td><h1><label>Name</label></h1></td>  <td><h3><input type="text" name="name" size="30" placeholder="Enter your name" style="height:30px;"></h3></td>  </tr>  <tr>  <td><h1><label>Password</label></h1></td>  <td><h3><input type="password" size="30" name="password" id="myInput" placeholder="Enter your correct password" style="height:30px;"></h3>  <input type="checkbox" onclick="myFunction()">Show Password</td>  </tr>    <tr>  <td align="center"><p><input type="reset" id="res" style="height:30px; width:100px;"></p></td>    <td align="center"><p><input type="submit" id="res" value="Sign In" style="height:30px; width:100px;"></p></td>  </tr>  </tbody>  </table>  </form>    <script>  function myFunction() {  var x = document.getElementById("myInput");  if (x.type === "password") {  x.type = "text";  } else {  x.type = "password";  }  }  </script>  </body>  </html> |
| **Adminlogin**  package Admin;  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;  import project.SelectDetails;  import project.admindetails;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "AdminLogin", urlPatterns = {"/AdminLogin"})  public class AdminLogin extends HttpServlet {  /\*\*  \* Processes requests for both HTTP <code>GET</code> and <code>POST</code>  \* methods.  \*  \* @param request servlet request  \* @param response servlet response  \* @throws ServletException if a servlet-specific error occurs  \* @throws IOException if an I/O error occurs  \*/  protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  try (PrintWriter out = response.getWriter()) {    String name= request.getParameter("name");  String password= request.getParameter("password");      if(admindetails.authenticateadmin(name, password)){    HttpSession session=request.getSession();    session.setAttribute("name", out);  session.setAttribute("visit", "1");    request.getRequestDispatcher("adminfunc.jsp").include(request, response);  }  else{    //out.println("<h1> <body forecolor=red > Login Fail !!! </h1>");  out.println("<h1><p style=\'color:red;\'>Login Fail</p></h1>");  request.getRequestDispatcher("adminpage.html").include(request, response);    out.println("</div>");  }  out.close();  }  }  @Override  protected void doGet(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  processRequest(request, response);  }    @Override  protected void doPost(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  processRequest(request, response);  }    @Override  public String getServletInfo() {  return "Short description";  }// </editor-fold>  } |
| **OUTPUT**    **Right admin name and password**    **Wrong admin name and password:**    **Login failed**     * This is the login for admin * It takes in the admin name and password which is stored in the database, this gets redirected to the AdminDetails class, when it authenticates the system redirects the admin to the operations page else it shows wrong name and password. * The name in database is : admin * Password: admin |
| **Adminfunc.jsp**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <html>  <head>  <title>ADMIN OPERATIONS</title>    <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <style>  #image {    padding: 40px;  background:url(adminop.png);  background-size: 200px 100px;  background-repeat: no-repeat;  }  td:hover {  background-color: yellow;  }  nav {  font-family: sans-serif;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Georgia, 'Times New Roman', Times, serif;  }  </style>  </head>  <c:set var="selectedexam" value="Python" scope="session" />  <br>  <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 30px ">      <!--Navigation Bar-->  <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>    <table border="1" cellspacing="2" align="center" width="50%" height="540px" style="background-color:white;">  <thead>  <tr align="center">  <th colspan="4"><h1 id="image" style="color:red;" >OPERATIONS</h1></th>  </tr>  </thead>  <tbody>    <tr align="center">  <td>  <a href="add\_question.jsp"><h2> ADD A NEW QUESTION </h2></a>  </td>  </tr>  <tr align="center">  <td>  <a href="all\_questions.jsp"><h2> ALL QUESTIONS </h2><a>  </td>  </tr>  <tr align="center">  <td>  <a href="update\_question.jsp"><h2> UPDATE QUESTION</h2> </a>  </td>  </tr>  <tr align="center">  <td>  <a href="add\_student.jsp"> <h2>ADD STUDENT DETAILS </h2></a>  </td>  </tr>  <tr align="center">  <td>  <a href="all\_students.jsp"> <h2>ALL STUDENT DETAILS </h2></a>  </td>  </tr>    </tbody>  </table>  <!--<a href="AdminLogout"> <h2>Logout </h2></a>-->  <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>    </html> |
| **OUTPUT**     * After the correct admin login, the admin is redirected to this page. * Where he is provided with many functions: * Add a new question * All questions * Update question * Add student details * All student details |
| **Add question.jsp**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <title>Add a New Question</title>      <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <style>  #image {  background:url(addq.png);  background-repeat: no-repeat;  background-size: 100px 50px;  }  nav {  font-family: Times New Roman;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Times New Roman;  }  #res:hover {  background-color: red;  }  #back:hover{  background-color: yellow;  }  </style>  </head>  <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 30px ">    <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>  <br>      <form action="add\_questiondb.jsp" method="post">  <table border="5" cellspacing="2" cellpadding="5" align="center" width="50%" style="font-family: Times New Roman; background-color: white;">  <thead>  <tr align="center">  <th colspan="2"><h1 id="image" style="color:red;">ADD QUESTION</h1></th>  </tr>  </thead>  <tbody>  <tr>  <td><label><h3>ID</h3></label></td>  <td><input type="text" name="id" autocomplete="off"/></td>  </tr>  <tr>  <td><label><h3>Question<h3></label></td>  <td><h5><input type="text" name="question" autocomplete="off" style="height:30px; width:500px" /><h5></td>  </tr>  <tr>  <td><label><h3>Option 1<h3></label></td>  <td><h5><input type="text" name="opt1" autocomplete="off" style="height:30px; width:500px" /><h5></td>  </tr>  <tr>  <td><label><h3>Option 2<h3></label></td>  <td><h5><input type="text" name="opt2" autocomplete="off" style="height:30px; width:500px" /><h5></td>  </tr>  <tr>  <td><label><h3>Option 3<h3></label></td>  <td><h5><input type="text" name="opt3" autocomplete="off" style="height:30px; width:500px" /><h5></td>  </tr>  <tr>  <td><label><h3>Option 4<h3></label></td>  <td><h5><input type="text" name="opt4" autocomplete="off" style="height:30px; width:500px" /><h5></td>  </tr>  <tr>  <td><label><h3>Answer<h3></label></td>  <td><h5><input type="text" name="answer" autocomplete="off" style="height:30px; width:500px" /><h5></td>  </tr>  <tr>  <td align="center"><input type="reset" id="res" style="height:30px; width:100px;" value="reset"/></td>  <td align="center"><input type="submit" id="res" style="height:30px; width:100px;" value="Save"/></td>  </tr>  <tr>  <td id="back" colspan="2" align="center"><a href="adminfunc.jsp" >BACK</a>  </tr>  </tbody>  </table>  <br><br>  </form>    <font color="green">  <c:if test="${not empty param.susMsg}">  <c:out value="${param.susMsg}"/>  <a href="operations.html">Go Back</a>  </c:if>  </font>  <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>  </html> |
| **Add questiondb.jsp**  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <html>  <head>  <title>ADD Operation</title>  </head>  <body>  <c:if test="${ empty param.id or empty param.question or empty param.opt1 or empty param.opt2 or empty param.opt3 or empty param.opt4 or empty param.answer}">  <c:redirect url="add\_question.jsp">  <c:param name="errMsg" value="Please Enter Questions and Option with Answer"/>  </c:redirect>  </c:if>    <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root"  password=""/>  <sql:update dataSource="${dbsource}" var="result">  INSERT INTO questions(id, question, opt1, opt2, opt3, opt4, answer) VALUES (?,?,?,?,?,?,?);  <sql:param value="${param.id}"/>  <sql:param value="${param.question}"/>  <sql:param value="${param.opt1}"/>  <sql:param value="${param.opt2}"/>  <sql:param value="${param.opt3}"/>  <sql:param value="${param.opt4}"/>  <sql:param value="${param.answer}"/>    </sql:update>  <c:if test="${result>=1}">  <font size="5" color='green'> Congratulations ! Data inserted successfully.  </font>  <c:redirect url="add\_question.jsp">  <c:param name="susMsg" value="Congratulations ! Data inserted successfully." />  </c:redirect>  </c:if>  </body>  </html> |
| **Add question:**    **After saving:** |
| **All questions**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <title>ALL QUESTIONS</title>  <style>  #image {  padding: 10px;  background:url(allq.png);  background-repeat: no-repeat;  background-size: 100px 50px;  }  nav {  font-family: Times New Roman;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Times New Roman;  }  #res:hover {  background-color: red;  }  #back:hover{  background-color: yellow;  }  </style>  </head>  <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 20px ">      <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>  <br>    <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root"  password=""/>    <sql:query dataSource="${dbsource}" var="result">  SELECT \* from questions;  </sql:query>    <center>  <form>  <table border="2" width="95%" style="background-color:white;">  <thead>  <tr align="center">  <th colspan="7">  <h1 id="image" style="color:red;">All Questions</h1>  </th>  </tr>  </thead>  <tr >  <th>Question ID</th>  <th >Question</th>  <th>Option 1</th>  <th>Option 2</th>  <th>Option 3</th>  <th>Option 4</th>  <th>Answer</th>  </tr>  <c:forEach var="row" items="${result.rows}">  <tr>  <td align="center"><c:out value="${row.id}"/></td>  <td><c:out value="${row.question}"/></td>  <td><c:out value="${row.opt1}"/></td>  <td><c:out value="${row.opt2}"/></td>  <td><c:out value="${row.opt3}"/></td>  <td><c:out value="${row.opt4}"/></td>  <td><c:out value="${row.answer}"/></td>  </tr>  </c:forEach>  </table>  <a id="back" href="adminfunc.jsp">Go Home</a>  <br><br>  </form>    </center>  <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>  </html> |
| **All questions:**     * The admin can add a new question and can also view / display all the added question. * **In this I have used “select \* from questions table”** |
| **Update question**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <title>UPDATE QUESTION</title>    <style>  #image {  padding: 10px;  background:url(update.png);  background-repeat: no-repeat;  background-size: 100px 50px;  }  nav {  font-family: Times New Roman;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Times New Roman;  }  #res:hover {  background-color: red;  }  #up:hover {  background-color: greenyellow;  color:yellow;  }  #back:hover{  background-color: yellow;  }  </style>  </head>    <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 20px ">    <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>  <br>      <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root" password=""/>    <sql:query dataSource="${dbsource}" var="result">  SELECT \* from questions;  </sql:query>    <center>  <form>  <table border="2" width="95%" cellspacing="2" cellpadding="3" align="center" style="background-color:white;">  <thead>  <tr align="center">  <th colspan="8"><h1 id="image" style="color:red;">Update Question</h1></th>  </tr>  </thead>  <tr>  <th>Question ID</th>  <th>Question</th>  <th>Option 1</th>  <th>Option 2</th>  <th>Option 3</th>  <th>Option 4</th>  <th>Answer</th>  <th colspan="1">Action</th>  </tr>    <c:forEach var="row" items="${result.rows}">  <tr>  <td align="center"><c:out value="${row.id}"/></td>  <td><c:out value="${row.question}"/></td>  <td><c:out value="${row.opt1}"/></td>  <td><c:out value="${row.opt2}"/></td>  <td><c:out value="${row.opt3}"/></td>  <td><c:out value="${row.opt4}"/></td>  <td><c:out value="${row.answer}"/></td>    <td id="up"><a href="update1.jsp?id= <c:out value="${row.id}"/>">Update</a></td>    </tr>  </c:forEach>  </table>  <a href="adminfunc.jsp">Go Home</a>  <br><br>  </form>    </center>    <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>  </html> |
| **Update1.jsp**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <title>JSP Page</title>      <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <title>UPDATE QUESTION</title>    <style>  #image {  padding: 10px;  background:url(update.png);  background-repeat: no-repeat;  background-size: 100px 50px;  }  nav {  font-family: Times New Roman;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Times New Roman;  }  #res:hover {  background-color: red;  }  #up:hover {  background-color: greenyellow;  color:yellow;  }  #back:hover{  background-color: yellow;  }  </style>  </head>  <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 20px ">    <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>  <br>    <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root"  password=""/>    <sql:query dataSource="${dbsource}" var="result">  SELECT \* from questions where id=?;  <sql:param value="${param.id}"/>  </sql:query>    <form action="update\_questiondb.jsp" method="post">  <table border="2" cellspacing="3" cellpadding="5" width="95%" align="center" style="background-color:white;">  <thead>  <tr align="center">  <th colspan="8"><h1 id="image" style="color:red;">Update Question</h1></th>  </tr>  </thead>    <tr>    <th><h5>Question</h5></th>  <th><h5>Option 1<h5></th>  <th><h5>Option 2<h5></th>  <th><h5>Option 3<h5></th>  <th><h5>Option 4<h5></th>  <th><h5>Answer</h5></th>  <th><h5>OPERATION</h5></th>    </tr>    <c:forEach var="row" items="${result.rows}">  <tr>  <td>  <input type="hidden" value="${param.id}" name="id"/>  <input type="text" value="${row.question}" name="question"/>  </td>  <td><input type="text" value="${row.opt1}" name="opt1"/></td>  <td><input type="text" value="${row.opt2}" name="opt2"/></td>  <td><input type="text" value="${row.opt3}" name="opt3"/></td>  <td><input type="text" value="${row.opt4}" name="opt4"/></td>  <td ><input type="text" value="${row.answer}" name="answer"/></td>  <td id="up" align="center"><input type="submit" value="Update"/></td>  </tr>  </c:forEach>  <br>  </table>  <a id="back" href="adminfunc.jsp">Go Home</a>  </form>  <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>  </html> |
| **Updatequestiondb.jsp**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <title>JSP Page</title>  </head>  <body>  <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root"  password=""/>    <sql:update dataSource="${dbsource}" var="count">  UPDATE questions SET question = ?, opt1=?, opt2=?, opt3=?, opt4=?, answer=? WHERE id='${param.id}'    <sql:param value="${param.question}"/>  <sql:param value="${param.opt1}"/>  <sql:param value="${param.opt2}"/>  <sql:param value="${param.opt3}"/>  <sql:param value="${param.opt4}"/>  <sql:param value="${param.answer}"/>  </sql:update>  <c:if test="${count>=1}">  <font size="5" color='green'> Congratulations ! Data updated successfully.</font><br>  <a href="adminfunc.jsp">Go Home</a>  </c:if>  </body>  </html> |
| **Update question:**      **After saving:**       * This page updates the question based on the ID of the queston. * **Update question where id=?** |
| **Add student.jsp**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <title>Add a New Question</title>      <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <style>  #image {  background:url(addq.png);  background-repeat: no-repeat;  background-size: 100px 50px;  }  nav {  font-family: Times New Roman;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Times New Roman;  }  #res:hover {  background-color: greenyellow;  }  #back:hover{  background-color: yellow;  }  </style>  </head>  <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 30px ">      <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>  <br>      <form action="add\_studentsdb.jsp" method="post">  <table border="2" cellspacing="2" cellpadding="5" align="center" width="50%" style="font-family: Times New Roman; background-color: white;">  <thead>  <tr align="center">  <th colspan="2"><h1 id="image" style="color:red;">Add Student</h1></th>  </tr>  </thead>  <tbody>  <tr>  <td><label><h3>ID:<h3></label></td>  <td><h5><input type="text" name="id" autocomplete="off" style="height:30px; width:300px" /></h5></td>  </tr>  <tr>  <td><label><h3>Students First Name:<h3></label></td>  <td><h5><input type="text" name="stufirstname" autocomplete="off" style="height:30px; width:500px" /></h5></td>  </tr>  <tr>  <td><label><h3>Students Last Name:<h3></label></td>  <td><h5><input type="text" name="stulastname" autocomplete="off" style="height:30px; width:500px" /></h5></td>  </tr>  <tr>  <td><label><h3>Students UID: <h3></label></td>  <td><h5><input type="text" name="uid" autocomplete="off" style="height:30px; width:500px" /></h5></td>  </tr>  <tr>  <td><label><h3>Students Class :<h3></label></td>  <td><h5><input type="text" name="stuclass" autocomplete="off" style="height:30px; width:500px" /></h5></td>  </tr>  <tr>  <td align="center"><input id="res" type="reset"value="reset" style="height:30px; width:500px" /></td>  <td align="center"> <input id="res" type="submit"value="Save" style="height:30px; width:500px" /></td>  </tr>  <tr>  <td id="back" colspan="2" align="center"><a href="adminfunc.jsp">BACK</a>  </tr>  </tbody>  </table>  </form>    <font color="green">  <c:if test="${not empty param.susMsg}">  <c:out value="${param.susMsg}"/>  <a href="adminfunc.jsp">Go Back</a>  </c:if>  </font>    <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>  </html> |
| **Add studentdb.jsp**  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <head>  <title>ADD Operation</title>  </head>    <c:if test="${ empty param.id or empty param.stufirstname or empty param.stulastname or empty param.uid or empty param.stuclass }">  <c:redirect url="add\_student.jsp">  <c:param name="errMsg" value="Please Enter Your Correct Details"/>  </c:redirect>  </c:if>    <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root"  password=""/>  <sql:update dataSource="${dbsource}" var="result">  INSERT INTO student(id, stufirstname, stulastname, uid, stuclass) VALUES(?,?,?,?,?);  <sql:param value="${param.id}"/>  <sql:param value="${param.stufirstname}"/>  <sql:param value="${param.stulastname}"/>  <sql:param value="${param.uid}"/>  <sql:param value="${param.stuclass}"/>    </sql:update>  <c:if test="${result>=1}">  <font size="5" color='green'> Congratulations ! Data inserted successfully.  </font>  <c:redirect url="add\_student.jsp">  <c:param name="susMsg" value="Congratulations ! Data inserted successfully." />  </c:redirect>  </c:if> |
| **Ad student:**    **After savng:** |
| **All students.jsp**  <%@page contentType="text/html" pageEncoding="UTF-8"%>  <%@ page import="java.io.\*,java.util.\*,java.sql.\*"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>  <%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix="sql"%>  <!DOCTYPE html>  <html>  <head>  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <title>ALL STUDENTS</title>  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>  <script src="https://use.fontawesome.com/releases/v5.0.8/js/all.js"></script>  <link rel="canonical" href="https://getbootstrap.com/docs/4.5/examples/carousel/">  <title>ALL QUESTIONS</title>  <style>  #image {  padding: 10px;  background:url(addstu.jpg);  background-repeat: no-repeat;  background-size: 100px 50px;  }  nav {  font-family: Times New Roman;  }  .navbar-brand {  color:#111111;  font-size: 20px;  font-family: Times New Roman;  }  #res:hover {  background-color: red;  }  #back:hover{  background-color: yellow;  }  </style>  </head>    <body style="background-image: url(solidb.jpg); background-size:cover; margin-top: 20px ">      <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">  <a class="navbar-brand" href="#" style="color:#44c4e7;"><b>ONLINE EXAMINATION</b></a>  <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">  <span class="navbar-toggler-icon"></span>  </button>  <div class="collapse navbar-collapse" id="navbarCollapse">  <ul class="navbar-nav ml-auto">  <li class="nav-item">  <a class="nav-link"><b><span id="timer" style="color:#44c4e7;"></span></b></a>  </li>  </ul>  </div>  </nav>  <br/>  <br>      <sql:setDataSource var="dbsource" driver="com.mysql.jdbc.Driver"  url="jdbc:mysql://localhost/quiz"  user="root"  password=""/>    <sql:query dataSource="${dbsource}" var="result">  SELECT \* from student;  </sql:query>      <form>  <table align="center" cellspacing="3" cellpadding="5" border="2" width="95%" style="background-color:white;">  <thead>  <tr align="center">  <th colspan="5"> <h1 id="image" style="color:red;">All Students</h1>  </th>  </tr>  </thead>    <tr>  <th>Student ID</th>  <th>Student First Name:</th>  <th>Student last Name:</th>  <th>Students UID:</th>  <th>Students Class:</th>  </tr>  <c:forEach var="row" items="${result.rows}">  <tr>  <td align="center"><c:out value="${row.id}"/></td>  <td><c:out value="${row.stufirstname}"/></td>  <td><c:out value="${row.stulastname}"/></td>  <td><c:out value="${row.uid}"/></td>  <td><c:out value="${row.stuclass}"/></td>    </tr>  </c:forEach>  </table>  </form>  <center>  <a id="back" href="adminfunc.jsp">Go Home</a>  </center>  <script type="text/javascript">  var count=100;    function countDown(){  var timer=document.getElementById("timer");  if(count>0){  count--;  timer.innerHTML = "Time Remaining:"+count;  setTimeout("countDown()",1000)  }  else{  window.location.href="logout";  }  }  countDown();  </script>  </body>  </html> |
| **All students:**     * These 2 jsp pages are for adding a new student and displaying all the added students. |

**STUDENT MODULE:**

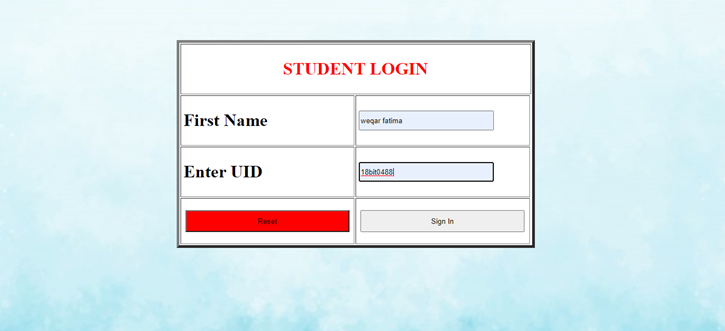
Login page:

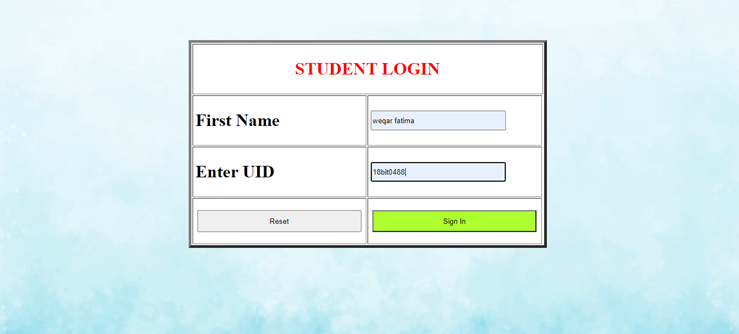
|  |
| --- |
| **Student\_page.html**  <html>  <head>  <title>STUDENT PORTAL</title>  <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">    <style>  #image {    padding: 20px;  background:url(solidstu.jpg);  background-repeat: no-repeat;  background-size: 100px 50px;  }  #res:hover {  background-color: red;  }  #sub:hover {  background-color: greenyellow;  }  </style>  </head>  <body id="image" style="margin-top:60px; background-size:cover;" >      <form action="Login" method="post">  <table border="5" cellspacing="2" cellpadding="5" align="center" width="50%" style="background-color:white">  <thead>  <tr>  <th colspan="4"><h1 style="color:red">STUDENT LOGIN</h1></th>  </tr>  </thead>  <tbody>  <tr>  <td><label><h1>First Name</h1></label></td>  <td><input type="text" style="height:30px;" size="30" name="fname" placeholder="Enter your first name"></td>  </tr>  <tr>  <td><label><h1>Enter UID</h1></label></td>  <td><input type="text" style="height:30px;" size="30" name="uid" placeholder="Enter your correct UID"></td>  </tr>  <tr align="center">  <td><p><input id="res" type="reset" style="height:40px; width:300px;"></p></td>    <td><p><input id="sub" type="submit" value="Sign In" style="height:40px; width:300px;"></p></td>  </tr>  </tbody>  </table>  </form>  </body>  </html> |

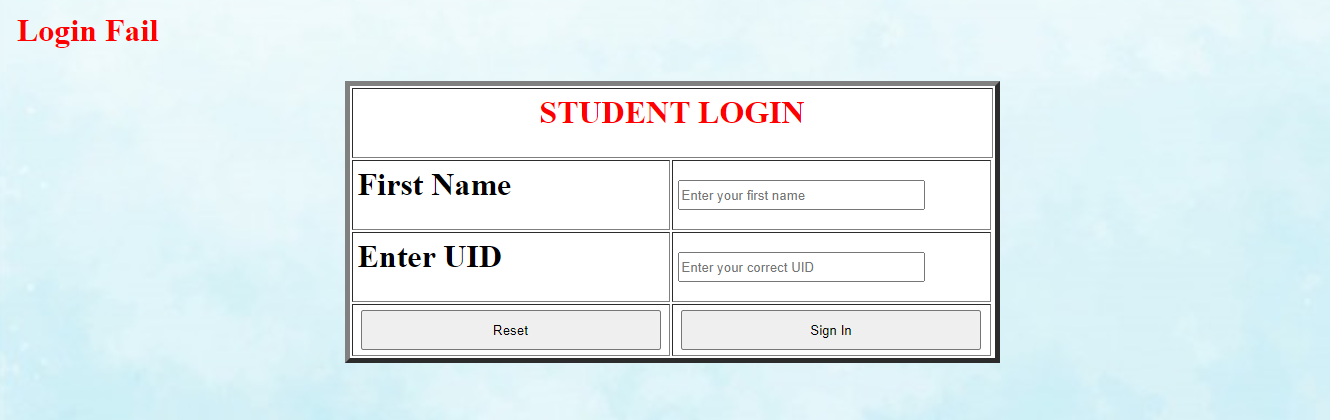


**Login.java**

|  |
| --- |
| package backend;  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;  import project.SelectDetails;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "Login", urlPatterns = {"/Login"})  public class Login extends HttpServlet {    protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  try (PrintWriter out = response.getWriter()) {    String stufirstname= request.getParameter("fname");  String uid= request.getParameter("uid");      if(SelectDetails.authenticate(stufirstname, uid)){    HttpSession session=request.getSession();    session.setAttribute("stufirstname", out);  session.setAttribute("visit", "1");      request.getRequestDispatcher("instructions").include(request, response);  }  else{    //out.println("<h1> <body forecolor=red > Login Fail !!! </h1>");  out.println("<h1><p style=\'color:red;\'>Login Fail</p></h1>");  request.getRequestDispatcher("student\_page.html").include(request, response);    out.println("</div>");  }  out.close();  }  }  } |

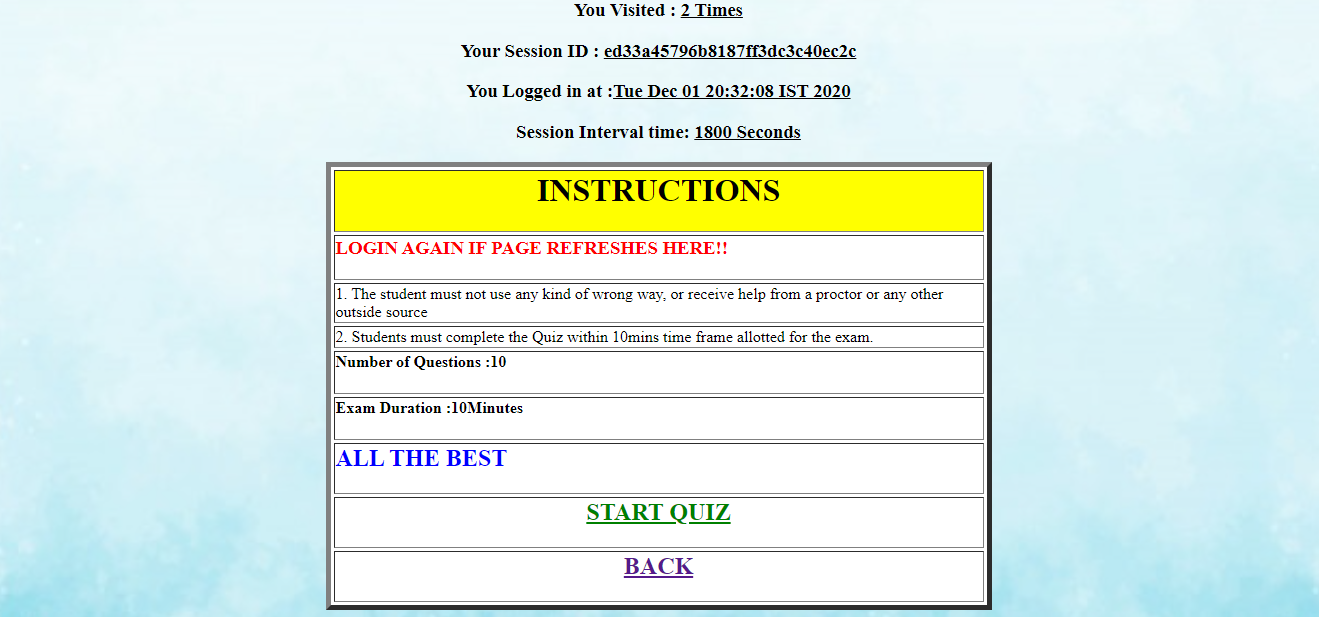






* This student login checks for the students name and UID from the “selectDeatils” class if it is correct then it redirects the page to the instructions page.
* In the nstruction page, it will how everything.
* The user’s session ID, the time he logged in, the number of visits he did, and the session time out.
* If the student refreshes the page while on the instructions page, he/she has to login again.

|  |
| --- |
| **Instructions.java**  package backend;  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;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "instructions", urlPatterns = {"/instructions"})  public class instructions extends HttpServlet {  protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  PrintWriter out = response.getWriter();    out.println("");  try {  HttpSession session = request.getSession(false); //the earlier session is being used  if(session!=null) //if session is not null then  {    //out.println("<h2><p style=\'color:blue;\'>BEST OF LUCK!!</p></h2>");  int visit = Integer.parseInt((String)session.getAttribute("visit"))+1;  out.print("<h3 align='center'>You Visited : <u>" +visit+ " Times</u></h3>");  session.setAttribute("visit", ""+visit);  out.print("<h3 align='center'>Your Session ID : <u> "+session.getId()+ "</u></h3>");  out.print("<h3 align='center'>You Logged in at :<u>"+new java.util.Date(session.getCreationTime())+ "</u></h3>");    //session interval  int time = session.getMaxInactiveInterval();  out.println("<h3 align='center'> Session Interval time: <u>"+time+ " Seconds </u></h3>");    out.println("<body style='background-image:url(solidstu.jpg); background-size:cover;'>"    +"<table border='5' cellspacing='3' align='center' width='50%' style='background-color:white;' >"  +"<thead>\n"  +"<tr style='background-color:yellow;'>\n"  +"<th><h1>INSTRUCTIONS</h1></th>\n"  +"</tr>\n"  +"</thead>"  +"<tbody> \n" +  "<tr><td><h3 style='color:red';>LOGIN AGAIN IF PAGE REFRESHES HERE!!</h3></td></tr>"+  "<tr><td><p> 1. The student must not use any kind of wrong way, or receive help from a proctor or any other outside source</p></td></tr>\n" +  "<tr><td><p> 2. Students must complete the Quiz within 10mins time frame allotted for the exam.</p></td></tr>\n" +  "<tr><td><h4> Number of Questions :10</h4></td></tr>\n" +  "<tr> <td><h4>Exam Duration :10Minutes</h4></td></tr>\n" +  "<tr><td><h2 style='color:blue'>ALL THE BEST</h2></td></tr>\n" +  "<tr><td><h2 align='center' ><a href=\"quiz\_start1\" style='color:green'>START QUIZ</a></h2></td></tr>\n" +  "<tr><td><h2 align='center'> <a href=\"index.html\">BACK</a></h2></td></tr>\n" +  "</tbody>"  +"</table>"  + "</body>");    }  }  catch(Exception e)    {out.println(e);}    }    } |



**Quiz\_start1.java**

|  |
| --- |
| package backend;  import java.io.IOException;  import java.io.PrintWriter;  import java.sql.Connection;  import java.sql.DriverManager;  import java.sql.ResultSet;  import java.sql.Statement;  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 project.ConnectionProvider;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "quiz\_start1", urlPatterns = {"/quiz\_start1"})  public class quiz\_start1 extends HttpServlet {    protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  PrintWriter out = response.getWriter();    out.println("<form action=quiz\_start2>");  try {  HttpSession session = request.getSession(false); //the earlier session is being used  if(session!=null) //if session is not null then  {    out.println("<h2 align='center'><p style=\'color:blue;\'>BEST OF LUCK!!</p></h2>");  int visit = Integer.parseInt((String)session.getAttribute("visit"))+1;  out.print("<h3 align='center'>You Visited :<u>"+visit+" Times</u></h3>");  session.setAttribute("visit", ""+visit);  out.print("<h3 align='center'>Your Session ID :<u>" +session.getId()+"</u></h3>");    //out.print("<h3 align='center'>You Logged in at :" +new java.util.Date(session.getCreationTime())+"</h3>");    //session interval  int time = session.getMaxInactiveInterval();  out.println("<h3 align='center'> Max Inactive Session Interval time: "+time+" Seconds</h3>");    //quiz starts    Connection con = ConnectionProvider.getCon();  Statement stmt = con.createStatement();  ResultSet res = stmt.executeQuery("select \* from questions where id<=3");  out.println("<body style='background-image:url(solidstu.jpg); background-size:cover;'/>");  out.println("<table border=5 cellspacing=2 cellpadding=5 align=center width=50% style='background-color:white'; >");    int question\_no=0;    while(res.next()){  question\_no++;    out.println("<tr><td>"+res.getString(1)+"</td>");  out.println("<td>"+res.getString(2)+"</td></tr>"); //questions    out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(3)+"></td><td>"+res.getString(3)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(4)+"></td><td>"+res.getString(4)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(5)+"></td><td>"+res.getString(5)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(6)+"></td><td>"+res.getString(6)+"</td></tr>");      }  out.println("<tr><td colspan=1 align=center><input style=\"height:30px; width:100px;color:red;\" type=reset></td>");  out.println("<td colspan=1 align=center ><input style=\"height:30px; width:400px;color:green;\" type=submit value=NEXT ></tr></td>");  }  }    catch(Exception e)    {out.println(e);}      out.println("</table>");    out.println("</form>");  }  } |
|  |

**Quiz\_start2.java**

|  |
| --- |
| package backend;  import java.io.IOException;  import java.io.PrintWriter;  import java.sql.Connection;  import java.sql.ResultSet;  import java.sql.Statement;  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 project.ConnectionProvider;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "quiz\_start2", urlPatterns = {"/quiz\_start2"})  public class quiz\_start2 extends HttpServlet {    protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  PrintWriter out = response.getWriter();  out.println("<form action=quiz\_start3>");  try {  HttpSession session = request.getSession(false); //the earlier session is being used  if(session!=null) //if session is not null then  {    //out.println("<h2><p style=\'color:blue;\'>BEST OF LUCK!!</p></h2>");  int visit = Integer.parseInt((String)session.getAttribute("visit"))+1;  out.println("<h3 align='center'>You Visited : <u>"+visit+" Times</u></h3>");  session.setAttribute("visit", ""+visit);  out.println("<h3 align='center'>Your Session ID : <u>"+session.getId()+"</u></h3>");  //out.println("<h3 align='center'>You Logged in at : "+new java.util.Date(session.getCreationTime())+"</h3>");    //session interval  int time = session.getMaxInactiveInterval();  out.println("<h3 align='center'>Session Interval time: "+time+" Seconds</h3>");    //quiz starts    Connection con = ConnectionProvider.getCon();  Statement stmt = con.createStatement();  ResultSet res = stmt.executeQuery("select \* from questions where id >3 and id<=6");  out.println("<body style='background-image:url(solidstu.jpg); background-size:cover;'/>");  out.println("<table border=1 cellspacing=2 cellpadding=5 align=center width=50% style='background-color:white;'>");    int question\_no=0;    while(res.next()){  question\_no++;    out.println("<tr><td>"+res.getString(1)+"</td>");  out.println("<td>"+res.getString(2)+"</td></tr>"); //questions    out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(3)+"></td><td>"+res.getString(3)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(4)+"></td><td>"+res.getString(4)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(5)+"></td><td>"+res.getString(5)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(6)+"></td><td>"+res.getString(6)+"</td></tr>");    }  out.println("<tr><td colspan=1 align=center><input style=\"height:30px; width:100px;color:red;\" type=reset></td>");  out.println("<td colspan=1 align=center><input style=\"height:30px; width:400px;color:green;\" type=submit value=NEXT ></tr></td>");  }  }    catch(Exception e)    {out.println(e);}      out.println("</table>");  out.println("</form>");        }  } |



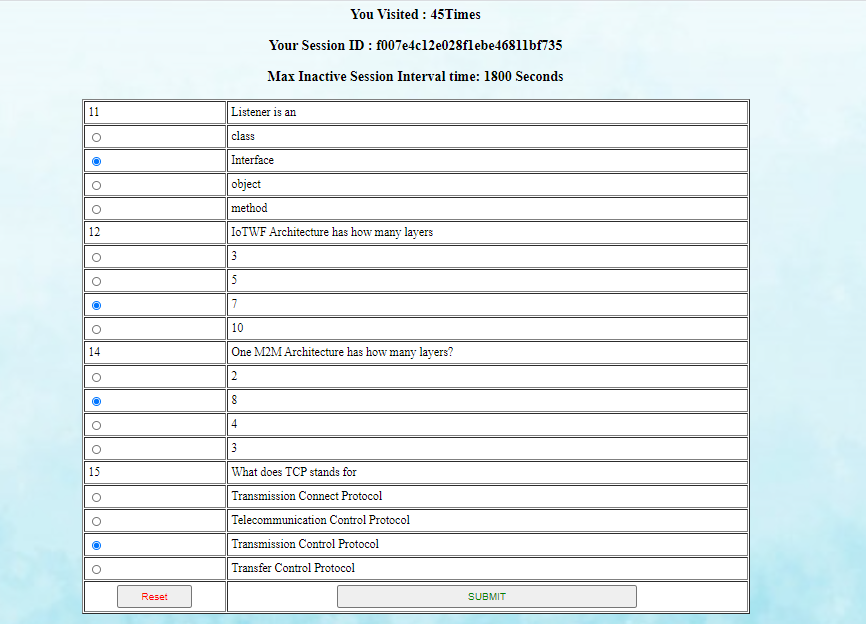
**Quiz\_start3.java**

|  |
| --- |
| package backend;  import java.io.IOException;  import java.io.PrintWriter;  import java.sql.Connection;  import java.sql.ResultSet;  import java.sql.Statement;  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 project.ConnectionProvider;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "quiz\_start3", urlPatterns = {"/quiz\_start3"})  public class quiz\_start3 extends HttpServlet {    protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  PrintWriter out = response.getWriter();  out.println("<form action=quiz\_start4>");  try {  HttpSession session = request.getSession(false); //the earlier session is being used  if(session!=null) //if session is not null then  {    //out.println("<h2><p style=\'color:blue;\'>BEST OF LUCK!!</p></h2>");  int visit = Integer.parseInt((String)session.getAttribute("visit"))+1;  out.println("<h3 align='center'>You Visited :<u> "+visit+" Times</u></h3>");  session.setAttribute("visit", ""+visit);  out.println("<h3 align='center'>Your Session ID : <u>"+session.getId()+"</u></h3>");  //out.println("<h3 align='center'>You Logged in at : "+new java.util.Date(session.getCreationTime())+"</h3>");    //session interval  int time = session.getMaxInactiveInterval();  out.println("<h3 align='center'> Max Inactive Session Interval time: "+time+" Seconds</h3>");    //quiz starts    Connection con = ConnectionProvider.getCon();  Statement stmt = con.createStatement();  ResultSet res = stmt.executeQuery("select \* from questions where id >6 and id<=10");  out.println("<body style='background-image:url(solidstu.jpg); background-size:cover;'/>");  out.println("<table border=1 cellspacing=2 cellpadding=5 align=center width=50% style='background-color:white' >");    int question\_no=0;    while(res.next()){  question\_no++;    out.println("<tr><td>"+res.getString(1)+"</td>");  out.println("<td>"+res.getString(2)+"</td></tr>"); //questions    out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(3)+"></td><td>"+res.getString(3)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(4)+"></td><td>"+res.getString(4)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(5)+"></td><td>"+res.getString(5)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(6)+"></td><td>"+res.getString(6)+"</td></tr>");    }  out.println("<tr><td colspan=1 align=center><input style=\"height:30px; width:100px; color:red;\" type=reset></td>");  out.println("<td colspan=1 align=center><input style=\"height:30px; width:400px;color:green;\" type=submit value=NEXT ></tr></td>");  }    }    catch(Exception e)    {out.println(e);}      out.println("</table>");    out.println("</form>");        }    } |



**Quiz\_start4.java**

|  |
| --- |
| package backend;  import java.io.IOException;  import java.io.PrintWriter;  import java.sql.Connection;  import java.sql.ResultSet;  import java.sql.Statement;  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 project.ConnectionProvider;  /\*\*  \*  \* @author WEQAR FATIMA  \*/  @WebServlet(name = "quiz\_start4", urlPatterns = {"/quiz\_start4"})  public class quiz\_start4 extends HttpServlet {  protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  PrintWriter out = response.getWriter();  out.println("<form action=Done>");  try {  HttpSession session = request.getSession(false); //the earlier session is being used  if(session!=null) //if session is not null then  {    //out.println("<h2><p style=\'color:blue;\'>BEST OF LUCK!!</p></h2>");  int visit = Integer.parseInt((String)session.getAttribute("visit"))+1;  out.println("<h3 align='center'>You Visited : "+visit+"Times</h3>");  session.setAttribute("visit", ""+visit);  out.println("<h3 align='center'>Your Session ID : "+session.getId()+"</h3>");  //out.println("<h3 align='center'>You Logged in at : "+new java.util.Date(session.getCreationTime())+"</h3>");    //session interval  int time = session.getMaxInactiveInterval();  out.println("<h3 align='center'> Max Inactive Session Interval time: "+time+" Seconds</h3>");    //quiz starts    Connection con = ConnectionProvider.getCon();  Statement stmt = con.createStatement();  ResultSet res = stmt.executeQuery("select \* from questions where id >10 ");  out.println("<body style='background-image:url(solidstu.jpg); background-size:cover;'/>");  out.println("<table border=1 cellspacing=2 cellpadding=5 align=center width=50% style='background-color:white' >");  int question\_no=0;    while(res.next()){  question\_no++;    out.println("<tr><td>"+res.getString(1)+"</td>");  out.println("<td>"+res.getString(2)+"</td></tr>"); //questions    out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(3)+"></td><td>"+res.getString(3)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(4)+"></td><td>"+res.getString(4)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(5)+"></td><td>"+res.getString(5)+"</td></tr>");  out.println("<tr><td><input type=radio name="+question\_no+" value="+res.getString(6)+"></td><td>"+res.getString(6)+"</td></tr>");    }  out.println("<tr><td colspan=1 align=center><input style=\"height:30px; width:100px;color:red;\" type=reset></td>");  out.println("<td colspan=1 align=center><input style=\"height:30px; width:400px;color:green;\" type=submit value=SUBMIT ></tr></td>");  }    }    catch(Exception e)    {out.println(e);}      out.println("</table>");    out.println("</form>");        }    } |



* These ae the 4 pages for the quiz questions
* All these will display only the questions I have given the limit to.
* At the last page, it will ask for submitting the paper.
* If the student submit that hands in the paper it will invalidate the session in the “logout” page and the session will be timedout.

**Done.java**

|  |
| --- |
| package backend;  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;  @WebServlet(name = "Done", urlPatterns = {"/Done"})  public class Done extends HttpServlet {  protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  PrintWriter out = response.getWriter();  try{  HttpSession session = request.getSession(false); //the earlier session is being used  if(session!=null)  {  out.println("<body align=center style='background-image:url(image.png); background-size:cover; margin-top:300px;'>");  out.println("<h1><a href='Logout' style='color:red'>SUBMIT QUIZ</a></h1>");  //out.println("<h3><a href='ShowResult'>SHOW RESULTS</a></h3>");  }    }  catch(Exception e){  out.println(e);  }  }    } |

**Logout.java**

|  |
| --- |
| package backend;  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;  @WebServlet(name = "Logout", urlPatterns = {"/Logout"})  public class Logout extends HttpServlet {  protected void processRequest(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  response.setContentType("text/html;charset=UTF-8");  try (PrintWriter out = response.getWriter()) {  request.getSession().invalidate();  response.sendRedirect("index.html" );  }  }    } |

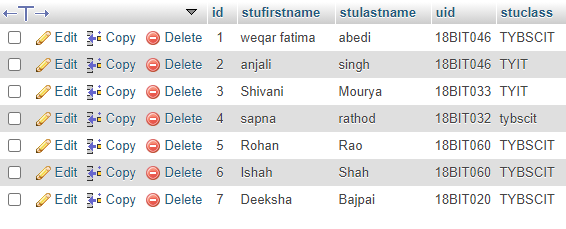


**DATABASE**

ADMIN TABLE



STUDENT TABLE



QUESTIONS TABLE

