

Online Quiz Portal Source Code

AddSQLQuestionsServlet.java:

```
package com.questions;

import java.io.IOException;

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.Session;
import org.hibernate.Transaction;

import com.user.HibernateUtil;

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

    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        String question = request.getParameter("question");
        String option1 = request.getParameter("option1");
        String option2 = request.getParameter("option2");
        String option3 = request.getParameter("option3");
        String option4 = request.getParameter("option4");
        int correctOption =
Integer.parseInt(request.getParameter("correctOption"));

        // Create a new SQLQuestion object and set the values
        SQLQuestion sqlQuestion = new SQLQuestion();
        sqlQuestion.setQuestion(question);
        sqlQuestion.setOption1(option1);
        sqlQuestion.setOption2(option2);
        sqlQuestion.setOption3(option3);
        sqlQuestion.setOption4(option4);
        sqlQuestion.setCorrectOption(correctOption);

        // Save the SQLQuestion object to the database using Hibernate
        Session session = HibernateUtil.getSessionFactory().openSession();
        Transaction transaction = session.beginTransaction();
        session.save(sqlQuestion);
        try {
            transaction.commit();
        } catch (Exception e) {
            if (transaction != null) {
                transaction.rollback();
            }
            e.printStackTrace();
        } finally {
            session.close();
        }
    }
}
```

```

        response.sendRedirect("addquestion.jsp");
    }
}

```

DeleteSQLQuestionServlet.java:

```

package com.questions;

import java.io.IOException;

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("/deletesqlquestion")
public class DeleteSQLQuestionServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
        // Retrieve the question ID from the request parameter
        Long questionId = Long.parseLong(request.getParameter("id"));

        // Delete the SQL question from the database
        SQLQuestionDAO.deleteSQLQuestion(questionId);

        // Redirect back to the view page
        response.sendRedirect(request.getContextPath() + "/viewsqllist");
    }
}

```

EditSQLQuestionServlet.java:

```

package com.questions;

import java.io.IOException;

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("/editssqlquestion")
public class EditSQLQuestionServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
        // Retrieve the question ID from the request parameter
        Long questionId = Long.parseLong(request.getParameter("id"));
    }
}

```

```

        // Retrieve the SQL question from the database
        SQLQuestion sqlQuestion = SQLQuestionDAO.getSQLQuestionById(questionId);

        // Forward the question object to the JSP page for editing
        request.setAttribute("question", sqlQuestion);
        request.getRequestDispatcher("editssqlquestion.jsp").forward(request,
response);
    }

    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        // Retrieve the question ID from the request parameter
        Long questionId = Long.parseLong(request.getParameter("id"));

        // Retrieve the SQL question from the database
        SQLQuestion sqlQuestion = SQLQuestionDAO.getSQLQuestionById(questionId);

        // Update the SQL question with the form data
        sqlQuestion.setQuestion(request.getParameter("question"));
        sqlQuestion.setOption1(request.getParameter("option1"));
        sqlQuestion.setOption2(request.getParameter("option2"));
        sqlQuestion.setOption3(request.getParameter("option3"));
        sqlQuestion.setOption4(request.getParameter("option4"));

        sqlQuestion.setCorrectOption(Integer.parseInt(request.getParameter("correctOption"
)));

        // Update the SQL question in the database
        SQLQuestionDAO.updateSQLQuestion(sqlQuestion);

        // Redirect to the SQL question list page
        response.sendRedirect("viewssqllist.jsp");
    }
}

```

SQLQuestion.java:

```

package com.questions;

import java.util.List;

import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.Table;
import javax.persistence.criteria.CriteriaBuilder;
import javax.persistence.criteria.CriteriaQuery;
import javax.persistence.criteria.Root;
import javax.transaction.HeuristicMixedException;
import javax.transaction.HeuristicRollbackException;
import javax.transaction.RollbackException;
import javax.transaction.SystemException;
import javax.transaction.Transaction;

import org.hibernate.Session;

import com.user.HibernateUtil;

```

```

@Entity
@Table(name = "sql_question")
public class SQLQuestion {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private Long id;

    private String question;
    private String option1;
    private String option2;
    private String option3;
    private String option4;
    private int correctOption;

    public Long getId() {
        return id;
    }

    public void setId(Long id) {
        this.id = id;
    }

    public String getQuestion() {
        return question;
    }

    public void setQuestion(String question) {
        this.question = question;
    }

    public String getOption1() {
        return option1;
    }

    public void setOption1(String option1) {
        this.option1 = option1;
    }

    public String getOption2() {
        return option2;
    }

    public void setOption2(String option2) {
        this.option2 = option2;
    }

    public String getOption3() {
        return option3;
    }

    public void setOption3(String option3) {
        this.option3 = option3;
    }

    public String getOption4() {
        return option4;
    }

    public void setOption4(String option4) {
        this.option4 = option4;
    }

    public int getCorrectOption() {
        return correctOption;
    }

    public void setCorrectOption(int correctOption) {
        this.correctOption = correctOption;
    }

    public String formatOptions() {
        return option1 + ", " + option2 + ", " + option3 + ", " + option4;
    }
}

```

```
}
```

SQLQuestionDAO.java:

```
package com.questions;

import java.util.List;

import javax.persistence.criteria.CriteriaBuilder;
import javax.persistence.criteria.CriteriaQuery;
import javax.persistence.criteria.Root;

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

import com.user.HibernateUtil;

public class SQLQuestionDAO {
    public static List<SQLQuestion> getAllSQLQuestions() {
        try (Session session =
HibernateUtil.getSessionFactory().openSession()) {
            CriteriaBuilder builder = session.getCriteriaBuilder();
            CriteriaQuery<SQLQuestion> query =
builder.createQuery(SQLQuestion.class);
            Root<SQLQuestion> root = query.from(SQLQuestion.class);
            query.select(root);

            return session.createQuery(query).getResultList();
        }

        public static String formatOptions(SQLQuestion question) {
            String options = question.getOption1() + ", " +
question.getOption2() + ", " + question.getOption3() + ", "
+ question.getOption4();
            return options;
        }

        public static SQLQuestion getSQLQuestionById(Long questionId) {
            try (Session session =
HibernateUtil.getSessionFactory().openSession()) {
                return session.get(SQLQuestion.class, questionId);
            }
            // Implement other methods for CRUD operations
            // ...
        }

        public static void deleteSQLQuestion(Long questionId) {
            try (Session session =
HibernateUtil.getSessionFactory().openSession()) {
                Transaction transaction = session.beginTransaction();

                SQLQuestion question = session.get(SQLQuestion.class,
questionId);

                if (question != null) {
```

```

        session.delete(question);
    }

    transaction.commit();
}

}

public static void updateSQLQuestion(SQLQuestion sqlQuestion) {
    try (Session session = HibernateUtil.getSessionFactory().openSession()) {
        Transaction transaction = session.beginTransaction();
        session.update(sqlQuestion);
        transaction.commit();
    }
}
}

```

SQLTestServlet.java:

```

package com.questions;

import java.io.IOException;
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;

@WebServlet("/sqlTestServlet")
public class SQLTestServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
        List<SQLQuestion> sqlQuestions = SQLQuestionDAO.getAllSQLQuestions();
        request.setAttribute("sqlQuestions", sqlQuestions);
        request.getRequestDispatcher("sqlTest.jsp").forward(request, response);
    }
}

```

SubmitAnswerServlet.java:

```

package com.questions;

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 java.io.IOException;
import java.util.HashMap;
import java.util.List;
import java.util.Map;

@WebServlet("/submitAnswerServlet")
public class SubmitAnswerServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse
    response) throws ServletException, IOException {

```

```

Map<Long, Integer> userAnswers = new HashMap<>();

// Get the submitted answers from the request parameters
List<SQLQuestion> questionList = SQLQuestionDAO.getAllSQLQuestions();
for (SQLQuestion question : questionList) {
    Long questionId = question.getId();
    int selectedOption = Integer.parseInt(request.getParameter("answer" +
questionId));
    userAnswers.put(questionId, selectedOption);
}

// Calculate the score
int score = calculateScore(userAnswers, questionList);

// Set the score as a request attribute and forward to a result page
request.setAttribute("score", score);
request.getRequestDispatcher("/sqlTestResult.jsp").forward(request,
response);
}

private int calculateScore(Map<Long, Integer> userAnswers, List<SQLQuestion>
questionList) {
    int score = 0;

    for (SQLQuestion question : questionList) {
        Long questionId = question.getId();
        int selectedOption = userAnswers.getOrDefault(questionId, -1);
        int correctOption = question.getCorrectOption();

        if (selectedOption == correctOption) {
            score++; // Increment score for each correct answer
        }
    }

    return score;
}
}

```

ViewSQLQuestionServlet.java:

```

package com.questions;

import java.io.IOException;
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;

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

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
        // Retrieve the list of SQL questions from the database
        List<SQLQuestion> questionList = SQLQuestionDAO.getAllSQLQuestions();

```

```

        // Forward the list to the JSP page for rendering
        request.setAttribute("questionList", questionList);
        request.getRequestDispatcher("viewsqllist.jsp").forward(request,
response);
    }
}

```

Admin.java:

```

package com.user;

import javax.persistence.*;

@Entity
@Table(name = "admin")
public class Admin {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "id")
    private int id;

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

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

    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    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;
    }
}

```


AdminDAO.java:

```
package com.user;

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

public class AdminDAO {
    private SessionFactory sessionFactory;

    public AdminDAO() {
        sessionFactory = HibernateUtil.getSessionFactory();
    }

    public Admin validateAdmin(String email, String password) {
        try (Session session = sessionFactory.openSession()) {
            Query<Admin> query = session.createQuery("FROM Admin WHERE email = :email AND password = :password", Admin.class);
            query.setParameter("email", email);
            query.setParameter("password", password);
            return query.uniqueResult();
        } catch (Exception e) {
            e.printStackTrace();
        }
        return null;
    }
}
```

AdminLoginServlet.java:

```
package com.user;

import java.io.IOException;
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("/adminLoginServlet")
public class AdminLoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        String email = request.getParameter("email");
        String password = request.getParameter("password");

        AdminDAO adminDAO = new AdminDAO();
        Admin admin = adminDAO.validateAdmin(email, password);

        if (admin != null) {
            request.getSession().setAttribute("adminAuthenticated", true);
            response.sendRedirect("admindashboardpage.jsp");
        } else {
            // Invalid admin credentials, display an error message or redirect to login page
            response.sendRedirect("adminlogin.jsp?error=invalidAdminCredentials");
        }
    }
}
```

DeleteUserServlet.java:

```
package com.user;

import java.io.IOException;

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("/deleteuser")
public class DeleteUserServlet extends HttpServlet {
    /**
     *
     */
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        Long userId = Long.parseLong(request.getParameter("userId"));
        UserDAO userDAO = new UserDAO();
        userDAO.deleteUser(userId);
        response.sendRedirect("viewuser.jsp");
    }
}
```

EditUserServlet.java:

```
package com.user;

import java.io.IOException;

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("/edituser")
public class EditUserServlet extends HttpServlet {
    /**
     *
     */
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        Long userId = Long.parseLong(request.getParameter("userId"));
        UserDAO userDAO = new UserDAO();
        User user = userDAO.getUserById(userId); // to to userdao class call the
method
        request.setAttribute("user", user);
        request.getRequestDispatcher("edituser.jsp").forward(request, response);
    }
}
```

HibernateUtil.java:

```
package com.user;

import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;

public class HibernateUtil {
    private static final SessionFactory sessionFactory = buildSessionFactory();

    private static SessionFactory buildSessionFactory() {
        try {
            // Create the SessionFactory from hibernate.cfg.xml
            Configuration configuration = new Configuration();
            configuration.configure("hibernate.cfg.xml");
            return configuration.buildSessionFactory();
        } catch (Throwable ex) {
            // Handle any initial SessionFactory creation errors
            System.err.println("Initial SessionFactory creation failed: " + ex);
            throw new ExceptionInInitializerError(ex);
        }
    }

    public static SessionFactory getSessionFactory() {
        return sessionFactory;
    }

    public static void shutdown() {
        // Close caches and connection pools
        getSessionFactory().close();
    }
}
```

LogoutServlet.java:

```
package com.user;

import java.io.IOException;
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("/logoutServlet")
public class LogoutServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        HttpSession session = request.getSession();
        session.invalidate();

        response.sendRedirect("loggedout.jsp");
    }
}
```

RegisterServlet.java:

```
package com.user;

import java.io.IOException;
import java.sql.Date;
import java.text.ParseException;
import java.text.SimpleDateFormat;
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("/registerServlet")
public class RegisterServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        String name = request.getParameter("name");
        String email = request.getParameter("email");
        String password = request.getParameter("password");

        SimpleDateFormat dateFormat = new SimpleDateFormat("dd-MM-yyyy");
        Date dob = null;
        try {
            dob = new
Date(dateFormat.parse(request.getParameter("dob")).getTime());
        } catch (ParseException e) {
            e.printStackTrace();
        }

        User user = new User();
        user.setName(name);
        user.setEmail(email);
        user.setPassword(password);
        user.setDob(dob);

        UserDAO userDAO = new UserDAO();
        userDAO.registerUser(user);

        response.sendRedirect("userdashboard.jsp");
    }
}
```

UpdateUserServlet.java:

```
package com.user;

import java.io.IOException;

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("/updateuser")
public class UpdateUserServlet extends HttpServlet {
    /**
     *
     */
    private static final long serialVersionUID = 1L;
```

```

        protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
            String userIdParam = request.getParameter("userId");
            if (userIdParam != null && !userIdParam.isEmpty()) {
                try {
                    Long userId = Long.parseLong(userIdParam);
                    String name = request.getParameter("name");
                    String email = request.getParameter("email");

                    UserDao userDao = new UserDao();
                    User user = userDao.getUserById(userId);
                    if (user != null) {
                        user.setName(name);
                        user.setEmail(email);
                        userDao.updateUser(user);

                        response.sendRedirect("viewuser.jsp");
                        return;
                    }
                } catch (NumberFormatException e) {
                    // Handle parsing error
                }
            }

            // Handle invalid userId or other errors
            response.sendRedirect("error.jsp");
        }
    }
}

```

User.java:

```

package com.user;

import java.sql.Date;

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

@Entity
@Table(name = "users")
public class User {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private Long id;
    private String name;
    private String email;
    private String password;
    private Date dob;
    public Long getId() {
        return id;
    }

    public void setId(Long id) {
        this.id = id;
    }
}

```

```

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    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;
    }

    public Date getDob() {
        return dob;
    }

    public void setDob(Date dob) {
        this.dob = dob;
    }
}

```

UserDAO.java:

```

package com.user;

import java.util.List;

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

public class UserDAO {
    public void registerUser(User user) {
        Session session = HibernateUtil.getSessionFactory().openSession();
        Transaction transaction = session.beginTransaction();
        session.save(user);
        transaction.commit();
        session.close();
    }

    public User validateUser(String email, String password) {
        Session session = HibernateUtil.getSessionFactory().openSession();
        Query<User> query = session.createQuery("FROM User WHERE email = :email
AND password = :password", User.class);
        query.setParameter("email", email);
        query.setParameter("password", password);
        User user = query.uniqueResult();
    }
}

```

```

        session.close();
        return user;
    }

    // ----- show the list of user -----
    public List<User> getAllUsers() {
        Session session = HibernateUtil.getSessionFactory().openSession();
        Query<User> query = session.createQuery("FROM User", User.class);
        List<User> userList = query.list();
        session.close();
        return userList;
    }

    // ----- show the list of user -----
    public User getUserById(Long userId) {
        Session session = HibernateUtil.getSessionFactory().openSession();
        User user = session.get(User.class, userId);
        session.close();
        return user;
    }

    // ----- Update the list of user -----
    public void updateUser(User user) {
        Session session = HibernateUtil.getSessionFactory().openSession();
        Transaction transaction = session.beginTransaction();
        session.update(user);
        transaction.commit();
        session.close();
    }

    // ----- Delete the list of user -----
    public void deleteUser(Long userId) {
        Session session = HibernateUtil.getSessionFactory().openSession();
        Transaction transaction = session.beginTransaction();

        User user = session.get(User.class, userId);
        if (user != null) {
            session.delete(user);
        }

        transaction.commit();
        session.close();
    }
}

```

UserLoginServlet.java:

```

package com.user;

import java.io.IOException;
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("/userloginServlet")
public class UserLoginServlet extends HttpServlet {

```

```

    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        String email = request.getParameter("email");
        String password = request.getParameter("password");

        UserDao userDao = new UserDao();
        User user = userDao.validateUser(email, password);

        if (user != null) {
            HttpSession session = request.getSession();
            session.setAttribute("name", user.getName());
            response.sendRedirect("userdashboard.jsp");
        } else {
            request.setAttribute("error", "Invalid email or password");

            request.getRequestDispatcher("userlogin.jsp").forward(request,
response);
        }
    }
}

```

Hibernate.cfg.xml:

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE hibernate-configuration PUBLIC
    "-//Hibernate/Hibernate Configuration DTD 3.0//EN"
    "http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">
<hibernate-configuration>
    <session-factory>
        <property
name="hibernate.connection.driver_class">com.mysql.jdbc.Driver</property>
        <property
name="hibernate.connection.url">jdbc:mysql://localhost:3306/Register</property>
        <property name="hibernate.connection.username">root</property>
        <property name="hibernate.connection.password">Anju@2002</property>
        <property
name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
        <mapping class="com.user.User"/>
        <mapping class="com.user.Admin"/>
        <mapping class="com.questions.SQLQuestion" />

    </session-factory>
</hibernate-configuration>

```

JSP FILES:

Edituser.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>

```



```

</head>
<body>
<h1>Edit User</h1>
    <form action="updateuser" method="post">
        <input type="hidden" name="userId" value="${user.id}">
        <label>Name: </label>
        <input type="text" name="name" value="${user.name}">
        <br>
        <label>Email: </label>
        <input type="email" name="email" value="${user.email}">
        <br>
        <input type="submit" value="Update">
    </form>
</body>
</html>

```

Addquestion.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<%@ include file="header.jsp" %>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
<style>
    table {
        width: 100%;
        border-collapse: collapse;
    }

    th, td {
        border: 1px solid black;
        padding: 8px;
        text-align: left;
    }

    tr:nth-child(even) {
        background-color: #f2f2f2;
    }
</style>
</head>
<body>
    <h1>Add Questions to Quiz</h1>

    <h2>Subjects:</h2>
    <table>
        <thead>
            <tr>
                <th>Subject</th>
                <th>Add Question</th>
                <th>View Question</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>SQL</td>
            </tr>
        </tbody>
    </table>

```

```

                <td><a href="addquestionsql.jsp">Add SQL Question</a></td>
                <td><a href="viewsqllist.jsp">View SQL Questions</a></td>
            </tr>

        </tbody>
    </table>

</body>
</html>

```

Addquestionsql.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
    <%@ include file="header.jsp" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<h1>Add SQL Questions</h1>

    <form action="addsqlquestion" method="post">
        <label>Question:</label>
        <input type="text" name="question">
        <br>
        <br>
        <label>Option 1:</label>
        <input type="text" name="option1">
        <br>
        <br>
        <label>Option 2:</label>
        <input type="text" name="option2">
        <br>
        <br>
        <label>Option 3:</label>
        <input type="text" name="option3">
        <br>
        <br>
        <label>Option 4:</label>
        <input type="text" name="option4">
        <br>
        <br>
        <label>Correct Option:</label>
        <input type="text" name="correctOption">
        <br>
        <br>
        <input type="submit" value="Add Question">
    </form>
</body>
</html>

```

Admindashboardpage.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

```

```

    pageEncoding="ISO-8859-1"%><%@ include file="header.jsp" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>

</head>
<body>
<h1>Welcome, Admin!</h1>

<h3><a href="addquestion.jsp">Add Questions to quiz</a></h3>

<h3><a href="viewuser.jsp">View User List </a></h3>
<br>
<br>

</body>
</html>

```

Adminlogin.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
<style>
    body {
        display: flex;
        justify-content: left;
        align-items: left;
        height: 100vh;
    }

    h1 {
        text-align: left;
    }

    form {
        text-align: left;
    }

    input[type="email"],
    input[type="password"] {
        width: 100%;
        padding: 10px;
        margin-bottom: 10px;
    }

</style>
</head>

```

```

<body>
  <div align="left">
    <h1>Admin Login</h1>
    <form action="adminLoginServlet" method="post">
      Email: <input type="email" name="email"><br>
      Password: <input type="password" name="password"><br>
      <br>
      <input type="submit" value="Login">
    </form> <br>
    <h3><a href="index.jsp" class="button">Main</a></h3>
  </div>
</body>
</html>

```

Editsqlquestion.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%><%@ include file="header.jsp" %>
<%@ page import="com.questions.SQLQuestion" %>

<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<h1>Edit SQL Question</h1>
  <form action="editsqlquestion" method="post">
    <input type="hidden" name="id" value="<%= ((SQLQuestion)
request.getAttribute("question")).getId() %%">
    <label>Question:</label>
    <input type="text" name="question" value="<%= ((SQLQuestion)
request.getAttribute("question")).getQuestion() %%">
    <br>
    <label>Option 1:</label>
    <input type="text" name="option1" value="<%= ((SQLQuestion)
request.getAttribute("question")).getOption1() %%">
    <br>
    <label>Option 2:</label>
    <input type="text" name="option2" value="<%= ((SQLQuestion)
request.getAttribute("question")).getOption2() %%">
    <br>
    <label>Option 3:</label>
    <input type="text" name="option3" value="<%= ((SQLQuestion)
request.getAttribute("question")).getOption3() %%">
    <br>
    <label>Option 4:</label>
    <input type="text" name="option4" value="<%= ((SQLQuestion)
request.getAttribute("question")).getOption4() %%">
    <br>
    <label>Correct Option:</label>
    <input type="number" name="correctOption" value="<%= ((SQLQuestion)
request.getAttribute("question")).getCorrectOption() %%">
    <br>
    <input type="submit" value="Update">
  </form>

```

```

    <a href="viewsqlldlist.jsp">Back to List</a>
</body>
</html>

```

Edituser.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%><%@ include file="header.jsp" %><%@ include
file="header.jsp" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
    <h1>Edit User</h1>
    <form action="updateuser" method="post">
        <input type="hidden" name="userId" value="${user.id}">
        <label>Name: </label>
        <input type="text" name="name" value="${user.name}">
        <br>
        <label>Email: </label>
        <input type="email" name="email" value="${user.email}">
        <br>
        <input type="submit" value="Update">
    </form>
</body>
</html>

```

Error.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<h1>Something error happen!</h1>
</body>
</html>

```

Header.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>

```

```

<body>
<a href="LogoutServlet">Logout</a>
  <hr>
</body>
</html>

```

Index.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
  <meta charset="ISO-8859-1">
  <title>Online Quiz Portal</title>
  <style>
    body {

      h1 {
        margin-top: 50px;
      }

      h3 {
        margin-top: 30px;
      }

      ul {
        list-style-type: none;
        padding: 0;
      }

      ul li {
        display: inline-block;
        margin: 10px;
      }

      ul li a {
        text-decoration: none;
      }
    }
  </style>
</head>
<body>
  <h1>Online Quiz Portal</h1>
  <h3><a href="userregister.jsp">User Registration</a></h3>
  <h3><a href="userLogin.jsp">User Login</a></h3>
  <h3><a href="adminLogin.jsp">Admin Login</a></h3>
</body>
</html>

```

Loggedout.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>

```

```

<head>
<meta charset="ISO-8859-1">
<title>Logged Out</title>
</head>
<body>
<h1>Logged Out</h1>
    <b>Your session has terminated.</b><br>
<a href="index.jsp">Login again</a>
</body>
</html>

```

Sqltest.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1" %>
<%@ page import="com.questions.SQLQuestion" %><%@ include file="header.jsp" %>
<%@ page import="com.questions.SQLQuestionDAO" %>
<%@ page import="java.util.List" %>

<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>SQL Test</title>
</head>
<body>
<h1>Online Quiz Portal</h1>
    <h3>SQL Test</h3>
    <form action="submitAnswerServlet" method="post">
        <%
            List<SQLQuestion> questionList = SQLQuestionDAO.getAllSQLQuestions();
            if (questionList != null) {
                for (SQLQuestion question : questionList) { %>
                    <h3><%= question.getQuestion() %></h3>
                    <input type="hidden" name="questionId" value="<%= question.getId()
%>">
                    <input type="radio" name="answer<%= question.getId() %>"
value="1"> <%= question.getOption1() %><br>
                    <input type="radio" name="answer<%= question.getId() %>"
value="2"> <%= question.getOption2() %><br>
                    <input type="radio" name="answer<%= question.getId() %>"
value="3"> <%= question.getOption3() %><br>
                    <input type="radio" name="answer<%= question.getId() %>"
value="4"> <%= question.getOption4() %><br>
                    <hr>
                <% } } %>
                <input type="submit" value="Submit">
            </form>

            <br>
            <br>
            <form action="userdashboard.jsp" method="get">
                <input type="submit" value="Back to Dashboard">
            </form>
        </body>
</html>

```

Sqltestresult.jsp:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1" %>
<!DOCTYPE html><%@ include file="header.jsp" %>
<html>
<head>
    <meta charset="ISO-8859-1">
    <title>SQL Test Result</title>
</head>
<body>
    <h1>SQL Test Result</h1>
    <p>Your score: <%= request.getAttribute("score") %></p>
    <a href="userdashboard.jsp">Back to Dashboard</a>
</body>
</html>
```

Userdashboard.jsp:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ include file="header.jsp" %>
<!DOCTYPE html>
<html>
<head>
    <meta charset="ISO-8859-1">
    <title>Dashboard</title>
    <style>

        .container {
            max-width: 800px;
            margin: 0 auto;
            padding: 20px;
        }

        h2 {
            text-align: left;
        }
        h1{
            text-align: left;
        }

        .welcome-message {
            text-align: left;
            margin-bottom: 20px;
        }

        .action-link {
            display: block;
            margin: 0 auto 10px;
            text-align: left;
        }

        .Logout-form {
            text-align: left;
        }
    </style>
</head>
```



```

<body>
  <div class="container">
    <h1>Online Quiz Portal</h1>
    <h2>Welcome to the User Dashboard</h2>
    <p class="welcome-message">Welcome, <%= session.getAttribute("name")
%>!</p>
    <button class="action-Link"
onclick="window.location.href='sqlTestServlet'">Take SQL Test</button>
  </div>
</body>
</html>

```

Userlogin.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
<style>
  body {
    display: flex;
    justify-content: left;
    align-items: left;
    height: 100vh;
  }

  h2 {
    text-align: left;
  }

  form {
    text-align: left;
  }

  input[type="email"],
  input[type="password"] {
    width: 100%;
    padding: 10px;
    margin-bottom: 10px;
  }

</style>
</head>
<body>
  <div align="center">
    <h1>Online Quiz Portal</h1>
    <h2>User Login</h2>
    <form action="userLoginServlet" method="post">
      Email: <input type="email" name="email"><br>
      Password: <input type="password" name="password"><br>
      <br>
      <input type="submit" value="Login">
    </form> <br>
    <h3><a href="index.jsp" class="button">Main</a></h3>
  </div>

```

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

Userquizdetails.jsp:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%><%@ include file="header.jsp" %>
    <%@ page import="com.user.User" %>
<%@ page import="com.user.UserDAO" %>
<%@ page import="java.util.List" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<h1>Admin Dashboard</h1>
    <table>
        <tr>
            <th>User ID</th>
            <th>Name</th>
            <th>Email</th>
            <th>Score</th>
        </tr>
        <%
            UserDAO userDAO = new UserDAO();
            List<User> userList = userDAO.getAllUsers();
            if (userList != null) {
                for (User user : userList) { %>
                    <tr>
                        <td><%= user.getId() %></td>
                        <td><%= user.getName() %></td>
                        <td><%= user.getEmail() %></td>
                        <td><%= request.getAttribute("score") %></td>
                    </tr>
                <% } } %>
            </table>
</body>
</html>
```

Userregister.jsp:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Registration Page</title>
<style>
    body {
        display: flex;
        justify-content: left;
        align-items: left;
        height: 100vh;
    }
</style>
```

```

h1 {
    margin-top: 50px;
}

h2 {
    text-align: left;
}

form {
    text-align: left;
}

table {
    width: 80%;
}

input[type="text"],
input[type="email"],
input[type="password"],
input[type="date"] {
    width: 100%;
    padding: 10px;
    margin-bottom: 10px;
}
</style>
</head>
<body>
    <div align="center">
        <h1>Online Quiz Portal</h1>
        <h2>Registration Page</h2>
        <form action="registerServlet" method="POST">
            <table>
                <tr>
                    <td><input type="text" name="name" placeholder="Name"></td>
                </tr>
                <tr>
                    <td><input type="email" name="email" placeholder="Email"></td>
                </tr>
                <tr>
                    <td><input type="password" name="password"
placeholder="Password"></td>
                </tr>
                <tr>
                    <td><input type="date" name="dob" placeholder="Date of
Birth"></td>
                </tr>
            </table>
            <br>
            <input type="submit" value="Register"> <br><br> <h3><a
href="index.jsp">Main</a></h3>
        </form>
    </div>
</body>
</html>

```

Viewsqllist.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1" %>

```

```

<%@ page import="com.questions.SQLQuestion" %><%@ include file="header.jsp" %>
<%@ page import="com.questions.SQLQuestionDAO" %>
<%@ page import="java.util.List" %>

<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>View SQL Questions</title>
<style>
    table {
        width: 100%;
        border-collapse: collapse;
    }

    th, td {
        border: 1px solid black;
        padding: 8px;
        text-align: left;
    }

    tr:nth-child(even) {
        background-color: #f2f2f2;
    }
</style>
</head>
<body>
<h1>View SQL Questions</h1>
<table>
    <thead>
        <tr>
            <th>ID</th>
            <th>Question</th>
            <th>Options</th>
            <th>Correct Option</th>
            <th>Action</th>
        </tr>
    </thead>
    <tbody>
        <%
            SQLQuestionDAO sqlQuestionDAO = new SQLQuestionDAO();
            List<SQLQuestion> questionList = sqlQuestionDAO.getAllSQLQuestions();
            for (SQLQuestion question : questionList) { %>
                <tr>
                    <td><%= question.getId() %></td>
                    <td><%= question.getQuestion() %></td>
                    <td><%= question.getOption1() %>, <%= question.getOption2()
%>, <%= question.getOption3() %>, <%= question.getOption4() %></td>
                    <td><%= question.getCorrectOption() %></td>
                    <td>
                        <a href="editsqlquestion?id=<%= question.getId()
%>">Edit</a>
                        <a href="deletesqlquestion?id=<%= question.getId()
%>">Delete</a>
                    </td>
                </tr>
            <% } %>
        </tbody>
    </table>

```

```

        <br> <br>
        <a href="admindashboardpage.jsp">Go Back Admin Dashboard</a>
    </body>
</html>

```

Viewuser.jsp:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ page import="com.user.User"%>
<%@ page import="com.user.UserDAO"%>
<%@ page import="java.util.List"%><%@ include file="header.jsp" %>

<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>User List</title>
<style>
    table {
        width: 100%;
        border: 1px solid black;
    }

    th, td {
        border: 1px solid black;
        padding: 8px;
        text-align: left;
    }

    tr:nth-child(even) {
        background-color: #f2f2f2;
    }

    tr:hover {
        background-color: #e6e6e6;
    }
</style>
</head>
<body>
    <h1>User List</h1>
    <table>
        <thead>
            <tr>
                <th>ID</th>
                <th>Name</th>
                <th>Email</th>
                <th>Date of Birth</th>
                <th>Action</th>
            </tr>
        </thead>
        <tbody>
            <%
                UserDAO userDAO = new UserDAO();
                List<User> userList = userDAO.getAllUsers();
                for (User user : userList) { %>
            <tr>
                <td><%= user.getId() %></td>

```

```

        <td><%= user.getName() %></td>
        <td><%= user.getEmail() %></td>
        <td><%= user.getDob() %></td>
        <td>
            <a href="edituser?userId=<%= user.getId() %>">Edit</a>
            <a href="deleteuser?userId=<%= user.getId() %>">Delete</a>
        </td>
    </tr>
    <% } %>
</tbody>
</table>

<br> <br>
<a href="admindashboardpage.jsp">Go Back to Admin Dashboard</a>
</body>
</html>

```

MYSQLCODE:

```

create database Register;

USE register;

```

```

CREATE TABLE users (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(255),
    email VARCHAR(255),
    password VARCHAR(255),
    dob DATE
);

select *from users;

```

```

CREATE TABLE admin (
    id INT AUTO_INCREMENT PRIMARY KEY,
    email VARCHAR(255) NOT NULL,
    password VARCHAR(255) NOT NULL
);

INSERT INTO admin (email, password)
VALUES ('jyothi@gmail.com', 'jyothi');

```

```

CREATE TABLE sql_question (
    id INT PRIMARY KEY AUTO_INCREMENT,
    question VARCHAR(255),

```

```
option1 VARCHAR(255),  
option2 VARCHAR(255),  
option3 VARCHAR(255),  
option4 VARCHAR(255),  
correctOption VARCHAR(255)  
);  
select * from sql_question ;
```