

SourceCode: -

application.properties

```
Spring.application.name=Online_Quiz
spring.jpa.hibernate.ddl-auto=update
spring.datasource.url=jdbc:mysql://localhost:3306/db_n
spring.datasource.username=root
spring.datasource.password=Your_password
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
spring.jpa.show-sql: true
spring.jpa.properties.hibernate.format_sql=true
logging.level.org.hibernate.SQL=DEBUG
logging.level.org.hibernate.type=TRACE
```

MainController.java

```
package com.controller;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.MediaType;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import com.bean.Admin;
import com.bean.Question;
```

```
import com.bean.Quiz;
import com.bean.Result;
import com.bean.Statistics;
import com.bean.Test;
import com.bean.User;
import com.service.AdminSer;
import com.service.UserSer;
```

```
@RestController
```

```
@RequestMapping(value = "/mcq", produces = "application/json")
```

```
public class MainController {
```

```
    @Autowired
```

```
    UserSer us;
```

```
    @Autowired
```

```
    AdminSer as;
```

```
    //http://localhost:8080/mcq/userLogin
```

```
    @PostMapping(value="userLogin", consumes =
MediaType.APPLICATION_JSON_VALUE, produces =
MediaType.APPLICATION_JSON_VALUE)
```

```
    public String userLogin(@RequestBody User u)
```

```
    {
```

```
        return us.userLogin(u.getEmailid(), u.getPassword());
```

```
    }
```

```
    //http://localhost:8080/mcq/userRegister
```

```
    @PostMapping(value="userRegister", consumes =
MediaType.APPLICATION_JSON_VALUE, produces =
MediaType.APPLICATION_JSON_VALUE)
```

```
    public String userRegiter(@RequestBody User u)
```

```
    {
```

```

        return us.userRegister(u);
    }

    //http://localhost:8080/mcq/adminLogin
    @PostMapping(value="adminLogin", consumes =
    MediaType.APPLICATION_JSON_VALUE, produces =
    MediaType.APPLICATION_JSON_VALUE)
    public String adminLogin(@RequestBody Admin u)
    {
        return as.adminLogin(u);
    }

    //http://localhost:8080/mcq/adminupdate
    @PostMapping(value="adminupdate", consumes =
    MediaType.APPLICATION_JSON_VALUE, produces =
    MediaType.APPLICATION_JSON_VALUE)
    public String adminUpdate(@RequestBody Admin u)
    {
        return as.adminupdate(u);
    }

    //http://localhost:8080/mcq/addQuestions
    @PostMapping(value="addQuestions", consumes =
    MediaType.APPLICATION_JSON_VALUE, produces =
    MediaType.APPLICATION_JSON_VALUE)
    public String addQuestion(@RequestBody Question q)
    {
        return as.addQuestion(q);
    }

    //http://localhost:8080/mcq/addQuiz
    @PostMapping(value="addQuiz", consumes =
    MediaType.APPLICATION_JSON_VALUE, produces =
    MediaType.APPLICATION_JSON_VALUE)

```

```

    public String addQuiz(@RequestBody Quiz q)
    {

        return as.addQuiz(q);

    }

    //http://localhost:8080/mcq/viewAllQuiz

    @GetMapping(value="viewAllQuiz", produces=
    MediaType.APPLICATION_JSON_VALUE)

    public List<Quiz> viewAllQuiz()
    {

        return as.viewAllQuiz();

    }

    //http://localhost:8080/mcq/quizinfo

    @GetMapping(value="quizinfo", produces=
    MediaType.APPLICATION_JSON_VALUE)

    public Statistics quizinfo()
    {

        return as.quizInfo();

    }

    //http://localhost:8080/mcq/viewQuiz

    @GetMapping(value="viewQuiz", produces=
    MediaType.APPLICATION_JSON_VALUE)

    public List<Object> viewQuiz()
    {

        return us.viewAllQuiz();

    }

    //http://localhost:8080/mcq/takeTest

    @PostMapping(value="takeTest", consumes =
    MediaType.APPLICATION_JSON_VALUE)

```

```

        public String takeTest(@RequestBody Test t)
        {
            return us.takeTest(t);
        }

        //http://localhost:8080/mcq/getAllTest
        @GetMapping(value="getAllTest", produces=
MediaType.APPLICATION_JSON_VALUE)
        public List<Test> getAllTest()
        {
            return us.getTestList();
        }

        //http://localhost:8080/mcq/getresult
        @GetMapping(value="getresult", produces=
MediaType.APPLICATION_JSON_VALUE)
        public List<Result> getresult()
        {
            return us.result();
        }

        //http://localhost:8080/mcq/getAdminResult
        @GetMapping(value="getAdminResult", produces=
MediaType.APPLICATION_JSON_VALUE)
        public List<Result> getAdminResult()
        {
            return us.result();
        }
    }

```

Admin.java

```
package com.bean;
```

```
import javax.persistence.Entity;
```

```
import javax.persistence.Id;
```

```
import javax.persistence.Table;
```

```
import org.springframework.stereotype.Component;
```

```
@Component
```

```
@Entity
```

```
@Table(name="admin")
```

```
public class Admin {
```

```
    @Id
```

```
    private int id;
```

```
    private String username;
```

```
    private String password;
```

```
    @Override
```

```
    public String toString() {
```

```
        return "Admin [id=" + id + ", username=" + username + ", password=" + password + "];
```

```
    }
```

```
    public int getId() {
```

```
        return id;
```

```
    }
```

```
    public void setId(int id) {
```

```
        this.id = id;
```

```
    }
```

```
    public String getUsername() {
```

```
        return username;
```

```
    }
```

```
    public void setUsername(String username) {
```

```

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

```

OnlineQuizPortalRestApplication.java

```

package com.demo;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.boot.autoconfigure.domain.EntityScan;
import org.springframework.data.jpa.repository.config.EnableJpaRepositories;

@SpringBootApplication(scanBasePackages = "com")
@EntityScan("com.bean")
@EnableJpaRepositories("com.repository")

public class OnlineQuizPortalRestApplication {

    public static void main(String[] args) {
        SpringApplication.run(OnlineQuizPortalRestApplication.class, args);
    }

}

```

Quiz.java

```
package com.bean;

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

import org.springframework.stereotype.Component;

@Component
@Entity
@Table(name="quiz")
public class Quiz {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int quid;
    private String title;
    private int quizno;
    private String subject;
    @ManyToOne
    @JoinColumn(referencedColumnName = "qid")
```



```
private Question qid;
public int getQuizno() {
    return quizno;
}
public void setQuizno(int quizno) {
    this.quizno = quizno;
}
public int getQid() {
    return qid;
}
public void setQid(int qid) {
    this.qid = qid;
}
public String getTitle() {
    return title;
}
public void setTitle(String title) {
    this.title = title;
}
public String getSubject() {
    return subject;
}
public void setSubject(String subject) {
    this.subject = subject;
}
public Question getQid() {
    return qid;
}
public void setQid(Question qid) {
    this.qid = qid;
}
```

```

    }

    @Override
    public String toString() {
        return "Quiz [quid=" + quid + ", title=" + title + ", quizno=" + quizno + ",
subject=" + subject + ", qid="
            + qid + "]";
    }
}

```

Questions.java

```

package com.bean;

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

import org.springframework.stereotype.Component;

@Component
@Entity
@Table(name="question")
public class Question {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int qid;
    private String quest;
    private String opt1;

```

```
private String opt2;  
private String opt3;  
private String opt4;  
private int ans;
```

```
public int getQid() {  
    return qid;  
}
```

```
public void setQid(int qid) {  
    this.qid = qid;  
}
```

```
public String getQuest() {  
    return quest;  
}
```

```
public void setQuest(String quest) {  
    this.quest = quest;  
}
```

```
public String getOpt1() {  
    return opt1;  
}
```

```
public void setOpt1(String opt1) {  
    this.opt1 = opt1;  
}
```

```
public String getOpt2() {
```

```
        return opt2;
    }

    public void setOpt2(String opt2) {
        this.opt2 = opt2;
    }

    public String getOpt3() {
        return opt3;
    }

    public void setOpt3(String opt3) {
        this.opt3 = opt3;
    }

    public String getOpt4() {
        return opt4;
    }

    public void setOpt4(String opt4) {
        this.opt4 = opt4;
    }

    public int getAns() {
        return ans;
    }

    public void setAns(int ans) {
        this.ans = ans;
    }
}
```

```

@Override

public String toString() {
    return "Question [qid=" + qid + ", quest=" + quest + ", opt1=" + opt1 + ", opt2="
+ opt2 + ", opt3=" + opt3
        + ", opt4=" + opt4 + ", ans=" + ans + "]);
}

}

```

Result.java

```
package com.bean;
```

```

public class Result implements Comparable<Result>{

    //private int resid;
    private String email;
    private Integer marks;
    public Result()
    {

    }

    public Result(String email2, int mark) {
        // TODO Auto-generated constructor stub
        this.email=email2;this.marks=mark;
    }

    // public int getResid() {
    //     return resid;
    // }

    // public void setResid(int resid) {
    //     this.resid = resid;
    // }

    public String getEmail() {
        return email;
    }

    public void setEmail(String email) {
        this.email = email;
    }

    public Integer getMarks() {
        return marks;
    }

    public void setMarks(Integer marks) {
        this.marks = marks;
    }

    @Override

```

```

    public String toString() {
        return "Result [email=" + email + ", marks=" + marks + "];"
    }
    @Override
    public int compareTo(Result r) {
        // TODO Auto-generated method stub
        int comparemarks= r.getMarks();
        return comparemarks-this.marks;
    }

}

```

Statistics.java

```
package com.bean;
```

```
import java.util.List;
```

```
import org.springframework.stereotype.Component;
```

```
@Component
```

```
public class Statistics {
```

```
    private int users;
```

```
    private List<Object> quiz;
```

```
    private int questions;
```

```
    @Override
```

```
    public String toString() {
```

```
        return "Statistics [users=" + users + ", quiz=" + quiz + ", questions=" + questions
+ "];"

```

```
    }
```

```
    public int getUsers() {
```

```
        return users;
```

```
    }
```

```
    public void setUsers(int users) {
```

```

        this.users = users;
    }
    public List<Object> getQuiz() {
        return quiz;
    }
    public void setQuiz(List<Object> quiz) {
        this.quiz = quiz;
    }
    public int getQuestions() {
        return questions;
    }
    public void setQuestions(int questions) {
        this.questions = questions;
    }
}

```

User.java

```

package com.bean;

import java.io.Externalizable;
import java.io.IOException;
import java.io.ObjectInput;
import java.io.ObjectOutput;

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

```

```
import javax.persistence.Table;
import javax.persistence.UniqueConstraint;

import org.springframework.stereotype.Component;

@Component
@Entity
@Table(name="user")
public class User implements Externalizable {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int uid;
    private String emailid;
    private String password;
    private long phno;
    public int getUid() {
        return uid;
    }
    public void setUid(int uid) {
        this.uid = uid;
    }
    public String getEmailid() {
        return emailid;
    }
    public void setEmailid(String emailid) {
        this.emailid = emailid;
    }
    public String getPassword() {
        return password;
    }
}
```



```
public void setPassword(String password) {
    this.password = password;
}
public long getPhno() {
    return phno;
}
public void setPhno(long phno) {
    this.phno = phno;
}
@Override
public void writeExternal(ObjectOutput out) throws IOException {
    // TODO Auto-generated method stub

}
@Override
public void readExternal(ObjectInput in) throws IOException, ClassNotFoundException
{
    // TODO Auto-generated method stub

}
}
```