Phase#3_Assessment

Online Quiz Portal Using REST APIs

application.properties

Spring.application.name=Online_Quiz

spring.jpa.hibernate.ddl-auto=update

spring.datasource.url=jdbc:mysql://localhost:3306/MCQ

spring.datasource.username=root

spring.datasource.password=root

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;
```

```java
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)

        {
```

```java
            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)
```

```java
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)
```

```java
                         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;

```java
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) {
```

```java
                this.username = username;

        }
        public String getPassword() {

                return password;

        }
        public void setPassword(String password) {

                this.password = password;

        }


}
```

OnlineQuizPortalRestApplication.java

```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")

```java
private Question qid;
public int getQuizno() {

        return quizno;

}
public void setQuizno(int quizno) {

        this.quizno = quizno;

}
public int getQuid() {

        return quid;

}
public void setQuid(int quid) {

        this.quid = quid;

}
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;
```

```java
        }

        @Override

        public String toString() {

                return "Quiz [quid=" + quid + ", title=" + title + ", quizno=" + quizno + ",
subject=" + subject + ", qid="

                                + qid + "]";

        }

}
```

Questions.java

```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;
```

```java
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() {
```

```java
            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;
    }
```

```java
    @Override

    public String toString() {

        return "Question [qid=" + qid + ", quest=" + quest + ", opt1=" + opt1 + ", opt2="
+ opt2 + ", opt3=" + opt3

                            + ", opt4=" + opt4 + ", ans=" + ans + "]";

    }


}
```

Result.java

```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
```

```java
        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) {

```java
                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

```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;
```

```java
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;
        }
```

```java
    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


    }

}
```