**SOURCE-CODE**

# com.bean

Admin.java

package com.bean;

import javax.persistence.Entity; import javax.persistence.Id;

@Entity

public class Admin {

@Id

private String emailid; private String password;

/\*\*

\* @return the emailid

\*/

public String getEmailid() { return emailid;

}

/\*\*

\* @param emailid the emailid to set

\*/

public void setEmailid(String emailid) { this.emailid = emailid;

}

/\*\*

\* @return the password

\*/

public String getPassword() { return password;

}

/\*\*

\* @param password the password to set

\*/

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

+ "]";

}

@Override

public String toString() {

return "Admin [emailid=" + emailid + ", password=" + password

}}

# Participant.java code:-

package com.bean;

import javax.persistence.Entity; import javax.persistence.Id;

@Entity

public class Participant {

@Id

private String emailid; private int pid; private String name; private int age;

private String password;

/\*\*

\* @return the emailid

\*/

public String getEmailid() { return emailid;

}

/\*\*

\* @param emailid the emailid to set

\*/

public void setEmailid(String emailid) { this.emailid = emailid;

}

/\*\*

\* @return the pid

\*/

public int getPid() {

return pid;

}

/\*\*

\* @param pid the pid to set

\*/

public void setPid(int pid) { this.pid = pid;

}

/\*\*

\* @return the name

\*/

public String getName() { return name;

}

/\*\*

\* @param name the name to set

\*/

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

}

/\*\*

\* @return the age

\*/

public int getAge() {

return age;

}

/\*\*

\* @param age the age to set

\*/

public void setAge(int age) { this.age = age;

}

/\*\*

\* @return the password

\*/

public String getPassword() { return password;

}

/\*\*

\* @param password the password to set

\*/

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

}

@Override

public String toString() {

return "Participant [emailid=" + emailid + ", pid=" + pid + ", name=" + name + ", age=" + age + ", password="

+ password + "]";}}

# Question.java Code

package com.bean;

import javax.persistence.Entity; import javax.persistence.Id;

@Entity

public class Question {

@Id

private int qid;

private String question; private String optionA; private String optionB; private String optionC; private String optionD; private String correctanswer; public int getQid() {

return qid;

}

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

}

public String getQuestion() { return question;

}

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

}

public String getOptionA() { return optionA;

}

public void setOptionA(String optionA) { this.optionA = optionA;

}

public String getOptionB() { return optionB;

}

public void setOptionB(String optionB) { this.optionB = optionB;

}

public String getOptionC() { return optionC;

}

public void setOptionC(String optionC) { this.optionC = optionC;

}

public String getOptionD() { return optionD;

}

public void setOptionD(String optionD) { this.optionD = optionD;

}

public String getCorrectanswer() { return correctanswer;

}

public void setCorrectanswer(String correctanswer) { this.correctanswer = correctanswer;

}

@Override

public String toString() {

return "Question [qid=" + qid + ", question=" + question + ", optionA=" + optionA + ", optionB=" + optionB

+ ", optionC=" + optionC + ", optionD=" + optionD

+ ", correctanswer=" + correctanswer + "]";

}}

# Quiz.java

package com.bean;

import javax.persistence.Entity; import javax.persistence.Id;

@Entity

public class Quiz { @Id

private int qzid; private String subject; private int qid;

public int getQzid() {

return qzid;

}

public void setQzid(int qzid) { this.qzid = qzid;

}

public String getSubject() { return subject;

}

public void setSubject(String subject) { this.subject = subject;

}

public int getQid() {

return qid;

}

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

}

@Override

public String toString() {

return "Quiz [qzid=" + qzid + ", subject=" + subject + ", qid=" + qid +

"]";

}}

# Scores.java Code-

package com.bean;

import javax.persistence.Entity; import javax.persistence.Id; @Entity

public class Scores {

@Id

private String emailid; private String name; private String subject; private int score;

/\*\*

\* @return the emailid

\*/

public String getEmailid() { return emailid;

}

/\*\*

\* @param emailid the emailid to set

\*/

public void setEmailid(String emailid) { this.emailid = emailid;

}

/\*\*

\* @return the name

\*/

public String getName() { return name;

}

/\*\*

\* @param name the name to set

\*/

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

}

/\*\*

\* @return the subject

\*/

public String getSubject() { return subject;

}

/\*\*

\* @param subject the subject to set

\*/

public void setSubject(String subject) { this.subject = subject;

}

/\*\*

\* @return the score

\*/

public int getScore() { return score;

}

/\*\*

\* @param score the score to set

\*/

public void setScore(int score) { this.score = score;

}

@Override

public String toString() {

return "Score [emailid=" + emailid + ", name=" + name + ", subject="

+ subject + ", score=" + score + "]";

}}

# UserQuiz.java Code

package com.bean;

import javax.persistence.Entity; import javax.persistence.Id;

@Entity

public class Userquiz { @Id

private int uqid; private String emailid; private int qzid; private int qid;

private String usercorrectans;

/\*\*

\* @return the uqid

\*/

public int getUqid() {

return uqid;

}

/\*\*

\* @param uqid the uqid to set

\*/

public void setUqid(int uqid) { this.uqid = uqid;

}

/\*\*

\* @return the emailid

\*/

public String getEmailid() { return emailid;

}

/\*\*

\* @param emailid the emailid to set

\*/

public void setEmailid(String emailid) { this.emailid = emailid;

}

/\*\*

\* @return the qzid

\*/

public int getQzid() {

return qzid;

}

/\*\*

\* @param qzid the qzid to set

\*/

public void setQzid(int qzid) { this.qzid = qzid;

}

/\*\*

\* @return the qid

\*/

public int getQid() {

return qid;

}

/\*\*

\* @param qid the qid to set

\*/

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

}

/\*\*

\* @return the usercorrectans

\*/

public String getUsercorrectans() { return usercorrectans;

}

/\*\*

\* @param usercorrectans the usercorrectans to set

\*/

public void setUsercorrectans(String usercorrectans) { this.usercorrectans = usercorrectans;

}

@Override

public String toString() {

return "Userquiz [uqid=" + uqid + ", emailid=" + emailid + ", qzid=" + qzid + ", qid=" + qid

+ ", usercorrectans=" + usercorrectans + "]";

}}

# Com.controller folder:-

* AdminController.java code-

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.PatchMapping; import org.springframework.web.bind.annotation.PathVariable; 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.RequestMethod; import org.springframework.web.bind.annotation.RestController;

import com.bean.Admin; import com.bean.Question; import com.bean.Quiz; import com.bean.Scores;

import com.service.AdminService; @RestController

@RequestMapping("admin") public class AdminController {

@Autowired

AdminService adminService;

@PostMapping(value = "signIn",consumes = MediaType.APPLICATION\_JSON\_VALUE)

public String checkAdmin(@RequestBody Admin ad) { return adminService.CheckAdmin(ad);

}

@PatchMapping(value = "updatePassword",consumes = MediaType.APPLICATION\_JSON\_VALUE)

public String updatePassword(@RequestBody Admin ad) { return adminService.updatePassword(ad);

}

@PostMapping(value = "addQuestion",consumes = MediaType.APPLICATION\_JSON\_VALUE)

public String addQuestion(@RequestBody Question qn) { return adminService.addQuestion(qn);

}

@GetMapping(value = "questionbyID/{id}",produces = MediaType.APPLICATION\_JSON\_VALUE)

public Question findQuestionById(@PathVariable("id") int qid) { return adminService.findQuestionById(qid);

}

@PostMapping(value = "addQuiz",consumes = MediaType.APPLICATION\_JSON\_VALUE)

public String addQuiz(@RequestBody Quiz qz) {

return adminService.addQuiz(qz);

}

@GetMapping(value = "Ranking",produces = MediaType.APPLICATION\_JSON\_VALUE)

public List<Scores> getstandingPosition() {

return adminService.getstandingPosition();

}}

# PartcipantController.java Code-

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.PathVariable; 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.RequestMethod; import org.springframework.web.bind.annotation.RestController;

import com.bean.Participant; import com.bean.Question; import com.bean.Quiz; import com.bean.Scores; import com.bean.Userquiz;

import com.service.ParticipantService;

@RestController @RequestMapping("participant") public class ParticipantController {

@Autowired

ParticipantService participantService;

@PostMapping(value = "userRegister",consumes = MediaType.APPLICATION\_JSON\_VALUE)

public String userRegister(@RequestBody Participant pt) { return participantService.userRegister(pt);

}

@PostMapping(value = "signIn")

public String checkUser(@RequestBody Participant pt) { return participantService.checkUser(pt);

}

@PostMapping(value = "takeQuiz",consumes = MediaType.APPLICATION\_JSON\_VALUE)

public String takeQuiz(@RequestBody Userquiz uq) { return participantService.takeQuiz(uq);

}

@GetMapping(value = "getResult/{emailid}",produces = MediaType.APPLICATION\_JSON\_VALUE)

public Scores getResult(@PathVariable("emailid") String emailid) { return participantService.getResult(emailid);

}

@GetMapping(value = "getAllQuiz",produces = MediaType.APPLICATION\_JSON\_VALUE)

public List<Quiz> getAllEmployeeInfoDB() {

return participantService.getAllQuiz();

}}

# Com.Service Folder:-

* AdminService Code-

package com.service; import java.util.List;

import org.springframework.beans.factory.annotation.Autowired; import org.springframework.stereotype.Service;

import com.bean.Admin; import com.bean.Question; import com.bean.Quiz; import com.bean.Scores; import com.dao.AdminDao;

@Service

public class AdminService {

@Autowired AdminDao adminDao;

public String CheckAdmin(Admin ad) { if(adminDao.checkAdmin(ad)>0) {

return "Admin Login Successful";

}

else {

return "Failure! Provide Correct Credentials!";

}

}

public String updatePassword(Admin ad) {

Admin a = adminDao.getAdminDetails(ad.getEmailid()); if(a==null) {

return "Admin details not present, cannot be updated";

}

else if(adminDao.updatePassword(ad)>0) { return "Password Updated";

}else {

}

}

return "Password Not Updated";

public String addQuestion(Question qn) { if(adminDao.addQuestion(qn)>0) {

return "Question Added Successfully";

}

else {

}

}

return "Question didnt added";

public String addQuiz(Quiz qz) { if(adminDao.addQuiz(qz)>0) {

return "Quiz Created Successfully";

}

else {

}

}

return "Question didnt created";

public Question findQuestionById(int qid) { return adminDao.getQestionDetails(qid);

}

public List<Scores> getstandingPosition(){ return adminDao.getstandingPosition();

}}

# ParticipantService.java Code

package com.service; import java.util.List;

import org.springframework.beans.factory.annotation.Autowired; import org.springframework.stereotype.Service;

import com.bean.Admin; import com.bean.Participant; import com.bean.Question; import com.bean.Quiz; import com.bean.Scores; import com.bean.Userquiz;

import com.dao.ParticipantDao;

@Service

public class ParticipantService {

@Autowired

ParticipantDao participantDao;

public String userRegister(Participant pt) { if(participantDao.userRegister(pt)>0) {

return "User Registration Successful";

}

else {

}

}

return "User Registration Failure";

public String checkUser(Participant pt) { if(participantDao.checkUser(pt)>0) {

return "Participant Login Successful";

}

else {

}

}

return "Failure! Provide Correct Credentials!";

public String takeQuiz(Userquiz uq) { if(participantDao.takeQuiz(uq)>0) {

return "Quiz Attempted Successfully";

}

else {

}

}

return "Try Again use a unique user id!";

public Scores getResult(String emailid) {

return participantDao.getResult(emailid);

}

public List<Quiz> getAllQuiz(){

return participantDao.getAllQuiz();}}

com.Dao Folder

# AdminDao.java Code:-

package com.dao; import java.util.List;

import javax.persistence.EntityManager;

import javax.persistence.EntityManagerFactory; import javax.persistence.EntityTransaction; import javax.persistence.Query;

import org.springframework.beans.factory.annotation.Autowired; import org.springframework.stereotype.Repository;

import com.bean.Admin; import com.bean.Question; import com.bean.Quiz; import com.bean.Scores;

@Repository

public class AdminDao {

@Autowired EntityManagerFactory emf;

public Admin getAdminDetails(String email) {

EntityManager manager = emf.createEntityManager(); Admin ad = manager.find(Admin.class, email);

return ad;

}

public Question getQestionDetails(int qid) {

EntityManager manager = emf.createEntityManager(); Question qn = manager.find(Question.class, qid); return qn;

}

public int checkAdmin(Admin ad) {

EntityManager manager = emf.createEntityManager(); Admin a = manager.find(Admin.class, ad.getEmailid()); if(a==null) {

return 0;

}

else {

}

String pass=ad.getPassword(); if(pass.equals(a.getPassword())) { return 1;

}

return 0;

}

public int updatePassword(Admin ad) {

EntityManager manager = emf.createEntityManager(); EntityTransaction tran = manager.getTransaction(); Admin e = manager.find(Admin.class, ad.getEmailid()); if(e==null) {

return 0;

}

else {

e.setPassword(ad.getPassword()); tran.begin();

manager.merge(e); tran.commit(); return 1;

}

}

public int addQuestion(Question qn) { try {

EntityManager manager = emf.createEntityManager(); EntityTransaction tran = manager.getTransaction(); tran.begin();

manager.persist(qn); tran.commit(); return 1;

} catch (Exception e) {

// TODO: handle exception System.out.println(e); return 0;

}

}

public int addQuiz(Quiz qz) { try {

EntityManager manager = emf.createEntityManager(); EntityTransaction tran = manager.getTransaction(); tran.begin();

manager.persist(qz); tran.commit(); return 1;

} catch (Exception e) {

// TODO: handle exception System.out.println(e); return 0;

}

}

public List<Scores> getstandingPosition(){

EntityManager manager = emf.createEntityManager();

Query qry = manager.createQuery("select s.emailid,s.subject,s.score FROM Scores s ORDER BY s.score DESC");//JPQL

List<Scores> list = qry.getResultList(); return list;

}}

# PartcipantDao.java Code:-

package com.dao; import java.util.List;

import javax.persistence.EntityManager;

import javax.persistence.EntityManagerFactory; import javax.persistence.EntityTransaction; import javax.persistence.Query;

import org.springframework.beans.factory.annotation.Autowired; import org.springframework.stereotype.Repository;

import com.bean.Admin; import com.bean.Participant; import com.bean.Question;

import com.bean.Quiz; import com.bean.Scores; import com.bean.Userquiz;

@Repository

public class ParticipantDao {

@Autowired EntityManagerFactory emf;

public int userRegister(Participant pt) { try {

EntityManager manager = emf.createEntityManager(); EntityTransaction tran = manager.getTransaction(); tran.begin();

manager.persist(pt); tran.commit(); return 1;

} catch (Exception e) {

// TODO: handle exception System.out.println(e); return 0;

}

}

public int checkUser(Participant pt) {

EntityManager manager = emf.createEntityManager(); Participant p = manager.find(Participant.class, pt.getEmailid()); if(p==null) {

return 0;

}

else {

String pass=pt.getPassword(); if(pass.equals(p.getPassword())) { return 1;

}

return 0;

}

}

public int takeQuiz(Userquiz uq) { try {

EntityManager manager = emf.createEntityManager(); EntityTransaction tran = manager.getTransaction(); tran.begin();

manager.persist(uq);

Scores s = manager.find(Scores.class,uq.getEmailid()); Question q = manager.find(Question.class, uq.getQid()); Quiz qz = manager.find(Quiz.class, uq.getQzid());

String res = uq.getUsercorrectans(); if(res.equals(q.getCorrectanswer())) {

s.setEmailid(uq.getEmailid()); s.setSubject(qz.getSubject()); s.setScore(s.getScore()+1);

}

tran.commit(); return 1;

} catch (Exception e) {

// TODO: handle exception System.out.println(e); return 0;

}

}

public Scores getResult(String emailid) {

EntityManager manager = emf.createEntityManager(); Scores s = manager.find(Scores.class, emailid);

return s;

}

public List<Quiz> getAllQuiz(){

EntityManager manager = emf.createEntityManager(); Query qry = manager.createQuery("select q from Quiz

q");//JPQL

}}

List<Quiz> list = qry.getResultList(); return list;