## VaccinationCenterApplication.java

package com.vaccination.entity;

```
package com.vaccination;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
@SpringBootApplication
public class VaccinationCenterApplication {
       public static void main(String[] args) {
              SpringApplication.run(VaccinationCenterApplication.class, args);
       }
}
AdminUser.java
package com.vaccination.entity;
import javax.persistence.Entity;
import javax.persistence.Id;
@Entity
public class AdminUser {
       private String username;
       private String password;
       private String email;
       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;
       public String getEmail() {
              return email;
       public void setEmail(String email) {
              this.email = email;
       }
Citizen.java
```

```
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.ld;
import javax.persistence.JoinColumn;
import javax.persistence.ManyToOne;
@Entity
public class Citizen {
        @Id
        @GeneratedValue(strategy = GenerationType.IDENTITY)
        private int id;
        public int getId() {
               return id;
       }
        public void setId(int id) {
               this.id = id;
       }
        private String citizenName;
        private int doses;
        @ManyToOne
        @JoinColumn(name = "center_id")
        private VaccinationCenter center;
        public String getCitizenName() {
               return citizenName;
       }
        public void setCitizenName(String citizenName) {
               this.citizenName = citizenName;
       }
        public int getDoses() {
               return doses;
```

```
}
        public void setDoses(int doses) {
                this.doses = doses;
        }
        public VaccinationCenter getCenter() {
                return center;
        }
        public void setCenter(VaccinationCenter center) {
                this.center = center;
        }
}
City.java
package com.vaccination.entity;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.ld;
@Entity
public class City {
        @Id
        @GeneratedValue(strategy = GenerationType.IDENTITY)
        private int id;
        private String cityname;
        public int getId() {
                return id;
        }
        public void setId(int id) {
                this.id = id;
        }
        public String getCityname() {
                return cityname;
```

```
}
        public void setCityname(String cityname) {
               this.cityname = cityname;
       }
}
VaccinationCenter.java
package com.vaccination.entity;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.ld;
@Entity
public class VaccinationCenter {
        @Id
        @GeneratedValue(strategy = GenerationType.IDENTITY)
        private int id;
        private String centerName;
        private String city;
        public int getId() {
               return id;
       }
        public void setId(int id) {
               this.id = id;
       }
        public String getCenterName() {
               return centerName;
       }
        public void setCenterName(String centerName) {
               this.centerName = centerName;
       }
        public String getCity() {
```

```
return city;
       }
       public void setCity(String city) {
               this.city = city;
       }
}
AdminController.java
package com.vaccination.controller;
import java.util.logging.Logger;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.servlet.ModelAndView;
import com.vaccination.entity.AdminUser;
import com.vaccination.service.AdminUserService;
@Controller
public class AdminController {
       @Autowired
       AdminUserService adminService;
       @RequestMapping("/")
       public ModelAndView home(HttpServletRequest request, HttpServletResponse response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("/home");
               response.setStatus(response.getStatus());
               return modelAndView;
       }
       @PostMapping("/login")
```

```
public ModelAndView adminLogin(HttpServletRequest request, HttpServletResponse
response) {
              String username = request.getParameter("username");
              String password = request.getParameter("password");
               ModelAndView modelAndView = new ModelAndView();
              AdminUser user1 = adminService.getByUserName(username);
              if (user1 == null) {
                      modelAndView.setViewName("/loginUser404");
                      return modelAndView;
              }
              AdminUser user2 = adminService.getByUserNamePwd(username, password);
              if (user2 == null) {
                      modelAndView.setViewName("/loginError");
              } else {
                      HttpSession session = request.getSession();
                      session.setAttribute("username", username);
                      modelAndView.addObject("user", user2);
                      modelAndView.setViewName("adminDashboard");
              }
              return modelAndView;
       }
       @PostMapping("/register")
       public ModelAndView adminRegister(HttpServletRequest request, HttpServletResponse
response) {
               Logger log = Logger.getAnonymousLogger();
               AdminUser user = new AdminUser();
              log.info("inside reg - method");
               user.setUsername(request.getParameter("username"));
               user.setEmail(request.getParameter("email"));
               user.setPassword(request.getParameter("password"));
              log.info(request.getParameter("username") + request.getParameter("email") +
request.getParameter("password"));
```

```
ModelAndView modelAndView = new ModelAndView();
               String check = adminService.registerUser(user);
               log.info(check);
               if (check.equals("Duplicate username") || check.equals("Duplicate email")) {
                       modelAndView.addObject("errorMsg", check);
                       modelAndView.setViewName("/registerError");
               } else {
                       modelAndView.setViewName("/registerSuccess");
               }
               return modelAndView;
       }
}
CitizenController.java
package com.vaccination.controller;
import java.util.List;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.servlet.ModelAndView;
import com.vaccination.entity.Citizen;
import com.vaccination.entity.City;
import com.vaccination.entity.VaccinationCenter;
import com.vaccination.service.CitizenService;
import com.vaccination.service.CityService;
import com.vaccination.service.VaccinationCenterService;
@Controller
@RequestMapping("/citizens")
public class CitizenController {
```

```
@Autowired
       VaccinationCenterService centerService;
       @Autowired
       CitizenService citizenService;
       @Autowired
       CityService cityService;
       @RequestMapping("/")
       public ModelAndView getCitizens(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("citizens");
               List<Citizen> citizens = citizenService.getAllCitizens();
               modelAndView.addObject("citizens", citizens);
               return modelAndView;
       }
       @RequestMapping("/add")
       public ModelAndView addCitizen(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("addCitizen");
               List<City> cities = cityService.getAllCities();
               modelAndView.addObject("cities", cities);
               return modelAndView;
       }
       @PostMapping("/add-getcenter")
       public ModelAndView intermed(HttpServletRequest request, HttpServletResponse response)
{
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("add-Citizen");
               List<City> cities = cityService.getAllCities();
               modelAndView.addObject("citizenName", request.getParameter("citizenName"));
```

```
modelAndView.addObject("cities", cities);
               String selectedCity = request.getParameter("city");
               modelAndView.addObject("selectedCity", selectedCity);
               List<VaccinationCenter> centers = centerService.getCentersByCity(selectedCity);
               modelAndView.addObject("centers", centers);
               modelAndView.addObject("doses", request.getParameter("doses"));
               return modelAndView;
       }
       @PostMapping("/addCitizen")
       public ModelAndView addCenter(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("redirect:/citizens/");
               Citizen citizen = new Citizen();
               citizen.setCitizenName(request.getParameter("citizenName"));
               citizen.setDoses(Integer.parseInt(request.getParameter("doses")));
       citizen.setCenter(centerService.getCenterById(Integer.parseInt(request.getParameter("cente
r"))));
               if (citizenService.addCitizen(citizen) != null)
                       return modelAndView;
               else {
                       modelAndView.setViewName("errorOper");
                       return modelAndView;
               }
       }
       @RequestMapping("/view")
       public ModelAndView viewCitizen(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("viewCitizen");
               int citizenId = Integer.parseInt(request.getParameter("id"));
```

```
Citizen citizen = citizenService.getCitizenById(citizenId);
               modelAndView.addObject("citizen", citizen);
               return modelAndView;
       }
       @RequestMapping("/edit")
       public ModelAndView getForEdit(HttpServletReguest reguest, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("/editCitizen");
               Citizen citizen =
citizenService.getCitizenById(Integer.parseInt(request.getParameter("id")));
               List<City> cities = cityService.getAllCities();
               modelAndView.addObject("cities", cities);
               modelAndView.addObject("citizen", citizen);
               return modelAndView;
       }
       @PostMapping("/edit-getcenter")
       public ModelAndView intermedEdit(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("/edit-Citizen");
               List<City> cities = cityService.getAllCities();
               modelAndView.addObject("citizenId", Integer.parseInt(request.getParameter("id")));
               modelAndView.addObject("citizenName", request.getParameter("citizenName"));
               modelAndView.addObject("cities", cities);
               String selectedCity = request.getParameter("city");
               modelAndView.addObject("selectedCity", selectedCity);
               List<VaccinationCenter> centers = centerService.getCentersByCity(selectedCity);
               modelAndView.addObject("centers", centers);
               modelAndView.addObject("doses", request.getParameter("doses"));
               return modelAndView;
```

```
}
                     @PostMapping("/editCitizen")
                     public ModelAndView editCitizen(HttpServletRequest request, HttpServletResponse
response) {
                                          ModelAndView modelAndView = new ModelAndView();
                                          modelAndView.setViewName("redirect:/citizens/");
                                          Citizen citizen = new Citizen();
                                          citizen.setId(Integer.parseInt(request.getParameter("id")));
                                          citizen.setCitizenName(request.getParameter("citizenName"));
                                          citizen.setDoses(Integer.parseInt(request.getParameter("doses")));
                     citizen. set Center (center Service. get Center Byld (Integer. parseInt (request. get Parameter ("center Byld (Integer. parseInt (request. get Parameter (request. get Paramete
r"))));
                                         if (citizenService.updateCitizen(citizen) != null)
                                                               return modelAndView;
                                          else {
                                                               modelAndView.setViewName("errorOper");
                                                               return modelAndView;
                                         }
                    }
                     @RequestMapping("delete")
                     public ModelAndView delCitizen(HttpServletRequest request, HttpServletResponse
response) {
                                          ModelAndView modelAndView = new ModelAndView();
                                          modelAndView.setViewName("redirect:/citizens/");
                                         citizenService.delCitizenById(Integer.parseInt(request.getParameter("id")));
                                          return modelAndView;
                    }
}
VaccinationCenterController.java
package com.vaccination.controller;
import java.util.List;
import javax.servlet.http.HttpServletRequest;
```

```
import javax.servlet.http.HttpServletResponse;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.PostMapping;
import\ org. spring framework. we b. bind. annotation. Request Mapping;
import org.springframework.web.servlet.ModelAndView;
import com.vaccination.entity.Citizen;
import com.vaccination.entity.City;
import com.vaccination.entity.VaccinationCenter;
import com.vaccination.service.CitizenService;
import com.vaccination.service.CityService;
import com.vaccination.service.VaccinationCenterService;
@Controller
@RequestMapping("/vaccinationcenter")
public class VaccinationCenterController {
       @Autowired
       VaccinationCenterService centerService;
       @Autowired
       CitizenService citizenService;
       @Autowired
       CityService cityService;
       @RequestMapping("/")
       public ModelAndView getVaccCenters(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("/vaccinationCenters");
               List<VaccinationCenter> centers = centerService.getAllCenters();
               modelAndView.addObject("centers", centers);
               return modelAndView;
       }
       @RequestMapping("/add")
```

```
public ModelAndView sendCity(HttpServletRequest request, HttpServletResponse response)
{
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("/addCenter");
               List<City> cities = cityService.getAllCities();
               modelAndView.addObject("cities", cities);
               return modelAndView;
       }
       @PostMapping("/addCenter")
       public ModelAndView addCenter(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("redirect:/vaccinationcenter/");
               VaccinationCenter center = new VaccinationCenter();
               center.setCenterName(request.getParameter("center"));
               center.setCity(request.getParameter("city"));
               if (centerService.addCenter(center) != null)
                      return modelAndView;
               else {
                       modelAndView.setViewName("errorOper");
                      return modelAndView;
               }
       }
       @RequestMapping("/view")
       public ModelAndView viewCenter(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("viewCenter");
               int centerId = Integer.parseInt(request.getParameter("id"));
               VaccinationCenter center = centerService.getCenterById(centerId);
               List<Citizen> citizens = citizenService.getCitizenByCenterId(centerId);
               modelAndView.addObject("citizens", citizens);
```

```
modelAndView.addObject("center", center);
               return modelAndView;
       }
       @RequestMapping("/edit")
       public ModelAndView getForEdit(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("/editCenter");
               VaccinationCenter center =
centerService.getCenterById(Integer.parseInt(request.getParameter("id")));
               List<City> cities = cityService.getAllCities();
               modelAndView.addObject("cities", cities);
               modelAndView.addObject("center", center);
               return modelAndView;
       }
       @RequestMapping("/editCenter")
       public ModelAndView editCenter(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("redirect:/vaccinationcenter/");
               VaccinationCenter center = new VaccinationCenter();
               center.setId(Integer.parseInt(request.getParameter("id")));
               center.setCenterName(request.getParameter("center"));
               center.setCity(request.getParameter("city"));
               center = centerService.updateCenter(center);
               if (center != null)
                      return modelAndView;
               else {
                       modelAndView.setViewName("errorOper");
                       return modelAndView;
               }
       }
```

```
@RequestMapping("/delete")
       public ModelAndView delCenter(HttpServletRequest request, HttpServletResponse
response) {
               ModelAndView modelAndView = new ModelAndView();
               modelAndView.setViewName("redirect:/vaccinationcenter/");
               citizenService.delCitizenByCenterId(Integer.parseInt(request.getParameter("id")));
               centerService.delCenter(Integer.parseInt(request.getParameter("id")));
               return modelAndView;
       }
}
AdminUserRepository.java
package com.vaccination.repo;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import com.vaccination.entity.AdminUser;
public interface AdminUserRepository extends JpaRepository<AdminUser, String> {
       @Query("SELECT au FROM AdminUser au WHERE au.username=?1 AND au.password=?2")
       public AdminUser findByUserNamePwd(String username, String password);
       @Query("SELECT au FROM AdminUser au WHERE au.email=?1")
       public AdminUser findByEmail(String email);
       @Query("SELECT au FROM AdminUser au WHERE au.username=?1")
       public AdminUser findByUsername(String username);
}
CitizenRepository.java
package com.vaccination.repo;
import java.util.List;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import com.vaccination.entity.Citizen;
public interface CitizenRepository extends JpaRepository<Citizen, Integer> {
```

```
@Query("SELECT citizen FROM Citizen citizen JOIN citizen.center citizen_center WHERE
citizen_center.id = ?1")
       public List<Citizen> getByCenterId(int centerId);
}
CityRepository.java
package com.vaccination.repo;
import org.springframework.data.jpa.repository.JpaRepository;
import com.vaccination.entity.City;
public interface CityRepository extends JpaRepository<City, Integer> {
}
VaccinationCenterRepository.java
package com.vaccination.repo;
import java.util.List;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import com.vaccination.entity.VaccinationCenter;
public interface VaccinationCenterRepository extends JpaRepository<VaccinationCenter, Integer> {
       @Query("SELECT center FROM VaccinationCenter center WHERE center.id=?1")
       public VaccinationCenter getCenterById(int id);
       @Query("SELECT center FROM VaccinationCenter center WHERE center.city=?1")
       public List<VaccinationCenter> getCenterByCity(String cityName);
}
AdminUserService.java
package com.vaccination.service;
import com.vaccination.entity.AdminUser;
public interface AdminUserService {
       public AdminUser getByUserNamePwd(String username, String password);
       public String registerUser(AdminUser user);
       public AdminUser getByUserName(String username);
}
```

```
CitizenService.java
package com.vaccination.service;
import java.util.List;
import com.vaccination.entity.Citizen;
public interface CitizenService {
        public List<Citizen> getAllCitizens();
        public List<Citizen> getCitizenByCenterId(int centerId);
        public void delCitizenByCenterId(int centerId);
        public Citizen addCitizen(Citizen citizen);
        public Citizen getCitizenById(int citizenId);
        public Citizen updateCitizen(Citizen citizen);
        public void delCitizenById(int citizenId);}
CityService.java
package com.vaccination.service;
import java.util.List;
import com.vaccination.entity.City;
public interface CityService {
        public List<City> getAllCities();
}
VaccinationCenterService.java
package com.vaccination.service;
import java.util.List;
import com.vaccination.entity.VaccinationCenter;
public interface VaccinationCenterService {
        public List<VaccinationCenter> getAllCenters();
        public VaccinationCenter getCenterById(int id);
        public VaccinationCenter updateCenter(VaccinationCenter center);
        public VaccinationCenter addCenter(VaccinationCenter center);
        public void delCenter(int id);
        public List<VaccinationCenter> getCentersByCity(String cityName);
```

```
}
```

## AdminUserServiceImpl.java

```
package com.vaccination.service_impl;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.vaccination.entity.AdminUser;
import com.vaccination.repo.AdminUserRepository;
import com.vaccination.service.AdminUserService;
@Service
public class AdminUserServiceImpl implements AdminUserService {
       @Autowired
       AdminUserRepository adminRepo;
       public AdminUser getByUserNamePwd(String username, String password) {
               return (adminRepo.findByUserNamePwd(username, password));
       }
       public String registerUser(AdminUser user) {
               AdminUser checkUser1 = adminRepo.findByUsername(user.getUsername());
               if (checkUser1 != null)
                      return "Duplicate username";
               AdminUser checkUser2 = adminRepo.findByEmail(user.getEmail());
               if (checkUser2 != null)
                      return "Duplicate email";
               adminRepo.save(user);
               return "User added successfully";
       }
       public AdminUser getByUserName(String username) {
               return adminRepo.findByUsername(username);
       }
}
```

```
package com.vaccination.service_impl;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.vaccination.entity.Citizen;
import com.vaccination.repo.CitizenRepository;
import com.vaccination.service.CitizenService;
@Service
public class CitizenServiceImpl implements CitizenService {
        @Autowired
        CitizenRepository citizenRepo;
        public List<Citizen> getAllCitizens() {
                return citizenRepo.findAll();
}
        public List<Citizen> getCitizenByCenterId(int centerId) {
                return citizenRepo.getByCenterId(centerId);
        }
        public void delCitizenByCenterId(int centerId) {
                citizenRepo.deleteAll(citizenRepo.getByCenterId(centerId));
        }
        public Citizen addCitizen(Citizen citizen) {
                return citizenRepo.save(citizen);
        }
        public Citizen getCitizenById(int citizenId) {
                return citizenRepo.findById(citizenId).orElse(null);
        }
        public Citizen updateCitizen(Citizen citizen) {
                return citizenRepo.save(citizen);
        }
        public void delCitizenById(int citizenId) {
                citizenRepo.deleteById(citizenId);
```

```
}
}
CityServiceImpl.java
package com.vaccination.service_impl;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.vaccination.entity.City;
import com.vaccination.repo.CityRepository;
import com.vaccination.service.CityService;
@Service
public class CityServiceImpl implements CityService {
        @Autowired
CityRepository cityRepo;
       public List<City> getAllCities() {
               return cityRepo.findAll();
       }
}
VaccinationCenterServiceImpl.java
package com.vaccination.service_impl;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.vaccination.entity.VaccinationCenter;
import com.vaccination.repo.VaccinationCenterRepository;
import com.vaccination.service.VaccinationCenterService;
@Service
public class VaccinationCenterServiceImpl implements VaccinationCenterService {
       @Autowired
       VaccinationCenterRepository centerRepo;
```

```
public List<VaccinationCenter> getAllCenters() {
              return centerRepo.findAll();
       }
       public VaccinationCenter getCenterById(int id) {
              return centerRepo.getCenterById(id);
       }
       public VaccinationCenter updateCenter(VaccinationCenter center) {
              return centerRepo.save(center);
       }
       public VaccinationCenter addCenter(VaccinationCenter center) {
              return centerRepo.save(center);
       }
       public void delCenter(int id) {
              centerRepo.deleteById(id);
       }
       public List<VaccinationCenter> getCentersByCity(String cityName) {
              return centerRepo.getCenterByCity(cityName);
       }
}
addCentre.jsp

page language="java" contentType="text/html; charset=ISO-8859-1"
       pageEncoding="ISO-8859-1"%>
<%@page import="com.vaccination.entity.*"%>

compage import="java.util.*"%>
</@include file="welcomeHeader.jsp"%>
<%@include file="security.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Add New Center</title>
<style>
.menu-box {
       border: 1px solid #ccc;
       padding: 10px;
       width: 500px;
       margin: 0 auto;
       text-align: center;
.menu-box a {
```

```
display: block;
      margin-bottom: 10px;
table {
      width: 100%;
      border-collapse: collapse;
}
th, td {
      padding: 8px;
      border: 1px solid #ccc;
}
th {
      background-color: #f2f2f2;
}
</style>
</head>
<body>
      <br><br><br><
   <div class="menu-box">
       <h1>Add new <a href="Vaccination">Vaccination</a> Center</h1>
       <form action="addCenter" method="post" >
           Center Name
                   <input type="text" name="center">
               Center City
                   <select name="city" >
                           <% List<City> cities = (List<City>)
request.getAttribute("cities");
                               for(City city: cities){
                          %>
                              <option
value="<%=city.getCityname()%>"><%=city.getCityname() %></option>
                          <%} %>
                       </select>
                   <input type="submit" value="Submit">
               </form>
   </div>
</body>
</html>
addCitizen.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
      pageEncoding="ISO-8859-1"%>
<%@page import="com.vaccination.entity.*"%>
<%@page import="java.util.*"%>
<%@include file="welcomeHeader.jsp"%>
```

```
<%@include file="security.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Add New Citizen</title>
<style>
.menu-box {
      border: 1px solid #ccc;
      padding: 10px;
      width: 500px;
      margin: 0 auto;
      text-align: center;
}
.menu-box a {
      display: block;
      margin-bottom: 10px;
}
table {
      width: 100%;
      border-collapse: collapse;
}
th, td {
      padding: 8px;
      border: 1px solid #ccc;
}
th {
      background-color: #f2f2f2;
}
</style>
</head>
<body>
<br><br><br><
      <div class="menu-box">
            <h1>Add New Citizen</h1>
            <form action="add-getcenter" method="post">
                  Citizen Name
                               <input type="text" name="citizenName">
                        No. of Doses
                               >
                                     <select name="doses">
                                           <option value="0">0</option>
                                           <option value="1">1</option>
                                           <option value="2">2</option>
                                     </select>
                              City Name
```

```
<select name="city" id="city"</pre>
onchange="this.form.submit()">
                                     <option value="">Select City</option>
                                           List<City> cities = (List<City>)
request.getAttribute("cities");
                                           for (City city : cities) {
                                           <option value="<%=</pre>
city.getCityname() %>"><%= city.getCityname() %></option>
                                           }
                                           %>
                                     </select>
                              Center Name
                      <select name="center" >
                      </select>
                  <input type="submit"
</form>
      </div>
</body>
</html>
add-Citizen.jsp

page language="java" contentType="text/html; charset=ISO-8859-1"
      pageEncoding="ISO-8859-1"%>
<%@page import="com.vaccination.entity.*"%>
</@page import="java.util.*"%>
</minclude file="welcomeHeader.jsp"%>
</@include file="security.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Add New Citizen</title>
<style>
.menu-box {
      border: 1px solid #ccc;
      padding: 10px;
      width: 500px;
      margin: 0 auto;
      text-align: center;
}
.menu-box a {
      display: block;
      margin-bottom: 10px;
```

```
}
table {
      width: 100%;
      border-collapse: collapse;
}
th, td {
      padding: 8px;
      border: 1px solid #ccc;
}
th {
      background-color: #f2f2f2;
}
</style>
</head>
<body>
      <!-- This extra jsp is used to select centers present in the city selected
in addCitizen.jsp -->
      <br><br><br>>
      <div class="menu-box">
            <h1>Add New Citizen</h1>
            <form action="addCitizen" method="post">
                  Citizen Name
                               <input type="text"
name="citizenName"value="<%=request.getAttribute("citizenName")%>">
                         No. of Doses
                               >
                                     <select name="doses">
                                           for (int count=0;count<=2;count++) {</pre>
                                                  if
(count==Integer.parseInt((String)request.getAttribute("doses"))) {
                                            <option value="<%= count %>"
selected><%= count%></option>
                                           <%
                                                  } else {
                                           <option value="<%= count %>"><%=</pre>
count %></option>
                                           <%
                                                  }
                                           }
                                           %>
                                     </select>
                               City Name
                               <select name="city">
```

```
<option
value="<%=(String)request.getAttribute("selectedCity")%>"
selected><%=(String)request.getAttribute("selectedCity")%></option>
                               </select>
                         Center Name
                       <select name="center" >
                           <% List<VaccinationCenter> centers =
(List<VaccinationCenter>) request.getAttribute("centers");
                               for(VaccinationCenter center: centers){
                           %>
                               <option
value="<%=center.getId()%>"><%=center.getCenterName() %></option>
                           <%} %>
                       </select>
                   <input type="submit"
value="Submit">
                         </form>
            <i>Go Back, if you wish to change city</i>
      </div>
</body></html>
adminDashboard.jsp

page language="java" contentType="text/html; charset=ISO-8859-1"
      pageEncoding="ISO-8859-1"%>
<%@include file="welcomeHeader.jsp"%>
<%@include file="security.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Admin Dashboard</title>
<style>
.menu-box {
      border: 1px solid #ccc;
      padding: 10px;
      width: 500px;
      margin: 0 auto;
      text-align: center;
</style>
</head>
<body>
<br><br><br>>
      <div class="menu-box">
            <h2>Welcome to <u>Vaccination</u> Center Application</h2>
            <br><br><br><
            <h3>Select any of the above options to perform operations</h3>
      </div>
</body>
</html>
```

## Citizens.jsp

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

comeHeader.jsp"%>
<%@include file="security.jsp"%>
<%@page import="java.util.*" %>
<%@page import="com.vaccination.entity.*"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Citizens</title>
<style>
table {
      width: 100%;
      border-collapse: collapse;
      text-align: center;
}
th, td {
width:14%;
      border: 1px solid black;
      padding: 8px;
}
th {
      background-color: #f2f2f2;
      height:40px;
}
.add-center-btn {
      float: right;
.button-width-2 {
      width: 30%;
      margin: 0 auto;
      text-align: center;
}
</style>
</head>
<body>
<br><br><br>>
<h2 align="left">Citizens</h2>
List<Citizen> citizens = (List<Citizen>)request.getAttribute("citizens");
int count = 0;
%>
<a href="add" class="add-center-btn"><button>Add New
Citizen</button></a>
      ID
            Name
```

```
City
            No. Of Doses
            Vaccination Status
            Vaccination Center
            Action
     <%
     for (Citizen citizen : citizens) {
     <%=citizen.getId()%>
            <%=citizen.getCitizenName()%>
            <%=citizen.getCenter().getCity()%>
            <%=citizen.getDoses()%>
            <%
                 if (citizen.getDoses() == 0) {
                 %> Not <u>Vaccinated</u> <%</pre>
                 if (citizen.getDoses() == 1) {
                 %> Partially Vaccinated <%</pre>
                 if (citizen.getDoses() == 2) {
                 %> Fully Vaccinated <%</pre>
                  }
                 %>
            <%=citizen.getCenter().getCenterName()%>
            <a href="view?id=<%=citizen.getId()%>"><button class="button-</pre>
width-2">View</button></a>
                  <a href="edit?id=<%=citizen.getId()%>"><button class="button-</pre>
width-2">Edit</button></a>
                  <a href="delete?id=<%=citizen.getId()%>"><button</pre>
class="button-width-2">Delete</button></a>
            <%
     count++;
     }
     %>
     Total <%=count%> citizens found.
     </body>
</html>
editCentre.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
pageEncoding="ISO-8859-1"%>
<%@ page import="com.vaccination.*"%>
<%@ page import="java.util.* "%>
<%@page import="com.vaccination.entity.*"%>
<%@include file="security.jsp"%>
<%@include file="welcomeHeader.jsp"%>
<!DOCTYPE html>
<html>
<head>
```

```
<meta charset="ISO-8859-1">
<title>Edit Center</title>
<style>
.menu-box {
      border: 1px solid #ccc;
      padding: 10px;
      width: 300px;
      margin: 0 auto;
      text-align: center;
table {
      width: 100%;
      border-collapse: collapse;
}
th, td {
      padding: 8px;
      border: 1px solid #ccc;
}
th {
      background-color: #f2f2f2;
</style>
</head>
<body>
<br><br><br>>
      <div class="menu-box">
            <h1>Center Information</h1>
            VaccinationCenter center = (VaccinationCenter)
request.getAttribute("center");
            List<City> cities = (List<City>) request.getAttribute("cities");
            <form action="editCenter">
                   Edit <%= center.getCenterName()</pre>
%>
                         Center Name
                               <input type="text" name="center" value="<%=
center.getCenterName() %>">
                         Center City
                               >
                                      <select name="city">
                                            for (City city : cities) {
                                                  if
(city.getCityname().equals(center.getCity())) {
                                            <option value="<%=</pre>
city.getCityname() %>" selected><%= city.getCityname()%></option>
                                                  } else {
                                            %>
```

```
<option value="<%=</pre>
city.getCityname() %>"><%= city.getCityname() %></option>
                                                   }
                                             }
                                             %>
                                      </select>
                                <input type="submit"
value="Submit">
                         <input type="hidden" name="id" value="<%= center.getId() %>">
            </form>
      </div>
</body>
</html>
editCitizen.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
      pageEncoding="ISO-8859-1"%>
<%@ page import="com.vaccination.*"%>
<%@ page import="java.util.* "%>
<%@page import="com.vaccination.entity.*"%>
<%@include file="security.jsp"%>
<%@include file="welcomeHeader.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Edit Citizen</title>
<style>
.menu-box {
      border: 1px solid #ccc;
      padding: 10px;
      width: 500px;
      margin: 0 auto;
      text-align: center;
}
table {
      width: 100%;
      border-collapse: collapse;
}
th, td {
      padding: 8px;
      border: 1px solid #ccc;
}
th {
      background-color: #f2f2f2;
      height: 40px;
</style>
</head>
<body>
```

```
<br><br><br><
     <div class="menu-box">
           <h1>Citizen Information</h1>
           Citizen citizen = (Citizen) request.getAttribute("citizen");
           List<City> cities = (List<City>) request.getAttribute("cities");
           <form action="edit-getcenter" method="post">
                 <b>Edit Citizen</b>
                       Citizen Name
                            <input type="text" name="citizenName"
     Citizen City
                            <select name="city" id="city"
                                  onchange="this.form.submit()">
                                        for (City city : cities) {
(city.getCityname().equals(citizen.getCenter().getCity())) {
                                        <option
value="<%=city.getCityname()%>" selected><%=city.getCityname()%></option>
                                        <%
                                        } else {
                                        %>
                                        <option
value="<%=city.getCityname()%>"><%=city.getCityname()%>
                                        <%
                                        }
                                        }
                            </select>
                       No. of Doses
                            <select name="doses">
                                        for (int count = 0; count <= 2;</pre>
count++) {
                                              if (count ==
citizen.getDoses()) {
                                        <option value="<%=count%>"
selected><%=count%></option>
                                        } else {
                                        %>
                                        <option
value="<%=count%>"><%=count%></option>
                                        <%
                                        }
```

```
}
                                          %>
                              </select>
                        Vaccination Center
                              <select name="center">
                                          <option
value="<%=citizen.getCenter().getId()%>"
selected><%=citizen.getCenter().getCenterName()%></option>
                              </select>
                        <input type="submit"
<input type="hidden" name="id" value="<%= citizen.getId() %>">
            </form>
      </div>
</body>
</html>
errorOper.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
      pageEncoding="ISO-8859-1"%>
<%@include file="welcomeHeader.jsp"%>
<%@include file="security.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Error in performing Operation</title>
</head>
<body>
      <h1>Something went wrong! Try Again...</h1>
</body>
</html>
home.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>Home</title>
<style>
.menu-box {
      border: 1px solid #ccc;
      padding: 10px;
     width: 300px;
      margin: 0 auto;
      text-align: center;
}
.menu-box a {
      display: block;
      margin-bottom: 10px;
```

```
</style>
</head>
<body>
                    <div class="menu-box">
                                         <form action="/login" method="post">
                                                               Username
                                                                                                         <input type="text" name="username"
required>
                                                                                    Password
                                                                                                         <input type="password" name="password"
required>
                                                                                    <input type="submit" value="Login">
                                                                                    </form>
                                          <br />
<b
                                                               href="/pages/register.jsp"><button>Registration</button></a>
                    </div>
</body>
</html>
loginError.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
            pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Login Error</title>
</head>
<body>
                     <h1 align="center"> Invalid Credentials! </h1>
                    <h3 align="center"> Please Try Again</h3>
                    </@include file="/pages/home.jsp"%>
</body>
</html>
loginUser404.jsp
```

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>404 - Username does not exist</title>
</head>
<body>
      <h1 align="center"> Username does not exist! </h1>
      <h3 align="center"> Please Check the username</h3>
      <%@include file="/pages/home.jsp"%>
</html>
logout.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
      pageEncoding="ISO-8859-1"%>
<%@include file="security.jsp"%>
<!DOCTYPE html>
<html>
<body>
      response.setHeader("Cache-Control", "no-cache, no-store, must-revalidate");
      response.setHeader("Pragma", "no-cache");
      response.setDateHeader("Expires", 0);
      %>
      <%
      session.invalidate();
      <h2 align="center">Logged out successfully!</h2>
      <%@include file="/pages/home.jsp"%>
</body>
</html>
register.jsp

c%@ page language="java" contentType="text/html; charset=ISO-8859-1"
      pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Admin Registration</title>
</head>
<style>
table {
      width: 100%;
      border-collapse: collapse;
}
th, td {
      padding: 8px;
      border: 1px solid #ccc;
}
th {
      background-color: #f2f2f2;
}
```

```
.menu-box {
     border: 1px solid #ccc;
     padding: 10px;
     width: 300px;
     margin: 0 auto;
     text-align: center;
}
.menu-box a {
     display: block;
     margin-bottom: 10px;
</style>
<body>
     <h1>Admin Registration</h1>
     <div class="menu-box">
     <form action="/register" method="post">
          <h3 align="center">Registration</h3>
               Username
                     <input type="text" name="username" required>
               Email
                     <input type="email" name="email" required>
               Password
                     <input type="password" name="password"
required>
               <input type="submit" value="Register">
          </form>
     </div>
</body>
</html>
registerError.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
```

```
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Registration Error</title>
<body>
      <h1 align="center">
             <%
             if (request.getAttribute("errorMsg").equals("Duplicate username")){
             %>
             Username Already exists! Please use a different Username.
             <%}
             if (request.getAttribute("errorMsg").equals("Duplicate email")){
             Email ID Already exists! Please use a different email ID.
             <%}%>
      </h1>
      <%@include file="/pages/register.jsp"%>
</body>
</html>
registerSuccess.jsp

c%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Successfully Registered</title>
</head>
<body>
      <h1 align="center">Account created Successfully!</h1>
      <%@include file="/pages/home.jsp" %>>
</body>
</html>
Security.jsp
c%0 page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Successfully Registered</title>
</head>
<body>
response.setHeader("Cache-Control", "no-cache, no-store, must-revalidate");
response.setHeader("Pragma", "no-cache");
response.setDateHeader("Expires", 0);
%>
   if (session.getAttribute("username") == null) {
        response.sendRedirect("/pages/home.jsp");
    }
%>
```

```
</body>
```

## vaccinationCentres.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
      pageEncoding="ISO-8859-1"%>
<%@include file="welcomeHeader.jsp"%>
<%@include file="security.jsp"%>
<%@page import="java.util.*" %>
<%@page import="com.vaccination.entity.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Vaccination Centers</title>
<style>
table {
      width: 100%;
      border-collapse: collapse;
      text-align: center;
}
th, td {
      border: 1px solid black;
}
th {
      background-color: #f2f2f2;
      height:40px;
}
.add-center-btn {
           float: right;
       }
.button-width-2 {
      width: 30%;
      margin: 0 auto;
      text-align: center;
</style>
</head>
<body >
<br><br><br>>
      <h2 align="left">Centers</h2>
      List<VaccinationCenter> centers =
(List<VaccinationCenter>)request.getAttribute("centers");
      int count = 0;
      %>
      <a href="add" class="add-center-
btn"><button>Add New Center</button></a>
            ID
                   Name
                   City
```

```
Action
            <%
            for (VaccinationCenter center : centers) {
            %>
            <%=center.getId()%>
                  <%=center.getCenterName()%>
                  <%=center.getCity()%>
                  <a href="view?id=<%=center.getId() %>" ><button</pre>
class="button-width-2">View</button></a>
                        <a href="edit?id=<%=center.getId() %>"><button</pre>
class="button-width-2">Edit</button></a>
                        <a href="delete?id=<%=center.getId() %>"><button</pre>
class="button-width-2">Delete</button></a>
                  <%
            count++;
            %>
            Total <%=count %> Vaccination Centers
found.
            </body>
</html>
viewCentre.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
      pageEncoding="ISO-8859-1"%>
include file="welcomeHeader.jsp"%>
include file="security.jsp"%>
<%@page import="java.util.*" %>
<%@page import="com.vaccination.entity.*"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Vaccination Center</title>
<style>
table {
      border-collapse: collapse;
      text-align: center;
th, td {
      border: 1px solid black;
}
th {
      background-color: #f2f2f2;
      height:40px;
.add-center-btn {
```

```
float: right;
      }
.button-width-2 {
     width: 30%;
     margin: 0 auto;
     text-align: center;
</style>
</head>
<body >
<br><br><br>></pr>
     <%VaccinationCenter center =</pre>
(VaccinationCenter)request.getAttribute("center");
     List<Citizen> citizens = (List<Citizen>)request.getAttribute("citizens");{
     <h2 align="left">Center Information</h2>
     <b><%=center.getCenterName()%></b>
           ID
                 <%=center.getId() %>
           City
                 <%=center.getCity() %>
           <hr>>
     <h2 align="left">All Citizens of this center</h2>
     <b>ID</b>
                 <b>Name</b>
                 <b>Action</b>
           <%for (Citizen citizen:citizens){%>
           <%=citizen.getId() %>
                 <%=citizen.getCitizenName() %>
                 <a href="/citizens/view?id=<%=citizen.getId()%>">View</a>
           <%} %>
     <%} %>
</body>
</html>
ViewCitizen.jsp

page language="java" contentType="text/html; charset=ISO-8859-1"
     pageEncoding="ISO-8859-1"%>
<%@include file="welcomeHeader.jsp"%>
include file="security.jsp"%>
<%@page import="java.util.*" %>
<%@page import="com.vaccination.entity.*"%>
<!DOCTYPE html>
<html>
<head>
```

```
<meta charset="ISO-8859-1">
<title>Citizen</title>
<style>
table {
     border-collapse: collapse;
     text-align: center;
th, td {
     border: 1px solid black;
}
th {
     background-color: #f2f2f2;
     height:40px;
</style>
</head>
<body >
<br><br><br>>
     <%Citizen citizen = (Citizen)request.getAttribute("citizen"); {</pre>
     <h2 align="left">Citizen Information</h2>
     <b><%=citizen.getCitizenName()%></b>
           ID
                 <%=citizen.getId() %>
           City
                 <%=citizen.getCenter().getCity() %>
           Number of Vaccines
                 <%=citizen.getDoses()%>
           Vaccination Status
                 if (citizen.getDoses() == 0) {
                 %> Not Vaccinated <%</pre>
                 if (citizen.getDoses() == 1) {
                 %> Partially Vaccinated <%</pre>
                 if (citizen.getDoses() == 2) {
                 %> Fully Vaccinated <%</pre>
                 %>
           Allocated Vaccination Center
                 <a href =
"/vaccinationcenter/view?id=<%=citizen.getCenter().getId()%>"><%=citizen.getCenter</pre>
().getCenterName() %></a>
```

```
<%} %>
</body>
</html>
welcomeHeader.jsp

page language="java" contentType="text/html; charset=ISO-8859-1"
      pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<style>
table {
     width: 100%;
      border-collapse: collapse;
th, td {
      height: 20px;
      width: 25%;
      padding: 8px;
      border: 2px solid #ccc;
}
.center-text {
      width: 100%;
      margin: 0 auto;
     text-align: center;
</style>
</head>
<body>
      <a href="/citizens/"> Citizens</a>
                  <a href="/vaccinationcenter/" > Vaccination</a>
Centers</a>
                  <a href="/pages/logout.jsp">Logout</a>
                  <b >Welcome,
<%=session.getAttribute("username")%></b>
            </body>
</html>
Application.properties
server.port=8080
spring.jpa.hibernate.ddl-auto=update
spring.jpa.hibernate.dialect=org.hibernate.dialect.MySQLDialect
spring.jpa.show-sql = true
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
spring.datasource.url=jdbc:mysq1://localhost:3306/vaccination center app
spring.datasource.username=root
spring.datasource.password=Madan@223004118
spring.mvc.view.suffix=.jsp
spring.mvc.view.prefix=/pages/
```