VACCINATION CENTER

SOURCE CODE

com.ecommerce.SpringBootMvcDemoApplication

com.ecommerce.controllers.CenterController.java

```
package com.ecommerce.controllers;
import java.util.List;
import java.util.Optional;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.ResponseEntity;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.*;
import com.ecommerce.entity.Center;
import com.ecommerce.entity.Citizen;
import com.ecommerce.repositories.CenterRepository;
import com.ecommerce.repositories.CitizenRepository;
@Controller
public class CenterController {
    @Autowired
   CenterRepository centerRepository;
    @Autowired
```

```
CitizenRepository citizenRepository;
    @GetMapping("/add-center")
    public String ShowAddCenterForm(Model model) {
        model.addAttribute("center", new Center());
        return "add-center";
    @PostMapping("/add-center")
    public String SaveCenter(@ModelAttribute("center") Center center, Model
model) {
        // Save the center to the database
        centerRepository.save(center);
        String alertMessage = "Center added to List";
        model.addAttribute("alertMessage", alertMessage);
        // Redirect to a success page or dashboard
        return "dashboard";
    }
    @GetMapping("/centers")
    public ResponseEntity<List<Center>> getCenters() {
        List<Center> centerList = centerRepository.findAll(); // Assuming
you have a CenterRepository for fetching the data from the database
        // Check if centers exist
        if (centerList.isEmpty()) {
            return ResponseEntity.noContent().build();
        }
        return ResponseEntity.ok(centerList);
    }
    // Get ID from dashboard to edit
    @GetMapping("/edit-center")
    public String showEditProductForm(@RequestParam("centerID") int id,
Model model) {
        Optional<Center> productFromRepo = centerRepository.findById(id);
        Center center = productFromRepo.get();
        model.addAttribute("center", center);
        return "edit-center"; // go to edit-product.jsp
    @PostMapping("/edit-center-save")
    public String saveEditedProduct(@ModelAttribute("product") Center
center, Model model) {
        centerRepository.save(center);
        String alertMessage = "Center Details Updated";
        model.addAttribute("alertMessage", alertMessage);
        return "dashboard"; // go to edit-product-saved-success.jsp
    }
    // Delete a Center
    @GetMapping("/delete-center")
    public String deleteProduct(@RequestParam int centerID, Model model) {
        Optional < Center > productFromRepo =
centerRepository.findById(centerID);
```

```
centerRepository.deleteById(centerID);
        model.addAttribute("id", centerID);
        String alertMessage = "Center Deleted From the list";
        model.addAttribute("alertMessage", alertMessage);
        // redirectAttributes.addFlashAttribute("alertMessage", "Center
deleted successfully.");
        return "dashboard"; // go to delete-product-success.jsp
    // View a particular record
    @GetMapping("/view-center")
    public String showEditProductForm1(@RequestParam("centerID") int id,
Model model) {
        Optional<Center> centerFromRepo = centerRepository.findById(id);
        if (centerFromRepo.isPresent()) {
            Center center = centerFromRepo.get();
            List<Citizen> citizens =
citizenRepository.findByCenterCenterName(center.getCenterName());
            model.addAttribute("center", center);
            model.addAttribute("citizens", citizens);
        }
        return "view-center"; // go to view-center.jsp
    }
    // View center by name
    @GetMapping("/view-center-details")
    public String viewCenterDetails(@RequestParam("centerName") String
centerName, Model model) {
       List<Center> centers =
centerRepository.findAllByCenterName(centerName);
       model.addAttribute("centers", centers);
        return "view-center-details"; // go to view-center-details.jsp
    }
}
```

com.ecommerce.controllers.CitizenController.java

```
package com.ecommerce.controllers;
import java.util.List;
import java.util.Optional;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.ResponseEntity;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.validation.BindingResult;
import org.springframework.web.bind.annotation.*;
import com.ecommerce.entity.Center;
```

```
import com.ecommerce.entity.Citizen;
import com.ecommerce.repositories.CenterRepository;
import com.ecommerce.repositories.CitizenRepository;
@Controller
public class CitizenController {
    @Autowired
    CitizenRepository citizenRepository;
    @Autowired
    CenterRepository centerRepository;
    @GetMapping("/citizens")
    public ResponseEntity<List<Citizen>> listCitizens(Model model) {
        List<Citizen> citizenList = citizenRepository.findAll();
        // Fetch center details for each citizen
        for (Citizen citizen : citizenList) {
            citizen.getCenter().getCenterName(); // Access the center's
name or other details
        }
        return ResponseEntity.ok().body(citizenList);
    @GetMapping("/add-citizen")
    public String register(Model model) {
        List<Center> centerNames = centerRepository.findAll();
        model.addAttribute("citizen", new Citizen());
        model.addAttribute("centers", centerNames);
        return "add-citizen";
    }
    @PostMapping("/add-citizen")
    public String addCitizen(@ModelAttribute("citizen") Citizen citizen,
BindingResult result, Model model) {
        if (result.hasErrors()) {
           model.addAttribute("centers", centerRepository.findAll());
            return "add-citizen";
        // Get the center name from the citizen's associated center
        String centerName = citizen.getCenter().getCenterName();
        citizen.setCitizenDose("0");
        citizen.setCitizenVaccinationStatus("Not Vaccinated");
        // Set the center name in the citizen entity
        citizen.setCenterName(centerName);
        // Save the citizen
        citizenRepository.save(citizen);
        String alertMessage = "Citizen Data Added To the List";
        model.addAttribute("alertMessage", alertMessage);
        return "dashboard";
    // View citizen
    @GetMapping("/view-citizen")
```

```
public String showEditProductForm(@RequestParam("citizenID") int id,
Model model) {
        Optional<Citizen> productFromRepo = citizenRepository.findById(id);
        Citizen citizen = productFromRepo.get();
        model.addAttribute("citizen", citizen);
        return "view-citizen"; // go to edit-product.jsp
    // Delete a Citizen
    @GetMapping("/delete-citizen")
    public String deleteProduct(@RequestParam int citizenID, Model model) {
        Optional<Citizen> productFromRepo =
citizenRepository.findById(citizenID);
        citizenRepository.deleteById(citizenID);
        //model.addAttribute("id", citizenID);
        String alertMessage = "Citizen Data Deleted from List";
        model.addAttribute("alertMessage", alertMessage);
        return "dashboard"; // go to delete-product-success.jsp
    }
    // Get ID from dashboard to edit
    @GetMapping("/edit-citizen")
    public String showEditProductForm1(@RequestParam("citizenID") int id,
Model model) {
        Optional<Citizen> productFromRepo = citizenRepository.findById(id);
        Citizen citizen = productFromRepo.get();
        List<Center> centerNames = centerRepository.findAll();
        model.addAttribute("centers", centerNames);
       model.addAttribute("citizen", citizen);
       return "edit-citizen"; // go to edit-product.jsp
    @PostMapping("/edit-citizen-save")
    public String saveEditedProduct(@ModelAttribute("citizen1") Citizen
citizen, Model model) {
        if ((citizen.getCitizenDose()).equals("1")) {
            citizen.setCitizenVaccinationStatus("Partially Vaccinated");
        } else if ((citizen.getCitizenDose()).equals("2")) {
            citizen.setCitizenVaccinationStatus("Fully Vaccinated");
        } else {
            citizen.setCitizenVaccinationStatus("Not Vaccinated");
        citizenRepository.save(citizen);
        String alertMessage = "Citizen Data is updated";
        model.addAttribute("alertMessage", alertMessage);
        return "dashboard"; // go to edit-product-saved-success.jsp
    }
}
```

com.ecommerce.controllers.MainController.java

```
package com.ecommerce.controllers;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
@Controller
public class MainController {
    @GetMapping("/")
    public String index(Model model) {
        return "login";
    }
}
```

com.ecommerce.controllers.UserController.java

```
package com.ecommerce.controllers;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.ResponseEntity;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.*;
import com.ecommerce.entity.User;
import com.ecommerce.repositories.CenterRepository;
import com.ecommerce.repositories.UserRepository;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpSession;
@Controller
public class UserController {
    @Autowired
    UserRepository userRepository;
    @Autowired
    CenterRepository centerRepository;
    @GetMapping("/register")
    public String register(Model model) {
        model.addAttribute("user", new User());
        return "register";
    @PostMapping("/register")
    public String processRegistrationForm(@ModelAttribute("user") User
user, Model model) {
        // Save the user to the database
        userRepository.save(user);
```

```
String alertMessage = "Registered Successfully";
        model.addAttribute("alertMessage", alertMessage);
        // Redirect to a success page or login page
        return "login";
    }
    @PostMapping("/login")
    public ResponseEntity<String> loginUser(@RequestBody User user,
HttpServletRequest request) {
        User existingUser =
userRepository.findByUserEmail(user.getUserEmail());
        HttpSession session = request.getSession();
        session.setAttribute("userEmail", user.getUserEmail());
        if (existingUser == null) {
           return ResponseEntity.badRequest().body("Invalid User");
        }
        // Validate the user's password
        if (!existingUser.getUserPassword().equals(user.getUserPassword()))
{
            return ResponseEntity.badRequest().body("Invalid password");
        }
        return ResponseEntity.ok("User logged in successfully");
    }
    @GetMapping("/logout")
    public String logoutUser(HttpServletRequest request) {
       HttpSession session = request.getSession(false); // Get the current
session, if it exists
        if (session != null) {
           session.invalidate(); // Invalidate the session, effectively
logging out the user
        }
        return "login";
    @GetMapping("/dashboard")
    public String dashboard(Model model, HttpServletRequest request) {
        // Retrieve the user email from the session
        HttpSession session = request.getSession();
        String userEmail = (String) session.getAttribute("userEmail");
        // Use the userEmail to fetch the user details from the database or
any other source
        User user = userRepository.findByUserEmail(userEmail);
        // Add the user object to the model
        model.addAttribute("user", user);
        return "dashboard";
    }
}
```

com.ecommerce.entity.Center.java

```
package com.ecommerce.entity;
import java.util.List;
import jakarta.persistence.CascadeType;
import jakarta.persistence.Column;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;
import jakarta.persistence.OneToMany;
import jakarta.persistence.Table;
@Entity
@Table(name = "center")
public class Center {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "centerID")
    private int centerID;
    @Column(name = "centerName")
    private String centerName;
    @Column(name = "centerCity")
    private String centerCity;
    @OneToMany(mappedBy = "center", cascade = CascadeType.REMOVE)
    private List<Citizen> citizens;
    public int getCenterID() {
       return centerID;
    public void setCenterID(int centerID) {
        this.centerID = centerID;
    public String getCenterName() {
        return centerName;
    public void setCenterName(String centerName) {
        this.centerName = centerName;
    public String getCenterCity() {
        return centerCity;
    public void setCenterCity(String centerCity) {
        this.centerCity = centerCity;
    public List<Citizen> getCitizens() {
```

```
return citizens;
}

public void setCitizens(List<Citizen> citizens) {
    this.citizens = citizens;
}
```

com.ecommerce.entity.Citizen.java

```
package com.ecommerce.entity;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;
import jakarta.persistence.JoinColumn;
import jakarta.persistence.ManyToOne;
import jakarta.persistence.Table;
import jakarta.persistence.Transient;
@Entity
@Table(name = "citizen")
public class Citizen {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int citizenID;
    private String citizenName;
    private String citizenCity;
    private String citizenDose;
    private String citizenVaccinationStatus;
    @Transient
    private String centerName;
    @ManyToOne
    @JoinColumn(name = "center_id", referencedColumnName = "centerID")
    private Center center;
    public Citizen() {
    public int getCitizenID() {
        return citizenID;
    public void setCitizenID(int citizenID) {
        this.citizenID = citizenID;
    public String getCitizenName() {
```

```
return citizenName;
    }
    public void setCitizenName(String citizenName) {
       this.citizenName = citizenName;
    public String getCitizenCity() {
      return citizenCity;
   public void setCitizenCity(String citizenCity) {
      this.citizenCity = citizenCity;
   public String getCitizenDose() {
      return citizenDose;
   public void setCitizenDose(String citizenDose) {
      this.citizenDose = citizenDose;
   public String getCitizenVaccinationStatus() {
       return citizenVaccinationStatus;
   public void setCitizenVaccinationStatus(String
citizenVaccinationStatus) {
       this.citizenVaccinationStatus = citizenVaccinationStatus;
   public Center getCenter() {
       return center;
   public void setCenter(Center center) {
       this.center = center;
   public String getCenterName() {
        if (center != null) {
           return center.getCenterName();
       return null;
    }
    public void setCenterName(String centerName) {
       this.centerName = centerName;
    }
}
```

com.ecommerce.entity.User.java

```
package com.ecommerce.entity;
import jakarta.persistence.Column;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;
import jakarta.persistence.Table;
@Entity
@Table(name = "user")
public class User {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "userId")
    private int ID;
    @Column(name = "userName")
    private String userName;
    @Column(name = "userEmail")
    private String userEmail;
    @Column(name = "userPassword")
    private String userPassword;
    public User() {
    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 getUserEmail() {
        return userEmail;
    public void setUserEmail(String userEmail) {
        this.userEmail = userEmail;
    public String getUserPassword() {
        return userPassword;
```

```
public void setUserPassword(String userPassword) {
     this.userPassword = userPassword;
}
```

com.ecommerce.repositories.CenterRepository.java

```
package com.ecommerce.repositories;
import com.ecommerce.entity.Center;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import org.springframework.stereotype.Repository;
import java.util.List;

@Repository
public interface CenterRepository extends JpaRepository<Center, Integer> {
    @Query("SELECT c.centerName FROM Center c")

    List<String> findAllCenterNames();

    List<Center> findAll();
    List<Center> findAllByCenterName(String centerName);
}
```

com.ecommerce.repositories.CitizenRepository.java

```
package com.ecommerce.repositories;
import com.ecommerce.entity.Citizen;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import org.springframework.data.repository.query.Param;
import org.springframework.stereotype.Repository;

import java.util.List;

@Repository
public interface CitizenRepository extends JpaRepository<Citizen, Integer>
{
    List<Citizen> findByCenterCenterName(String centerName);
    @Query("SELECT c.center.centerName FROM Citizen c WHERE
c.center.centerID = :centerId")
    String findCenterNameByCenterId(@Param("centerId") int centerId);
}
```

com.ecommerce.repositories.UserRepository.java

```
package com.ecommerce.repositories;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;
import com.ecommerce.entity.User;
@Repository
public interface UserRepository extends JpaRepository<User, Integer> {
    User findByUserEmail(String userEmail);
}
```

application.properties

```
#JSP files configuation
spring.mvc.view.prefix=/WEB-INF/views/
spring.mvc.view.suffix=.jsp

#Database
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
spring.datasource.url=jdbc:mysql://localhost:3306/springboot2
spring.datasource.username=root
spring.datasource.password=root123
#spring.jpa.show-sql=true
spring.jpa.hibernate.ddl-auto=update
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect
spring.profiles.active=development
```

add-center.jsp

```
margin: 0 auto;
        }
    </style>
</head>
<body>
    <div class="container small-container">
        <div class="card-panel">
            <h5>ADD VACCINATION CENTER</h5>
            <form action="add-center" method="post"</pre>
modelAttribute="center">
                <div class="input-field">
                    <input id="centerName" type="text" name="centerName"</pre>
class="validate" required>
                    <label for="centerName">Center Name</label>
                </div>
                <div class="input-field">
                    <select id="centerCity" name="centerCity" required>
                        <option value="" disabled selected>Select Center
City</option>
                       <option value="Mumbai">Mumbai
                       <option value="Bangalore">Bangalore</option>
                       <option value="Chennai">Chennai
                       <option value="Kolkata">Kolkata
                       <option value="Hyderabad">Hyderabad</option>
                        <option value="Jaipur">Jaipur</option>
                        <option value="Pune">Pune</option>
                        <option value="Kochi">Kochi</option>
                        <option value="Mysore">Mysore
                        <option value="Thane">Thane
                        <option value="Ranchi">Ranchi</option>
                    </select>
                    <label for="centerCity">Center City</label>
                </div>
                <button class="btn waves-effect waves-light"</pre>
type="submit" > ADD VACCINATION CENTER </button>
           </form>
        </div>
    </div>
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
    <script>
        // Initialize Materialize dropdown
        document.addEventListener('DOMContentLoaded', function() {
           var elems = document.guerySelectorAll('select');
           var instances = M.FormSelect.init(elems);
        });
    </script>
</body>
</html>
```

add-citizen.jsp

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

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Citizen Registration</title>
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <style>
        .small-container {
           max-width: 400px;
           margin: 0 auto;
        }
    </style>
</head>
<body>
    <div class="container small-container">
        <div class="card-panel">
           <h5>ADD CITIZEN</h5>
            <form action="add-citizen" method="post"</pre>
modelAttribute="citizen">
                <!-- Citizen name field -->
                <div class="input-field">
                    <label for="citizenName">Citizen Name
                    <input id="citizenName" type="text" name="citizenName"</pre>
class="validate" required>
                </div>
                <!-- Citizen city field -->
                <div class="input-field">
                    <select id="citizenCity" name="citizenCity" required>
                        <option value="" disabled selected>Select Citizen
City</option>
                       <option value="Mumbai">Mumbai
                       <option value="Bangalore">Bangalore</option>
                        <option value="Chennai">Chennai
                       <option value="Kolkata">Kolkata
                       <option value="Hyderabad">Hyderabad</option>
                       <option value="Jaipur">Jaipur</option>
                       <option value="Pune">Pune</option>
                       <option value="Kochi">Kochi</option>
                       <option value="Mysore">Mysore
                        <option value="Thane">Thane
                        <option value="Ranchi">Ranchi
                    </select>
                </div>
                <!-- Center name field -->
                <div class="input-field">
                    <label for="centerName">Center Name</label>
                    <select id="center" name="center" required>
                        <option value="">Select a center</option>
                        <!-- Iterate over the center list and populate the
dropdown options -->
                        <c:forEach items="${centers}" var="center">
                            <option</pre>
value="${center.centerID}">${center.centerName}</option>
                        </c:forEach>
                    </select>
```

```
</div>
                <!-- Submit button -->
                <button class="btn waves-effect waves-light"</pre>
type="submit">ADD CITIZEN</button>
            </form>
        </div>
    </div>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
    <script>
        // Initialize Materialize dropdown
        document.addEventListener('DOMContentLoaded', function() {
            var elems = document.guerySelectorAll('select');
            var instances = M.FormSelect.init(elems);
        });
    </script>
</body>
</html>
```

dashboard.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
pageEncoding="ISO-8859-1" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<!DOCTYPE html>
<html>
<head>
   <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
   <title>Admin Dashboard</title>
   <link href="https://fonts.googleapis.com/icon?family=Material+Icons"</pre>
rel="stylesheet">
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <style>
       /* Add your custom styles here */
   </style>
</head>
<body>
    <div class="row" style="margin-bottom: 0;">
       <div class="col s12">
           <div class="row" style="margin-bottom: 0;">
               <div class="col s12 center" style="margin-top: .1rem;">
                   <a href="#citizen-add"</pre>
class="indigo-text text-darken-4">LIST CITIZENS</a>
                       <a href="#center-add"</pre>
class="indigo-text text-darken-4">VACCINATION CENTERS</a>
                       <a href="#" id="logout-link"</pre>
class="indigo-text text-darken-4">LOGOUT</a>
```

```
weight: bold;">WELCOME ${user.userName}
                   </div>
           </div>
       </div>
   </div>
   <div id="citizen-add" class="col s8 tab-content">
       <div>
           WELCOME TO DASHBOARD
       </div>
   </div>
   <div id="center-add" class="col s8 tab-content">
       <div>
       </div>
   </div>
   <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
   <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
   <script>
       $ (document).ready(function () {
           $(".tabs").tabs();
           $("a[href='#citizen-add']").click(function () {
               $.ajax({
                   url: "/citizens",
                   method: "GET",
                   success: function (citizenList) {
                       // Clear the existing content
                       $("#citizen-add").empty();
                      // Create the button element
                      var addButton = $("<button>")
                          .text("ADD NEW CITIZEN")
                           .click(function () {
                              window.location.href = '/add-citizen';
                       // Create the div element and append the button
                      var buttonDiv = $("<div>")
                          .css({ "text-align": "right", "margin-right":
"40px" })
                           .append(addButton);
                       // Append the button div to the container
                       $("#citizen-add").append(buttonDiv);
                       // Create the table element
                      var table = $("");
                      // Create the table header
                      var tableHeader = $("<thead>").append(
                           $("").append(
                              $(">").text(""),
                              $("").text("CITIZEN ID"),
                              $("").text("CITIZEN NAME"),
                              $("").text("CITIZEN CITY"),
```

```
$("").text("CITIZEN DOSE"),
                               $("").text("VACCINATION STATUS"),
                               $("").text("CENTER NAME"),
                               $(">").text(""),
                               $("").text("ACTION")
                               // Add more columns as needed
                           )
                       );
                       // Create the table body
                       var tableBody = $("");
                       // Loop through the data and create table rows
                       citizenList.forEach(function (citizen) {
                           var row = $("").append(
                               $("").text(""),
                               $("").text(citizen.citizenID),
                               $("").text(citizen.citizenName),
                               $("").text(citizen.citizenCity),
                               $("").text(citizen.citizenDose),
$("").text(citizen.citizenVaccinationStatus),
                               $("").text(citizen.centerName),
                               $("").append(
                                   $("<a>").attr("href", "view-
citizen?citizenID=" + citizen.citizenID).text("VIEW")
                               $("").append(
                                   $("<a>").attr("href", "edit-
citizen?citizenID=" + citizen.citizenID).text("EDIT")
                               $("").append(
                                   $("<a>").attr("href", "delete-
citizen?citizenID=" + citizen.citizenID).text("DELETE")
                               // Add more columns as needed
                           tableBody.append(row);
                       });
                       // Append the table header and body to the table
                       table.append(tableHeader).append(tableBody);
                       // Append the table to the #center-add div
                       $("#citizen-add").append(table);
                       // Display the count of rows
                       var rowCount = citizenList.length;
                       var countRow = $("")
                           .append(
                               $("")
                                   .attr("colspan", "6")
                                   .css({ "text-align": "center", "font-
weight": "bold" })
                                   .text("Total " + rowCount + "
Vaccination Centers Found")
                           );
                       tableBody.append(countRow);
                   error: function (xhr, status, error) {
                       console.log("Error:", error);
                   }
```

```
});
           });
       });
   </script>
   <script>
       $ (document).ready(function () {
           $(".tabs").tabs();
           $("a[href='#center-add']").click(function () {
               $.ajax({
                   url: "/centers",
                   method: "GET",
                   success: function (centerList) {
                       // Clear the existing content
                       $("#center-add").empty();
                       // Create the button element
                       var addButton = $("<button>")
                           .text("ADD NEW CENTER")
                           .click(function () {
                               window.location.href = '/add-center';
                           });
                       // Create the div element and append the button
                       var buttonDiv = $("<div>")
                           .css({ "text-align": "right", "margin-right":
"40px" })
                           .append(addButton);
                       // Append the button div to the container
                       $("#center-add").append(buttonDiv);
                       // Create the table element
                       var table = $("");
                       // Create the table header
                       var tableHeader = $("<thead>").append(
                           $("").append(
                               $(">").text(""),
                               $("").text("CENTER ID"),
                               $("").text("CENTER NAME"),
                               $("").text("CENTER CITY"),
                               $(">").text(""),
                               $("").text("ACTION")
                               // Add more columns as needed
                           )
                       );
                       // Create the table body
                       var tableBody = $("");
                       // Loop through the data and create table rows
                       centerList.forEach(function (center) {
                           var row = $("").append(
                               $("").text(""),
                               $("").text(center.centerID),
                               $("").text(center.centerName),
                               $("").text(center.centerCity),
                               $("").append(
                                   $("<a>").attr("href", "view-
center?centerID=" + center.centerID).text("VIEW")
```

```
$("").append(
                                    $("<a>").attr("href", "edit-
center?centerID=" + center.centerID).text("EDIT")
                                $("").append(
                                    $("<a>").attr("href", "delete-
center?centerID=" + center.centerID).text("DELETE")
                                // Add more columns as needed
                            tableBody.append(row);
                        });
                        // Append the table header and body to the table
                        table.append(tableHeader).append(tableBody);
                        // Append the table to the #center-add div
                        $("#center-add").append(table);
                        // Display the count of rows
                        var rowCount = centerList.length;
                        var countRow = $("")
                            .append(
                                $("")
                                    .attr("colspan", "6")
                                    .css({ "text-align": "center", "font-
weight": "bold" })
                                    .text("Total " + rowCount + "
Vaccination Centers Found")
                            );
                        tableBody.append(countRow);
                    },
                    error: function (xhr, status, error) {
                        console.log("Error:", error);
                    }
                });
            });
        });
    </script>
        document.getElementById("logout-link").addEventListener("click",
function (event) {
            event.preventDefault(); // Prevent the default behavior of the
link
            // Display the confirmation dialog
            if (confirm("Are you sure you want to logout?")) {
                // If the user confirms, redirect to the logout endpoint
                window.location.href = "/logout";
        });
    </script>
    <script>
        var alertMessage = "${alertMessage}";
        if (alertMessage) {
            alert(alertMessage);
    </script>
```

```
</body>
```

edit-center.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
< ht.ml>
<head>
    <meta charset="UTF-8">
    <title>Center Registration</title>
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <style>
        .small-container {
            max-width: 400px;
            margin: 0 auto;
        }
    </style>
</head>
<body>
    <div class="container small-container">
        <div class="card-panel">
            <h5>EDIT VACCINATION CENTER</h5>
            <form action="edit-center-save" method="post"</pre>
modelAttribute="center">
                <div class="input-field">
                    <input id="centerID" type="text" name="centerID"</pre>
class="validate" value="${center.centerID}" readonly="">
                    <label for="centerID">Center ID</label>
                </div>
                <div class="input-field">
                    <input id="centerName" type="text" name="centerName"</pre>
class="validate" value="${center.centerName}" required>
                    <label for="centerName">Center Name</label>
                <div class="input-field">
                    <select id="centerCity" name="centerCity" required>
                        <option value="" disabled selected>Select Center
City</option>
                        <option value="Mumbai">Mumbai
                        <option value="Bangalore">Bangalore</option>
                        <option value="Chennai">Chennai
                        <option value="Kolkata">Kolkata
                        <option value="Hyderabad">Hyderabad</option>
                        <option value="Jaipur">Jaipur</option>
                        <option value="Pune">Pune</option>
                        <option value="Kochi">Kochi</option>
                        <option value="Mysore">Mysore</option>
                        <option value="Thane">Thane</option>
                        <option value="Ranchi">Ranchi</option>
                    </select>
```

```
<label for="centerCity">Center City</label>
                </div>
                <button class="btn waves-effect waves-light"</pre>
type="submit">EDIT</button>
            </form>
        </div>
    </div>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
    <script>
        // Initialize Materialize dropdown
        document.addEventListener('DOMContentLoaded', function() {
            var elems = document.querySelectorAll('select');
            var instances = M.FormSelect.init(elems);
        });
    </script>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
    <script>
       // Get the value of the centerCity from the model
        var centerCityValue = "${center.centerCity}";
        // Set the selected option based on the centerCity value
        $("#centerCity").val(centerCityValue);
    </script>
</body>
</html>
```

edit-citizen.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
pageEncoding="ISO-8859-1"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<!DOCTYPE html>
< ht.ml>
<head>
    <meta charset="UTF-8">
    <title>Center Registration</title>
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <style>
        .small-container {
            max-width: 400px;
            margin: 0 auto;
        }
    </style>
</head>
<body>
    <div class="container small-container">
        <div class="card-panel">
            <h5>EDIT CITIZEN</h5>
            <form action="edit-citizen-save" method="post"</pre>
modelAttribute="citizen1">
```

```
<div class="input-field">
                    <input id="citizenID" type="text" name="citizenID"</pre>
class="validate" value="${citizen.citizenID}" readonly="">
                    <label for="citizenID">Citizen ID</label>
                </div>
                <div class="input-field">
                    <input id="citizenName" type="text" name="citizenName"</pre>
class="validate" value="${citizen.citizenName}">
                    <label for="citizenName">Citizen Name
                </div>
                <div class="input-field">
                    <select id="citizenCity" name="citizenCity" required>
                        <option value="" disabled selected>Select Center
City</option>
                       <option value="Mumbai">Mumbai
                       <option value="Bangalore">Bangalore
                       <option value="Chennai">Chennai
                       <option value="Kolkata">Kolkata
                       <option value="Hyderabad">Hyderabad</option>
                       <option value="Jaipur">Jaipur</option>
                       <option value="Pune">Pune</option>
                       <option value="Kochi">Kochi</option>
                        <option value="Mysore">Mysore</option>
                        <option value="Thane">Thane</option>
                        <option value="Ranchi">Ranchi</option>
                    </select>
                    <label for="citizenCity">Center City</label>
                </div>
                <div class="input-field">
                    <select id="citizenDose" name="citizenDose" required>
                        <option value="" disabled selected>Select
Dose
                       <option value="0">None</option>
                        <option value="1">1</option>
                        <option value="2">2</option>
                    </select>
                    <label for="citizenDose">Center Dose</label>
                </div>
                <label for="centerName">Center Name</label>
                <select id="center" name="center" required>
                    <option value="" disabled selected>Select a
center</option>
                   <!-- Iterate over the center list and populate the
dropdown options -->
                    <c:forEach items="${centers}" var="center">
                        <option</pre>
value="${center.centerID}">${center.centerName}/option>
                    </c:forEach>
                </select>
                <button class="btn waves-effect waves-light"</pre>
type="submit">EDIT</button>
            </form>
        </div>
    </div>
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
    <script>
        // Initialize Materialize dropdown
        document.addEventListener('DOMContentLoaded', function() {
```

```
var elems = document.querySelectorAll('select');
            var instances = M.FormSelect.init(elems);
        });
    </script>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
    <script>
        // Get the value of the citizenCity from the model
        var citizenCityValue = "${citizen.citizenCity}";
        // Set the selected option based on the citizenCity value
        $("#citizenCity").val(citizenCityValue);
        // Get the value of the citizenDose from the model
        var citizenDoseValue = "${citizen.citizenDose}";
        // Set the selected option based on the citizenDose value
        $("#citizenDose").val(citizenDoseValue);
        // Get the value of the center from the model
        var centerValue = "${citizen.center.centerID}";
        // Set the selected option based on the center value
        $("#center").val(centerValue);
    </script>
</body>
</html>
```

login.jsp

```
<!DOCTYPE html>
<html>
<head>
    <title>Login</title>
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <script>
        function showAlert(message) {
            alert (message);
        }
    </script>
    <script>
        var alertMessage = "${alertMessage}";
        if (alertMessage) {
            alert(alertMessage);
        }
    </script>
    <style>
        .small-container {
            max-width: 400px;
            margin: 0 auto;
        h4 {
            text-align: center;
```

```
text-shadow: 2px 2px 4px rgba(0, 0, 0, 0.5);
            color: #333;
            margin-top: 1em;
        }
    </style>
</head>
<body>
    <h4 align="center">VACCINATION CENTER</h4>
    <div class="container small-container" style="margin-top: 3em;">
        <div class="card-panel">
            <h5>USER LOGIN</h5>
            <form id="loginForm">
                <div class="input-field">
                    <input id="userEmail" type="text" name="userEmail"</pre>
class="validate" required>
                    <label for="userEmail">User Email</label>
                </div>
                <div class="input-field">
                    <input id="userPassword" type="password"</pre>
name="userPassword" class="validate" required>
                    <label for="userPassword">User Password</label>
                </div>
                <button class="btn waves-effect waves-light"</pre>
type="submit">LOGIN</button>
                <button class="btn waves-effect waves-light red"</pre>
onclick="window.location.href = '/register';" type="submit" style="margin-
left: 2em;">REGISTER</button>
            </form>
        </div>
    </div>
    <div id="message"></div>
    <script>
        document.getElementById("loginForm").addEventListener("submit",
function(event) {
            event.preventDefault(); // Prevent form submission
            // Get form data
            var userEmail = document.getElementById("userEmail").value;
            var userPassword =
document.getElementById("userPassword").value;
            // Create an object with the form data
            var user = {
                userEmail: userEmail,
                userPassword: userPassword
            };
            // Send the request as JSON
            fetch('/login', {
                method: 'POST',
                headers: {
                     'Content-Type': 'application/json'
                body: JSON.stringify(user)
            .then(function(response) {
                if (response.ok) {
                    return response.text();
                } else if (response.status === 400) {
                    return response.text().then(function(errorMessage) {
                        throw new Error(errorMessage);
                    });
                } else {
                    throw new Error(response.status);
```

```
}
            })
            .then(function(data) {
                if (data === "User logged in successfully") {
                    // Redirect to the desired page after successful login
                    window.location.href = "/dashboard";
                }
            })
            .catch(function(error) {
                showAlert(error.message); // Display the error message as
an alert
                console.log(error); // Handle any errors here
            });
        });
    </script>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
    <script>
        // Initialize Materialize dropdown
        document.addEventListener('DOMContentLoaded', function() {
            var elems = document.querySelectorAll('select');
            var instances = M.FormSelect.init(elems);
        });
    </script>
</body>
</html>
```

register.jsp

```
<!DOCTYPE html>
<html>
<head>
    <title>Login</title>
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <script>
        function showAlert(message) {
            alert(message);
        }
    </script>
    <style>
        .small-container {
            max-width: 400px;
            margin: 0 auto;
        }
    </style>
</head>
<body>
    <div class="container small-container" style="margin-top: 5em;">
        <div class="card-panel">
            <h5>USER REGISTRATION</h5>
            <form action="register" method="post" modelAttribute="user">
                <div class="input-field">
```

```
<input id="userName" type="text" name="userName"</pre>
class="validate" required>
                     <label for="userName">User Name</label>
                </div>
                <div class="input-field">
                    <input id="userEmail" type="text" name="userEmail"</pre>
class="validate" required>
                    <label for="userEmail">User Email</label>
                </div>
                <div class="input-field">
                    <input id="userPassword" type="password"</pre>
name="userPassword" class="validate" required>
                    <label for="userPassword">User Password</label>
                </div>
                <button class="btn waves-effect waves-light"</pre>
type="submit">REGISTER</button>
            </form>
        </div>
    </div>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
    <script>
        // Initialize Materialize dropdown
        document.addEventListener('DOMContentLoaded', function() {
            var elems = document.querySelectorAll('select');
            var instances = M.FormSelect.init(elems);
        });
    </script>
</body>
</html>
```

view-center.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Center Registration</title>
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
    <style>
        .small-container {
            max-width: 400px;
            margin: 0 auto;
        }
    </style>
</head>
<body>
    <h6 align="center">CENTER INFORMATION</h6>
    <div class="container small-container">
```

```
<div class="card-panel">
          <h4 align="center" style="color:
green;">${center.centerName}</h4>
          \langle t.r \rangle
                 Center ID
                 ${center.centerID}
             Center City
                 ${center.centerCity}
             </div>
   </div>
   <br><br><
   <h6 align="center">CITIZENS IN ${center.centerName}</h6>
   <div class="container small-container">
      <div class="card-panel">
          <thead>
                 <t.r>
                    Citizen ID
                    Citizen Name
                    ACTION
                 </thead>
             <c:forEach var="citizen" items="${citizens}">
                    ${citizen.citizenID}
                        ${citizen.citizenName}
                        <a href="view-
</c:forEach>
             </div>
   </div>
   <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
   <script>
      // Initialize Materialize dropdown
      document.addEventListener('DOMContentLoaded', function() {
          var elems = document.guerySelectorAll('select');
          var instances = M.FormSelect.init(elems);
      });
   </script>
   <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
   <script>
      // Get the value of the centerCity from the model
      var centerCityValue = "${center.centerCity}";
      // Set the selected option based on the centerCity value
      $("#centerCity").val(centerCityValue);
   </script>
</body>
</html>
```

view-center-details.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
   <meta charset="UTF-8">
   <title>Center Registration</title>
   <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
   <style>
       .small-container {
          max-width: 400px;
           margin: 0 auto;
   </style>
</head>
<body>
   <h6 align="center">CENTER INFORMATION</h6>
   <div class="container small-container">
       <div class="card-panel">
           <c:forEach var="center" items="${centers}">
                   \langle t.r \rangle
                      Center ID
                      ${center.centerID}
                   Center Name
                       $ {center.centerName} 
                   Center City
                       ${center.centerCity}
                   </c:forEach>
           </div>
   </div>
   <br><br><br>></pr>
</body>
</html>
```

view-citizen.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
```

```
<!DOCTYPE html>
<h+m1>
<head>
   <meta charset="UTF-8">
   <title>Center Registration</title>
   <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/material
ize.min.css">
   <style>
       .small-container {
          max-width: 400px;
          margin: 0 auto;
       }
   </style>
</head>
<body>
   <h6 align="center">CITIZEN INFORMATION</h6>
   <div class="container small-container">
       <div class="card-panel">
          >
                  Citizen Name
                  ${citizen.citizenName}
              \langle t.r \rangle
                  Citizen ID
                  ${citizen.citizenID}
              \langle t.r \rangle
                  Citizen City
                  ${citizen.citizenCity}
              Number of vaccines
                  ${citizen.citizenDose}
              Vaccination Status
                  ${citizen.citizenVaccinationStatus}
              Alloted Vaccination Center
                  <a href="view-center-
details?centerName=${citizen.center.centerName} ">
                         ${citizen.center != null ?
citizen.center.centerName : 'N/A'}
                     </a>
                  </div>
   </div>
   <br><br><br>>
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materializ
e.min.js"></script>
   <script>
       // Initialize Materialize dropdown
       document.addEventListener('DOMContentLoaded', function() {
```

```
var elems = document.querySelectorAll('select');
    var instances = M.FormSelect.init(elems);
});
</script>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</body>
</html>
```

pom.xml

```
<?xml version="1.0" encoding="UTF-8"?>
project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
     xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
     <modelVersion>4.0.0</modelVersion>
     <parent>
           <groupId>org.springframework.boot
           <artifactId>spring-boot-starter-parent</artifactId>
           <version>3.1.0
           <relativePath/> <!-- lookup parent from repository -->
     </parent>
     <groupId>com.ecommerce
     <artifactId>spring-boot-mvc-demo</artifactId>
     <version>0.0.1-SNAPSHOT</version>
     <name>spring-boot-mvc-demo</name>
     <description>Demo project for Spring Boot</description>
     properties>
           <java.version>17</java.version>
     </properties>
     <dependencies>
           <!-- JSP support in Spring -->
           <dependency>
                 <groupId>org.apache.tomcat.embed
                 <artifactId>tomcat-embed-jasper</artifactId>
                 <scope>provided</scope>
           </dependency>
           <dependency>
                 <groupId>org.springframework.boot</groupId>
                 <artifactId>spring-boot-starter-web</artifactId>
           </dependency>
           <dependency>
                 <groupId>org.springframework.boot
                 <artifactId>spring-boot-starter-test</artifactId>
                 <scope>test</scope>
           </dependency>
           <dependency>
                 <groupId>org.springframework.boot</groupId>
                 <artifactId>spring-boot-starter-data-jpa</artifactId>
           </dependency>
            <dependency>
       <groupId>com.h2database
       <artifactId>h2</artifactId>
       <version>1.4.200Replace with the desired version --
```

```
</dependency>
   <dependency>
                 <groupId>jakarta.servlet.jsp.jstl</groupId>
                 <artifactId>jakarta.servlet.jsp.jstl-api</artifactId>
                 <version>3.0.0
           </dependency>
           <dependency>
                 <groupId>com.mysql</groupId>
                 <artifactId>mysql-connector-j</artifactId>
                 <scope>runtime</scope>
           </dependency>
     </dependencies>
     <build>
           <plugins>
                 <plugin>
                       <groupId>org.springframework.boot
                       <artifactId>spring-boot-maven-plugin</artifactId>
                 </plugin>
           </plugins>
     </build>
</project>
```