**Vaccination Center-Source Code**

**JAVA Code:**

**com.ecommerce:**

**VaccinationCentreApplication.java:**

package com.ecommerce;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class VaccinationCentreApplication {

public static void main(String[] args) {

SpringApplication.run(VaccinationCentreApplication.class, args);

}

}

**com.ecommerce.comtroller**

**CitizenController.java:**

package com.ecommerce.controller;

import java.util.List;

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

import org.springframework.ui.Model;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.ModelAttribute; import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.PostMapping;

import org.springframework.web.bind.annotation.RequestMapping; import org.springframework.web.bind.annotation.RequestParam;

import com.ecommerce.entity.Citizen;

import com.ecommerce.entity.VaccineCenter;

import com.ecommerce.service.CitizenService;

import com.ecommerce.service.VaccineCenterService;

@Controller

@RequestMapping("/citizens") public class CitizenController {

private final CitizenService citizenService; private final VaccineCenterService vaccineCenterService;

@Autowired

public CitizenController(CitizenService citizenService, VaccineCenterService vaccineCenterService) { this.citizenService = citizenService; this.vaccineCenterService = vaccineCenterService;

}

@GetMapping

public String getAllCitizens(Model model) {

List<Citizen> citizens = citizenService.getAllCitizens(); model.addAttribute("citizens", citizens); return "citizen-details";

}

@GetMapping("/{id}")

public String viewCitizen(@PathVariable("id") Long id, Model model) { Citizen citizen = citizenService.getCitizenById(id); if (citizen != null) {

model.addAttribute("citizen", citizen); return "view-citizen";

} else {

// Citizen not found, handle the error scenario return "redirect:/citizens";

}

}

@GetMapping("/add")

public String addCitizen(Model model) {

List<VaccineCenter> vaccineCenters = vaccineCenterService.getAllVaccineCenters();

model.addAttribute("vaccineCenters", vaccineCenters); model.addAttribute("citizen", new Citizen()); return "add-citizen";

}

@PostMapping("/add")

public String processAddCitizenForm(@ModelAttribute("citizen") Citizen citizen,

@RequestParam("vaccineCenterId") Long vaccineCenterId) {

VaccineCenter vaccineCenter =

vaccineCenterService.getVaccineCenterById(vaccineCenterId); citizen.setVaccinationCenter(vaccineCenter); citizenService.addCitizen(citizen); return "redirect:/citizens";

}

@GetMapping("/{id}/edit")

public String showEditCitizenForm(@PathVariable("id") Long id, Model model) {

Citizen citizen = citizenService.getCitizenById(id); if (citizen != null) {

List<VaccineCenter> vaccineCenters = vaccineCenterService.getAllVaccineCenters();

model.addAttribute("citizen", citizen); model.addAttribute("vaccineCenters", vaccineCenters); return "edit-citizen";

} else {

// Citizen not found, handle the error scenario return "redirect:/citizens";

}

}

@PostMapping("/{id}/edit")

public String updateCitizen(@PathVariable("id") Long id, @ModelAttribute("citizen") Citizen updatedCitizen,

@RequestParam("vaccineCenterId") Long vaccineCenterId) {

VaccineCenter vaccineCenter =

vaccineCenterService.getVaccineCenterById(vaccineCenterId); Citizen citizen = citizenService.getCitizenById(id); if (citizen != null && vaccineCenter != null) { citizen.setName(updatedCitizen.getName()); citizen.setCity(updatedCitizen.getCity()); citizen.setNoOfDoses(updatedCitizen.getNoOfDoses());

citizen.setVaccinationStatus(updatedCitizen.getVaccinationStatus()); citizen.setVaccinationCenter(vaccineCenter); // Update other fields as needed citizenService.updateCitizen(citizen);

}

return "redirect:/citizens";

}

@GetMapping("/{id}/delete")

public String deleteCitizen(@PathVariable("id") Long id) { citizenService.deleteCitizen(id); return "redirect:/citizens";

}

}

**UserController.java:**

package com.ecommerce.controller;

import org.springframework.http.ResponseEntity;

import org.springframework.stereotype.Controller;

import org.springframework.web.bind.annotation.GetMapping; import org.springframework.web.bind.annotation.PostMapping; import org.springframework.web.bind.annotation.RequestMapping; import org.springframework.web.bind.annotation.RequestParam;

import com.ecommerce.entity.User;

import com.ecommerce.repository.UserRepository; import com.ecommerce.service.UserService;

@Controller

@RequestMapping("/") public class UserController {

private final UserService userService; private final UserRepository userRepository; public UserController(UserService userService, UserRepository userRepository)

{

this.userService = userService; this.userRepository = userRepository;

}

@GetMapping

public String showRLoginPage() { return "redirect:/login.html";

}

@PostMapping("/login")

public String processLogin(@RequestParam("username") String username,

@RequestParam("password") String password) {

User user = userRepository.findByUsername(username); if (user != null && user.getPassword().equals(password)) {

return "redirect:/vaccine-centers";

} else {

return "redirect:/errorpage.html";

}

}

@GetMapping("/register") public String showRegisterPage() { return "redirect:/register.html";

}

@PostMapping("/register")

public ResponseEntity<String> registerUser(@RequestParam("username") String username,

@RequestParam("email") String email, @RequestParam("password") String password) {

User user = new User(username, email, password); userService.registerUser(user);

return ResponseEntity.ok("User registered successfully");

}

}

**VaccineCenterController.java:**

package com.ecommerce.controller;

import java.util.List;

import org.springframework.stereotype.Controller;

import org.springframework.ui.Model;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.ModelAttribute; import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.PostMapping;

import org.springframework.web.bind.annotation.RequestMapping;

import com.ecommerce.entity.Citizen;

import com.ecommerce.entity.VaccineCenter;

import com.ecommerce.service.CitizenService;

import com.ecommerce.service.VaccineCenterService;

@Controller

@RequestMapping("/vaccine-centers") public class VaccineCenterController {

private final VaccineCenterService vaccineCenterService; private final CitizenService citizenService;

public VaccineCenterController(VaccineCenterService vaccineCenterService, CitizenService citizenService) {

this.vaccineCenterService = vaccineCenterService; this.citizenService = citizenService;

}

@GetMapping

public String getAllVaccineCenters(Model model) {

List<VaccineCenter> vaccineCenters = vaccineCenterService.getAllVaccineCenters(); model.addAttribute("vaccineCenters", vaccineCenters); return "vaccine-center-details";

}

@GetMapping("/add")

public String showAddVaccineCenterForm(Model model) { model.addAttribute("vaccineCenter", new VaccineCenter()); return "add-vaccine-center";

}

@PostMapping("/add")

public String addVaccineCenter(@ModelAttribute("vaccineCenter") VaccineCenter vaccineCenter) {

vaccineCenterService.addVaccineCenter(vaccineCenter); return "redirect:/vaccine-centers";

}

@GetMapping("/{id}")

public String viewVaccineCenter(@PathVariable("id") Long id, Model model) {

VaccineCenter vaccineCenter = vaccineCenterService.getVaccineCenterById(id);

List<Citizen> citizens =

citizenService.getCitizensByVaccinationCenter(vaccineCenter); model.addAttribute("vaccineCenter", vaccineCenter); model.addAttribute("citizens", citizens); return "vaccine-center-view";

}

@GetMapping("/{id}/edit")

public String showEditVaccineCenterForm(@PathVariable("id") Long id, Model model) {

VaccineCenter vaccineCenter = vaccineCenterService.getVaccineCenterById(id); if (vaccineCenter != null) {

model.addAttribute("vaccineCenter", vaccineCenter); return "edit-vaccine-center";

} else {

return "redirect:/vaccine-centers";

}

}

@PostMapping("/{id}/edit")

public String updateVaccineCenter(@PathVariable("id") Long id,

@ModelAttribute("vaccineCenter") VaccineCenter updatedVaccineCenter) { VaccineCenter vaccineCenter = vaccineCenterService.getVaccineCenterById(id); if (vaccineCenter != null) {

vaccineCenter.setCenter(updatedVaccineCenter.getCenter()); vaccineCenter.setCity(updatedVaccineCenter.getCity()); vaccineCenterService.updateVaccineCenter(vaccineCenter);

}

return "redirect:/vaccine-centers";

}

@GetMapping("/{id}/delete")

public String deleteVaccineCenter(@PathVariable("id") Long id) { vaccineCenterService.deleteVaccineCenter(id); return "redirect:/vaccine-centers";

}

}

**com.ecommerce.entity**

**Citizen.java:**

package com.ecommerce.entity;

import jakarta.persistence.Column;

import jakarta.persistence.Entity;

import jakarta.persistence.FetchType; import jakarta.persistence.GeneratedValue; import jakarta.persistence.GenerationType; import jakarta.persistence.Id;

import jakarta.persistence.JoinColumn; import jakarta.persistence.ManyToOne; import jakarta.persistence.Table;

@Entity

@Table(name = "citizens") public class Citizen {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY) private Long id;

@Column(name = "name") private String name; @Column(name = "city") private String city;

@Column(name = "no\_of\_doses") private int noOfDoses;

@Column(name = "vaccination\_status") private String vaccinationStatus;

@ManyToOne(fetch = FetchType.LAZY) @JoinColumn(name = "vaccination\_center") private VaccineCenter vaccinationCenter;

// Constructors, getters, setters, and other properties

public Long getId() { return id;

}

public void setId(Long id) { this.id = id;

}

public String getName() { return name;

}

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

}

public String getCity() { return city;

}

public void setCity(String city) { this.city = city;

}

public int getNoOfDoses() { return noOfDoses;

}

public void setNoOfDoses(int noOfDoses) { this.noOfDoses = noOfDoses;

}

public String getVaccinationStatus() { return vaccinationStatus;

}

public void setVaccinationStatus(String vaccinationStatus) { this.vaccinationStatus = vaccinationStatus;

}

public VaccineCenter getVaccinationCenter() { return vaccinationCenter;

}

public void setVaccinationCenter(VaccineCenter vaccinationCenter) { this.vaccinationCenter = vaccinationCenter;

}

}

**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 = "users") public class User {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY) private Long id;

@Column(nullable = false, unique = true) private String username;

@Column(nullable = false, unique = true) private String email;

@Column(nullable = false) private String password;

public User() {

}

public User(String username, String email, String password) { this.username = username; this.password = password; this.email = email;

}

public Long getId() { return id;

}

public void setId(Long id) { this.id = id;

}

public String getUsername() { return username;

}

public void setUsername(String username) { this.username = username;

}

public String getEmail() { return email;

}

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

}

public String getPassword() { return password;

}

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

}

}

**VaccineCenter.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 = "vaccine\_centers") public class VaccineCenter {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY) private Long id;

@Column(name = "center") private String center;

@Column(name = "city") private String city;

public VaccineCenter() {

// Default constructor required by JPA

}

public VaccineCenter(String center, String city) { this.center = center; this.city = city;

}

public Long getId() { return id;

}

public void setId(Long id) { this.id = id;

}

public String getCenter() { return center;

}

**com.ecommerce.repository:**

**CitizenRepository.java:**

package com.ecommerce.repository;

import java.util.List;

import org.springframework.data.jpa.repository.JpaRepository;

import com.ecommerce.entity.Citizen;

import com.ecommerce.entity.VaccineCenter;

public interface CitizenRepository extends JpaRepository<Citizen, Long> {

List<Citizen> findByVaccinationCenter(VaccineCenter vaccinationCenter);

}

**UserRepository.java:**

package com.ecommerce.repository;

import org.springframework.data.jpa.repository.JpaRepository;

import com.ecommerce.entity.User;

public interface UserRepository extends JpaRepository<User, Long> {

User findByUsername(String username);

}

**VaccineCenterRepository.java:**

package com.ecommerce.repository;

import org.springframework.data.jpa.repository.JpaRepository;

import com.ecommerce.entity.VaccineCenter;

public interface VaccineCenterRepository extends JpaRepository<VaccineCenter, Long> {

// Add custom query methods if needed

}

**com.ecommerce.service**

**CitizenService.java:**

package com.ecommerce.service;

import java.util.List;

import com.ecommerce.entity.Citizen;

import com.ecommerce.entity.VaccineCenter;

public interface CitizenService { void addCitizen(Citizen citizen);

void updateCitizen(Citizen citizen);

void deleteCitizen(Long id);

Citizen getCitizenById(Long id);

List<Citizen> getAllCitizens();

List<Citizen> getCitizensByVaccinationCenter(VaccineCenter vaccineCenter);

}

**CitizenServiceImpl.java:**

package com.ecommerce.service;

import java.util.List;

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

import org.springframework.stereotype.Service;

import com.ecommerce.entity.Citizen;

import com.ecommerce.entity.VaccineCenter;

import com.ecommerce.repository.CitizenRepository;

@Service

public class CitizenServiceImpl implements CitizenService {

@Autowired

private CitizenRepository citizenRepository;

@Override

public void addCitizen(Citizen citizen) { citizenRepository.save(citizen);

}

@Override

public void updateCitizen(Citizen citizen) { citizenRepository.save(citizen);

}

@Override

public void deleteCitizen(Long id) { citizenRepository.deleteById(id);

}

@Override

public Citizen getCitizenById(Long id) {

return citizenRepository.findById(id).orElseThrow(() -> new NotFoundException("Citizen not found"));

}

@Override

public List<Citizen> getAllCitizens() { return citizenRepository.findAll();

}

@Override

public List<Citizen> getCitizensByVaccinationCenter(VaccineCenter vaccineCenter) {

return citizenRepository.findByVaccinationCenter(vaccineCenter);

}

public class NotFoundException extends RuntimeException {

public NotFoundException(String message) {

super(message);

}

}

}

**UserService.java:**

package com.ecommerce.service;

import org.springframework.stereotype.Service;

import com.ecommerce.entity.User;

import com.ecommerce.repository.UserRepository;

@Service

public class UserService {

private final UserRepository userRepository;

public UserService(UserRepository userRepository) { this.userRepository = userRepository;

}

public void registerUser(User user) { userRepository.save(user);

}

}

**VaccineCenterService.java:**

package com.ecommerce.service;

import java.util.List;

import com.ecommerce.entity.VaccineCenter;

public interface VaccineCenterService {

VaccineCenter addVaccineCenter(VaccineCenter vaccineCenter);

void updateVaccineCenter(VaccineCenter updatedVaccineCenter);

void deleteVaccineCenter(Long id);

VaccineCenter getVaccineCenterById(Long id);

List<VaccineCenter> getAllVaccineCenters();

}

**VaccineCenterServiceImpl.java:**

package com.ecommerce.service;

import java.util.List;

import org.springframework.stereotype.Service;

import com.ecommerce.entity.VaccineCenter;

import com.ecommerce.repository.VaccineCenterRepository;

@Service

public class VaccineCenterServiceImpl implements VaccineCenterService { private final VaccineCenterRepository vaccineCenterRepository;

public VaccineCenterServiceImpl(VaccineCenterRepository vaccineCenterRepository) {

this.vaccineCenterRepository = vaccineCenterRepository;

}

@Override

public VaccineCenter addVaccineCenter(VaccineCenter vaccineCenter) { return vaccineCenterRepository.save(vaccineCenter);

}

@Override

public void updateVaccineCenter(VaccineCenter updatedVaccineCenter) { VaccineCenter existingCenter =

vaccineCenterRepository.findById(updatedVaccineCenter.getId())

.orElseThrow(() -> new NotFoundException("Vaccine center not found"));

existingCenter.setCenter(updatedVaccineCenter.getCenter()); existingCenter.setCity(updatedVaccineCenter.getCity()); vaccineCenterRepository.save(existingCenter);

}

@Override

public void deleteVaccineCenter(Long id) {

VaccineCenter existingCenter = vaccineCenterRepository.findById(id)

.orElseThrow(() -> new NotFoundException("Vaccine center not found"));

vaccineCenterRepository.delete(existingCenter);

}

@Override

public VaccineCenter getVaccineCenterById(Long id) { return vaccineCenterRepository.findById(id)

.orElseThrow(() -> new NotFoundException("Vaccine center not found"));

}

@Override

public List<VaccineCenter> getAllVaccineCenters() { return vaccineCenterRepository.findAll();

}

public class NotFoundException extends RuntimeException { public NotFoundException(String message) { super(message);

} }

}

**HTML CODE:**

**error page**

<!DOCTYPE html>

<html>

<head>

<title>Error - Vaccination Project</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Error</h1>

<div class="alert alert-danger" role="alert">

Invalid username or password. Please try again or register.

</div>

<a href="/register" class="btn btn-primary">Register</a>

<a href="/" class="btn btn-secondary">Try Again</a>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script> <script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**login page**

<!DOCTYPE html>

<html>

<head>

<title>Login - Vaccination Project</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Login</h1>

<form action="/login" method="POST">

<div class="form-group">

<label for="username">Username:</label>

<input type="text" class="form-control" id="username" name="username" required>

</div>

<div class="form-group">

<label for="password">Password:</label>

<input type="password" class="form-control" id="password" name="password" required>

</div>

<button type="submit" class="btn btn-primary">Login</button>

</form>

<p class="mt-3">Don't have an account? <a href="/register">Register here</a>.</p>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@1.16.1/dist/umd/popper. min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Register page:**

<!DOCTYPE html>

<html>

<head>

<title>Register - Vaccination Project</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Register</h1>

<form action="/register" method="POST">

<div class="form-group">

<label for="username">Username:</label>

<input type="text" class="form-control" id="username" name="username" required>

</div>

<div class="form-group">

<label for="email">Email:</label>

<input type="email" class="form-control" id="email" name="email" required> </div>

<div class="form-group">

<label for="password">Password:</label>

<input type="password" class="form-control" id="password" name="password" required>

</div>

<button type="submit" class="btn btn-primary">Register</button>

</form>

<p class="mt-3">Already have an account? <a href="/">Login here</a>.</p> </div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@1.16.1/dist/umd/popper. min.js"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Add Citizen Details:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Add Citizen</title> <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Add Citizen</h1>

<form action="/citizens/add" method="POST">

<div class="form-group">

<label for="name">Name:</label>

<input type="text" class="form-control" id="name" name="name" required> </div>

<div class="form-group">

<label for="city">City:</label>

<input type="text" class="form-control" id="city" name="city" required> </div>

<div class="form-group">

<label for="noOfDoses">No. of Doses:</label>

<select class="form-control" id="noOfDoses" name="noOfDoses" required>

<option value="0">0</option> <option value="1">1</option> <option value="2">2</option>

</select>

</div>

<div class="form-group">

<label for="vaccinationStatus">Vaccination Status:</label>

<input type="text" class="form-control" id="vaccinationStatus" name="vaccinationStatus" required readonly>

</div>

<script>

const noOfDosesSelect = document.getElementById('noOfDoses'); const vaccinationStatusInput = document.getElementById('vaccinationStatus');

noOfDosesSelect.addEventListener('change', function() { const selectedDoses = parseInt(noOfDosesSelect.value);

if (selectedDoses === 0) {

vaccinationStatusInput.value = 'Not Vaccinated';

} else if (selectedDoses === 1) {

vaccinationStatusInput.value = 'One Vaccinated';

} else if (selectedDoses === 2) {

vaccinationStatusInput.value = 'Fully Vaccinated';

}

});

</script>

<div class="form-group">

<label for="vaccineCenterId">Vaccine Center:</label>

<select class="form-control" id="vaccineCenterId" name="vaccineCenterId" required>

<!-- Populate the options with available Vaccine Centers -->

<option th:each="vaccineCenter : ${vaccineCenters}" th:value="${vaccineCenter.id}" th:text="${vaccineCenter.center}"></option>

</select>

</div>

<button type="submit" class="btn btn-primary">Add Citizen</button>

<a href="/citizens" class="btn btn-secondary">Back</a>

</form>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Add Vaccine Center**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Add Vaccination Center</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Add Vaccination Center</h1>

<form th:action="@{/vaccine-centers/add}" method="POST">

<div class="form-group">

<label for="center">Center:</label>

<input type="text" class="form-control" id="center" name="center" required> </div>

<div class="form-group">

<label for="city">City:</label>

<input type="text" class="form-control" id="city" name="city" required>

</div>

<button type="submit" class="btn btn-primary">Submit</button>

</form>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Citizen Details:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Citizen Details</title> <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Citizen Details</h1>

<a href="/citizens/add" class="btn btn-success">Add Citizen</a>

<a href="/vaccine-centers" class="btn btn-secondary">Back to

Home</a><br><br>

<table class="table">

<thead>

<tr>

<th>ID</th>

<th>Name</th>

<th>City</th>

<th>No. of Doses</th>

<th>Vaccination Status</th>

<th>Vaccination Center</th>

<th>Actions</th>

</tr>

</thead>

<tbody>

<tr th:each="citizen : ${citizens}">

<td th:text="${citizen.id}"></td>

<td th:text="${citizen.name}"></td>

<td th:text="${citizen.city}"></td>

<td th:text="${citizen.noOfDoses}"></td>

<td th:text="${citizen.vaccinationStatus}"></td>

<td th:text="${citizen.vaccinationCenter?.center}"></td>

<td>

<a th:href="@{/citizens/{id}(id=${citizen.id})}" class="btn btnprimary">View</a>

<a th:href="@{/citizens/{id}/edit(id=${citizen.id})}" class="btn btnsecondary">Edit</a>

<a th:href="@{/citizens/{id}/delete(id=${citizen.id})}" class="btn btndanger">Delete</a>

</td>

</tr>

</tbody>

</table>

<h6 style="text-align:left ;"><strong>Total </strong><strong th:text="${#lists.size(citizens)}

"></strong><strong> Citizens found</strong></h6>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script> <script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Edit Citizen:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Edit Citizen</title> <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Edit Citizen</h1>

<form th:action="@{/citizens/{id}/edit(id=${citizen.id})}" method="POST">

<div class="form-group">

<label for="name">Name:</label>

<input type="text" class="form-control" id="name" name="name" th:value="${citizen.name}" required>

</div>

<div class="form-group">

<label for="city">City:</label>

<input type="text" class="form-control" id="city" name="city" th:value="${citizen.city}" required>

</div>

<div class="form-group">

<label for="noOfDoses">No. of Doses:</label>

<select class="form-control" id="noOfDoses" name="noOfDoses" required>

<option value="0" th:selected="${citizen.noOfDoses == 0}">0</option> <option value="1" th:selected="${citizen.noOfDoses == 1}">1</option> <option value="2" th:selected="${citizen.noOfDoses == 2}">2</option>

</select>

</div>

<div class="form-group">

<label for="vaccinationStatus">Vaccination Status:</label>

<input type="text" class="form-control" id="vaccinationStatus" name="vaccinationStatus"

th:value="${citizen.vaccinationStatus}" required readonly>

</div>

<div class="form-group">

<label for="vaccineCenterId">Vaccine Center:</label>

<select class="form-control" id="vaccineCenterId" name="vaccineCenterId" required>

<!-- Populate the options with available Vaccine Centers -->

<option th:each="vaccineCenter : ${vaccineCenters}" th:value="${vaccineCenter.id}"

th:text="${vaccineCenter.center}" th:selected="${vaccineCenter.id == citizen.vaccinationCenter.id}"></option>

</select>

</div>

<button type="submit" class="btn btn-primary">Update Citizen</button>

<a href="/citizens" class="btn btn-secondary">Back</a>

</form>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script> <script>

const noOfDosesSelect = document.getElementById('noOfDoses'); const vaccinationStatusInput = document.getElementById('vaccinationStatus');

noOfDosesSelect.addEventListener('change', function() { const selectedDoses = parseInt(noOfDosesSelect.value);

if (selectedDoses === 0) {

vaccinationStatusInput.value = 'Not Vaccinated';

} else if (selectedDoses === 1) {

vaccinationStatusInput.value = 'One Vaccinated';

} else if (selectedDoses === 2) {

vaccinationStatusInput.value = 'Fully Vaccinated';

}

});

</script>

</body>

</html>

**Edit Vaccine Center:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Edit Vaccine Center</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Edit Vaccine Center</h1>

<form th:action="@{/vaccine-centers/{id}/edit(id=${vaccineCenter.id})}" method="POST">

<div class="form-group">

<label for="center">Center:</label>

<input type="text" class="form-control" id="center" th:field="${vaccineCenter.center}" required>

</div>

<div class="form-group">

<label for="city">City:</label>

<input type="text" class="form-control" id="city" th:field="${vaccineCenter.city}" required>

</div>

<!-- Add other fields as needed -->

<button type="submit" class="btn btn-primary">Update Vaccine Center</button>

</form>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Vaccine Center Details:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Vaccination Center Details</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

<style>

/\* Styles here \*/

</style>

</head>

<body>

<div class="container">

<h1 class="mt-4">Welcome to Vaccination Center</h1>

<ul>

<li><a href="/citizens" style="color: #007bff;">Go to Citizen Details</a></li>

<li><a href="/" style="color: #dc3545;">Logout</a></li>

</ul>

<hr>

<h2 class="mt-4">Vaccination Center Details</h2>

<a th:href="@{/vaccine-centers/add}" class="btn btn-primary mb-4">Add Vaccination Center</a>

<table class="table">

<thead>

<tr>

<th>ID</th>

<th>Center</th>

<th>City</th>

<th>Actions</th>

</tr>

</thead>

<tbody id="vaccineCenterTableBody">

<!-- Loop through the vaccination centers and display their details -->

<tr th:each="vaccineCenter : ${vaccineCenters}">

<td th:text="${vaccineCenter.id}"></td>

<td th:text="${vaccineCenter.center}"></td>

<td th:text="${vaccineCenter.city}"></td>

<td>

<a th:href="@{/vaccine-centers/{id}(id=${vaccineCenter.id})}" class="btn btn primary">View</a>

<a th:href="@{/vaccine-centers/{id}/edit(id=${vaccineCenter.id})}" class="btn btn

secondary">Edit</a>

<a th:href="@{/vaccine-centers/{id}/delete(id=${vaccineCenter.id})}" class="btn btn danger">Delete</a>

</td>

</tr>

</tbody>

</table>

<h6 style="text-align:left ;"><strong>Total </strong><strong

th:text="${#lists.size(vaccineCenters)} "></strong><strong> Vaccination Center found</strong></h6>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**View Vaccine Center:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>Vaccination Center Details</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Vaccination Center Details</h1>

<hr>

<h2 class="mt-4">Vaccination Center</h2>

<table class="table">

<thead>

<tr>

<th>ID</th>

<th>Center</th>

<th>City</th>

</tr>

</thead>

<tbody>

<tr>

<td th:text="${vaccineCenter.id}"></td>

<td th:text="${vaccineCenter.center}"></td>

<td th:text="${vaccineCenter.city}"></td>

</tr>

</tbody>

</table>

<h2 class="mt-4">Associated Citizens</h2>

<table class="table">

<thead>

<tr>

<th>ID</th>

<th>Name</th>

<th>City</th>

<th>No. of Doses</th>

<th>Vaccination Status</th>

</tr>

</thead>

<tbody>

<tr th:each="citizen : ${citizens}">

<td th:text="${citizen.id}"></td>

<td th:text="${citizen.name}"></td>

<td th:text="${citizen.city}"></td>

<td th:text="${citizen.noOfDoses}"></td>

<td th:text="${citizen.vaccinationStatus}"></td>

</tr>

</tbody>

</table>

<a href="/vaccine-centers" class="btn btn-secondary">Back to Vaccination Centers</a>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**View Citizen:**

<!DOCTYPE html>

<html xmlns:th="http://www.thymeleaf.org">

<head>

<title>View Citizen</title> <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min. css">

</head>

<body>

<div class="container">

<h1 class="mt-4">Citizen Details</h1>

<div class="card">

<div class="card-body">

<h5 class="card-title">Name: <span th:text="${citizen.name}"></span></h5>

<h6 class="card-subtitle mb-2 text-muted">City: <span th:text="${citizen.city}"></span></h6>

<p class="card-text">No. of Doses: <span th:text="${citizen.noOfDoses}"></span></p> <p class="card-text">Vaccination Status: <span th:text="${citizen.vaccinationStatus}"></span></p> <p class="card-text">Vaccine Center: <span

th:text="${citizen.vaccinationCenter.center}"></span></p>

</div>

</div>

<a href="/citizens" class="btn btn-primary mt-4">Back</a>

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script

src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js" ></script>

</body>

</html>

**Application Properties:**

spring.datasource.url=jdbc:mysql://localhost:3306/vaccination?useSSL=false

&serverTimezone=UTC spring.datasource.username=root spring.datasource.password=Ajitdk@26042000

spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect

spring.jpa.show-sql=true spring.jpa.hibernate.ddl-auto=update server.port=3008

**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</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>3.1.0</version>

<relativePath/> <!-- lookup parent from repository -->

</parent>

<groupId>com.example</groupId>

<artifactId>Vaccination\_Centre</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>Vaccination\_Centre</name>

<description>Demo project for Spring Boot</description>

<properties>

<java.version>17</java.version>

</properties>

<dependencies>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-data-jpa</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-thymeleaf</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-devtools</artifactId>

<scope>runtime</scope>

<optional>true</optional>

</dependency>

<dependency>

<groupId>com.mysql</groupId>

<artifactId>mysql-connector-j</artifactId>

<scope>runtime</scope>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-test</artifactId>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-maven-plugin</artifactId>

</plugin>

</plugins>

</build>

</project>