Pseudo-code:

VaccinationCentreApplication:

main(args):

SpringApplication.run(VaccinationCentreApplication.class, args)

CitizenController:

CitizenController(citizenService, vaccineCenterService):

this.citizenService = citizenService

this.vaccineCenterService = vaccineCenterService

getAllCitizens(model):

citizens = citizenService.getAllCitizens()

model.addAttribute("citizens", citizens)

return "citizen-details"

viewCitizen(id, model):

citizen = citizenService.getCitizenById(id)

if citizen is not null:

model.addAttribute("citizen", citizen)

return "view-citizen"

else:

return "redirect:/citizens"

addCitizen(model):

vaccineCenters = vaccineCenterService.getAllVaccineCenters()

model.addAttribute("vaccineCenters", vaccineCenters)

model.addAttribute("citizen", new Citizen())

return "add-citizen"

processAddCitizenForm(citizen, vaccineCenterId):

vaccineCenter = vaccineCenterService.getVaccineCenterById(vaccineCenterId)

citizen.setVaccinationCenter(vaccineCenter)

citizenService.addCitizen(citizen)

return "redirect:/citizens"

showEditCitizenForm(id, model):

citizen = citizenService.getCitizenById(id)

if citizen is not null:

vaccineCenters = vaccineCenterService.getAllVaccineCenters()

model.addAttribute("citizen", citizen)

model.addAttribute("vaccineCenters", vaccineCenters)

return "edit-citizen"

else:

return "redirect:/citizens"

updateCitizen(id, updatedCitizen, vaccineCenterId):

vaccineCenter = vaccineCenterService.getVaccineCenterById(vaccineCenterId)

citizen = citizenService.getCitizenById(id)

if citizen is not null and vaccineCenter is not null:

citizen.setName(updatedCitizen.getName())

citizen.setCity(updatedCitizen.getCity())

citizen.setNoOfDoses(updatedCitizen.getNoOfDoses())

citizen.setVaccinationStatus(updatedCitizen.getVaccinationStatus())

citizen.setVaccinationCenter(vaccineCenter)

citizenService.updateCitizen(citizen)

return "redirect:/citizens"

deleteCitizen(id):

citizenService.deleteCitizen(id)

return "redirect:/citizens"

UserController:

UserController(userService, userRepository):

this.userService = userService

this.userRepository = userRepository

showRLoginPage():

return "redirect:/login.html"

processLogin(username, password):

user = userRepository.findByUsername(username)

if user is not null and user.getPassword() equals password:

return "redirect:/vaccine-centers"

else:

return "redirect:/errorpage.html"

showRegisterPage():

return "redirect:/register.html"

registerUser(username, email, password):

user = new User(username, email, password)

userService.registerUser(user)

return ResponseEntity.ok("User registered successfully")

VaccineCenterController:

VaccineCenterController(vaccineCenterService, citizenService):

this.vaccineCenterService = vaccineCenterService

this.citizenService = citizenService

getAllVaccineCenters(model):

vaccineCenters = vaccineCenterService.getAllVaccineCenters()

model.addAttribute("vaccineCenters", vaccineCenters)

return "vaccine-center-details"

showAddVaccineCenterForm(model):

model.addAttribute("vaccineCenter", new VaccineCenter())

return "add-vaccine-center"

addVaccineCenter(vaccineCenter):

vaccineCenterService.addVaccineCenter(vaccineCenter)

return "redirect:/vaccine

For register.html:

- Display a registration form with fields for username, email, and password.

- Add validation to ensure all fields are filled out.

- Upon submission, send a POST request to the "/register" endpoint.

For login.html:

- Display a login form with fields for username and password.

- Add validation to ensure both fields are filled out.

- Upon submission, send a POST request to the "/login" endpoint.

For errorpage.html:

- Display an error message indicating invalid username or password.

- Provide options to either register or try again.

For add-citizen.html:

- Display a form to add a new citizen.

- Include fields for name, city, number of doses taken, vaccination status, and vaccine center.

- Update the vaccination status based on the selected number of doses.

- Include a dropdown menu to select the vaccine center.

For add-vaccine-centre.html:

- Display the details of a citizen, including their name, city, doses taken, vaccination status, and vaccine center.

- Provide options to go back or perform other actions.

For citizen-details.html:

- Display a list of citizen details.

- Include options to add a new citizen or go back to the home page.

- Display a table with columns for ID, name, city, doses taken, vaccination status, vaccination center, and actions (view, edit, delete).

- Show the total number of citizens found.

For edit-citizen.html:

- Display a form to edit the details of a citizen.

- Prepopulate the form fields with the citizen's current information.

- Update the vaccination status based on the selected number of doses.

- Include a dropdown menu to select the vaccine center.

- Upon submission, send a POST request to update the citizen's information.

For edit-vaccine-center.html:

- Display a form to edit the details of a vaccine center.

- Prepopulate the form fields with the center's current information.

- Upon submission, send a POST request to update the vaccine center's information.