

Vaccination Centre Application

* Starting the Project by creating the Spring Boot Project.

* After Create a Spring Boot Project with dependencies are Spring web, Spring JPA, MySQL, DevTools, Lombok.

* Create a package for Entities and create the following Entities.

* And the entities are AdminUser, citizen, Vaccination Centre, city.

* Between citizen and Vaccination Centre, maintain many-to-one relationship between citizen and Vaccination Centre as many citizens can be associated with a centre.

* The cities are added manually by the admin.

* Create a package for Repository Interfaces for all the four entities.

* The respective interfaces extend JPA repository.

* Create custom queries and annotate them using @Query.

* Create a package for service interfaces for all the four entities.

* Create a package for service Implementation classes for all the four entities.

* Annotate the classes with @Service and then use @Autowired to create an object of the respective repository interfaces.

- * Create a Package for Controller class for those entities. i.e., AdminUser, citizen and Vaccination Centre.
- * Controller for city is not created as the cities are added in SQL.
- * The Controller classes are annotated with `@Controller` tag.
- * The AdminUserController contains the request mapping which leads to home page. It has previous checks and methods to handle the login and register scenarios. i.e., while registering checks for duplicate email and username and while logging in, checks for incorrect password and non-existing usernames. When a user logs, a session object is created and username is added to it.
- * The citizen Controller class has `@RequestMapping("/citizens")` in the beginning followed by the actions like add, view, edit and delete in the methods with corresponding mappings.
- * While adding and editing citizen details, an extra immediate method is used. This is used so that first the required city is selected, then only the centres available in that city are displayed to the admin user.
- * The Vaccination Centre Controller class has `@RequestMapping("/vaccination-centre")` in the beginning followed by the actions like add, view, edit and delete in the methods with corresponding mappings.

- * As the citizen entity is dependent on the Vaccination Center entity, whenever a centre is prompted to be deleted, first its corresponding, citizen information is deleted then the centre information is deleted.
- * Model and View ~~subjects~~ are used to go to the required pages/ redirect to methods within the controller.
- * While registering and logging in, the fields username, email ID, Password are made mandatory so that null value don't get associated with them.
- * For each of the controller actions, a JSP is provided to display the result as well as perform operations of passing information to controller.
- * When AdminUser performs all the actions and finally prompts to logout, the session object is invalidated first in Logout.jsp and then it leads to homepage.
- * A Security JSP file is added and it's included in all the JSP's to ensure that once the session is invalidated, the user can't press the back button in the browser and go back to operations/ view page. It redirects the user to the Homepage.