Writeup for **Vaccination Center**

1. Set up your development environment:

- Install Java Development Kit (JDK) to compile and run Java code.

- Download and configure an Integrated Development Environment (IDE) like Eclipse.

- Install MySQL Database and set up a new database.

2. Create a new Spring Boot project:

- Use your IDE's Spring Initializer or Maven to create a new Spring Boot project.

- Add the required dependencies.

3. Define your data model:

- Create the necessary entity classes to represent the data in your application, such as VaccinationCenter, Citizen, and Vaccine.

- Use annotations like @Entity, @Table, @Id, @GeneratedValue, etc., to map the entities to database tables.

4. Implement the repositories:

- Create interfaces that extend the Spring Data JPA repository interface for each entity.

- Use method signatures to define CRUD operations and custom queries.

5. Implement the service layer:

- Create service classes that handle the business logic and orchestrates data access through repositories.

- Use @Service annotation for the service classes.

6. Implement the controllers:

- Create controller classes to handle HTTP requests and map them to appropriate service methods.

- Use @RestController and @RequestMapping annotations.

7. Set up the database configuration:

- Configure the connection to your MySQL database by providing the necessary properties in the application.properties

- Make sure to define the database URL, username, password, and other relevant settings.

8. Test the application:

- Write unit tests using tools like JUnit to verify the functionality of your code.

- Use tools like Postman to test the REST API endpoints.

9. Package and deploy the application:

- Build an executable JAR or WAR file using Maven or Gradle.