

Algorithmism-

1. Add citizens to the database:**

- Receive citizen details (name, age, city, vaccination center preference, etc.) through an API endpoint.
- Validate the input data to ensure it meets the required criteria.
- Create a new User entity object and set the provided details.
- If the vaccination center preference is specified, fetch the corresponding VaccineCenter entity from the database based on the provided ID and set it in the User entity.
- Save the User entity in the database using the UserRepository.

2. Retrieve all citizens:**

- Fetch all User entities from the database using the UserRepository.
- Return the list of users as the API response.

3. Retrieve a specific citizen:**

- Receive the citizen ID as a parameter through an API endpoint.
- Fetch the User entity from the database based on the provided ID using the UserRepository.
- If the entity is found, return it as the API response; otherwise, return an appropriate error message.

4. Retrieve all vaccination centers:**

- Fetch all VaccineCenter entities from the database using the VaccineCenterRepository.
- Return the list of vaccination centers as the API response.

5. Retrieve a specific vaccination center by ID:**

- Receive the vaccination center ID as a parameter through an API endpoint.
- Fetch the VaccineCenter entity from the database based on the provided ID using the VaccineCenterRepository.
- If the entity is found, return it as the API response; otherwise, return an appropriate error message.

6. Retrieve a specific vaccination center and all its citizens in that city:**

- Receive the city name as a parameter through an API endpoint.

- Fetch the VaccineCenter entity from the database based on the provided city name using the VaccineCenterRepository.
- If the entity is found, fetch all User entities associated with that vaccination center and city using the UserRepository.
- Return the list of users as the API response.