

Algorithm:

1. User Registration:

- Prompt the user to provide necessary details for registration (name, address, contact information, etc.).
- Validate the entered information and assign a unique user ID.

2. User Login:

- Ask the user to log in using their credentials (username and password).
- Validate the entered credentials against the stored user data.

3. Apply for a new Aadhar Card:

- Collect personal information such as name, date of birth, address, etc.
- Verify the details and generate a unique Aadhar number.
- Store the Aadhar details in the database for future reference.

4. Request Aadhar Details Update:

- Allow users to request updates to their Aadhar details (address change, name change, etc.).
- Collect the updated information and validate it.
- Update the user's Aadhar details in the database.

5. Apply for a Duplicate Aadhar Card:

- Provide an option for users to apply for a duplicate Aadhar card.
- Verify the user's identity and generate a new Aadhar card with a unique number.
- Store the new Aadhar card details in the database.

6. Admin Approval for Aadhar Application:

- Design an admin interface to view pending Aadhar applications.
- Allow the admin to review and approve/reject applications.
- If approved, issue a new Aadhar number and update the database.

7. Apply to Close Aadhaar Card (Due to Death):

- Implement a feature allowing users to apply for the closure of an Aadhaar card due to the account holder's death.
- Verify the request and update the status of the Aadhaar card in the database.

Frontend (Angular):

1. Create Angular Service:

- Develop an Angular service using the **HttpClient** module.
- Define methods in the service for each API endpoint, encapsulating HTTP requests.

2. Inject Service into Components:

- Inject the created service into Angular components that need to interact with the backend.
- Utilize the service methods to make HTTP requests to the backend.

3. Handle Responses and Errors:

- Implement logic in Angular components to handle responses from the backend.
- Handle errors gracefully, providing appropriate feedback to users.

Backend (Spring Boot):

1. Create Spring Boot Controller:

- Develop a Spring Boot controller class to handle incoming requests.
- Define RESTful endpoints in the controller for different functionalities.

2. Enable Cross-Origin Resource Sharing (CORS):

- Configure CORS settings in the Spring Boot application to allow requests from the Angular frontend.

3. Implement Business Logic:

- Implement the necessary business logic within the Spring Boot controller methods.
- Process incoming requests, perform operations, and return appropriate responses.

4. Run the Spring Boot Application:

- Start the Spring Boot application, making the defined endpoints accessible to the Angular frontend.

Notes:

- **Communication Protocol:**
 - Ensure that the communication between the Angular frontend and Spring Boot backend follows a consistent protocol (e.g., RESTful API using JSON).
- **Error Handling:**
 - Implement error handling mechanisms on both the frontend and backend to gracefully manage unexpected scenarios.
- **Security Considerations:**
 - Consider securing communication channels using HTTPS.
 - Implement authentication and authorization mechanisms based on your application requirements.
- **Testing:**
 - Test the integration between frontend and backend thoroughly to identify and resolve any issues.