

# **MAadhar Application**

## **Full Stack Java Developer**

### **Capstone Project Problem Statement**

#### **Problem statement:**

Develop an application to automate the process of applying for an Aadhar Card by making it smoother for Indian citizens.

#### **Scenario:**

**Varniraj Service PVT. LTD** is closely working with “The Government of India” to help them get a solution for processing applications for Aadhaar Card. Application is intended to register citizens and let them display ID to process their Aadhar Card application.

#### **Expected Deliverables:**

##### **Features of the application:**

- Registration
- Login
- Apply for a new Aadhar Card

- Place a request for updating Aadhar details
- Apply for a duplicate Aadhar Card
- Admin: Approve Aadhar Application and issue new Aadhar number
- Apply to close Aadhaar card (due to death)

### **Recommended technologies:**

- **Database:** MySQL
- **Backend:** Java Programming (Spring Boot, JPA, Hibernate)
- **Frontend:** Angular, Bootstrap, and HTML/CSS
- **Automation and testing technologies:** Selenium and TestNG
- **DevOps tools/technologies:** Git, GitHub, Jenkins, and Docker

**Optional implementation:** Kubernetes, AWS

### **Project development guidelines:**

- The project will be delivered within four sprints with every sprint delivering a Minimal Viable Product.
- It is mandatory to perform proper sprint planning with user stories to develop all project components.
- The learner should use the above-mentioned technologies for different layers of the project.
- The web application should be responsive and should fetch or send data dynamically without hard-coded values.
- The learner must maintain the version of the application over GitHub, and every new change should be sent to the repository.
- The learner must implement a CI/CD pipeline using Jenkins.
- The learner should also deploy and host the application on an AWS EC2 instance.
- The learner should also implement automation testing before the application enters the CI/CD pipeline.
- The learner should use Git branching to perform basic automation testing of the application in it separately.

- The learner should make a rich frontend of the application, which is user-friendly and easy for the user to navigate through the application.
- There will be two portals in the application, the admin and user portal.

### **Admin Portal:**

The admin portal deals with all the backend data generation. The admin user should be able to:

- Login through admin credentials
- Approve new Aadhaar Card request
- Verify request for duplicate Aadhaar
- Display all issued Aadhaar Card
- Delete Aadhaar card details for dead citizen

### **User Portal:**

It deals with user activities. The end-user should be able to:

- Sign in to apply for a new Aadhar Card
- Login to see the Aadhar number assigned by the admin
- Update address, phone number, and date of birth of Aadhaar Card
- Request duplicate Aadhaar Card

### **Frontend Validation:**

- For admin: The password should have at least: One Uppercase, one lowercase, one special character (@,#,&....), and one number.
- For citizens: The password should consist of only digits.

### **Backend Validation:**

- Mobile number validation should be applied.

- Password length should not be less than 6 characters.
- For citizens: The home page would authenticate only if the mobile number provided in Aadhaar is matching with the password.

### **Sample Input data for Backend REST API:**

- To register new citizens:

HTTP Method: POST

URL: `http://localhost:6789/AadharApp/citizens`

Request Body:

```
{
  "name": "Uttam Patel",
  "dob": "2011-08-23",
  "address": "2/5 Heerabagh Flats",
  "emailId": "uttampatel0811@gmail.com",
  "mobileNo": "7976694711",
  "gender": "Male"
}
```

- Apply for Aadhar Card using an existing citizen ID:

HTTP Method: POST

URL: `http://localhost:6789/AadharApp/issueAadhar`

RequestBody:

```
{
  "citizenId": 1002,
  "passportId": null,
  "issueDate": "2020-04-25"
}
```

Sample login page:

The screenshot shows a web browser window titled 'AadharApp' with the address bar displaying 'localhost:4200/login'. Below the browser window, there is a login form with the heading 'Log in'. The form includes two input fields: 'Login Id \*' and 'Password \*'. Below these fields are two buttons: 'Citizen Log in' and 'Admin Log in'. A link 'New Citizen Register' is also present. Below the login form, there is a sample Aadhar card. The card displays the Government of India logo, the name 'Manja Makar', the date of birth 'DOB : 28/07/1987', the gender 'MALE', and the Aadhar number '3750 8430 7653'. A QR code is also visible on the card. The card is marked with a red 'SAMPLE' stamp.

AadharApp

localhost:4200/login

For Citizens use Citizen Id as Login ID and Mobile No as Password

### Log in

Login Id \* Password \*

Citizen Log in Admin Log in

[New Citizen Register](#)

**भारत सरकार**  
GOVERNMENT OF INDIA

Manja Makar  
DOB : 28/07/1987  
MALE

3750 8430 7653

आधार-आम आदमी का अधिकार

SAMPLE

### Sample user portal:



Aadhar issueDate : 2022-01-25



भारत सरकार  
GOVERNMENT OF INDIA

نام و پیدائش  
Name XXXX  
DOB: XX-XX-XXXX  
Gender: MALE




0000 1111 2222

आधार - आम आदमी का अधिकार

[Apply For New Aadhar Card](#)

### Sample admin portal:



Application ID	Citizen ID	Date Of Application	Current Status	Type of Application	Actions
2006	1003	2021-01-05	Applied	Aadhar-Card	<a href="#">Issue Aadhar-Card</a>

