Divya-Path

Way for Divyangs

Submitted to
C-DAC Mumbai
By
Team45 - Batch Sep22

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INTRODUCTION

As per the 2011 Census, the total population of India is 1.23 billion, of which about 2.1 percent (over 21 million people) suffer from one or another kind of disability. People with special abilities (Divyang) must have equal rights in all areas of public life. Many public or private spaces lack basic amenities, which make the infrastructure inaccessible to Divyang people. Making people aware of various locations and making them accessible to all will help to promote inclusive growth and society. Around 70% of the Diyang population is unemployed and faces mental health challenges.

This project aims at providing the Divyang people a platform to access different accessible places and raise grievances for making places accessible make infrastructure inclusive. Concern regarding skilling and employment opportunities is also addressed here. Mental well being is also a given consideration.

Overall, this project will help to make this world a better place to live and sustain for specially abled people.

DESCRIPTION

Our website is designed to assist specially abled people to end their day-to-day struggles to access different public places like schools, hospitals, libraries, and marketplaces. We offer a solution to locate places with accessibility. We also offer a facility to raise a grievance with public authorities if they want to raise a concern regarding any place being accessible.

Our website provides a user-friendly experience to our targeted audience, as it offers a talkback feature. To address the main concern of unemployment among the Diyang people, we offer information about the different job opportunities available. We also offer a different skilling module that will help skill individuals to make them employable. They can enrol in different modules and apply for jobs.

The system will also serve as a single-window solution for accessing information about various government schemes and programs for people with special needs. Considering the humane aspect, we are also offering a mental wellbeing test that will evaluate the mental state of individuals and provide advice and consultation to specialists accordingly.

The system has been thoughtfully designed and developed to provide all of these functionalities. We aim to build a platform for Divyang people to take advantage of the opportunities that are available.

SYSTEM ANALYSIS

The   Proposed   Divya-Path has the following features.

1. A platform specially abled people where they can,
2. Find the friendly places in their city
3. Register complaint if no facilities available for differently abled at particular place
4. Career opportunities
5. Available govt. services and schemes
6. Skilling module
7. Text to speech
8. Language friendly
9. Mental health test and suggested consultation

Purpose of the Document

The purpose of this document is to enlist the software requirements and specifications for the 'Divya-Path' which will be very beneficial for specially abled to locate the places with accessibility, get job opportunities, Skilling and mental health test.

The proposed system includes the following.

This document is intended for developers, users, testers and project managers for the purpose of understanding the design of systems in terms of different perspectives. Further, this document contains functionalities and characteristics of the system along with the working environment. It also includes other information related to systems such as external interface requirements, features and other non - functional requirements.

Team List:

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SYSTEM REQUIREMENT SPECIFICATION

Overview

We have designed this website with the purpose of addressing the different problems faced by specially abled people in accessing places, finding job opportunities, and availing benefit of different government programs. We offer a map based location, different skilling modules, and a test for evaluating mental health.

Study of the system:

In the flexibility of uses this interface has been developed keeping graphics concepts in mind, associated through a browser interface. The GUI's at the top level has been categorized as follows

1. Administrator Interface Design.

2. User Interface.

3. Security Authentication.

4. General end-users.

The administrative user interface will maintain the different users, the interface helps the administration with all the access states like which users should access the system and which shouldn't. And the statistics of the system in difference strategies.

User of the system:

1. Administrator

2. Public authority

3. Citizen

Administrator:

1. View details of registered users.
2. Can curate different skilling modules.
3. Can validate and post the job opportunities.

Public authority:

1. Can receive and reciprocate to the grievances.
2. Can offer information about different govt. services and schemes for specially abled people.

Citizen:

1. Can view the places with accessibility in the city.
2. Can raise a concern if no facility at particular place is accessible.
3. Avail skilling and seek job opportunities.
4. Mental health screening.

Security & Authentication:

1. Users Login and Logout.
2. View personal Profiles, Update profiles.
3. Forgot Passwor

Miscellaneous Features:

1. Language compatibility.
2. Text to speech conversion

<u>Software Requirement and Hardware Requirement</u>

<u>Software Requirements:</u>

- Technology   : J2SE and J2EE, Hibernate Spring Boot
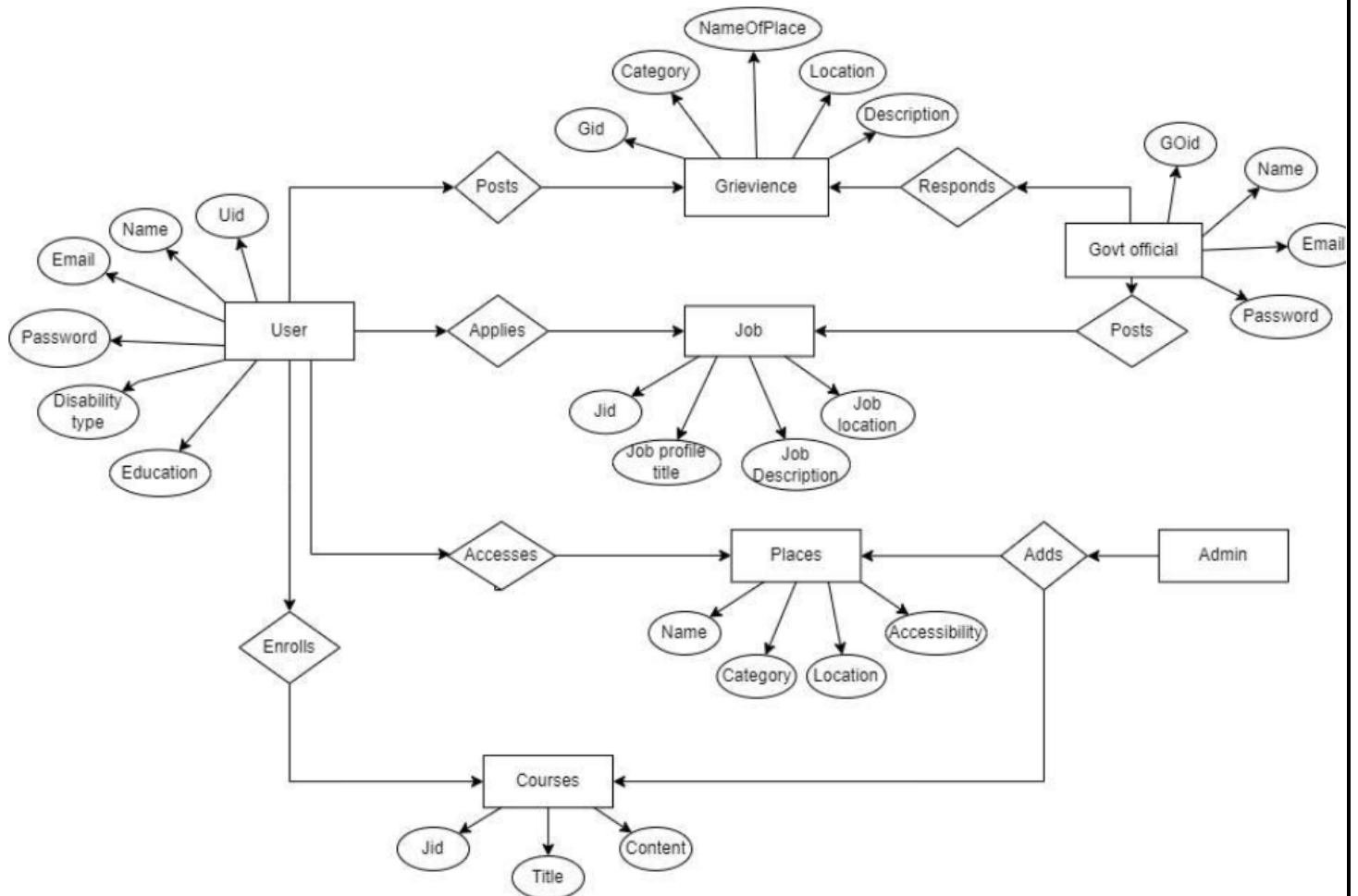- Web-Technologies   : React, CSS, JavaScript
- Web Server   : Tomcat 9.0
- Java Version   : JAVA Version 11
- Backend Database   : MySQL 8.0
- IDE   : Eclipse

<u>Hardware Requirements (Minimum):</u>

- Processor   : Pentium IV
- RAM Capacity   :   1GB
- Hard Disk   : 160GB
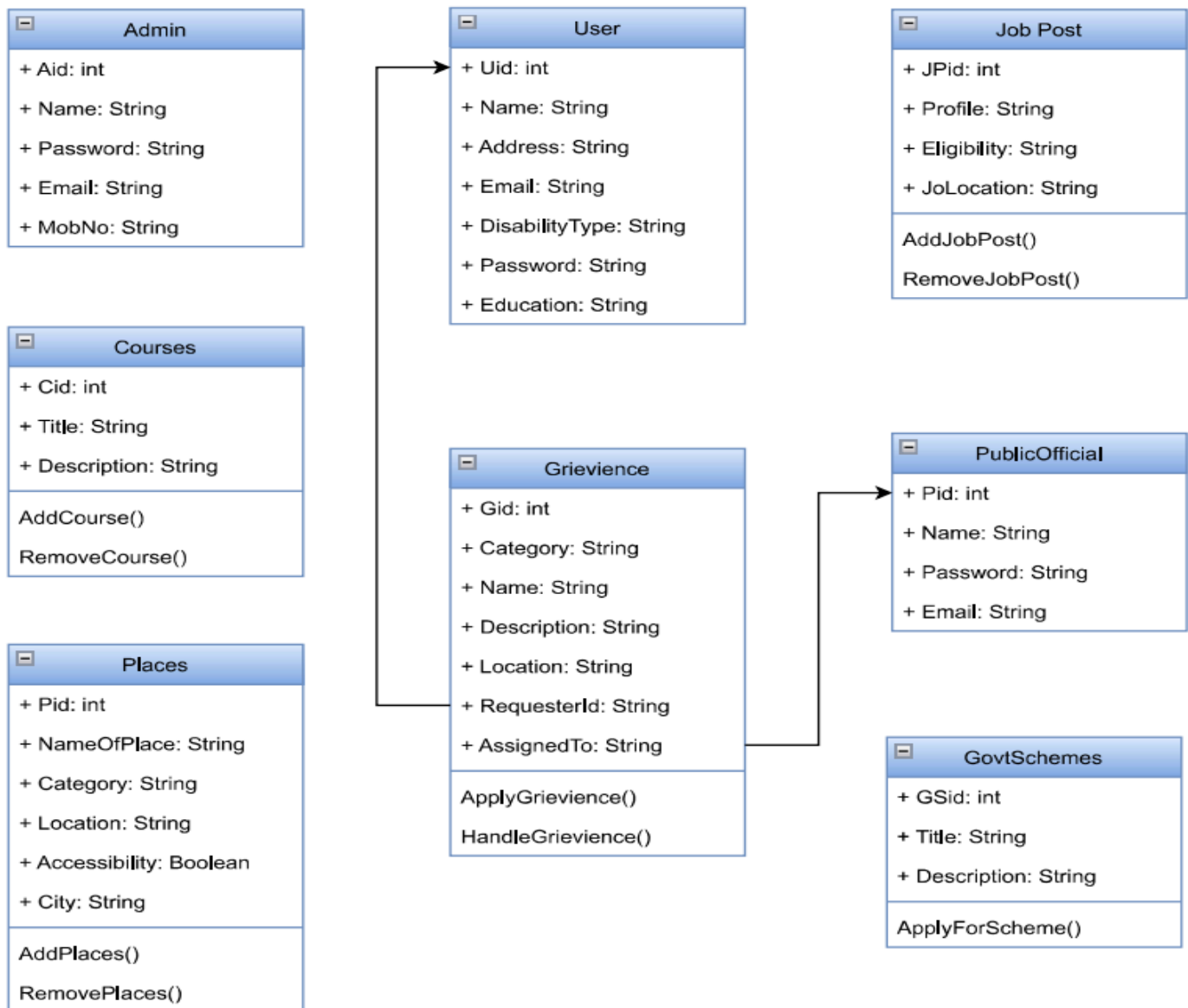
SYSTEM DESIGN

1.E-R DIAGRAM

2.UML DIAGRAMS

UNIFIED MODELING LANGUAGE DIAGRAMS

The unified modeling language allows the software engineer to express an analysis model using the modeling notation that is governed by a set of syntactic semantic and pragmatic rules.

A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows.

2.1.Class Diagram

Admin

+ Aid: int

+ Name: String

+ Password: String

+ Email: String

+ MobNo: String

User

+ Uid: int

+ Name: String

+ Address: String

+ Email: String

+ DisabilityType: String

+ Password: String

+ Education: String

Job Post

+ JPid: int

+ Profile: String

+ Eligibility: String

+ JoLocation: String

AddJobPost()

RemoveJobPost()

Courses

+ Cid: int

+ Title: String

+ Description: String

AddCourse()

RemoveCourse()

Grievience

+ Gid: int

+ Category: String

+ Name: String

+ Description: String

+ Location: String

+ RequesterId: String

+ AssignedTo: String

ApplyGrievience()

HandleGrievience()

PublicOfficial

+ Pid: int

+ Name: String

+ Password: String

+ Email: String

Places

+ Pid: int

+ NameOfPlace: String

+ Category: String

+ Location: String

+ Accessibility: Boolean

+ City: String

AddPlaces()

RemovePlaces()

GovtSchemes

+ GSid: int

+ Title: String

+ Description: String

ApplyForScheme()

2.2.2.USE CASE DIAGRAMS

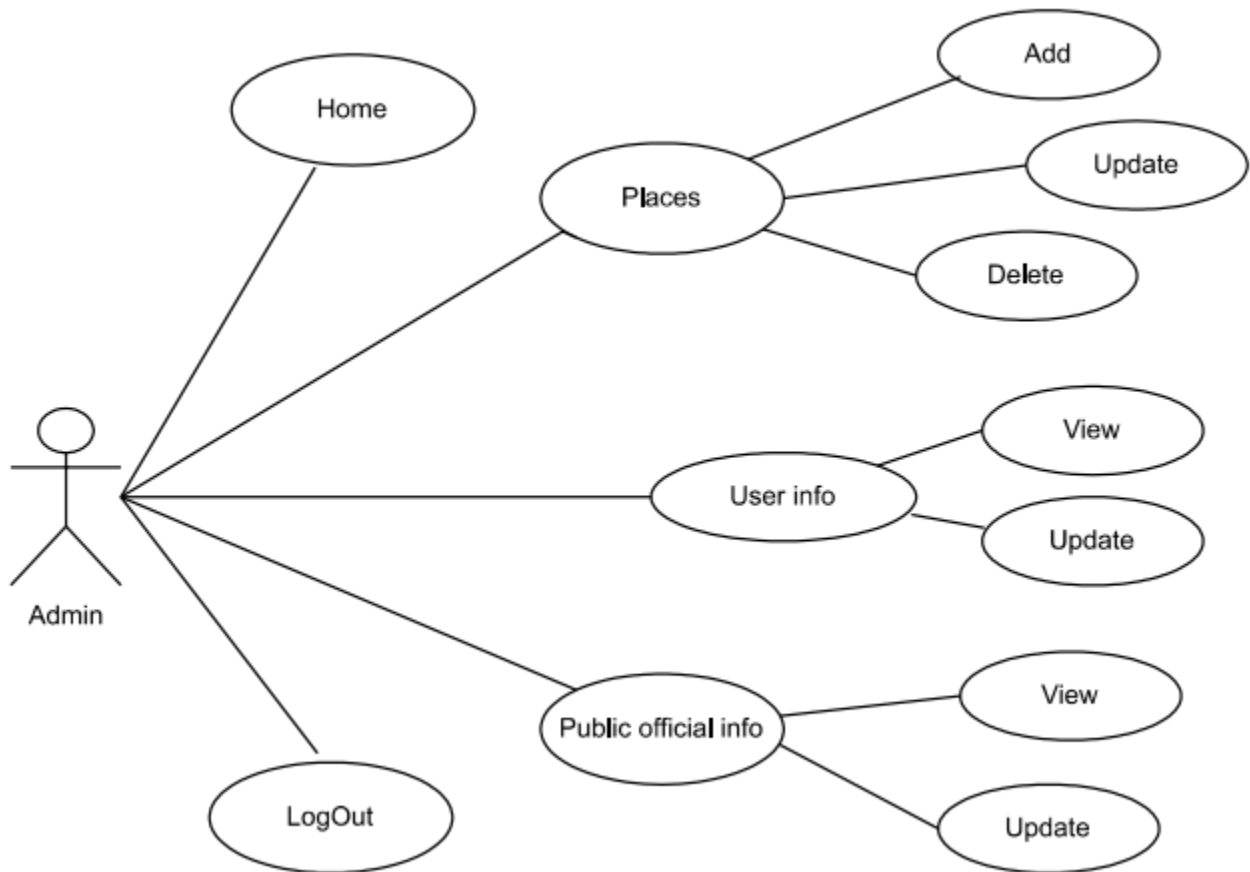## System (Base Level) UCD:
2.2.1 Admin

Figure- Admin Use Case Diagram
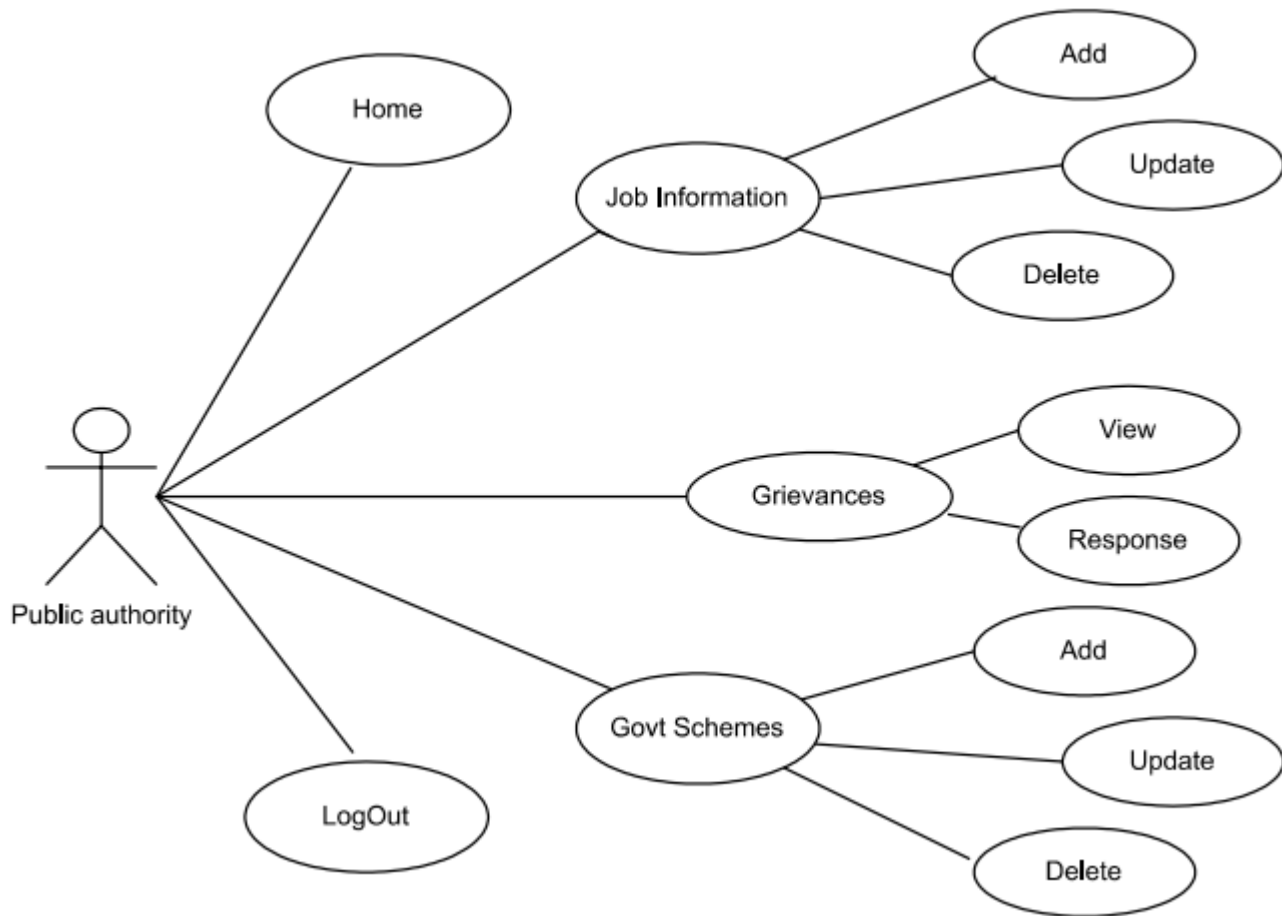
2.2.1. Public Official

Figure- Public Official Use Case Diagram
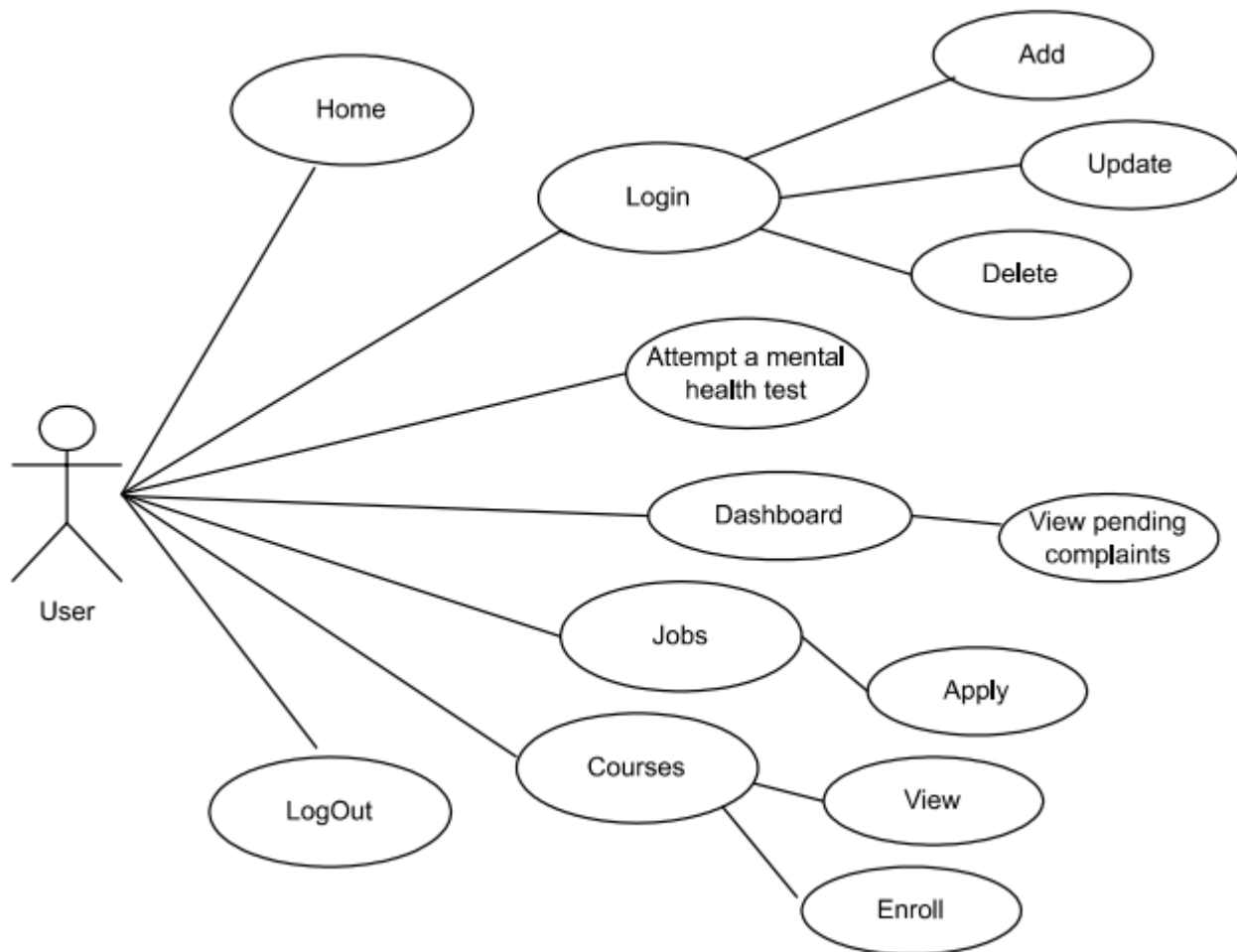
2.2.2. Citizen

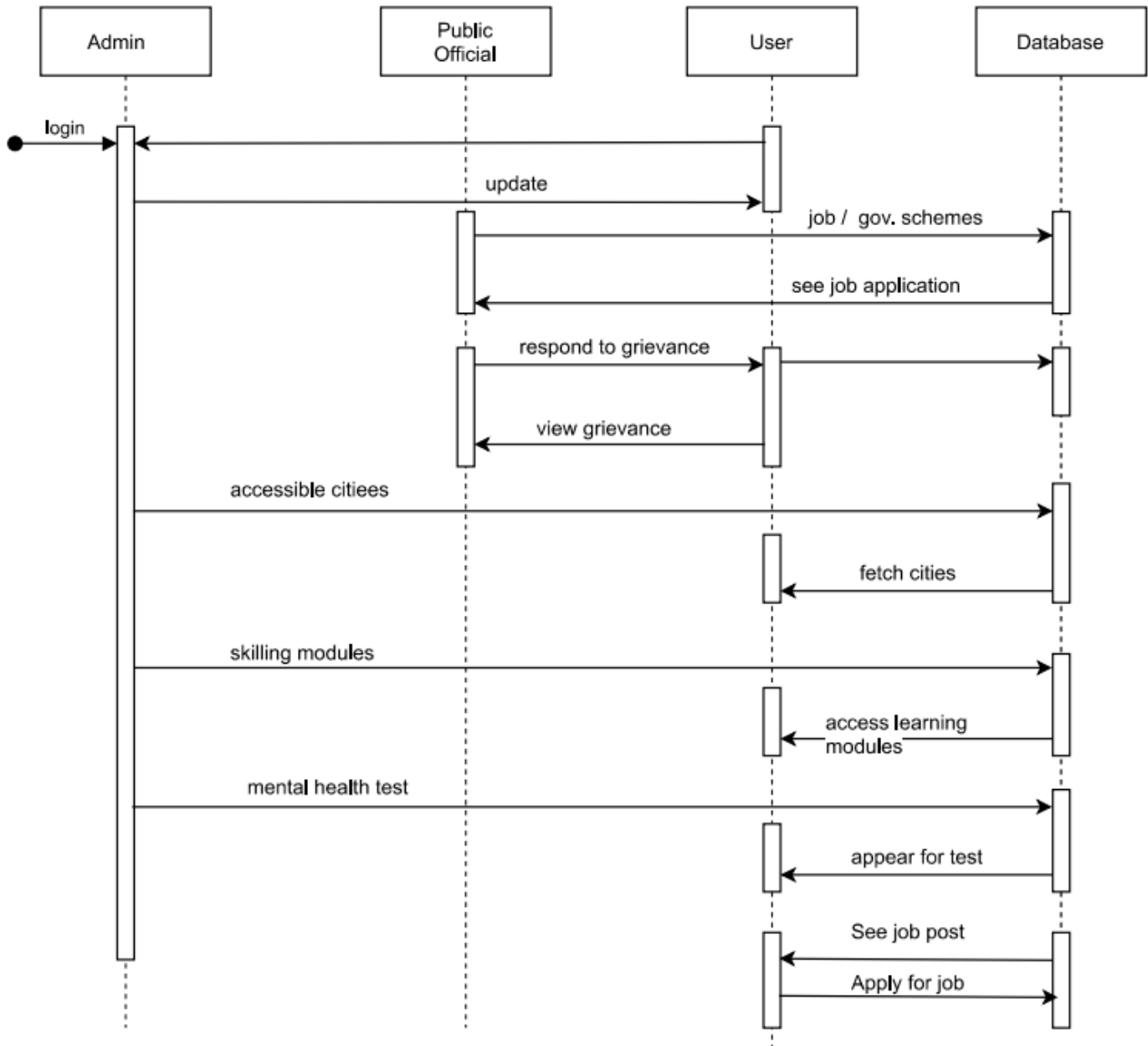**Figure- Citizen Use Case Diagram**
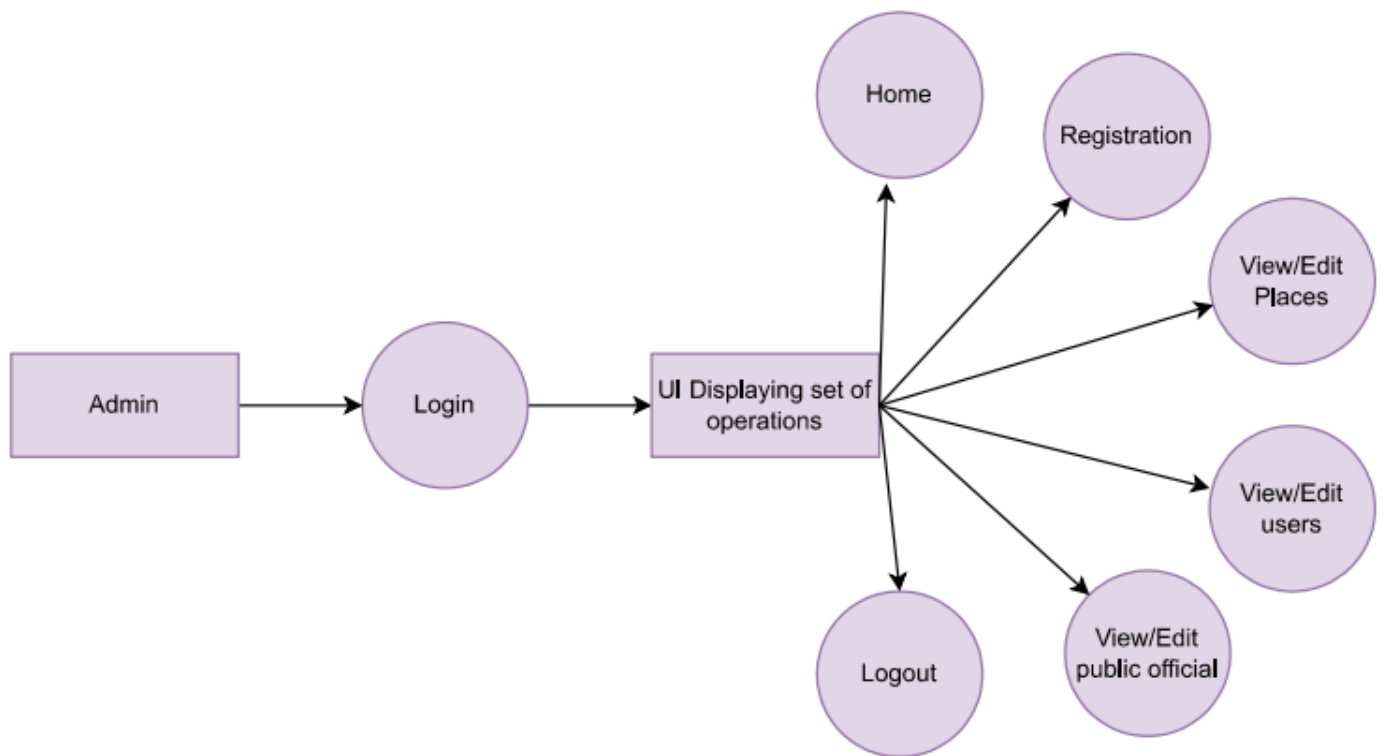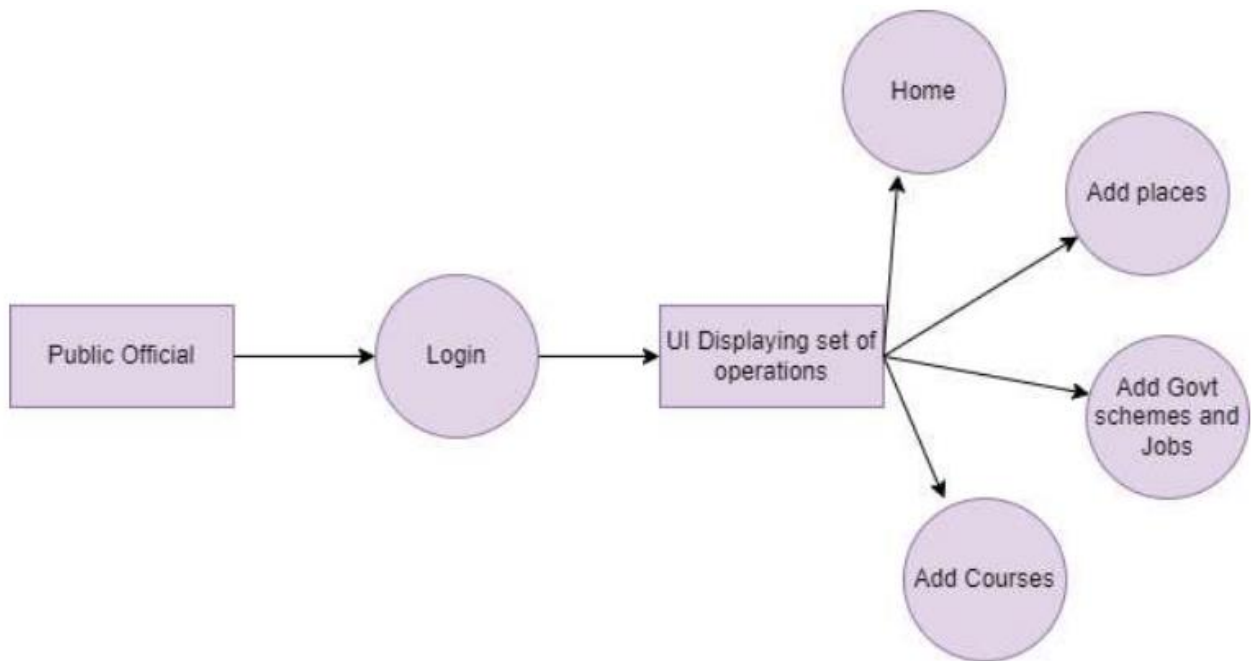
2.3. SEQUENCE DIAGRAMS

Figure- Sequence Diagram

2.4.DATA FLOW DIAGRAMS
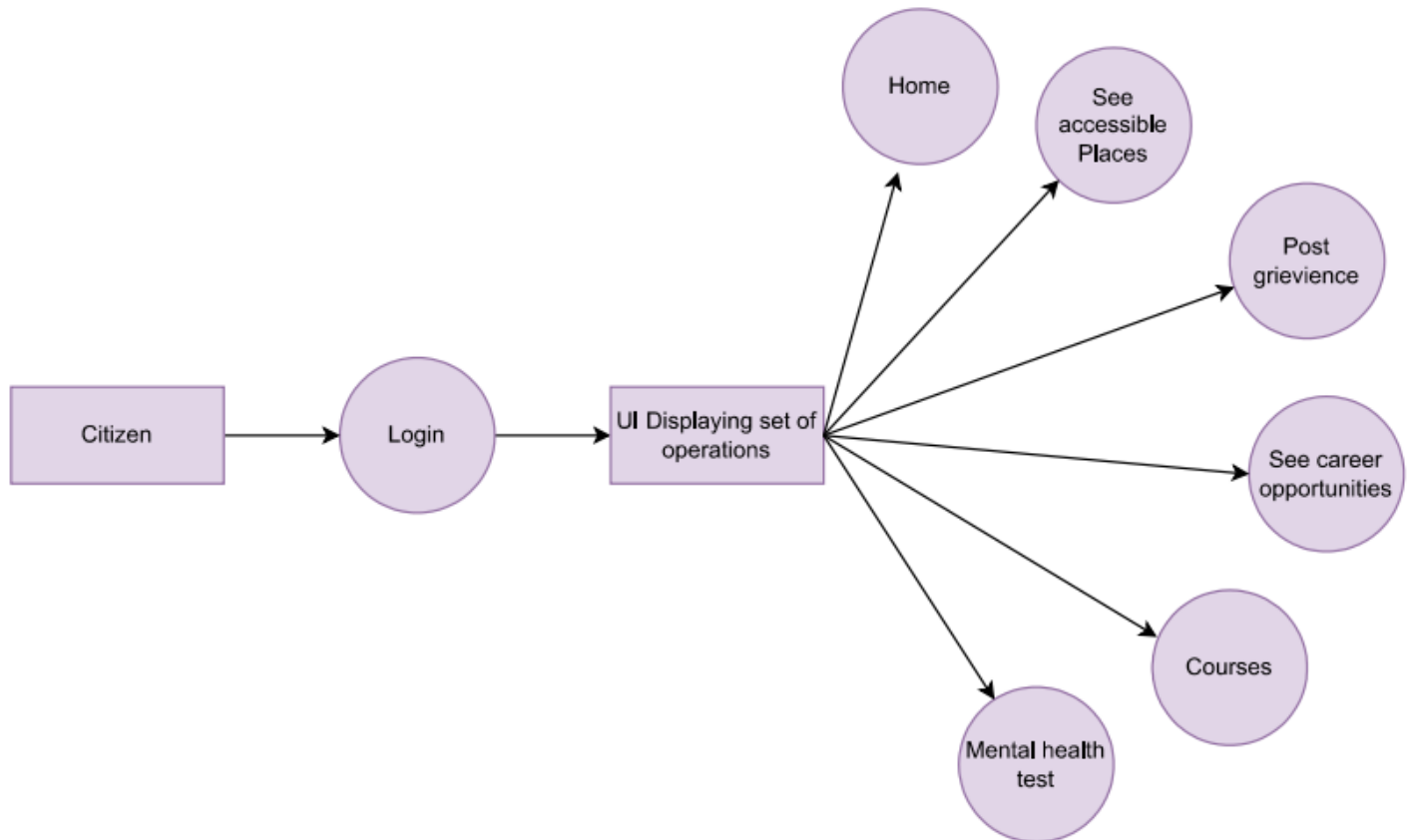
2.4.1. Admin DFD:

2.4.2. Public Official DFD:

2.4.3. Citizen DFD:

Citizen → Login → UI Displaying set of operations →

- Home
- See accessible Places
- Post grievience
- See career opportunities
- Courses
- Mental health test

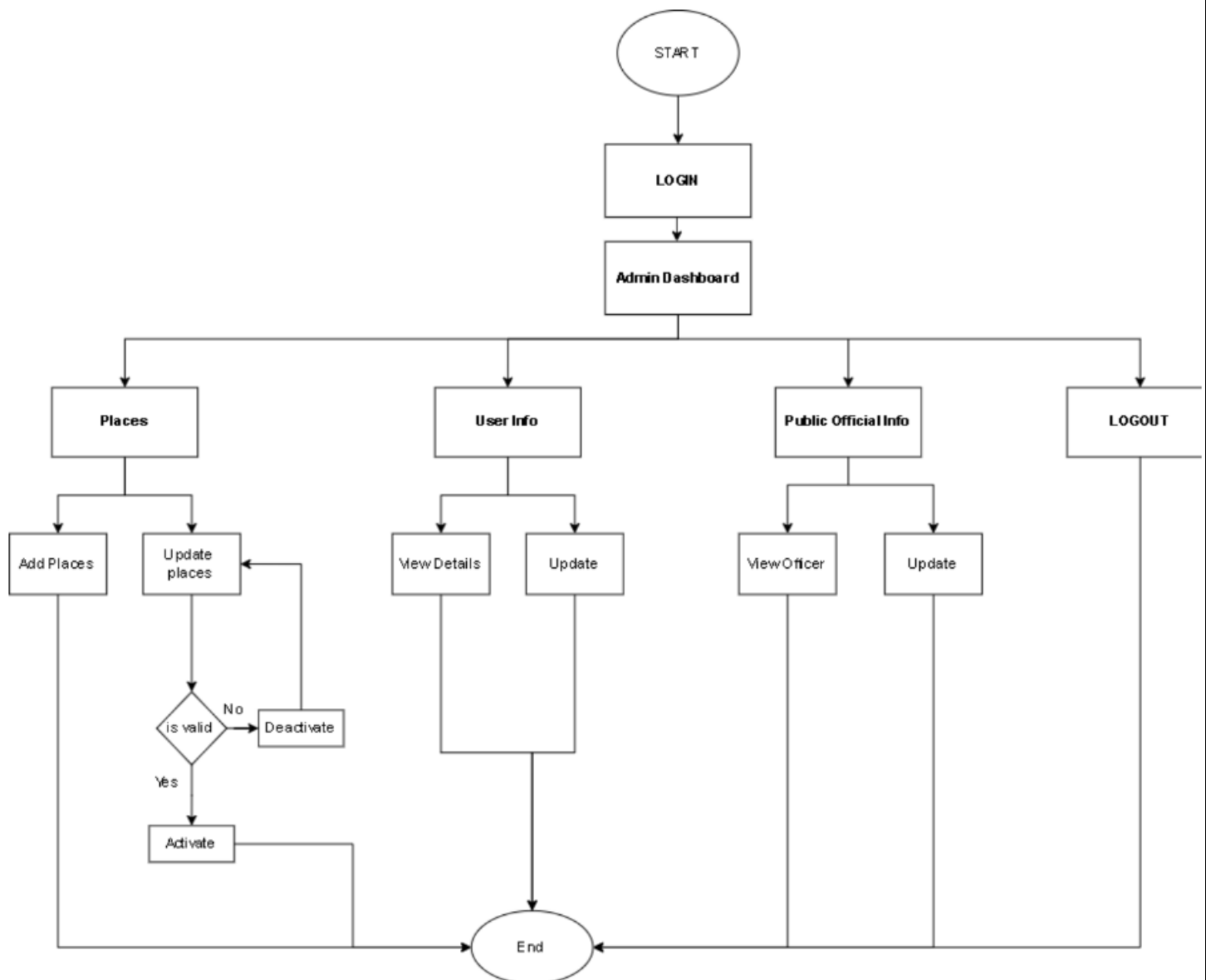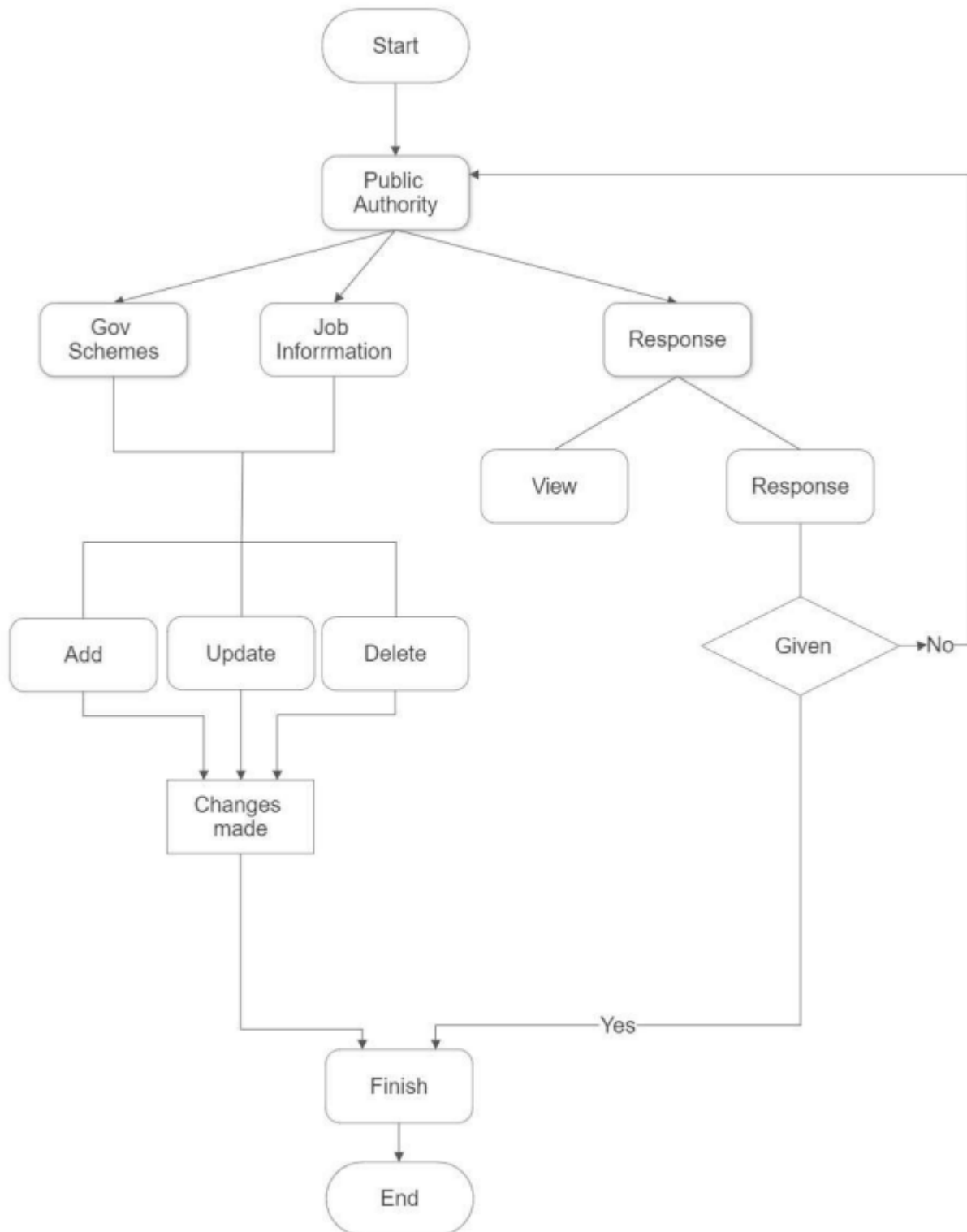## 2.5. ACTIVITY DIAGRAMS

2.5.1. Main Flow Diagram
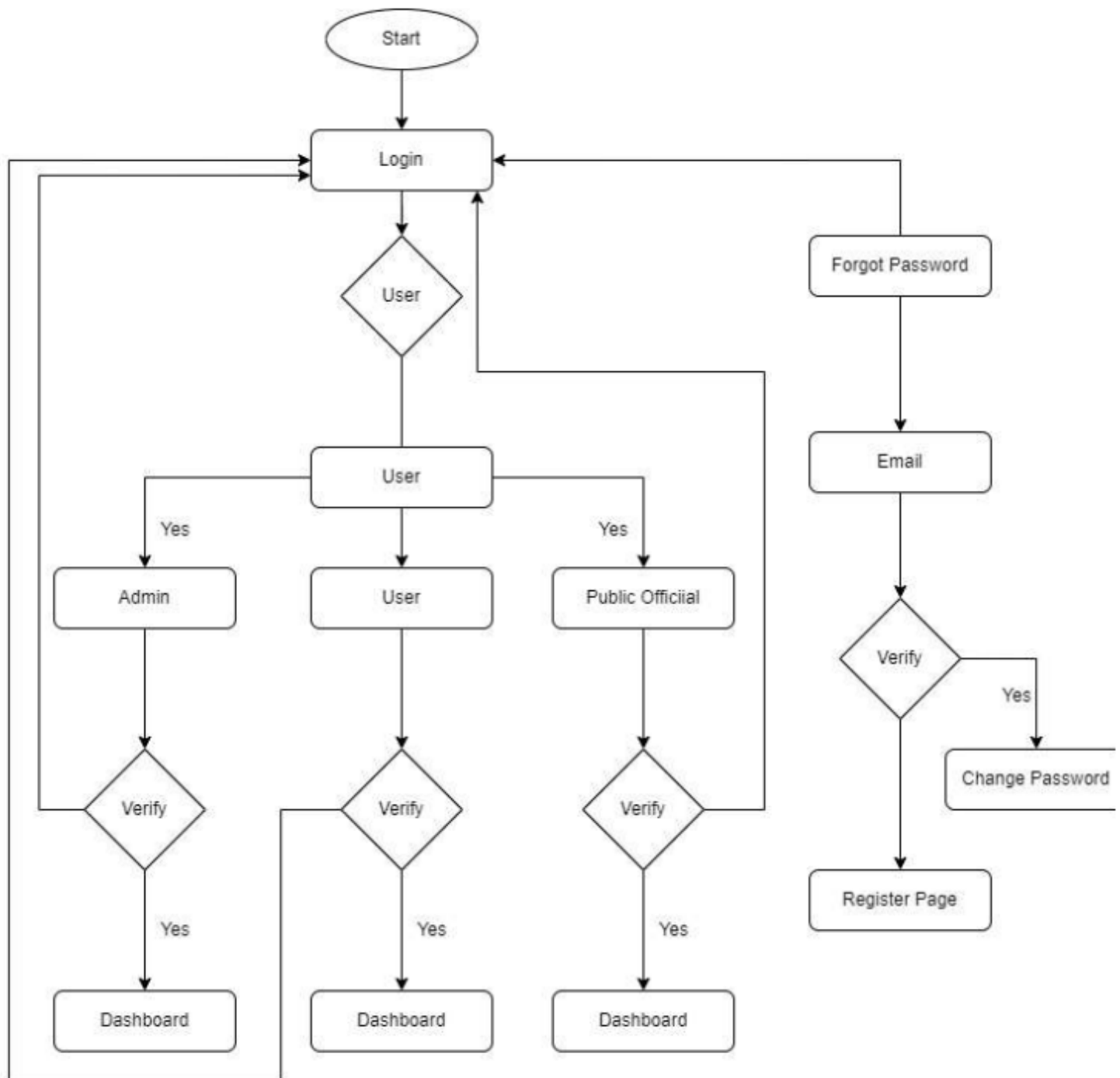
2.5.2. Admin Activity Diagram:

```
                                    ( START )
                                        |
                                        v
                                   [ LOGIN ]
                                        |
                                        v
                              [ Admin Dashboard ]
                                        |
        +---------------+---------------+---------------+---------------+
        |               |                               |               |
        v               v                               v               v
   [ Places ]      [ User Info ]              [ Public Official Info ]  [ LOGOUT ]
        |               |                               |
   +----+----+     +----+----+                    +-----+-----+
   |         |     |         |                    |           |
   v         v     v         v                    v           v
[Add    [Update  [View    [Update]           [View Officer] [Update]
Places] places]  Details]
         |
         v
      <is valid> --No--> [Deactivate]
         |
        Yes
         |
         v
     [Activate]
```
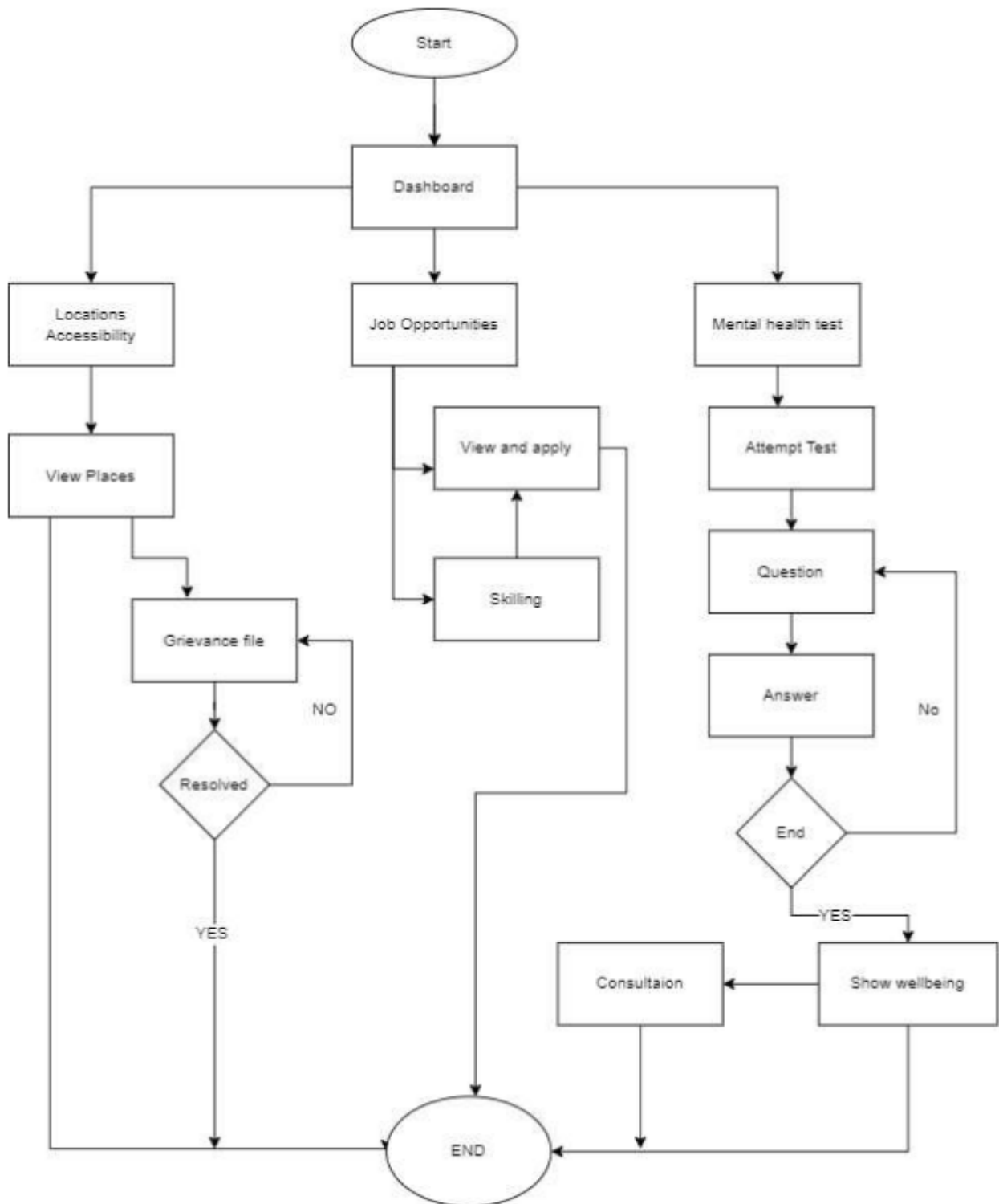
is valid → No → Deactivate

Yes → Activate

(End)

2.5.3. Public Authority Activity Diagram:

2.5.4. Citizen Activity Diagram:

FUTURE SCOPE AND LIMITATIONS

- The project will be deployed on the Amazon Web Services (AWS) cloud.
- We will include technology to monitor different places to be accessible.
- We will include payment gateway for subscription based additional services.
- The system will allow users to provide feedback to the service provider.
- We will include options to create community based on different types of special abilities to connect and grow.

CONCLUSION

To summarize our project, it will cater a need of differently abled people with the help of different stakeholders involved. With the help of IT capabilities will be integrating a solution for a different problem faced by Divyang.

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