

Job Search App

Our team

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Project description :

This particular app describes searching for a job that is relevant to their domain or area of interest. Different components can be created underneath index.js which serves as the root file. These components have program code for API calls, posting details of job search, error messages in case of wrong entry.

Features of Job Search App:

- *Filter option to get the required job.*
- *Handles the user's data.*
- *Handles the company's data.*
- *Handles the Job Applications*

USER CHARACTERISTICS:

1-As a Company_HR , I can :

1. Sign in
2. Sign up
3. Add Company
4. Update Company Data
5. Delete Company Data
6. Get Company Data
7. Search for a Company by Name
8. Get All Applications for Specific Jobs

2- As a user, I can:

1. Search for job.
2. search for company.
3. apply for a job.

FUNCTIONAL REQUIREMENTS:

User module:

1.	search for company.
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- User can retrieve the company data, including details such as email, mobile number, date of birth (DOB), last name, and first name.
- Only the owner of the account can retrieve their account data.

2.	Search for job.
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- User can search for job by job title.

3.	Apply for a job.
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Company_HR module:

1. Add Job

- Company_HR can add new job postings.

2. Update Job

- Company_HR can update existing job postings.

3. Delete Job

- Company_HR can delete existing job postings.

4. Get All Jobs with Their Company's Information

- Users and Company_HR can retrieve all job postings along with their respective company information.

5. Get All Jobs for a Specific Company

- Users and Company_HR can retrieve all job postings for a specific company by providing the company name in the query.

6. Get All Jobs that Match the Following Filters

- Allow users to filter jobs based on working time, job location, seniority level, job title, and technical skills.

7. Apply to Job

- Users can apply to job postings, which adds a new document in the application collection with the provided data.

Non functional requirements :

1-Performance:

- The system shall respond to the request from the user in less than 3 seconds.
- The system shall be reliable and flexible.
- Application shall handle more than 1 user simultaneously.
- Application shall on average operate without failure for as long a time as possible

2-Maintainability:

- system shall be easy to change/ update.

3- Serviceability:

- system shall be easy to maintain, including tasks such as monitoring the system, repairing problems that arise, adding and removing users from the system.

4- Data integrity:

- system shall be described by accuracy, completeness, and consistency of data mean safety of data and security.

5- Manageability:

- System shall be efficient and easy to monitor and maintain to keep the system performing, secure, and running smoothly.

6- interface:

- The system must be with a good interface, any user can understand it.

7- look and feel:

- The system shall be painted in comfortable colors for the eyes.

8- Safety and Security:

- The system shall ensure that only authorized users are able to gain access.
- The system shall distinguish between authorized and non- authorized users.

9- Usability:

- The system shall have a user-friendly interface.
- The system shall be easy to use by different users.

10- Availability:

- The system shall be available 24 hours in a day.

11- Reliability:

- The system shall be reliable and do not have data validation failures.

Software Design Document (SDD)

1-User Characteristics:

HR:

- 1-Add / Delete / Update users.
- 2- Add / Delete / Update company.
- 3- Add / Delete / Update jobs.
- 4- Add / Delete / Update application.

User:

- 1-search for company.
- 2- search for job.
- 3- apply for a job.

2-Operating Environments:

Integrated Development Environment (IDE):

- Visual Studio Code (VSCode).

Programming Language:

- Java.

Frameworks and Libraries:

-Spring Boot:

Utilized as the primary framework for building Java-based applications.

-Validation:

Incorporating validation mechanisms provided by Spring Boot for data validation.

-Java Persistence API (JPA):

Utilized for managing relational data in Java applications.

-Lombok:

Used to reduce boilerplate code in Java classes.

-MySQL Connector-J:

JDBC driver for MySQL, enabling connectivity with MySQL databases.

-Spring Web Starter:

Starter module for building web applications with Spring Boot.

-Database Database Management System (DBMS):

MySQL Connection: Utilizing MySQL Connector/J for connecting Spring Boot application with the MySQL database.

-Additional Notes Dependencies Management:

Managed through Maven or Gradle (not specified in the provided information).

- Version Control:

Utilizing Git for version control. Build Automation: Maven or Gradle for automating build processes

3-Detailed Description of Modules:

1-Aspect Module:

Implements the AOP concept.

Contains:

- Logging Aspect Class.
- Auth Aspect Class.
- validation/exception handling Aspect Class.

2-Controller Module:

Controls all the API requests for the user and HR with the service module to specify what function should be implemented for each request in the controller.

Contains:

- Auth Controller class.
- Company Controller class.
- Job Controller class.
- Application Controller class.

3-Entities Module:

Basically, our database entities and tables, it also specifies what constraints should exist for each column and specifies its datatypes.

4-Services Module:

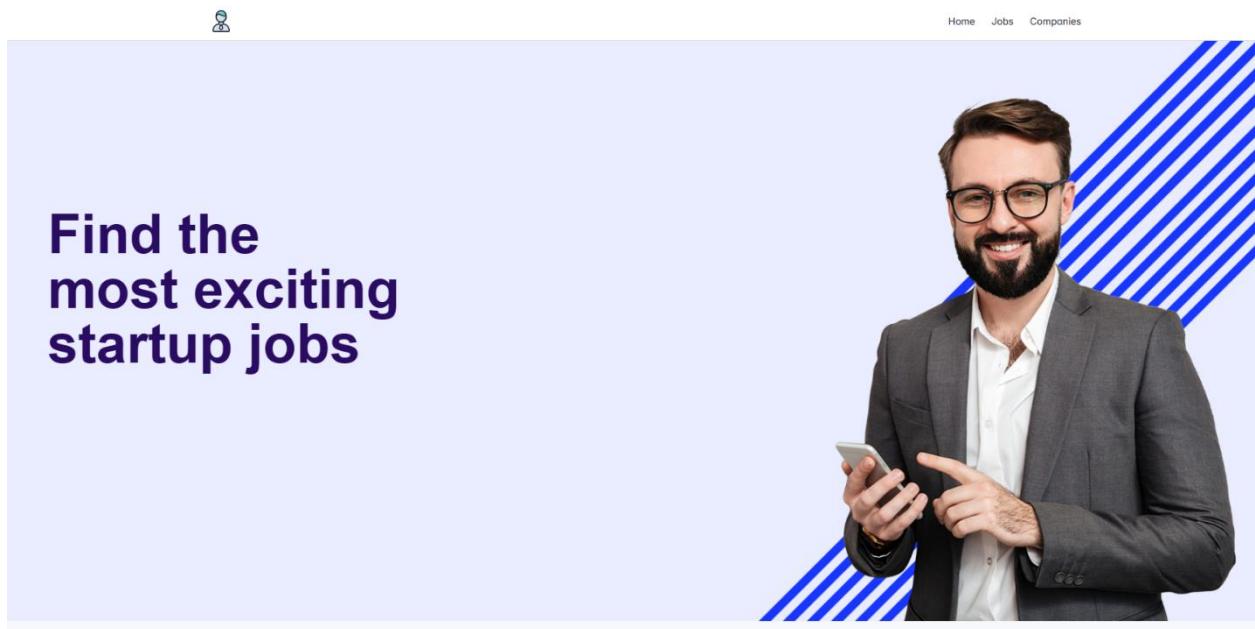
Our main module contains the full implementation for each function and knows how every function works in the project it interacts with every layer and communicates with the controller.

Contains:

- Auth Controller class.
- Company Controller class.
- Job Controller class.
- Application Controller class.

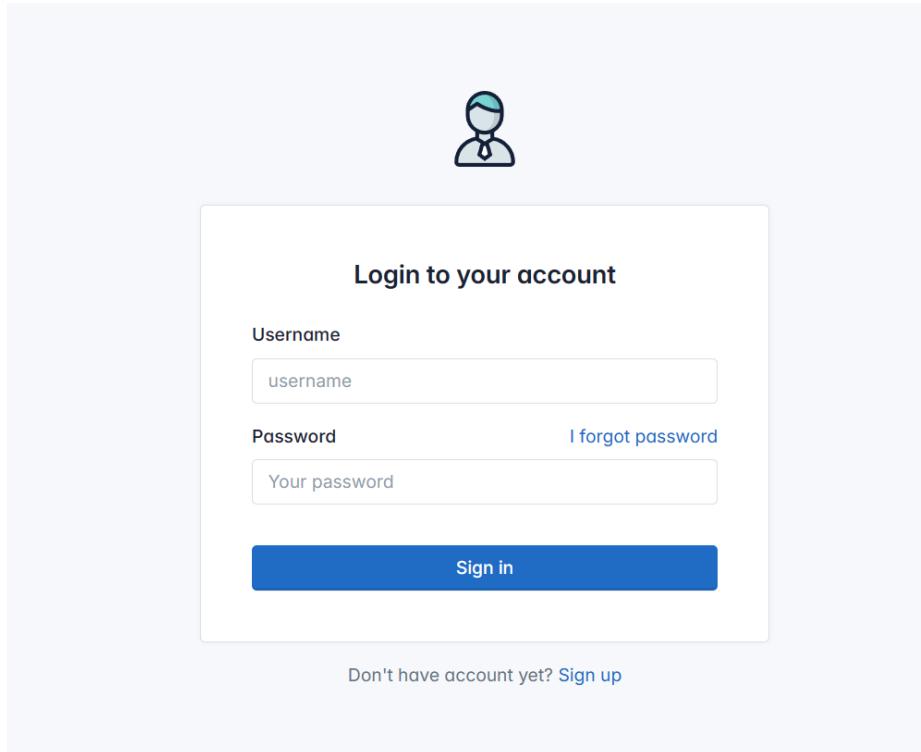
7-Navigation Flow:

User:



HR:

1-



2-

A screenshot of an "Account Settings" page. At the top, there is a user icon and a header "go tech software house". Below the header, there are tabs for "Jobs" and "Profile". The main content area is titled "Account Settings" and contains several sections: "My Account" (with "Profile Details" and "Business Profile" subsections), "Description" (containing a text input field with placeholder text about software houses), and "Email" (containing an input field with "123@gmail.com" and a note about public visibility). At the bottom right are "Cancel" and "Update" buttons.

3-

Add New Job

Title

Location

Seniority Level

Salary

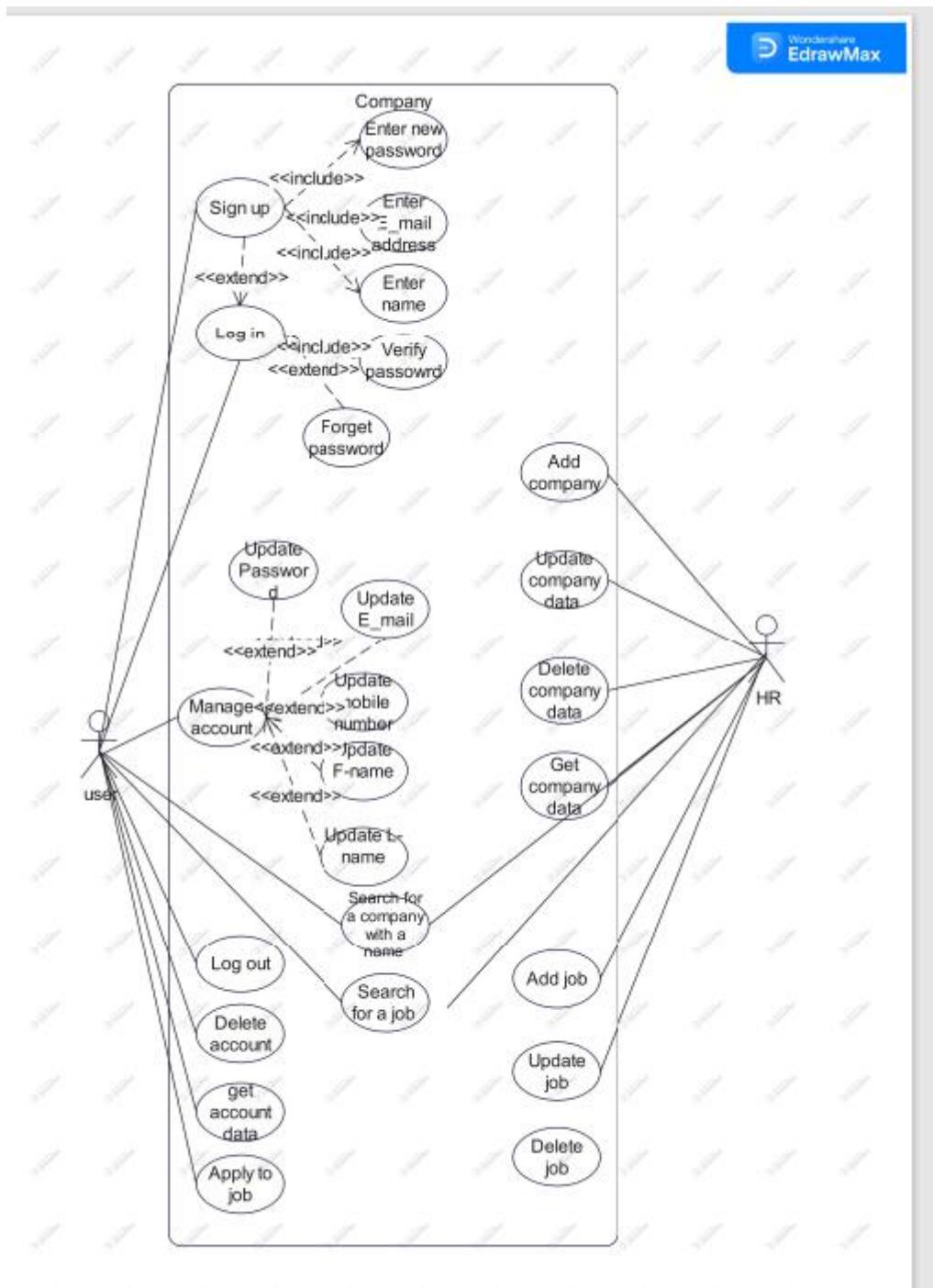
Description

Work Time

Employment Type

Add Job **Cancel**

Use-case diagram :



Use-case description :

1. Sign Up
<ul style="list-style-type: none">• Actor: User• Description: Users can register for a new account by providing personal details such as email, password, first name, last name, date of birth, and optional recovery email.
2. Sign In
<ul style="list-style-type: none">• Actor: User• Description: Users can log into the system using their registered email/mobile number and password, gaining access to their account and available functionalities.
3. Update Account
<ul style="list-style-type: none">• Actor: User• Description: Users can update their account information, including email, mobile number, recovery email, date of birth, last name, and first name, ensuring that the data provided does not conflict with existing records.
4. Delete Account
<ul style="list-style-type: none">• Actor: User• Description: Users can permanently delete their account and associated data from the system.
5. Get User Account Data
<ul style="list-style-type: none">• Actor: User• Description: Users can retrieve their account information, including personal details and settings.
6. Get Profile Data for Another User
<ul style="list-style-type: none">• Actor: User• Description: Users can retrieve profile data for another user by providing their user ID.
7. Update Password
<ul style="list-style-type: none">• Actor: User• Description: Users can update their account password for security purposes.
8. Forget Password
<ul style="list-style-type: none">• Actor: User• Description: Users can initiate the process to reset their forgotten password securely without requiring email confirmation.
9. Get All Accounts Associated with a Specific Recovery Email
<ul style="list-style-type: none">• Actor: User

- **Description:** Users can retrieve all accounts associated with a specific recovery email for account management or verification purposes.

10. Add Job

- **Actor:** Company_HR
- **Description:** Company HR representatives can add new job postings to the system for recruitment purposes.

11. Update Job

- **Actor:** Company_HR
- **Description:** Company HR representatives can update existing job postings with revised details or requirements.

12. Delete Job

- **Actor:** Company_HR
- **Description:** Company HR representatives can remove job postings from the system that are no longer relevant or available.

13. Get All Jobs with Their Company's Information

- **Actor:** Company_HR, User
- **Description:** Company HR representatives and users can retrieve all job postings along with the respective company information for browsing and application purposes.

14. Get All Jobs for a Specific Company

- **Actor:** Company_HR, User
- **Description:** Company HR representatives and users can retrieve all job postings associated with a specific company by providing the company name for targeted job searches.

15. Get All Jobs that Match the Following Filters

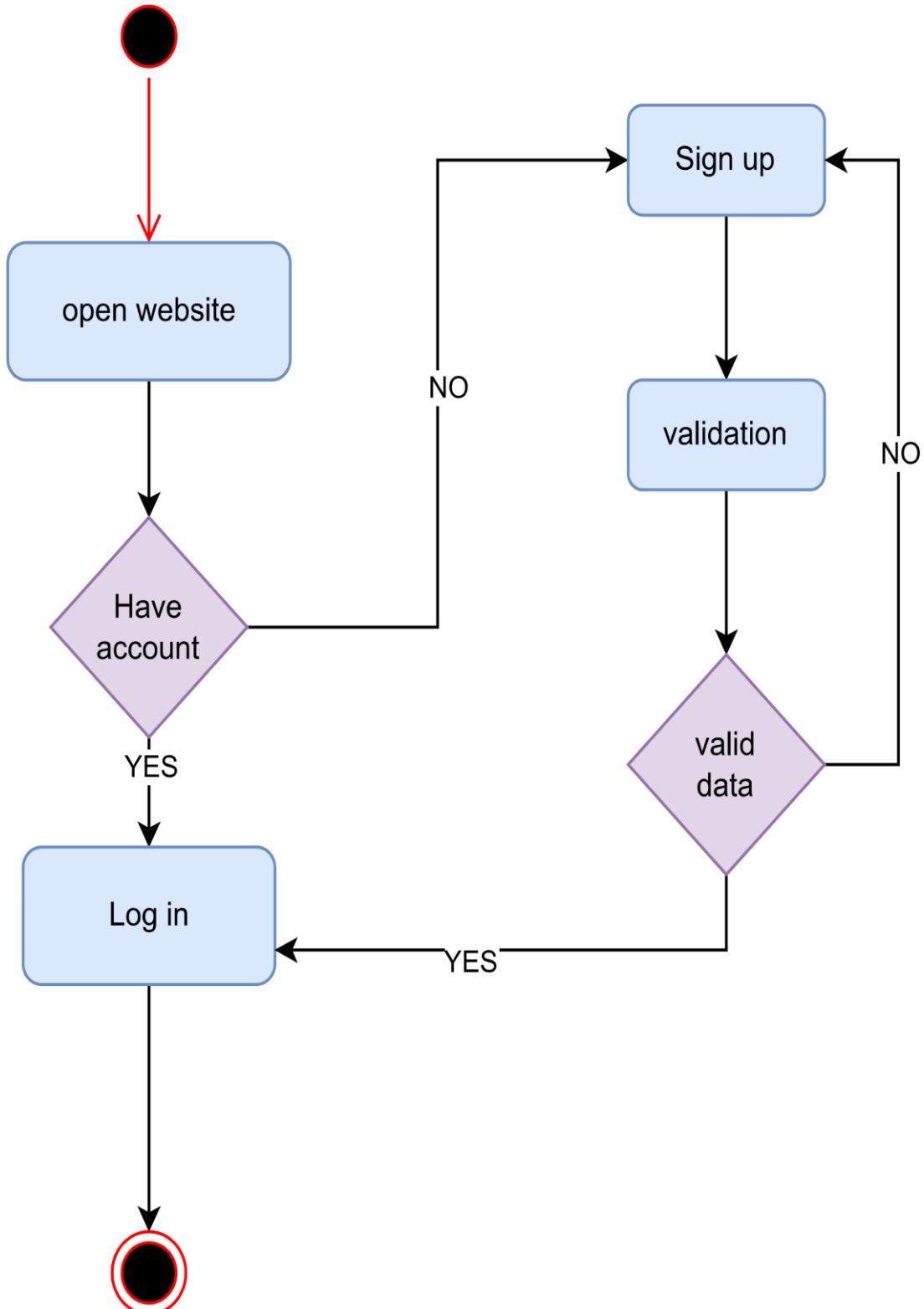
- **Actor:** Company_HR, User
- **Description:** Company HR representatives and users can filter job postings based on criteria such as working time, job location, seniority level, job title, and technical skills to find relevant opportunities.

16. Apply to Job

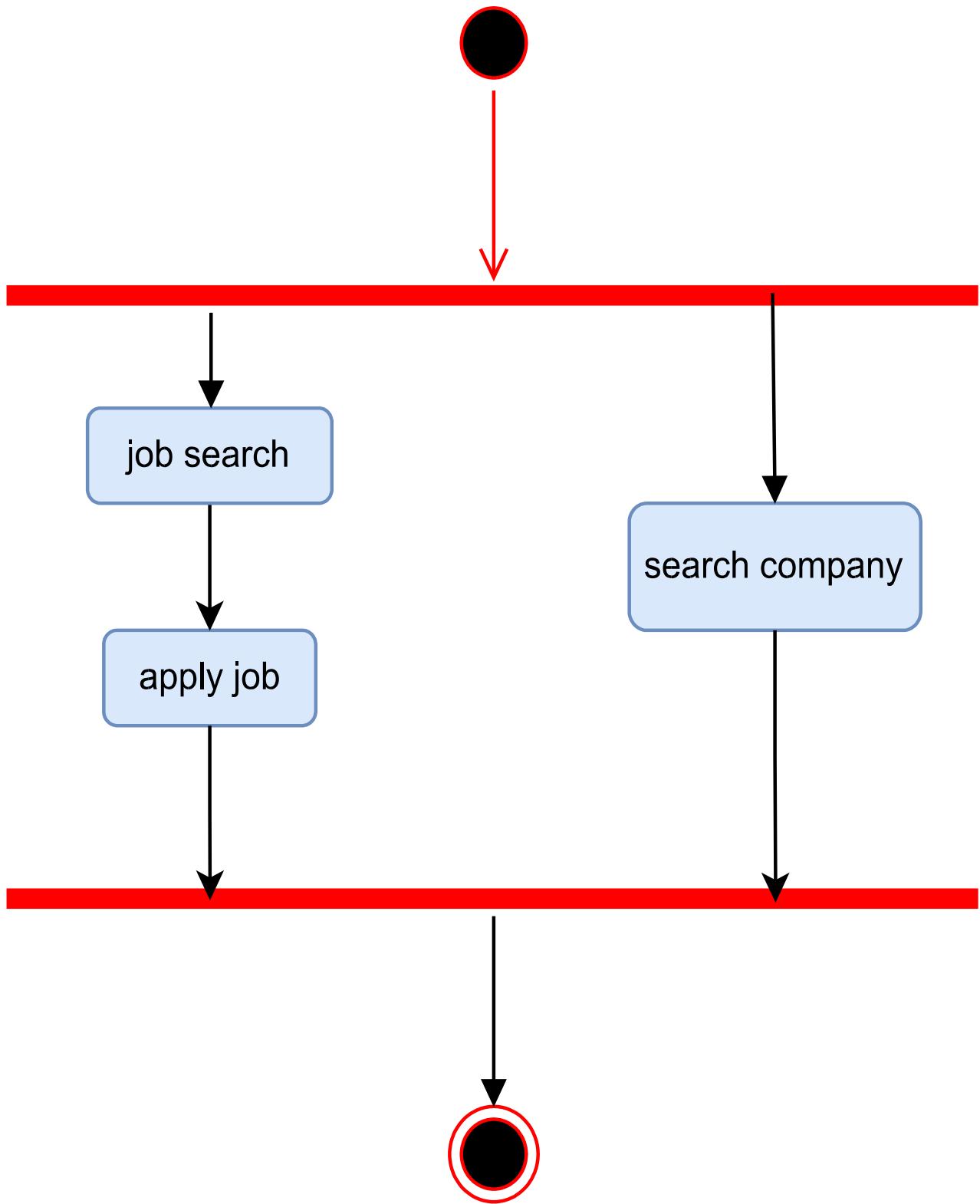
- **Actor:** User
- **Description:** Users can apply to job postings by submitting their application details through the system for consideration by the hiring company.

Activity diagram:

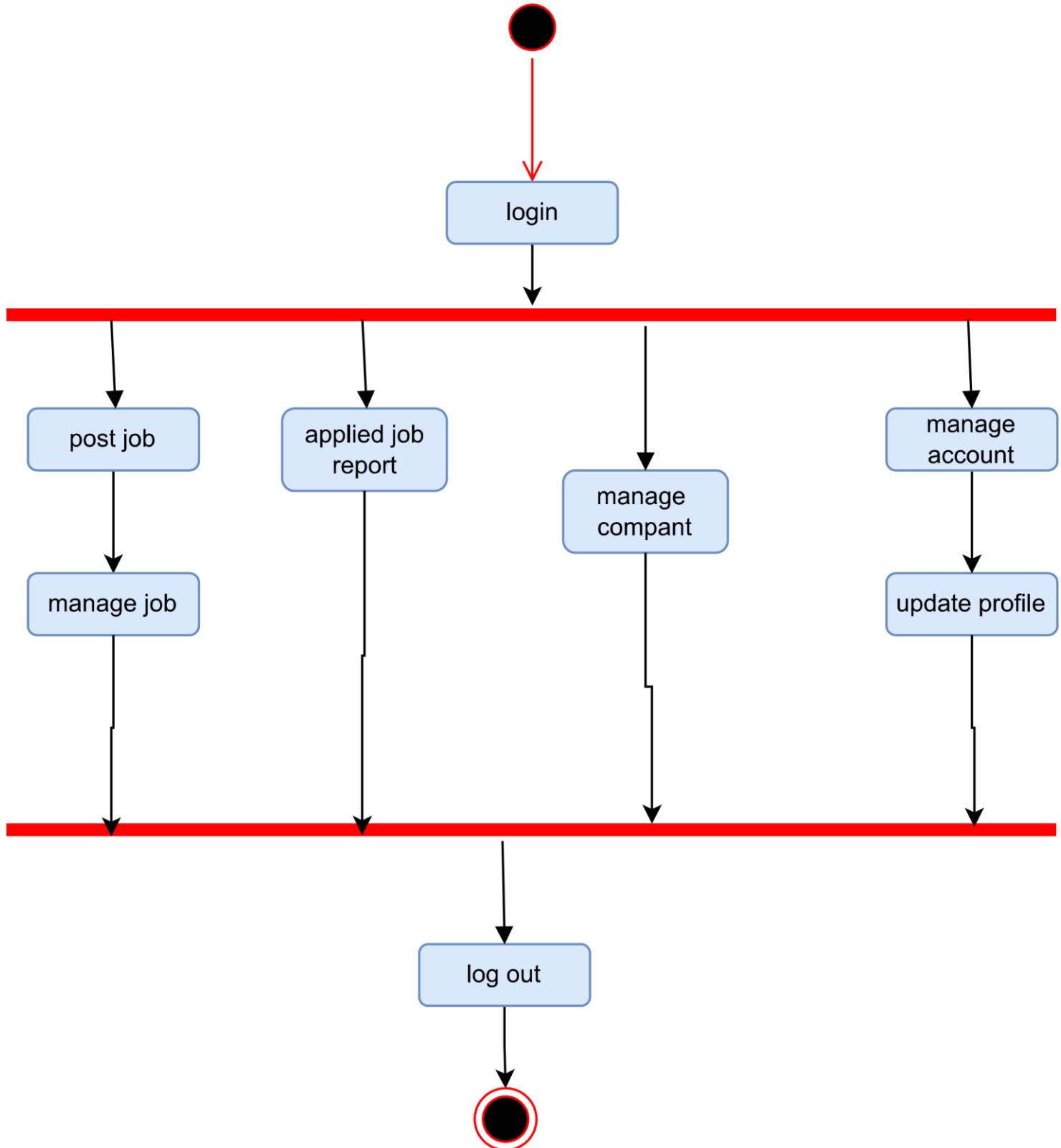
Login&signup:



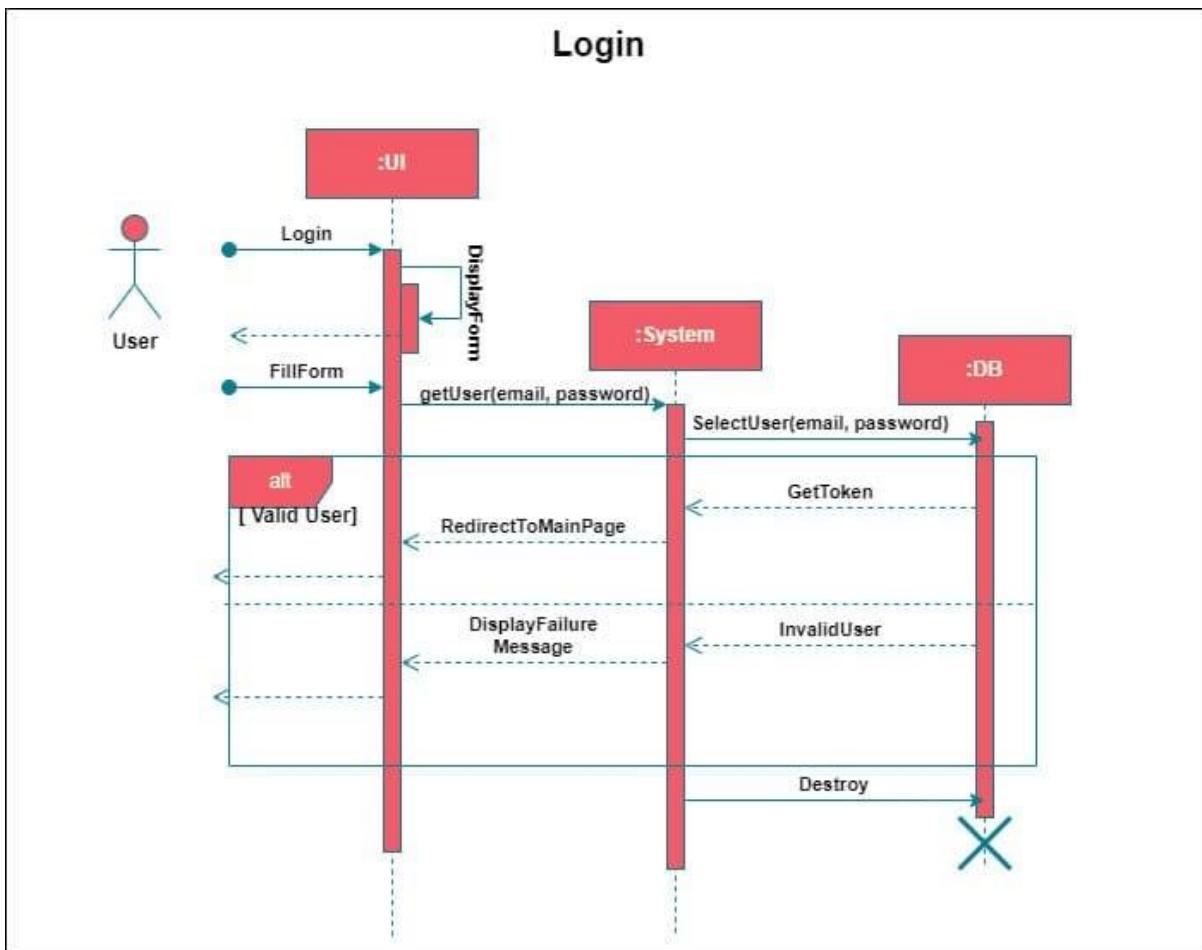
User:



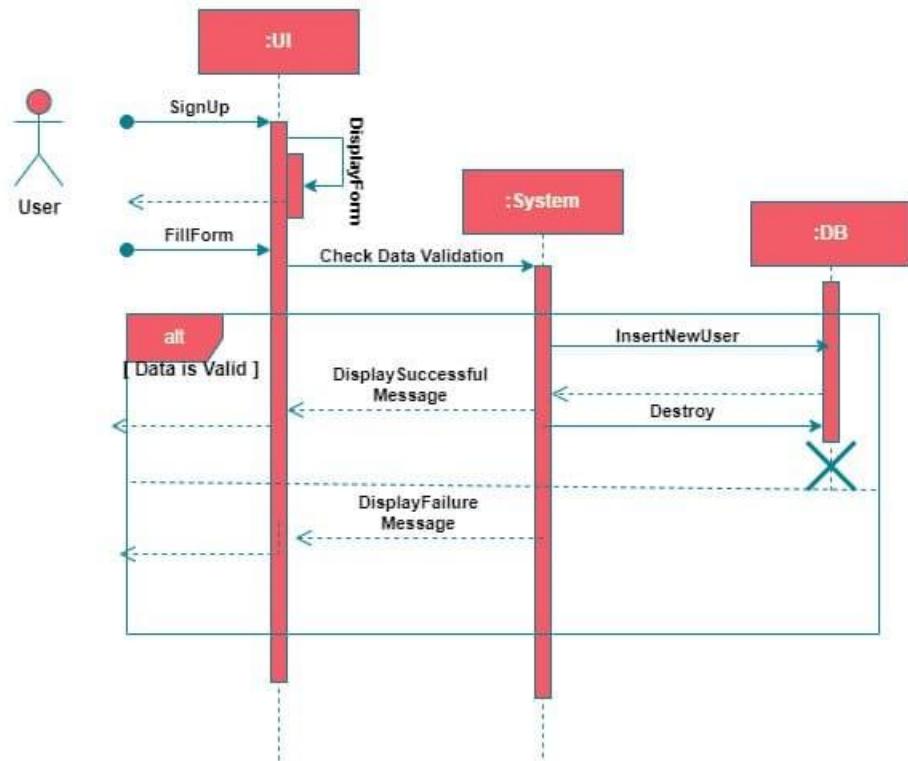
HR:



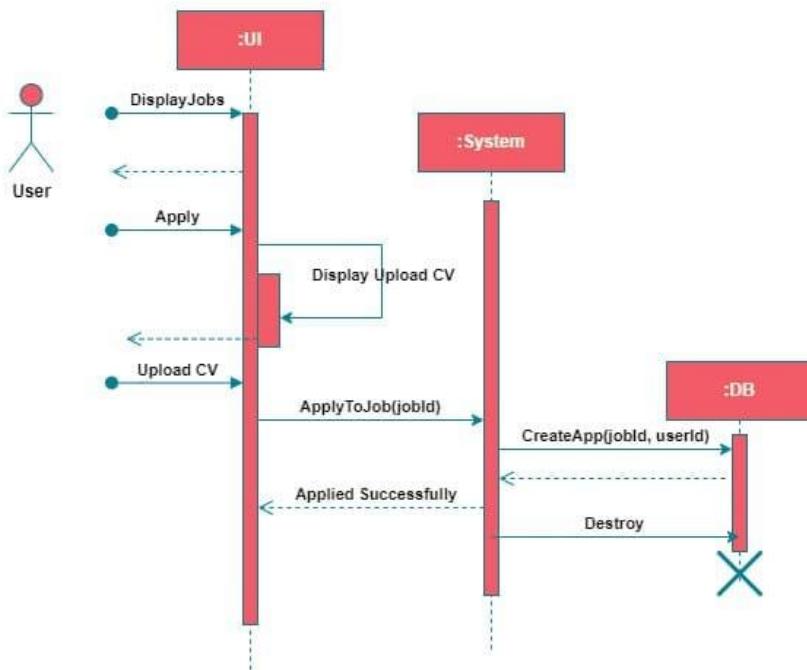
Sequence diagram :



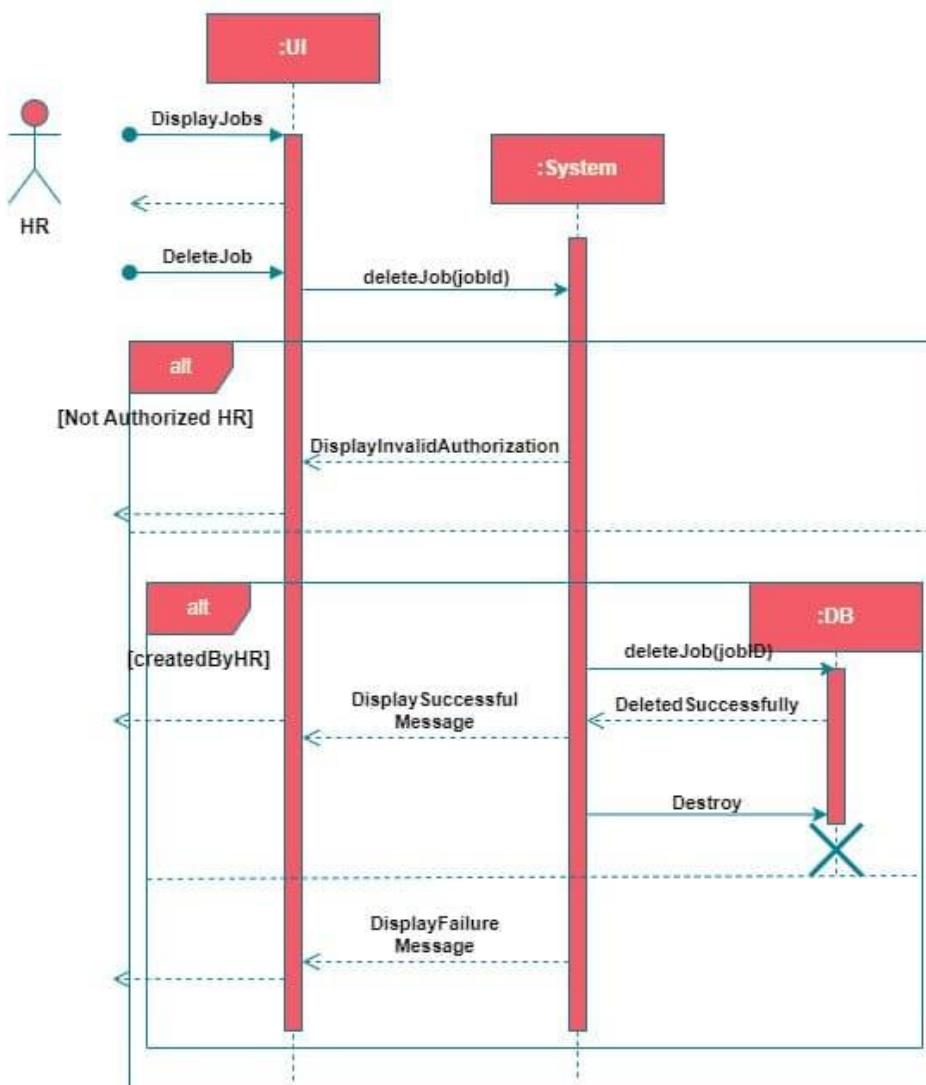
SignUp



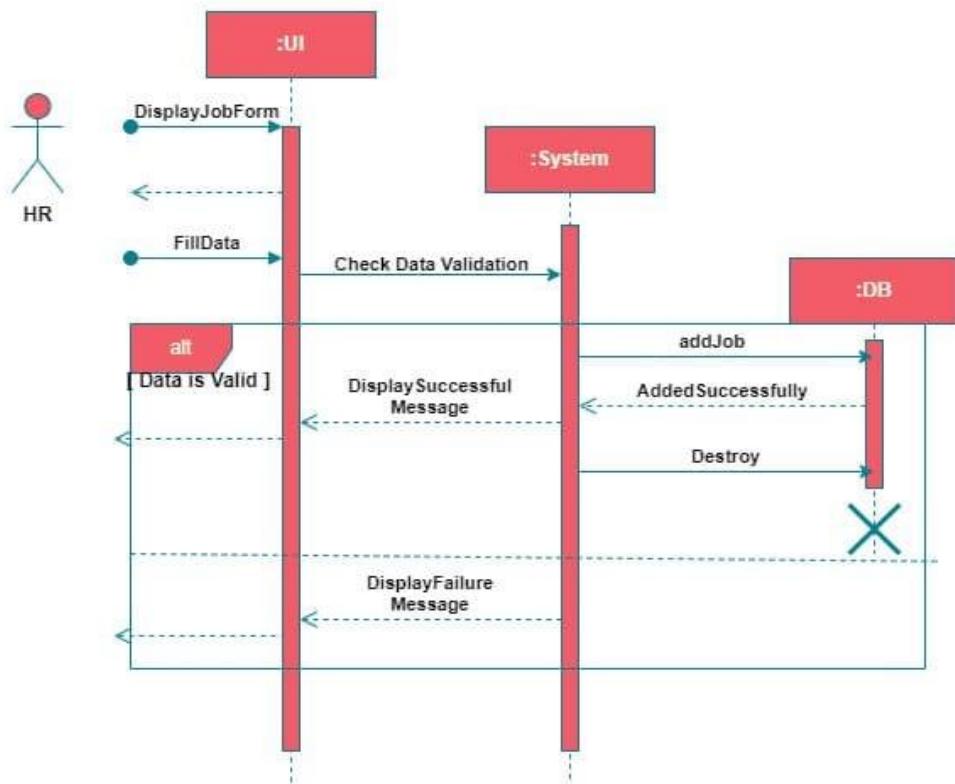
Apply To Job



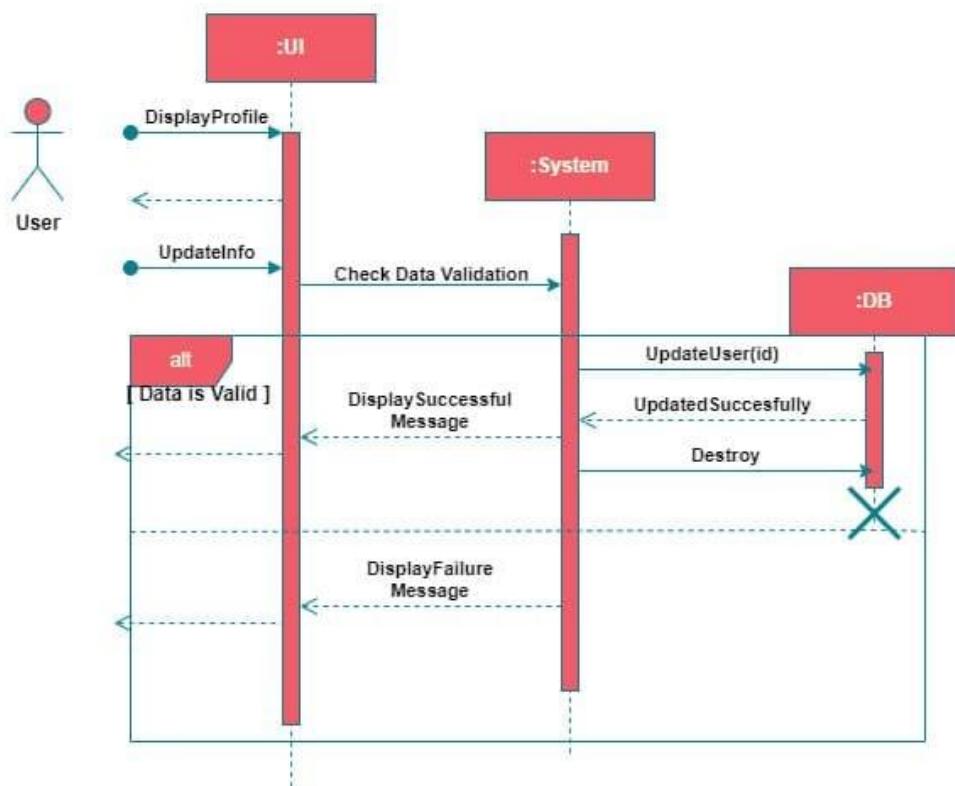
Delete Job



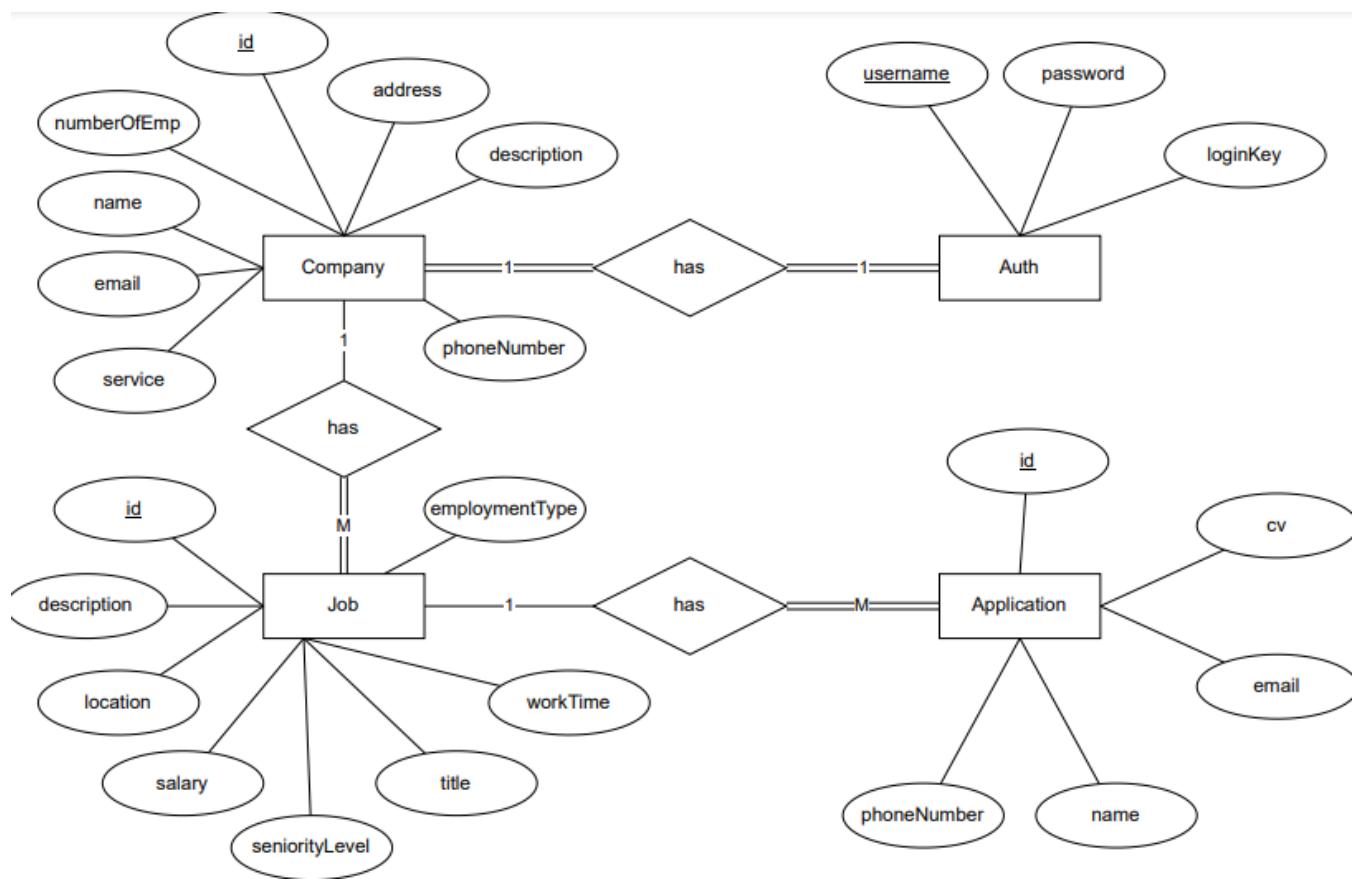
Add Job



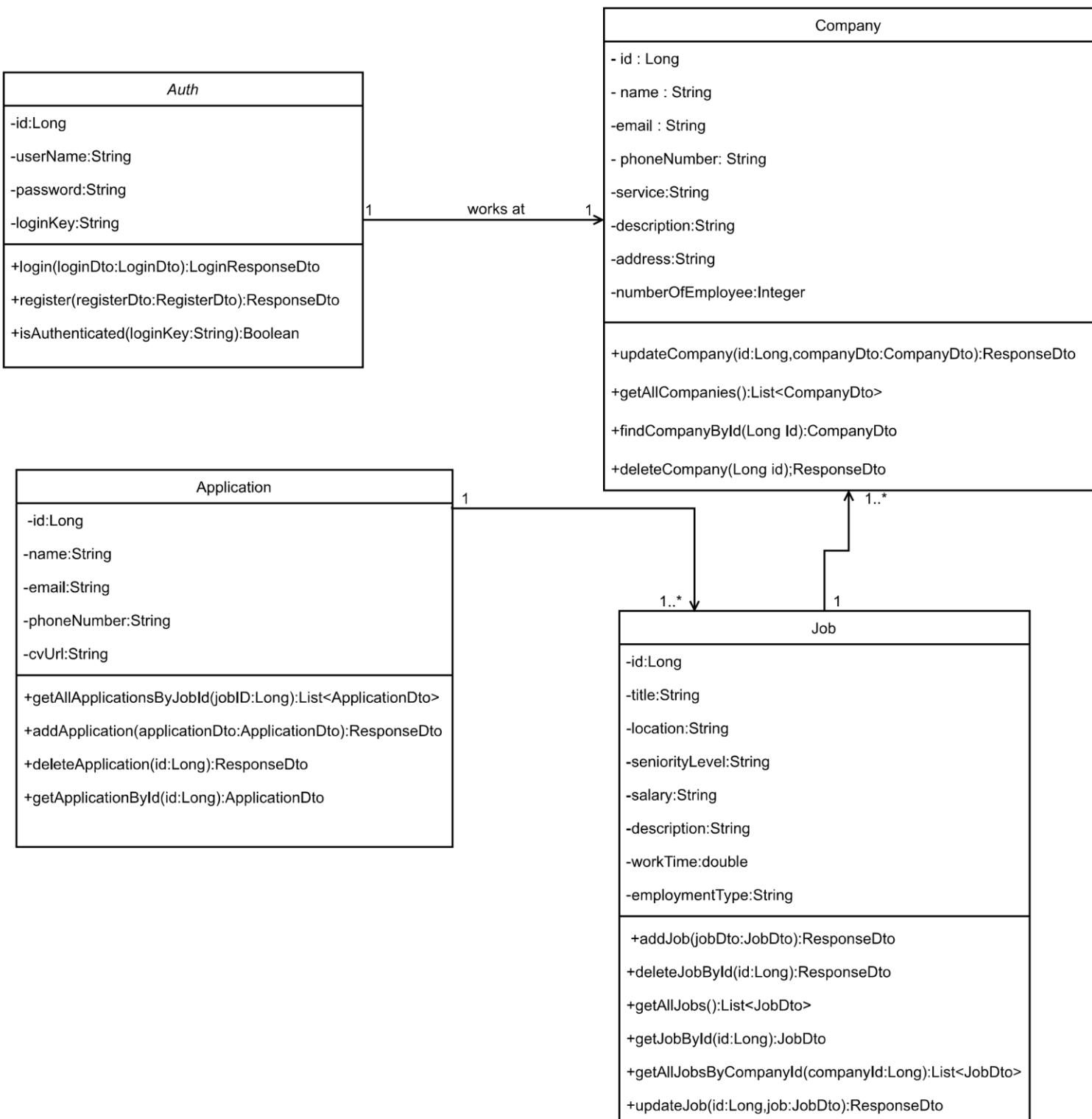
Update Info



Erd :



Class diagram :



OCL diagram :

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