UNIVERSITY PARTNER

UNIVERSITY OF WOLVERHAMPTON

HERALD COLLEGE KATHMANDU

Project and Professionalism

(6CS007)

Project Artefact Design

Remote Job Finder

Student Id : 2116280

Student Name : Biwas Pudasaini

Group : L6CG14

Supervisor : Mr. Bhanu Aryal

Reader : Mr. Aatiz Ghimire

Cohort : 7

Submitted on : October 13, 2023

Table of Contents

Functional Decomposition Diagram 1

SRS Document 1

- User Registration and Login System 2
- Job Search Functionality 3
- Job Posting Management 4
- Job Application and Review 5
- Profiles and Job Bookmarking 6

ER-Diagram 7

Class Diagram 8

Use Case Diagram 9

- User Registration and Login 9
- Job Search Functionality 10
- Job Posting Management 11
- Job Application and Review 12
- Profile and Bookmarking 13

Sequence Diagram 14

- User Registration and Login System 14
- Job Search Functionality 15
- Job Posting Management 16
- Job Application and Review 17
- Profiles and Job Bookmarking 18

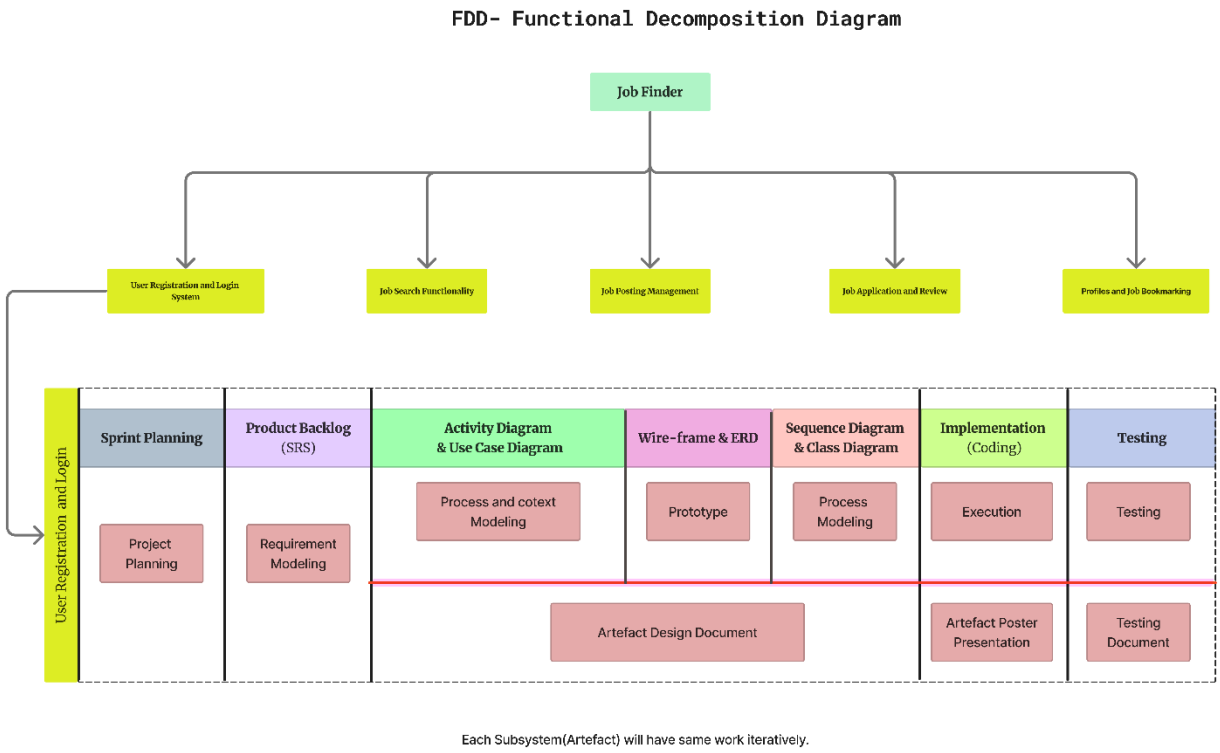
Activity Diagram 19

Test Case 24

- User Registration and Login System 24

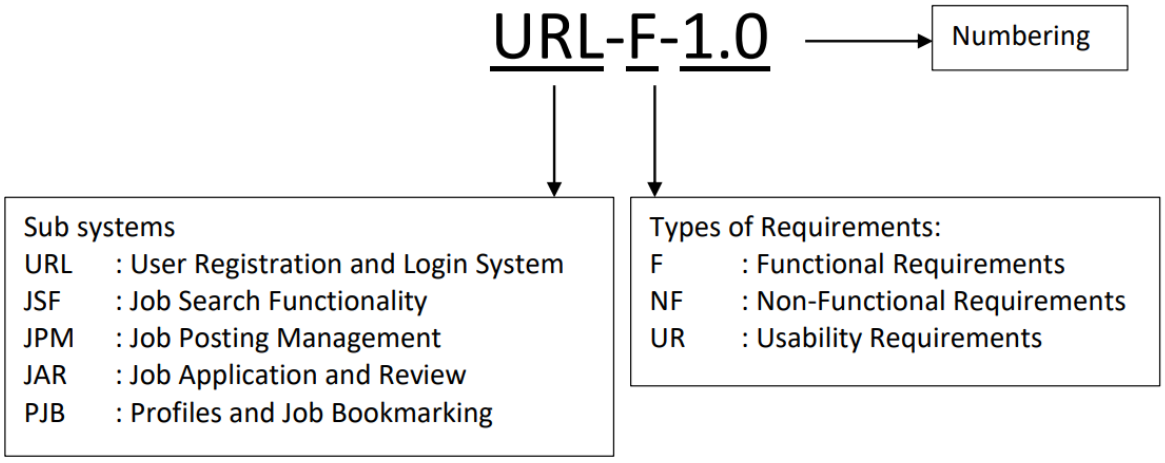
Job Search Functionality 24
Job Positing Management 25

Functional Decomposition Diagram



SRS Document

Legend:



User Registration and Login System

Req. Code	Req. Desc	Sprint	Priority
URL-F-1.0	The system shall allow customers to register themselves. [register user]	1	High
URL-NF-1.0	The system shall encrypt registration data before sending it to the server. (security)	1	High
URL-UR-1.0	On smaller devices, the header shall appear as a menu for better viewing and usability.	1	Medium
URL-F-1.1	The system shall allow registered users to log in.	1	High
URL-NF-1.1	User passwords shall be a combination of alphabets, numbers, and special characters for enhanced security.	1	High
URL-UR-1.1	The user and company registration forms shall be fully responsive and provide an optimal user experience on mobile devices.	1	High
URL-F-1.2	The system shall provide a registration form for companies to create accounts.	1	High
URL-F-1.3	The system shall allow registered companies to log in.	1	High
URL-F-1.4:	The system shall allow the addition of new users and companies by administrators.	1	High
URL-F-1.5	The system shall provide a functionality for users and companies to reset their passwords.	1	High
URL-F-2.0	The system shall allow the admin to add and remove users.	1	High
URL-NF-2.0	The admin shall have access to a secure panel for user management.	1	High
URL-NF-2.1	The system shall be capable of handling a minimum of 100,000 registered users and 10,000 companies without performance degradation.	1	High

Job Search Functionality

Req. Code	Req. Desc	Sprint	Priority
JSF-F-1.0	The system shall provide filters for job search.	2	Medium
JSF-F-1.1	Users shall be able to filter jobs by location.	2	High
JSF-F-1.2	Users shall be able to filter jobs by job category.	2	High
JSF-F-1.3	Users shall be able to filter jobs by Job Type.	2	High
JSF-F-2.0	The system shall implement an advanced search algorithm to improve search accuracy and relevance.	2	High
JSF-NF-2.0	The search algorithm shall return results within 3 seconds under normal server load conditions.	2	High
JSF-F-3.0	The system shall display search results in a user-friendly format.	2	High
JSF-NF-3.0	The job listings shall include detailed information such as job title, company name, location, and application deadline.	2	High
JSF-UR-3.0	Users shall have the search results shown in listing manner, or other criteria.	2	Medium

Job Posting Management

Req. Code	Req. Desc	Sprint	Priority
JPM -F-1.0	The system shall provide a form for posting jobs.	3	High
JPM -F-1.1	Employers shall be able to enter job details such as job title, description, requirements, and application deadline.	3	High
JPM -NF-1.0	The job post form shall enforce character limits and validate input data to prevent errors	3	High
JPM-F-2.0	The system shall display posted jobs in a user-friendly format	3	High
JPM-F-2.1	Job listings shall include job title, company name, location, and application deadline.	3	High
JPM-UR-2.0	Job listings shall be visually appealing and easy to navigate.	3	Medium
JPM-F-3.0	The system shall provide tools for managing job applications.	3	High
JPM-F-3.1	Job applicants shall receive a confirmation upon successful submission of their application	3	High
JPM-F-3.2	Employers shall have the ability to review and delete applications.	3	High
JPM-UR-3.0	Employers shall have the option to edit applications based on various criteria such as skills, experience, and qualifications.	3	Medium

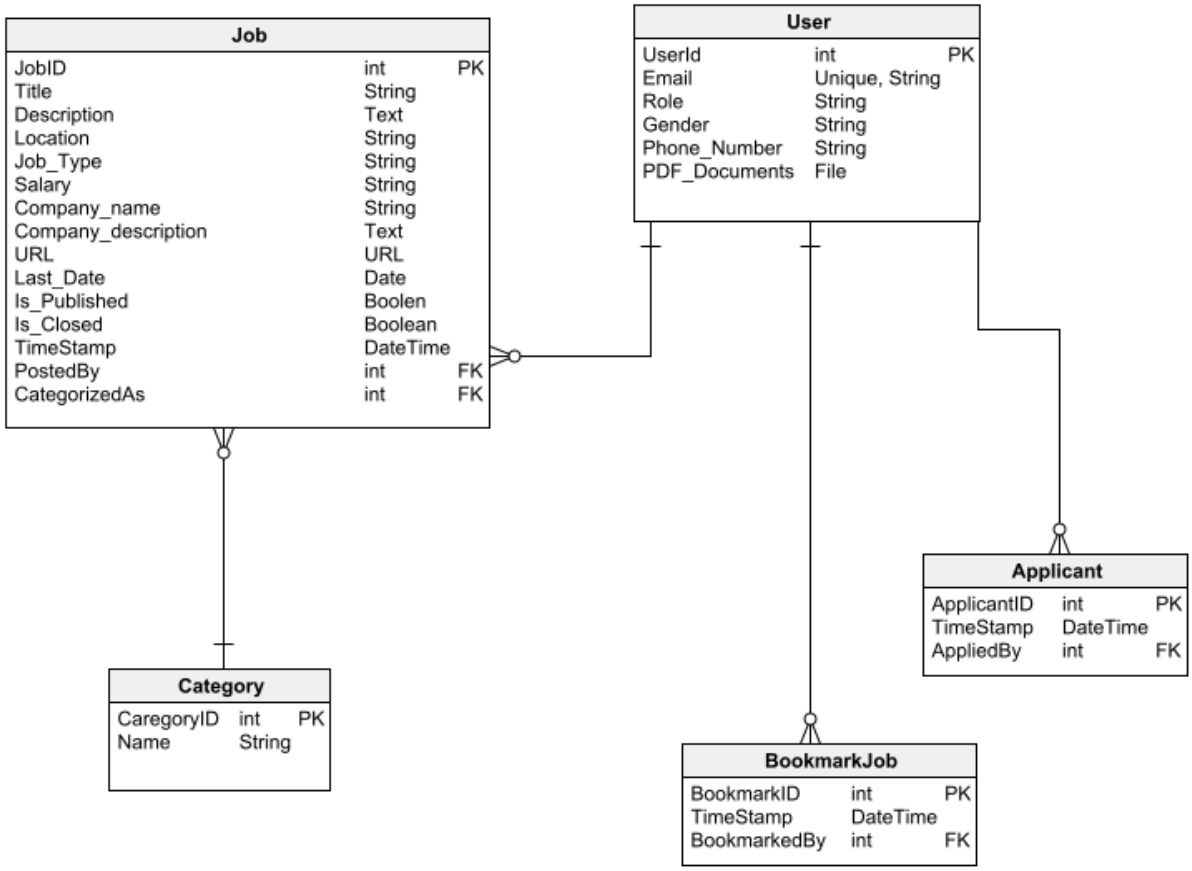
Job Application and Review

Req. Code	Req. Desc	Sprint	Priority
JAR-F-1.0	Users shall be able to apply to job postings.	4	High
JAR-F-1.1	Applicants shall provide their resume (CV) while applying to a job.	4	High
JAR-F-1.2	Users shall receive confirmation upon successful submission of their job application.	4	High
JAR-F-2.0	Employers shall be able to review job applications.	4	High
JAR-F-2.1	Employers shall have access to applicant resumes and contact details.	4	High
JAR-F-2.2	Employers shall be able to schedule interviews with applicants.	4	High
JAR-F-3.0	The system shall verify the authenticity of job applications by checking the company proof of registration documents.	4	High
JAR-NF-3.0	The system shall prevent duplicate applications from the same user for the same job posting.	4	High
JAR-F-4.0	Employers shall be able to view applicant profiles and contact details.	4	High
JAR-UR-4.0	Employers shall have the option to contact applicants through an internal messaging system.	4	High

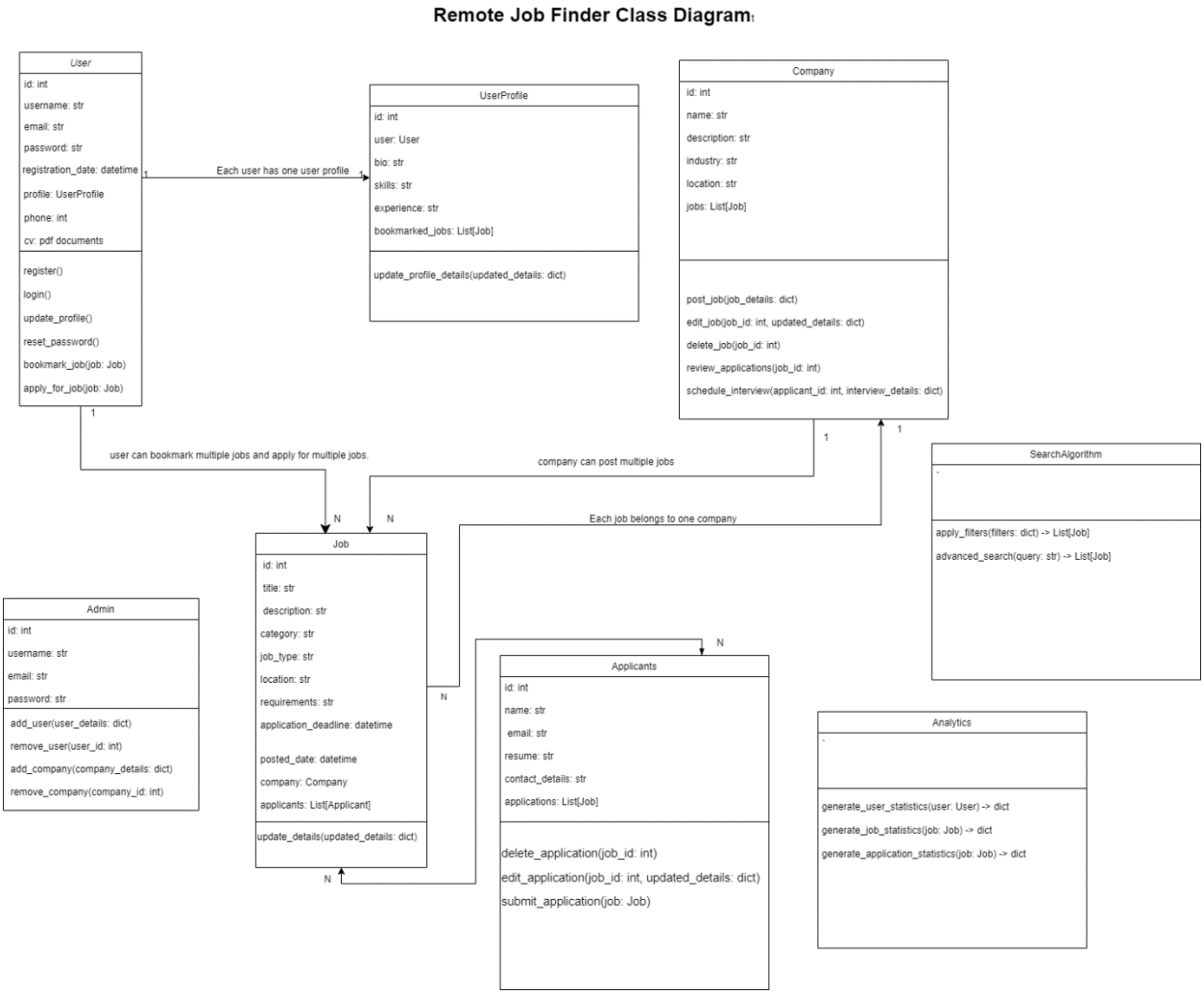
Profiles and Job Bookmarking

Req. Code	Req. Desc	Sprint	Priority
PJB-F-1.0	Users shall be able to bookmark job postings.	5	High
PJB-F-1.1	Users shall have a dedicated section to view and manage their bookmarked jobs.	5	High
PJB-UR-1.0	Users shall receive notifications about updates on bookmarked jobs.	5	Medium
PJB-F-2.0	Users shall have profiles with personal and professional information.	5	High
PJB-F-2.1	Users shall be able to edit and update their profiles.	5	High
PJB-F-2.2	Users shall be able to upload their resumes and contact details.	5	High
PJB-F-3.0	The system shall provide statistical data and analytics to users and employers.	5	High
PJB-F-3.1	Users shall be able to view the number of applications submitted, bookmarked jobs, and profile views.	5	High
PJB-NF-3.0	The system shall generate data of user engagement, jobs, and application trends.	5	High
PJB-UR-3.0	Users shall receive statistical data based on job posted, applied, and filed.	5	Medium

ER-Diagram

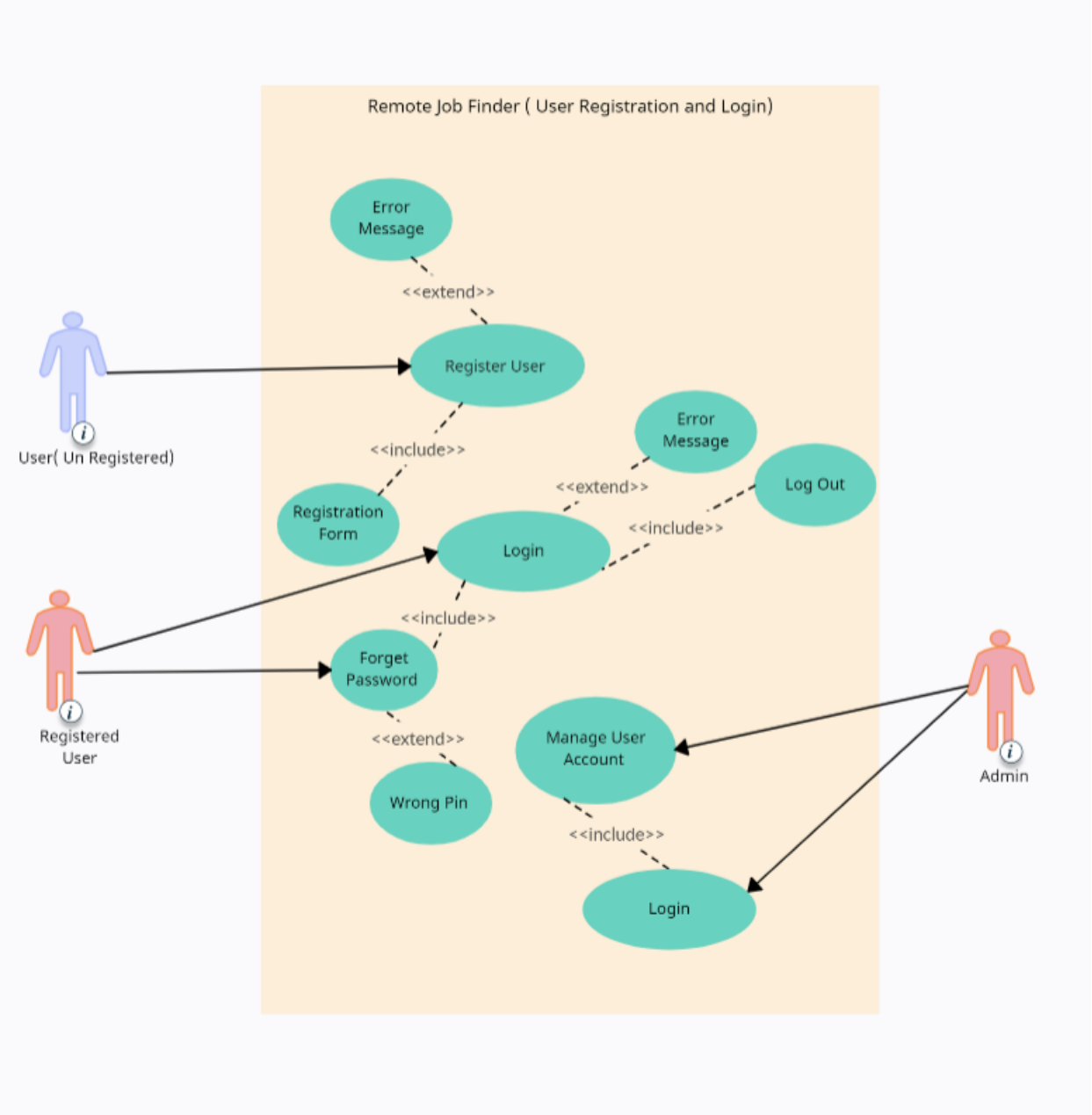

Job
JobID int PK
Title String
Description Text
Location String
Job_Type String
Salary String
Company_name String
Company_description Text
URL URL
Last_Date Date
Is_Published Boolen
Is_Closed Boolean
TimeStamp DateTime
PostedBy int FK
CategorizedAs int FK
User
UserId int PK
Email Unique, String
Role String
Gender String
Phone_Number String
PDF_Documents File
Applicant
ApplicantID int PK
TimeStamp DateTime
AppliedBy int FK
Category
CaregoryID int PK
Name String
BookmarkJob
BookmarkID int PK
TimeStamp DateTime
BookmarkedBy int FK

Class Diagram

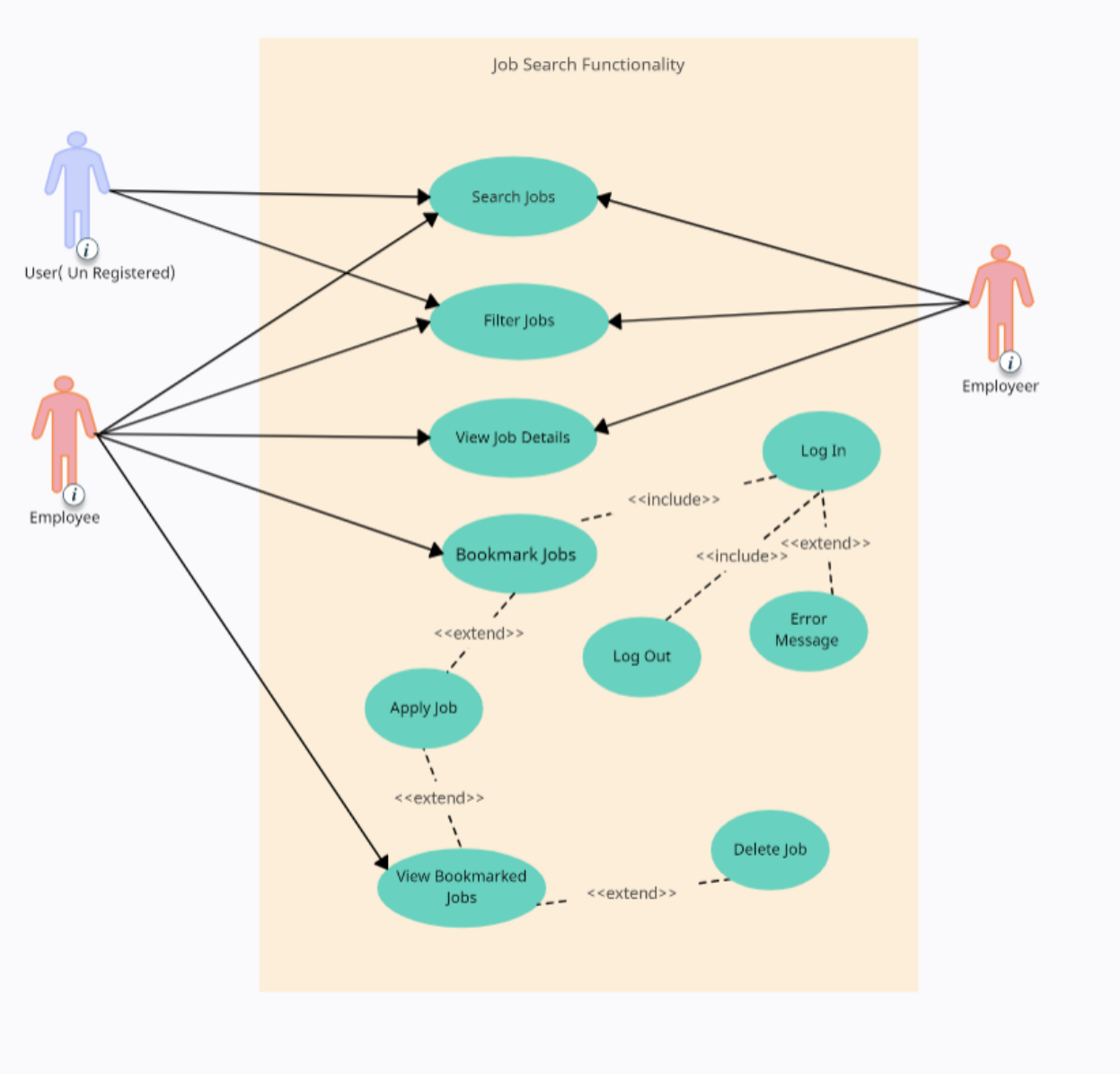


Use Case Diagram

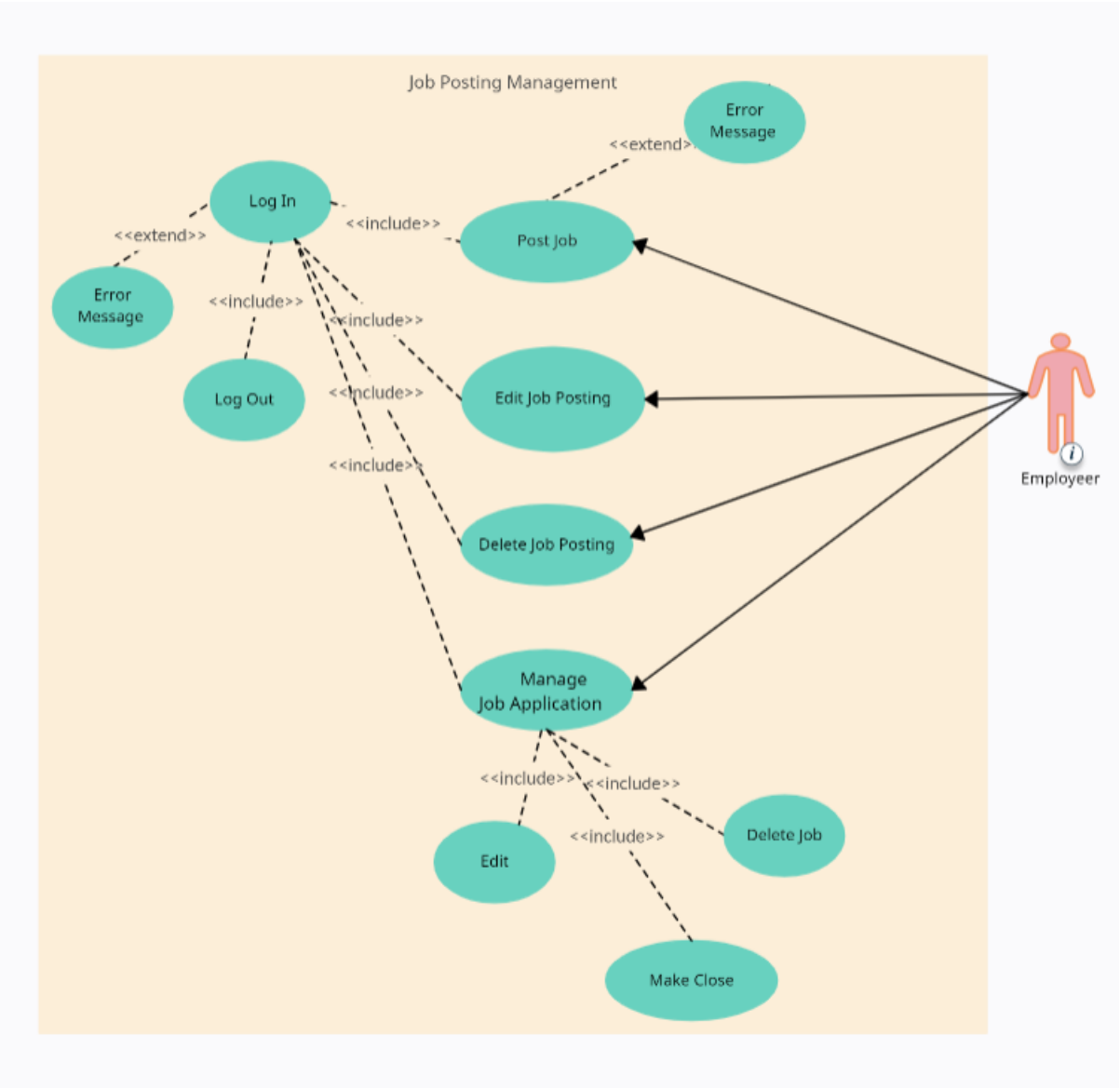
User Registration and Login



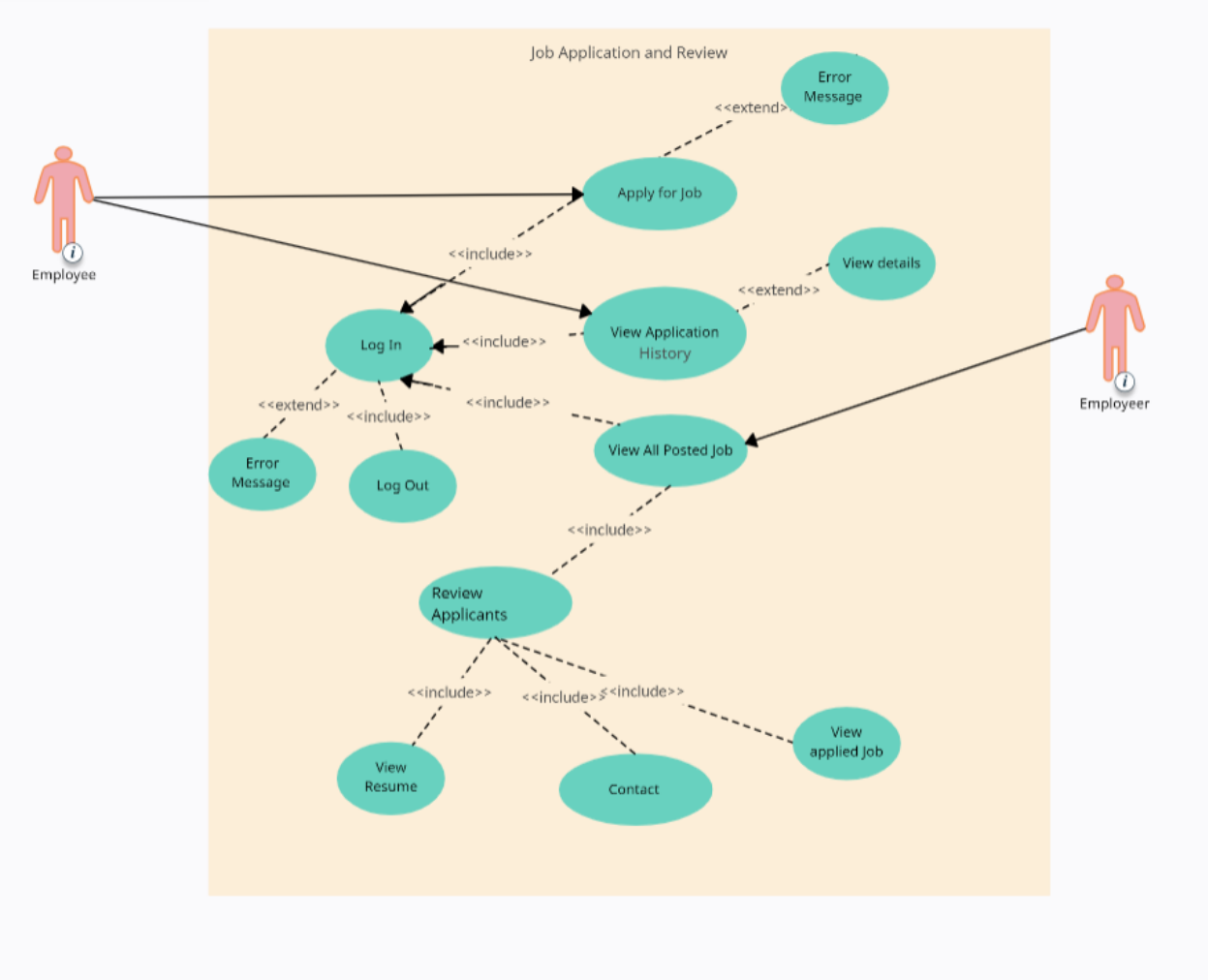
Job Search Functionality



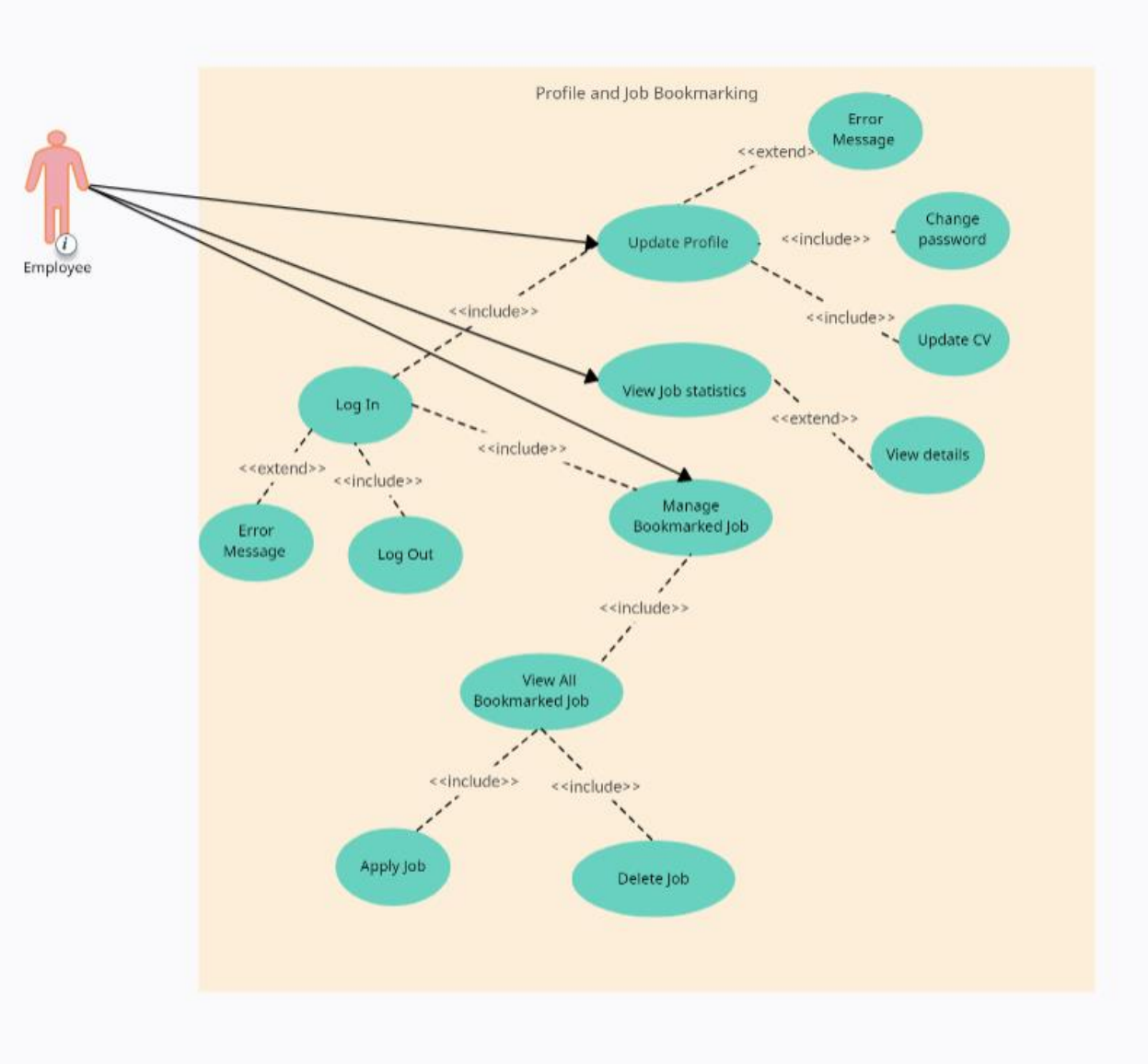
Job Posting Management



Job Application and Review

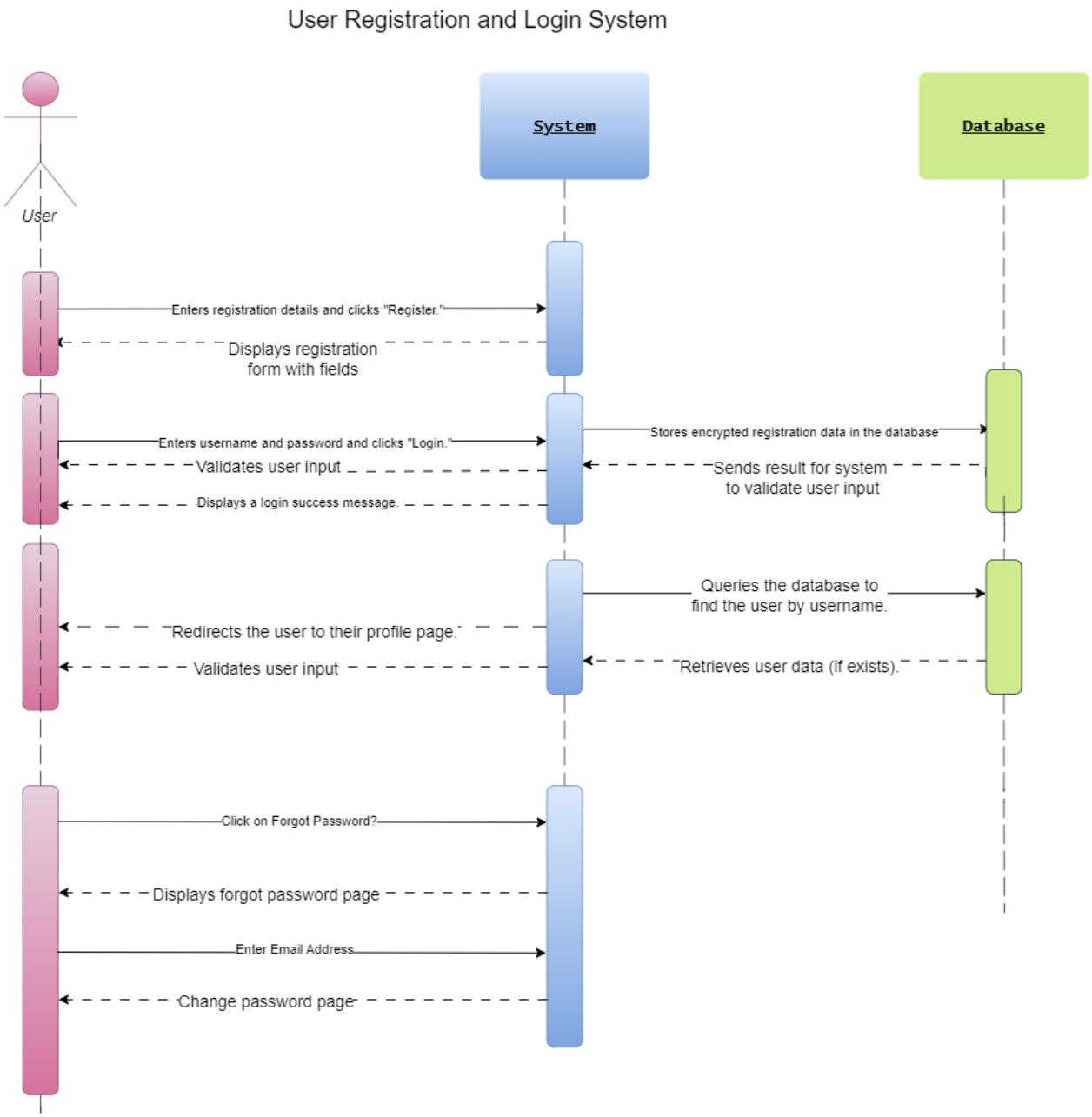


Profile and Bookmarking

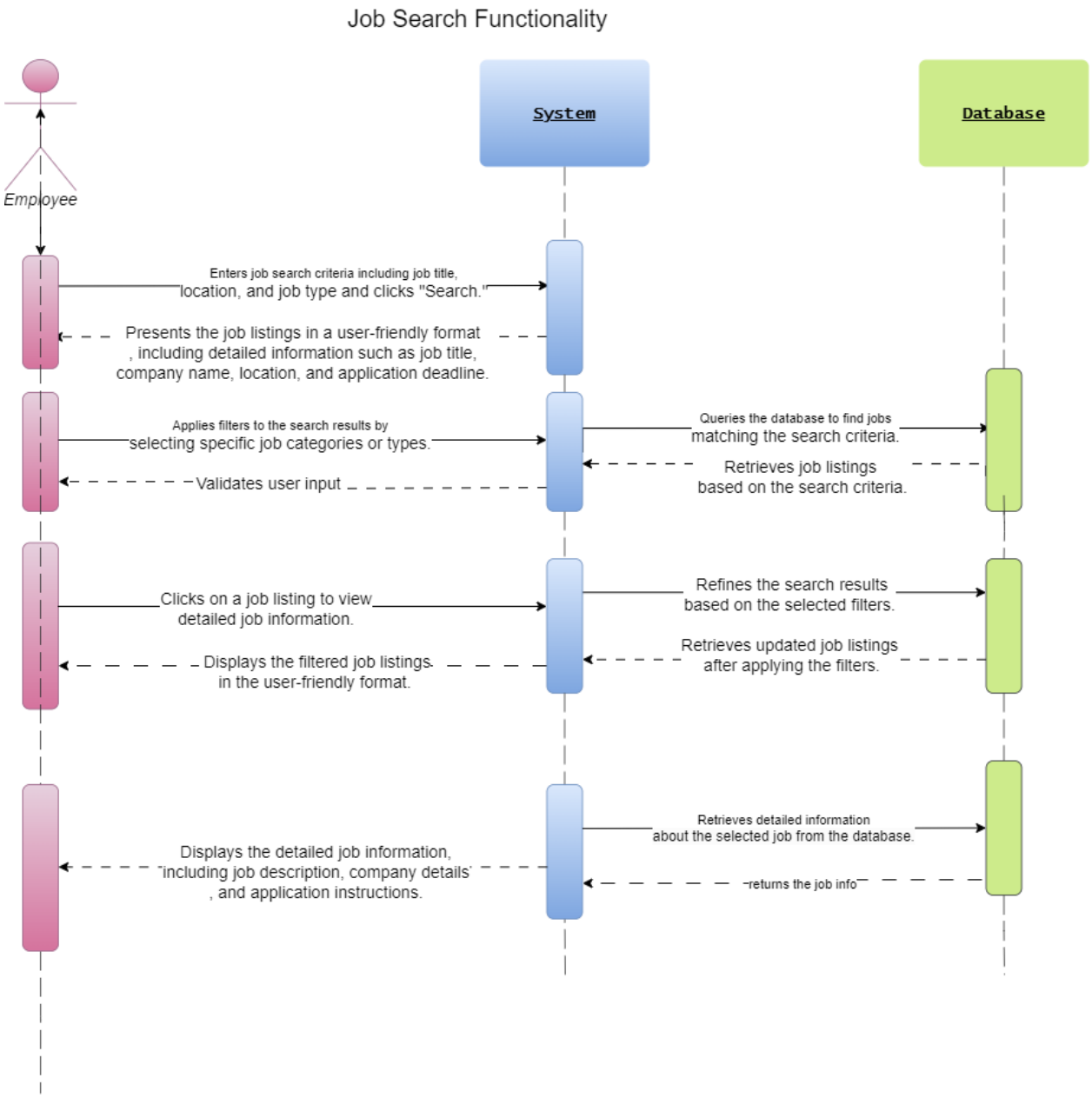


Sequence Diagram

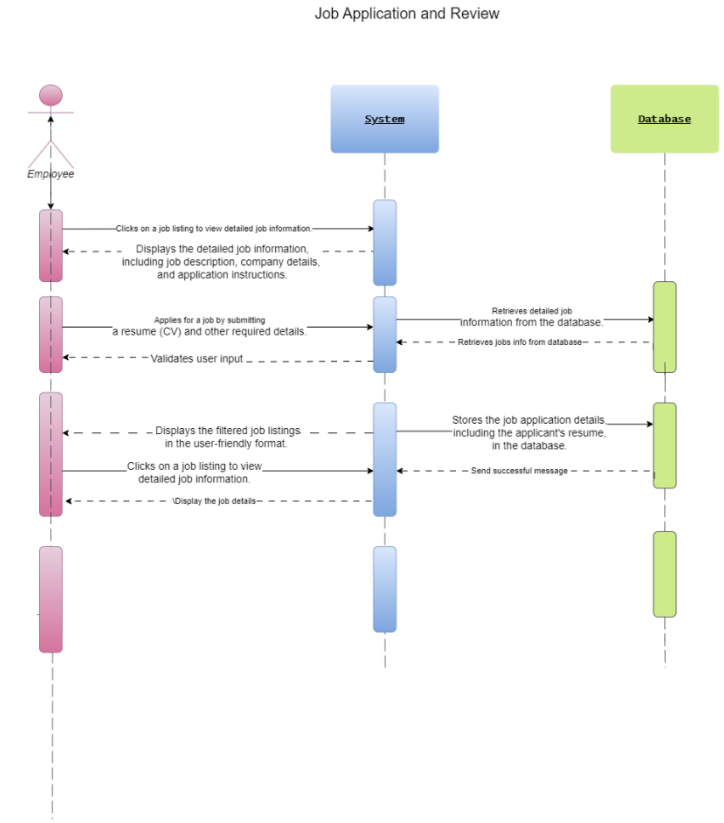
User Registration and Login System

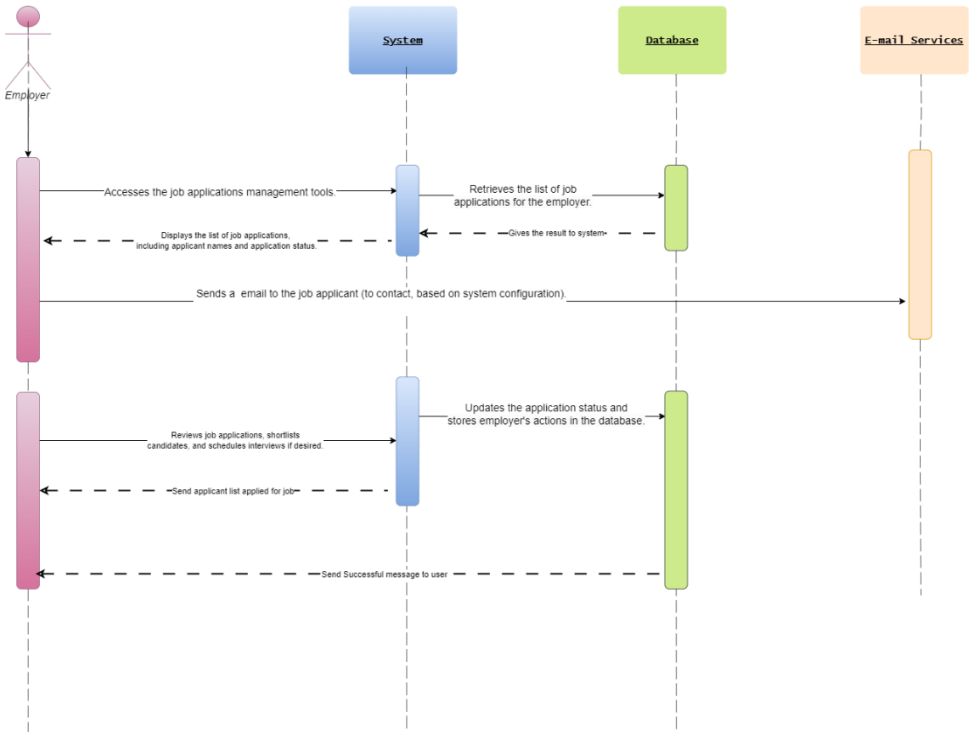


Job Search Functionality

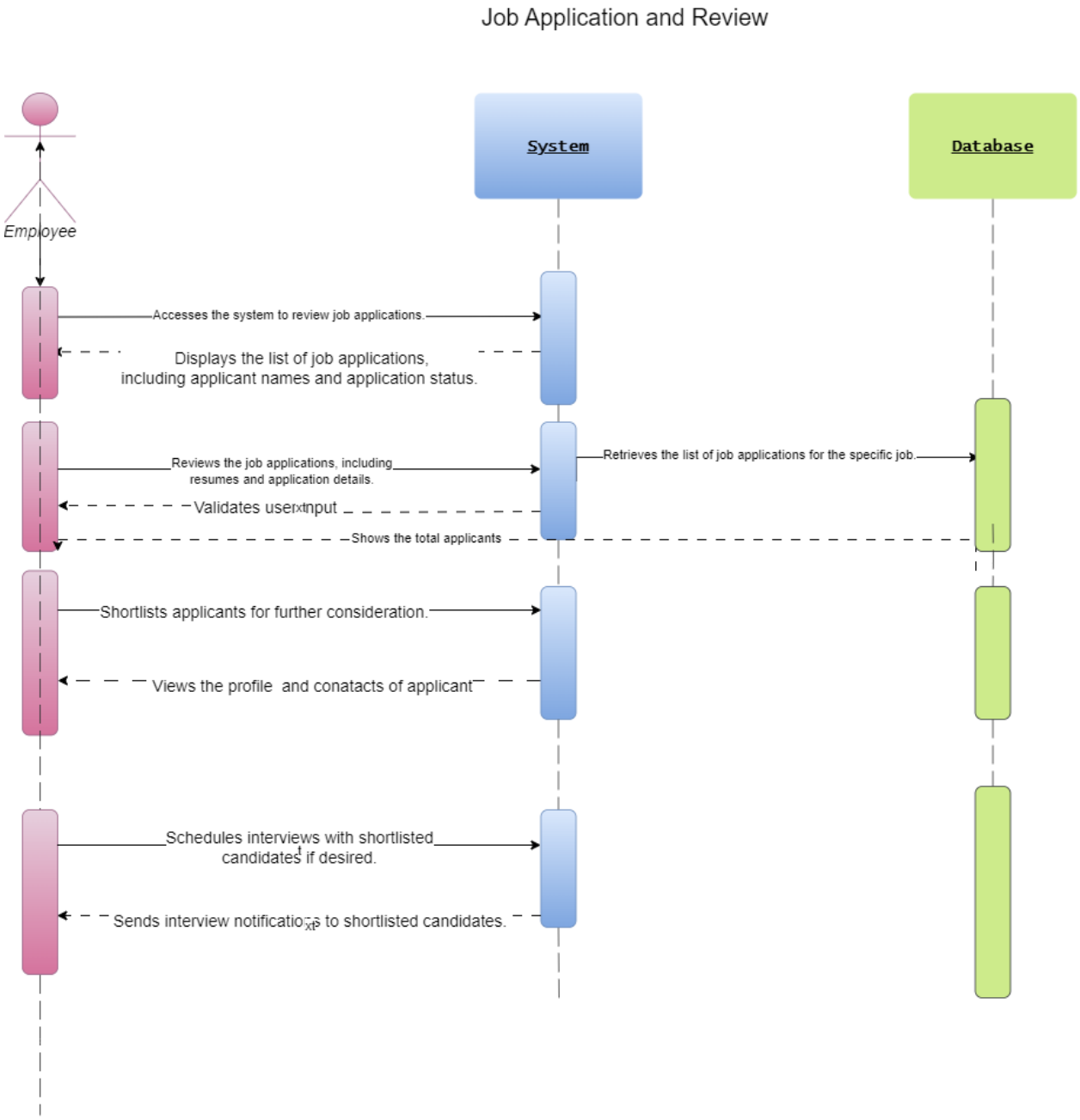


Job Posting Management

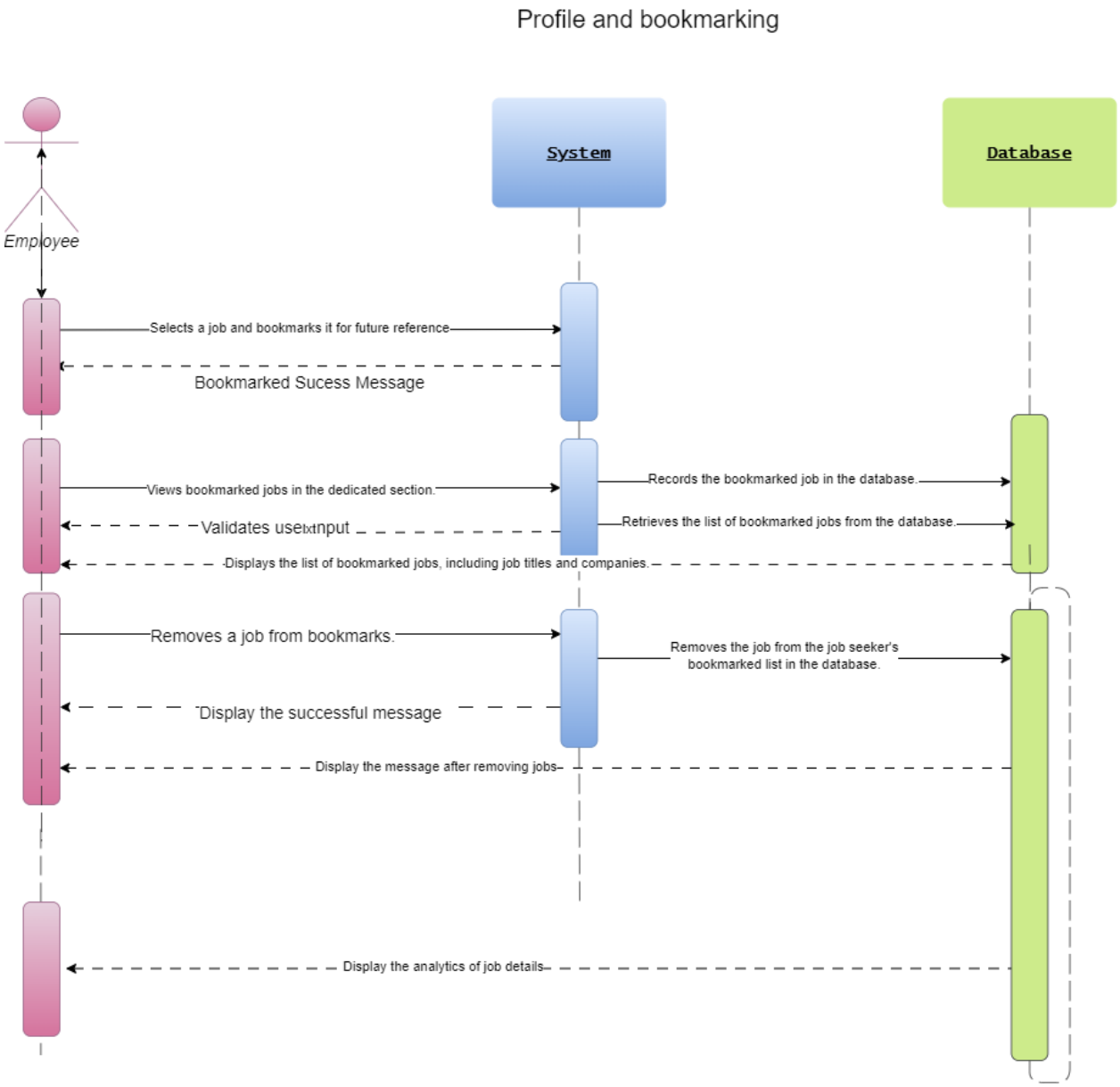




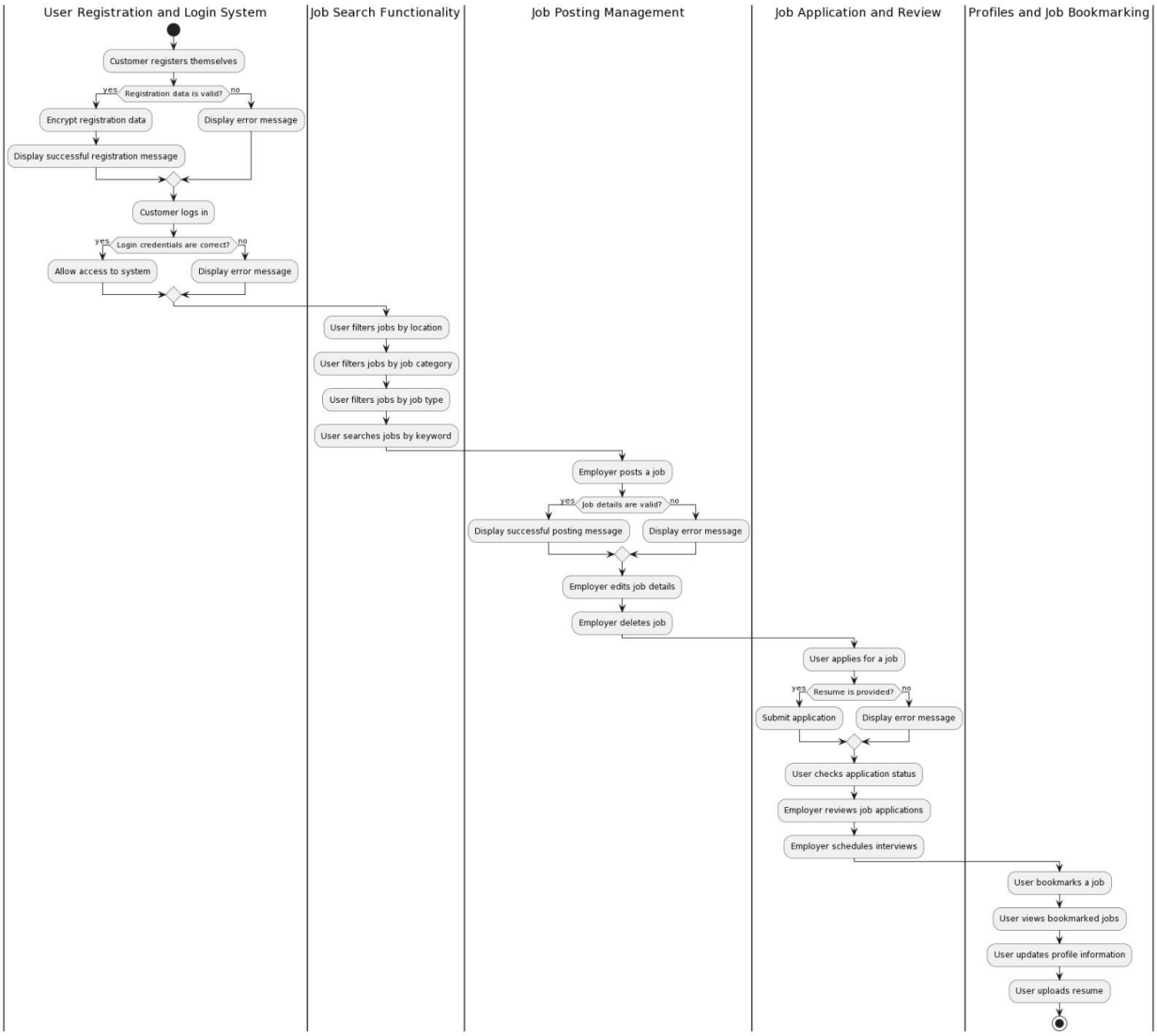
Job Application and Review

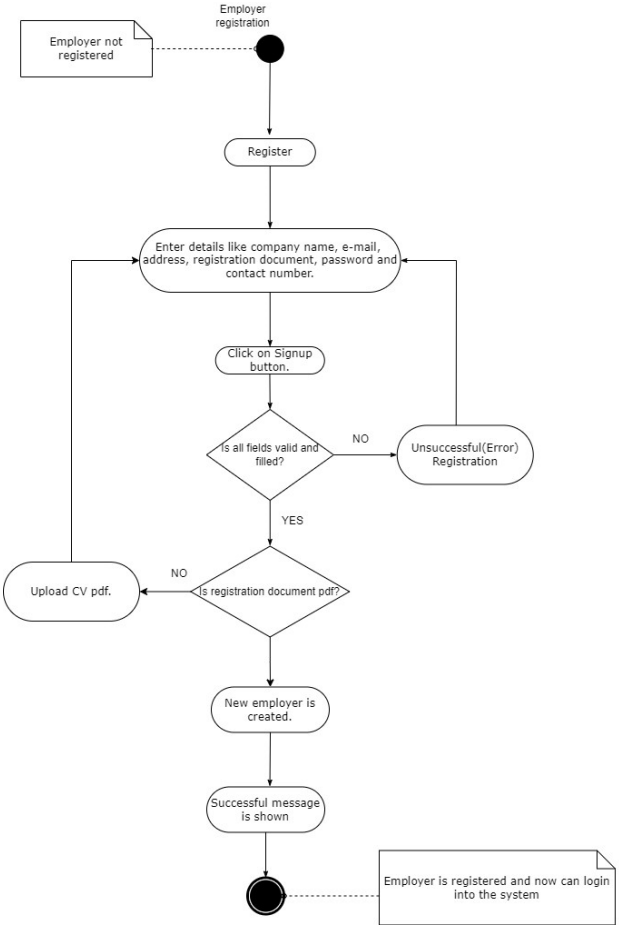


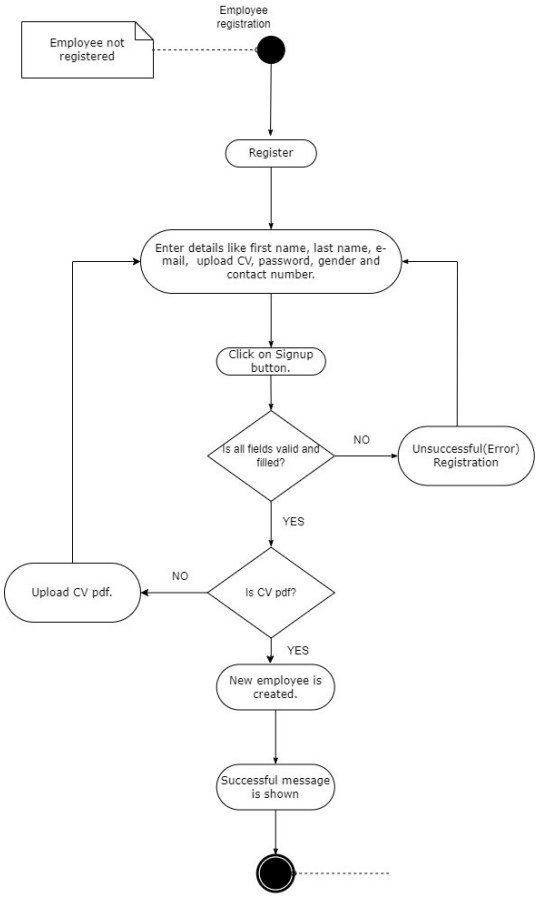
Profiles and Job Bookmarking

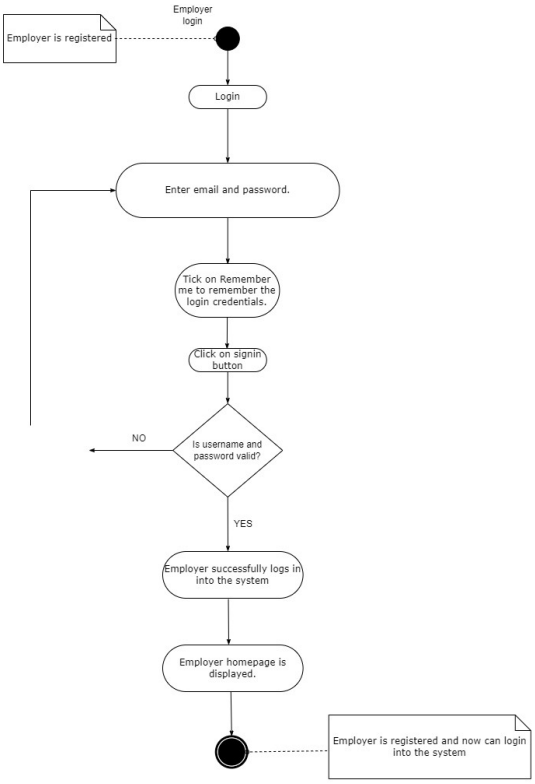


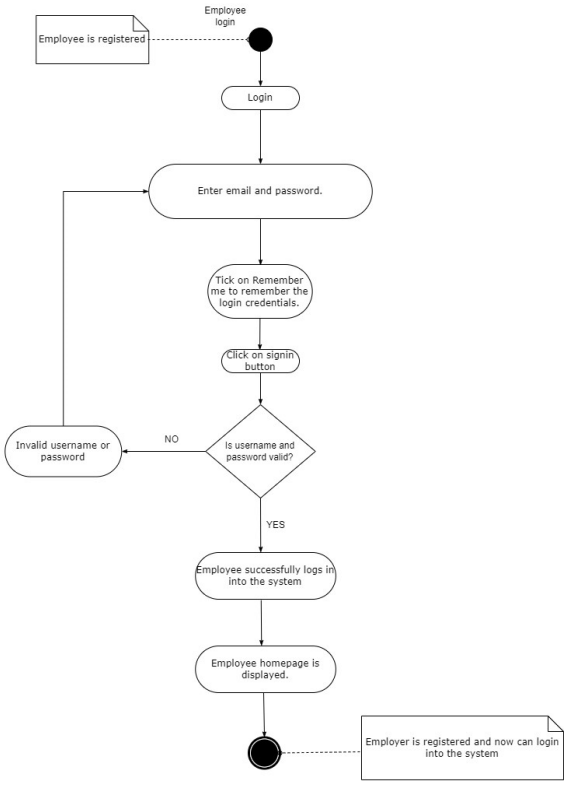
Activity Diagram

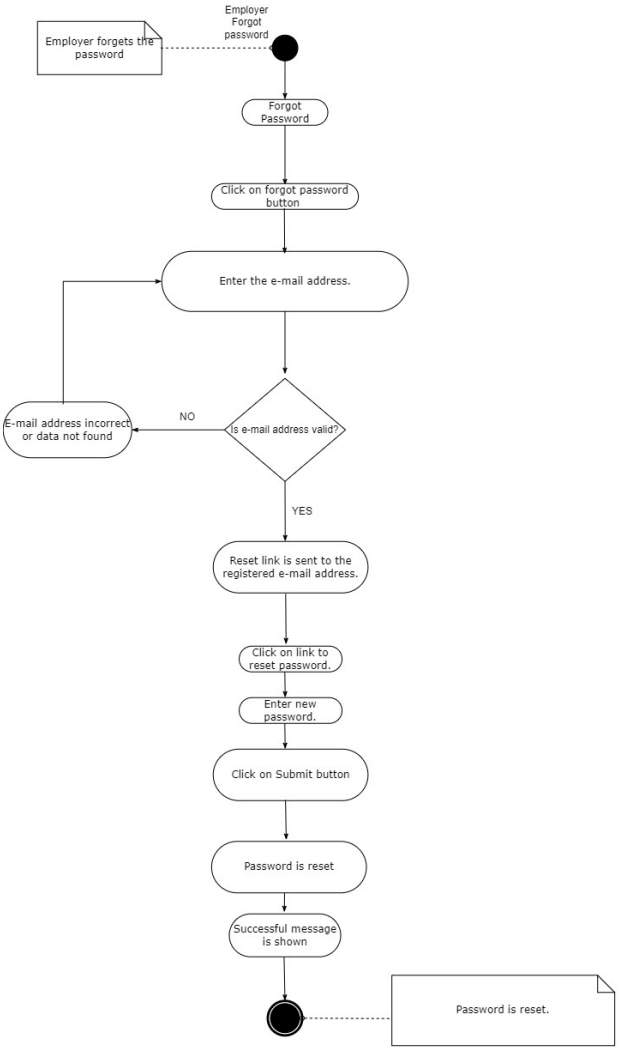


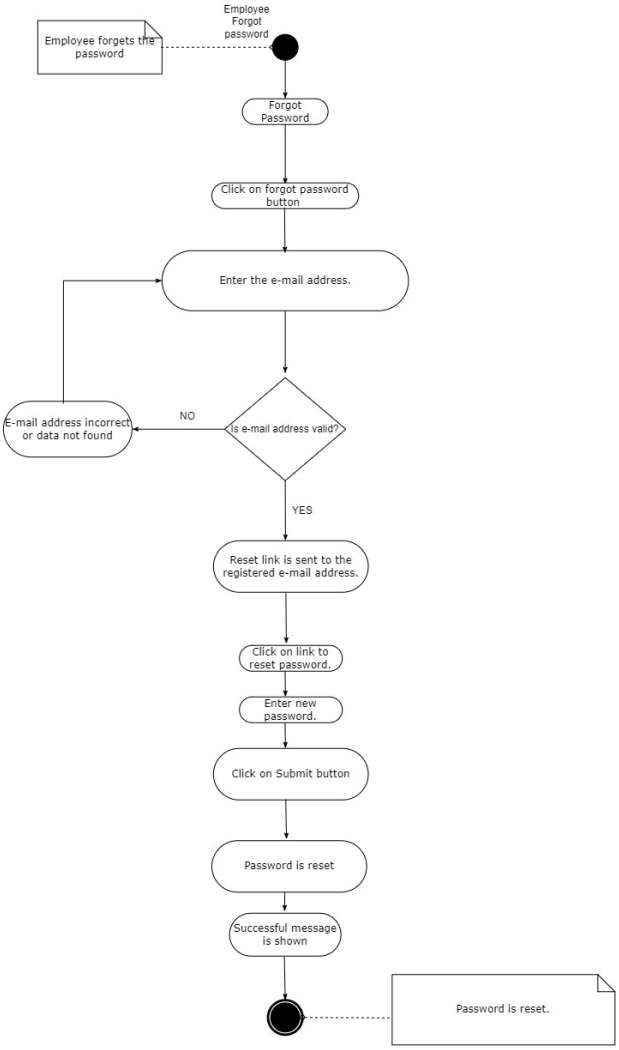

Employer registration
Employer not registered
Register
Enter details like company name, e-mail, address, registration document, password and contact number.
Click on Signup button.
Is all fields valid and filled?
NO
Unsuccessful(Error) Registration
YES
Upload CV pdf.
NO
Is registration document pdf?
New employer is created.
Successful message is shown
Employer is registered and now can login into the system

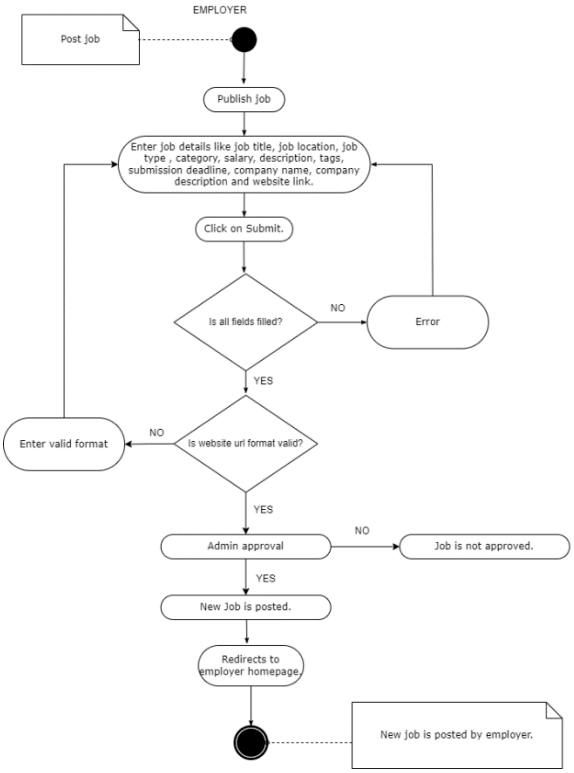

Employee registration
Employee not registered
Register
Enter details like first name, last name, e-mail, upload CV, password, gender and contact number.
Click on Signup button.
Is all fields valid and filled?
NO
Unsuccessful(Error) Registration
YES
Upload CV pdf.
NO
Is CV pdf?
YES
New employee is created.
Successful message is shown

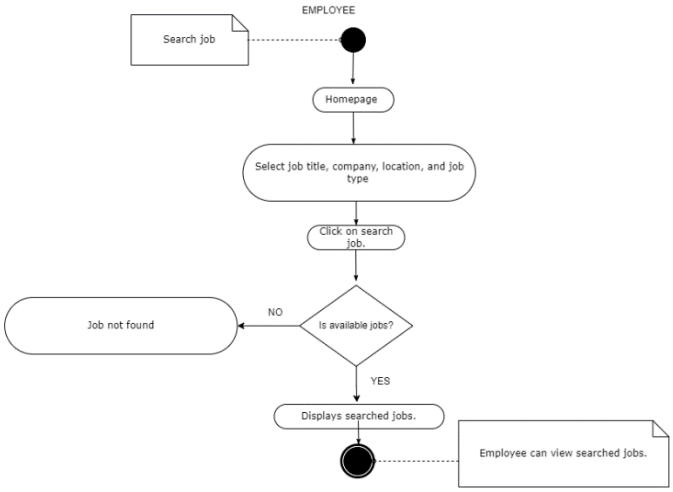

Employer login
Employer is registered
Login
Enter email and password.
Tick on Remember me to remember the login credentials.
Click on signin button
NO
Is username and password valid?
YES
Employer successfully logs in into the system
Employer homepage is displayed.
Employer is registered and now can login into the system

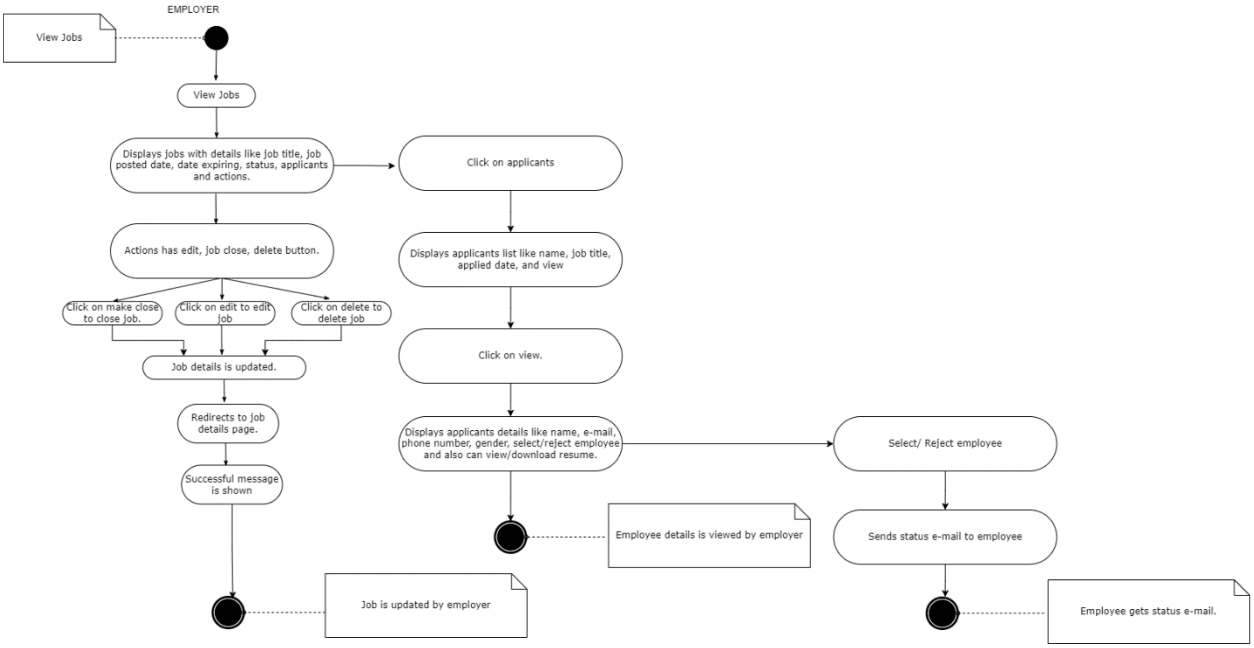

Employee login
Employee is registered
Login
Enter email and password.
Tick on Remember me to remember the login credentials.
Click on signin button
Invalid username or password
NO
Is username and password valid?
YES
Employee successfully logs in into the system
Employee homepage is displayed.
Employer is registered and now can login into the system

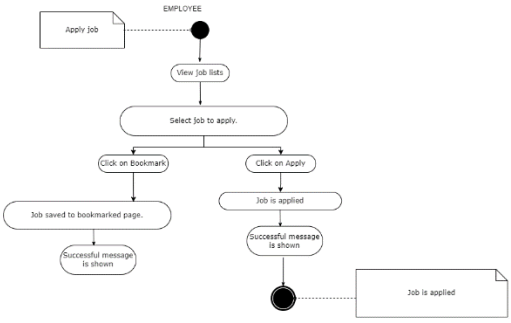

Employer forgets the password
Employer Forgot password
Forgot Password
Click on forgot password button
Enter the e-mail address.
Is e-mail address valid?
NO
E-mail address incorrect or data not found
YES
Reset link is sent to the registered e-mail address.
Click on link to reset password.
Enter new password.
Click on Submit button
Password is reset
Successful message is shown
Password is reset.

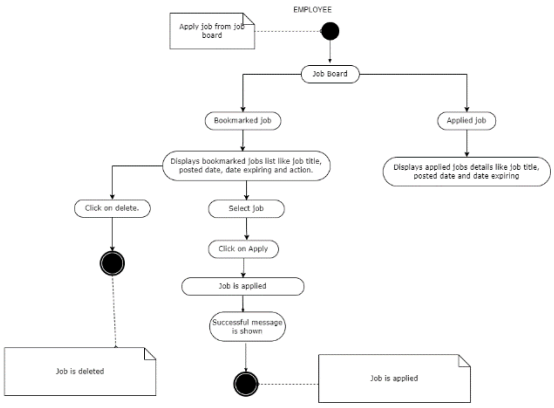

Employee forgets the password
Employee Forgot password
Forgot Password
Click on forgot password button
Enter the e-mail address.
Is e-mail address valid?
NO
E-mail address incorrect or data not found
YES
Reset link is sent to the registered e-mail address.
Click on link to reset password.
Enter new password.
Click on Submit button
Password is reset
Successful message is shown
Password is reset.


EMPLOYER
Post job
Publish Job
Enter job details like job title, job location, job type , category, salary, description, tags, submission deadline, company name, company description and website link.
Click on Submit.
Is all fields filled?
NO
Error
YES
Enter valid format
NO
Is website url format valid?
YES
Admin approval
NO
Job is not approved.
YES
New Job is posted.
Redirects to employer homepage.
New Job is posted by employer.


EMPLOYEE
Search job
Homepage
Select job title, company, location, and job type
Click on search job.
Is available jobs?
NO
Job not found
YES
Displays searched jobs.
Employee can view searched jobs.


EMPLOYER
View Jobs
View Jobs
Displays jobs with details like job title, job posted date, date expiring, status, applicants and actions.
Click on applicants
Actions has edit, job close, delete button.
Displays applicants list like name, job title, applied date, and view
Click on make close to close job.
Click on edit to edit job
Click on delete to delete job
Click on view.
Job details is updated.
Redirects to job details page.
Displays applicants details like name, e-mail, phone number, gender, select/reject employee and also can view/download resume.
Select/ Reject employee
Successful message is shown
Employee details is viewed by employer
Sends status e-mail to employee
Job is updated by employer
Employee gets status e-mail.





Test Case

User Registration and Login System

Remote Job Finder

Test Case Id	Requirement Id	Entry Criteria	Test Case Title	Steps	Test Data	Exit Criteria	Actual Result after Execution	Status	Comments
TC_01	URL-F-1.0	User attempts to register in the system.	Verify user registration functionality.	1. Navigate to registration page.	User registration details	User should be successfully registered in the system.	User is registered successfully.	Passed	Fulfilled
TC_02	URL-NF-1.0	User submits registration data.	Verify data encryption during registration.	1. Enter registration details.	Encrypted registration data	Registration data should be encrypted before sending it to the server.	Data is encrypted successfully.	Passed	Fulfilled
TC_03	URL-UR-1.0	User accesses the system on a smaller device.	Verify header appearance on smaller devices.	1. Access the system using a smaller device.	Device with smaller screen resolution	Header should appear as a menu for better viewing and usability.	Header appears as a menu.	Passed	Fulfilled
TC_04	URL-F-1.1	Registered user attempts to log in.	Verify user login functionality.	1. Navigate to the login page.	User credentials	User should be successfully logged into the system.	User is logged in successfully.	Passed	Fulfilled
TC_05	URL-NF-1.1	User sets a new password during registration.	Verify password complexity during registration.	1. Enter a password during registration.	Password with alphabets, numbers, and special characters	Password should meet complexity requirements.	Password meets complexity requirements.	Passed	Fulfilled
TC_06	URL-UR-1.1	User accesses registration forms on a mobile device.	Verify responsiveness of registration forms.	1. Access registration forms on a mobile device.	Mobile device with different screen sizes	Registration forms should provide an optimal user experience on mobile devices.	Registration forms are responsive.	Passed	Fulfilled
TC_07	URL-F-1.2	User attempts to create a company account.	Verify company registration functionality.	1. Navigate to the company registration page.	Company registration details	Company should be successfully registered in the system.	Company is registered successfully.	Passed	Fulfilled
TC_08	URL-F-1.3	Registered company attempts to log in.	Verify company login functionality.	1. Navigate to the company login page.	Company credentials	Company should be successfully logged into the system.	Company is logged in successfully.	Passed	Fulfilled
TC_09	URL-F-1.4	Administrator adds a new user or company.	Verify administrator's user management functionality.	1. Log in as an administrator.	New user or company details	Administrator should be able to add new users and companies in the system.	New user or company is added successfully.	Passed	Fulfilled
TC_10	URL-F-1.5	User attempts to reset their password.	Verify password reset functionality.	1. Access the password reset page.	User's email or username	User should receive a password reset link and be able to set a new password.	Password is successfully reset.	Passed	Fulfilled
TC_11	URL-F-2.0	Administrator adds and removes users.	Verify administrator's user management functionality.	1. Log in as an administrator.	User details	Administrator should be able to add and remove users from the system.	User is added/removed successfully.	Passed	Fulfilled
TC_12	URL-NF-2.0	Administrator accesses the user management panel.	Verify security of the admin panel.	1. Log in as an administrator.	Admin credentials	Administrator should have secure access to the user management panel.	Admin panel is secure.	Passed	Fulfilled
TC_13	URL-NF-2.1	System is subjected to a high number of registered users and companies.	Verify system performance under load.	1. Register a large number of users and companies.	100,000 registered users, 10,000 companies	System should handle 100,000 registered users and 10,000 companies without performance degradation.	System handles load successfully.	Passed	Fulfilled

Job Search Functionality

Remote Job Finder- JSF

Test Case ID	Requirement ID	Entry Criteria	Test Case Title	Steps	Test Data	Exit Criteria	Actual Result after Execution	Status	Comments
TC_01	JSF-F-1.0	User is on the job search page.	Verify job search filters functionality.	1. Go to the job search page.	Filter options (location, category)	Job listings match the selected criteria.	Job listings match the selected criteria.	Passed	Fulfilled
TC_02	JSF-F-1.1	User applies location filter.	Verify jobs filtered by location.	1. Select location from the filter.	Location selection	Job listings are specific to the selected location.	Job listings match the selected location.	Passed	Fulfilled
TC_03	JSF-F-1.2	User applies category filter.	Verify jobs filtered by category.	1. Select job category from the filter.	Category selection	Job listings are specific to the selected category.	Job listings match the selected category.	Passed	Fulfilled
TC_04	JSF-F-1.3	User applies job type filter.	Verify jobs filtered by job type.	1. Select job type from the filter.	Job type selection	Job listings are specific to the selected job type.	Job listings match the selected job type.	Passed	Fulfilled
TC_05	JSF-F-2.0	User enters search query.	Verify search algorithm accuracy and relevance.	1. Enter search query in the search bar.	Search query	Job listings are accurate and relevant to the search query.	Job listings are accurate and relevant.	Passed	Fulfilled
TC_06	JSF-NF-2.0	System under normal server load conditions.	Verify search results response time.	1. Perform search query.	Normal server load conditions	Search results are displayed within 3 seconds.	Search results are displayed within 3 seconds.	Passed	Fulfilled
TC_07	JSF-F-3.0	User views search results.	Verify user-friendly presentation of search results.	1. View search results.	Job listings format	Job listings include job title, company name, location, and application deadline in an easily readable format.	Job listings are displayed in a user-friendly format.	Passed	Fulfilled
TC_08	JSF-NF-3.0	User views detailed job information.	Verify detailed job information display.	1. Click on a job listing to view details.	Job details	Job details include title, company, location, and application deadline.	Job details are displayed accurately.	Passed	Fulfilled
TC_09	JSF-UR-3.0	User prefers a different view format.	Verify alternate job listings view.	1. Select preferred view format.	View format selection	Job listings are displayed according to the selected view format preference.	Job listings are displayed according to preference.	Passed	Fulfilled

Job Positing Management

Remote Job Finder - JPM

Test Case ID	Requirement ID	Entry Criteria	Test Case Title	Steps	Test Data	Exit Criteria	Actual Result after Execution	Status	Comments
JPMT_01	JPM-F-1.0	Admin is logged into the system.	Verify job posting form accessibility and functionality.	1. Go to the job posting form.	Job details (title, description, requirements, deadline)	Job posting form is accessible and fields are editable.	Job posting form is accessible and fields are editable.	Passed	Fulfilled
JPMT_02	JPM-F-1.1	Admin is on the job posting form.	Verify job details submission.	1. Fill out job details.	Job details (title, description, requirements, deadline)	Job details are submitted successfully.	Job details are submitted successfully.	Passed	Fulfilled
JPMT_03	JPM-NF-1.0	Admin is on the job posting form.	Verify character limits and input validation on the job posting form.	1. Exceed character limits in various fields.	Job details (title, description, requirements, deadline)	Error messages are displayed for exceeded character limits and invalid input.	Error messages are displayed for exceeded character limits and invalid input.	Passed	Fulfilled
JPMT_04	JPM-F-2.0	Admin has posted jobs.	Verify displayed job listings.	1. Go to the job listings page.	Posted job listings	Job listings include job title, company name, location, and application deadline.	Job listings include job title, company name, location, and application deadline.	Passed	Fulfilled
JPMT_05	JPM-F-2.1	Admin is on the job listings page.	Verify job details in the listings.	1. Click on a job listing to view details.	Job details (title, description, requirements, deadline)	Job details include title, description, requirements, and deadline.	Job details include title, description, requirements, and deadline.	Passed	Fulfilled
JPMT_06	JPM-UR-2.0	Admin is on the job listings page.	Verify visually appealing and easy-to-navigate job listings.	1. Observe the job listings layout.	Job listings format	Job listings have visually appealing layout and are easy to navigate.	Job listings have visually appealing layout and are easy to navigate.	Passed	Fulfilled
JPMT_07	JPM-F-3.0	Admin has received job applications.	Verify job application management tools.	1. Go to the job applications management page.	Job applications list	Admin can review, delete, and manage job applications.	Admin can review, delete, and manage job applications.	Passed	Fulfilled
JPMT_08	JPM-F-3.1	Admin is viewing a job application.	Verify applicant confirmation upon submission.	1. View an applicant's submitted application.	Applicant details (name, contact, resume)	Applicant receives confirmation upon successful submission.	Applicant receives confirmation upon successful submission.	Passed	Fulfilled
JPMT_09	JPM-UR-3.0	Admin is managing job applications.	Verify ability to edit applications based on specific criteria.	1. Edit an application based on skills and qualifications.	Applicant details (skills, experience, qualifications)	Admin can edit applications based on specific criteria.	Admin can edit applications based on specific criteria.	Passed	Fulfilled