

PROJECT REPORT

On

PLACEMENT PORTAL

Submitted as partial fulfillment for the
award of

MASTER OF COMPUTER APPLICATION

SESSION 2021-22

By

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STUDENT DECLARATION

I hereby declare that the work being presented in this report entitled "PLACEMENT PORTAL" is an authentic record of my own work carried out under the supervision of "Mr. Naresh Chandra".

The matter embodied in this report has not been submitted by me for the award of any other degree.

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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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(Associate Professor)

ACKNOWLEDGEMENT

Any project is not a work of an individual. It combines efforts, ideas, suggestions, reviews and hard work. We express our sincere gratitude to all those who initiated and helped us in the successful completion of our project. One of the most pleasing aspect in collecting the necessary information and compiling it is the opportunity to thanks those who have actively contributed to it.

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I'm highly indebted to Prof (Mr.) Ajay Srivastava (HOD- MCA) for his continuous effort in building a good infrastructure and develop a professional attitude within ourselves during the academic period of MCA.

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MCA-IIIrd Semester

CERTIFICATE

This Certified that Akash Pal (2000290140012) and Ashish Nehra (2000290140029) have carried out the project work having "PLACEMENT PORTAL" for Master of Computer Applications from Mr. A.P.J. Abdul Kalam Technical University (AKTU) Technical University, Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself/herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

Date:

10/01/2022

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Ashish Nehra (2000290140029)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Date:10/01/2022

Mr. Naresh Chandra (Associate
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Signature of Internal Examiner

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ABSTRACT

PLACEMENT PORTAL is a web application built in JAVASCRIPT, MERN. It provides the candidates ability to register to this web application and search for jobs, manage their accounts.

On the other hand companies that are willing to publish the jobs for their company to candidates can register to the job portal and get their own account created and can post jobs to PORTAL's database Registered companies can add or remove jobs and these jobs can be seen by various candidates and they can contact the company person for the job. Main aim of this web application is to make a good web application that can make this job search option easy and accessible to everyone who are interested.

This project is aimed at developing a web-based PLACEMENT PORTAL for the HR Group for a company.

Some features of this system will be creating vacancies, storing Applicant's data, Interview process initiation, Scheduling Interviews, Storing Interview results for the applicant and finally Hiring of the applicant. Reports may be required to be generated for the use of HR group.

This system automates the manual recruitment process. We believe that once the organization chooses to use this system, it will eventually recognize the value and necessity of this system and understand the problems involved in the manual process.

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1. INTRODUCTION

Placement Portal is an embedded JavaScript, Express web application. It offers candidates the option to register with this app to search for jobs and manage their accounts.

On the other hand, companies that want to publish job offers to candidates can register in the job portal, create their own account and publish job offers in the portal's database. Registered Company Add Jobs Or you can remove these vacancies and they are displayed to different candidates, and you can contact your company representative to get jobs.

The main goal of this web application is to create a great web application that can make this job search option accessible to anyone interested.

1. 1 Purpose

This project aims to develop an online recruitment portal for corporate HR groups. Some of the features of this system are creating vacancies, saving candidate data, starting the interview process, scheduling interviews, saving candidate interview results, and finally recruiting candidates.

You may need a report to use the human resources team. This system automates the manual hiring process. We believe that if an organization chooses to use this system, it will eventually realize the value and need for this system and understand the issues associated with the manual process. Its data and contents are updated every time a user accesses them.

In web application development, ExpressJS is used as the HTML/CSS server-side language and ReactJS is used for the front-end design.

2. System Analysis

This chapter describes and analyzes the online work of the portal development process, including software requirements. Specification (SRS) and comparison of existing and proposed systems.

Functional and non-functional requirements are included in the SRS section, which provides a complete description and overview of the system requirements before development takes place. In addition, the existing system and the recommendation system provide insights into how the recommender system is more effective than the existing system.

Manage product operations electronically. It reduces the risk of paperwork like lost files, corrupted files and slowness. Helps administrators manage and record transactions more efficiently.

System Objectives

- Improved Controllability and Performance This system was developed to address current issues and offline job search issues.
- Cost savings
- Time savings

3 Requirements Analysis

3.1 Method used for Requirement analysis

In the software development life cycle (SDLC), Requirement analysis is the first step of major importance. The entire concentration is on gathering the functional and the nonfunctional requirements for the product to be developed and estimating the feasibility of those attributes. Through requirement gathering we ensure that we are setting project goals and objectives much earlier. Complete understanding of the requirements leads to the successful development of the software. If we don't do this step, then however hard we work we will never arrive at the desired final product. This is most crucial as without knowing the exact requirements the final output can never be achieved as desired. For this project, I did a major research on the existing system and discussed the functionality that I wanted to develop with my major professor and finally concluded on a concrete set of requirements that I wanted to see as an outcome of my project.

Functional Requirements

The proposed system has the following functionalities:

- Job Seeker Sign In
- Job Seeker Sign Up
- Job Seeker can view all available jobs
- Job seeker can apply to more than one jobs.
- Job seeker can view all applied jobs.
- Job seeker can update their profile information.
- Job seeker can retrieve their password if forgot.
- Companies can Register to the portal.
- Admin approves the company registration,
- Companies can post jobs.
- Companies can see all approved jobs.
- Admin can view all jobs.
- Admin approves the jobs posted by the company.

3.3 Non Functional Requirements

- Reliability requirements - The system must perform accurately towards the administrator request. For example, when the administrator saves the edited details of the user, after he reviews the details later, they must be changed according to the latest details that was updated. Moreover, the client is not allowed to view the details that the administrator has. Besides that, the login form will have validity check to ensure that only the authorized users gain access to the system.

Usability requirements - This system should be user-friendly and easy to use so that users can perform their tasks nicely.

-

Implementation requirements - In implementing the system, it uses python as the main tool. This forms the front-end. At the back-end, the MYSQL will be synchronized and be used to maintain the information in the database. This is formed by the databases and other data stores.

-

Security requirements - User credentials should be encrypted so as to ensure confidentiality, integrity and availability and the project ideas should be protected so as to avoid being stolen by other parties

System Specification

3. Software requirements

- Language: Javascript
- Front-end design: Html, CSS, JavaScript
- Database: Mango DB
- Server: NodeJS, ExpressJS

4. Hardware requirements

- System operation: Windows 7 or later
- Ram: 512 mb
- Hardware capacity: 512 mb
- Processor: Intel Core i3
- Software tools USED
- VS CODE

5. Front End Technologies

JAVASCRIPT

JavaScript (JS) is a dynamic computer programming language. Most often used as part of a web browser, its implementation allows client-side scripts to interact with the user, control the browser, communicate asynchronously, and modify document content. It is also used for server- side programming, game development, and building mobile and desktop applications

.JavaScript is a prototype-based programming language with dynamic writing and first-class functionality. Its syntax is influenced by C. JavaScript, which copies many names and naming conventions from Java, but the two languages are unrelated and have very different semantics. Supports language, object-oriented, imperative, and functional programming styles.

EXPRESS

EXPRESS stands for "Hypertext Preprocessor". (If you understand what that means, it's a recursive acronym.) EXPRESS is an embedded HTML web programming language.

This means that you can insert EXPRESS code into the HTML code of your web page. When the EXPRESS page is displayed, the EXPRESS code is read or "parsed" by the server where the page is located. The output of EXPRESS functions on the page is generally returned as browser-readable HTML. The EXPRESS code is converted to HTML before the page loads, so the user cannot see the EXPRESS code on the page. EXPRESS pages are secure enough to access databases and other secure information. Much of EXPRESS's syntax is borrowed from other languages such as C, Java, and Perl. However, EXPRESS also has some unique and specific features. The goal of this language is to allow web developers to quickly and easily create dynamically generated pages. EXPRESS is also great for creating database driven websites.

HTML and CSS

HTML stands for "Hypertext Markup Language". HTML is the language used to create web pages. "Hypertext" refers to hyperlinks that can be included in an HTML page

."Markup language" refers to the way tags are used to define page layouts and page elements. CSS Cascade Style sheets, lovingly called CSS, is a simple design language that aims to simplify the process of creating great-looking web pages. CSS manages the appearance of web pages. You can use CSS to control text color, font style, paragraph spacing, column layout and placement, background or color to use, and layout.

6. Back End Technologies

Database

MangoDb is used as a database server and its primary role is to protect data stores, support best practices, and enable on-demand searches by other software applications.

It can handle a variety of workloads, from small applications on a single machine to large Internet applications with many concurrent users. Recent versions also provide a copy of the database itself for availability and scalability. The project is displayed with information about the primary key.

6 BACKGROUND OF PLACEMENT PORTAL

Placement Portal

Viewing available jobs, or applying for the job at the agency can be done for which job seekers has to go to the agency and check the available jobs at the agency. Job

seekers check the list of

jobs available and apply the job. Then the agency will show available jobs for the job seeker for his qualifications and then updates the jobs database .

Advantages of Placement Portal

The biggest advantage of a Job portal is that there is no fee for the job seeker. Websites like Monster.com thrive on the money that the companies pay to register with them. The job seeker just has to select the company he likes and apply to them. Of course, if a person wants to avail of other services like the resume service then he will have to pay extra.

Portals are well organized and more often than not really help people get jobs. Most of them have a basic sign up procedure where the candidate can upload the resume and fill out all the important details about their educational backgrounds, skills and work experience. Everything is done in an orderly fashion and candidates can manage their own profiles and customize the site to meet their needs. One of the biggest advantages of a job portal is the fact that you can avoid certain companies or employers. If you do not wish for them to see your profile you can simply blacklist them?

However, there are so many portals and so many jobs between them that it becomes difficult to manually apply for these jobs from every job portal on the internet. A quicker way of doing this

would be to procure a program from the net, which can search for jobs through all these many

sites and show the results in one window. There is software out there, which makes it possible for job seekers to find hundreds of opportunities in and around their areas and reply to these postings with a cover letter and the resume with just a few clicks.

Software of this nature usually keeps the user informed with email alerts and reduces the time spent on job-hunting [1].

Other features

- Search resumes online.
- Saved search results of resumes (set and save search criteria). For Human Resources, you can create and save many search criteria. For example for the Psychology Department create a search criteria using keywords like psychology, psychologist etc and save that search as "Psychology". And do the same for the Economics Department, Accounting etc.
- Resume Alerts (Set search criteria based on keywords you select and wait for resumes posted meeting that criteria). An email will be sent to you notifying you that a resume has been posted that meets your criteria.
- Jobs advertised to date by your school.
- Monitor applications received to each job vacancy and status.
- Monitor comments on job vacancies posted (job seekers can comment on the vacancy you posted and gauge the usefulness of the information you included in the vacancy posting).
- Tell a friend (job seekers can tell a friend about your vacancy and widen your net).
 - RSS Feeds can be installed for you to be updated [1].

LIST OF TABLE:

Table 1: Company Post Data TABLE

Field Name	Data Type	Size	Constraints	Description
Title	VARCHAR2	25	Primary Key	Title
Content	VARCHAR2	200		Content
Category	VARCHAR2	50		Category

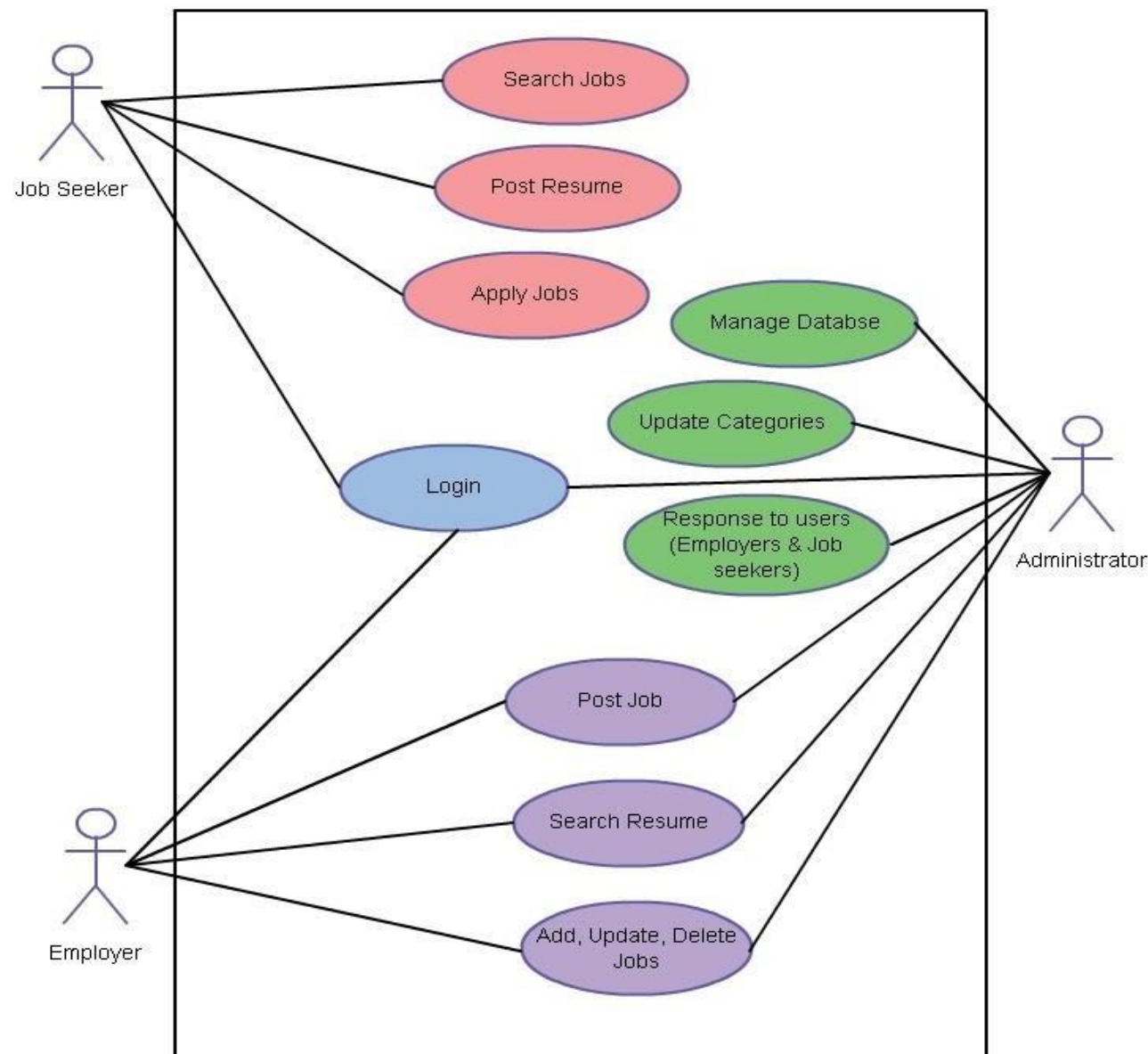
Table 2: REGISTRATION TABLE

Field Name	Data Type
E-MAIL	String
NAME	String
Is Admin	Boolean
PASSWORD	String
Picture	String

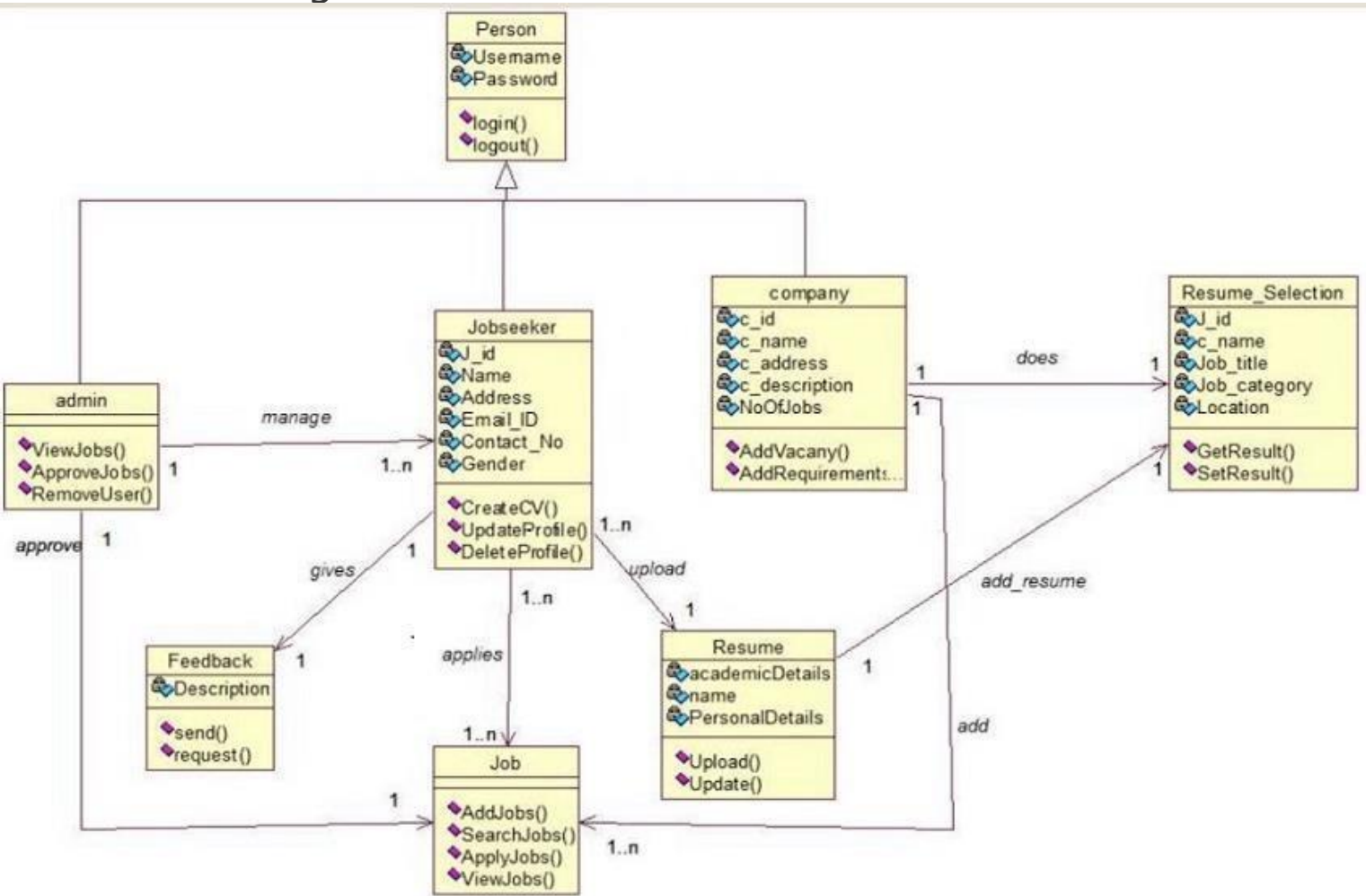
9 Software Requirements Specification

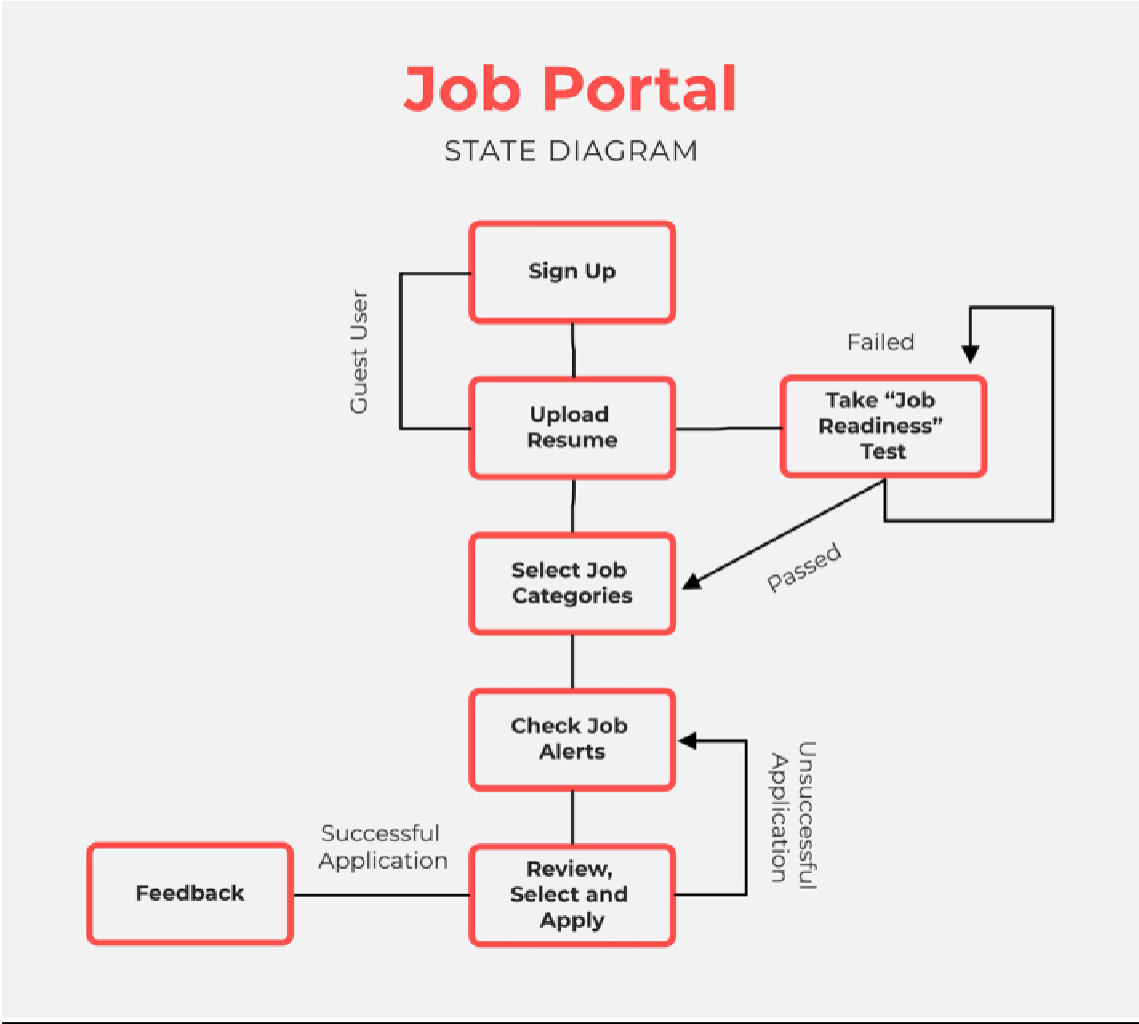
Glossary -The web application "Job Search Portal" provides an easy and convenient search application for the job seekers to find their desired jobs and for the recruiters to find the right candidate. Job seekers from any background can search for the current job openings. Job seekers can register with the application and update their details and skill set. They can search for available jobs and apply to their desired positions. Employer can register with the application and posts their current openings. They can view the Job applicants and can screen them according to the best fit.

1 Use Case Diagram

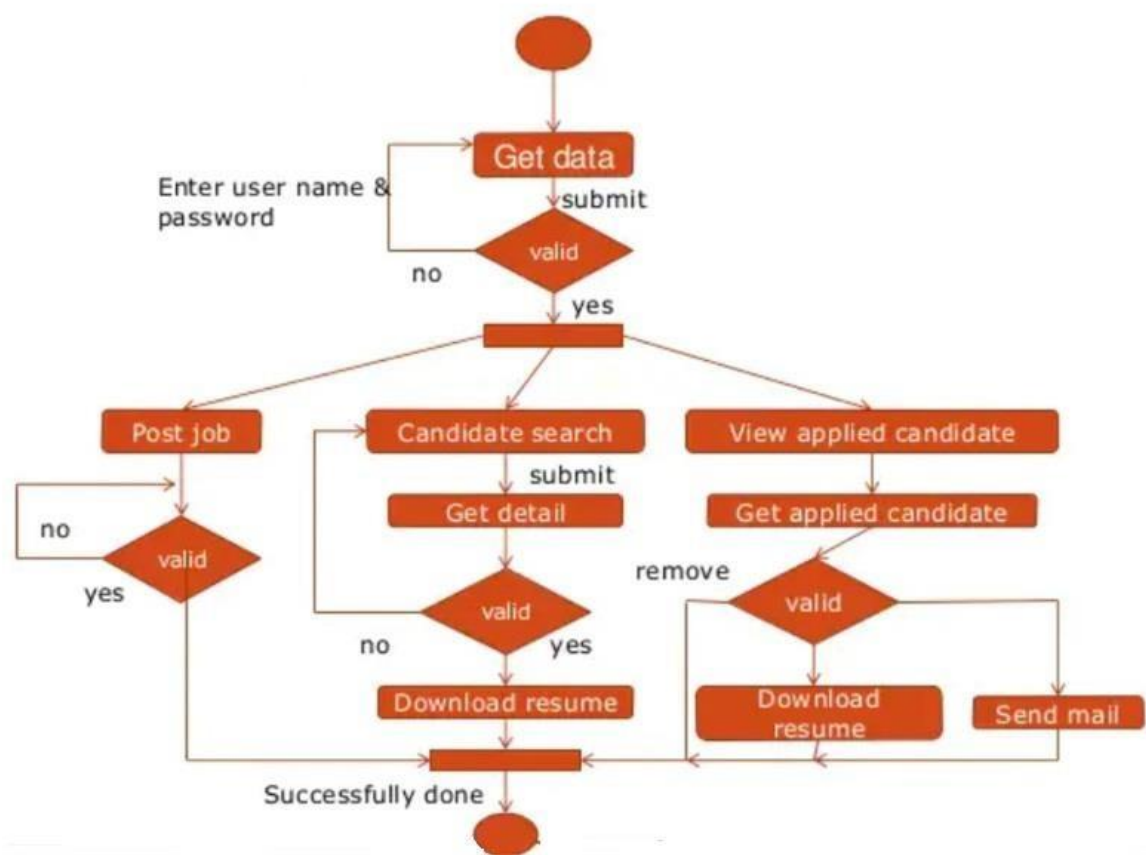


2 Class Diagram





3 State Diagram



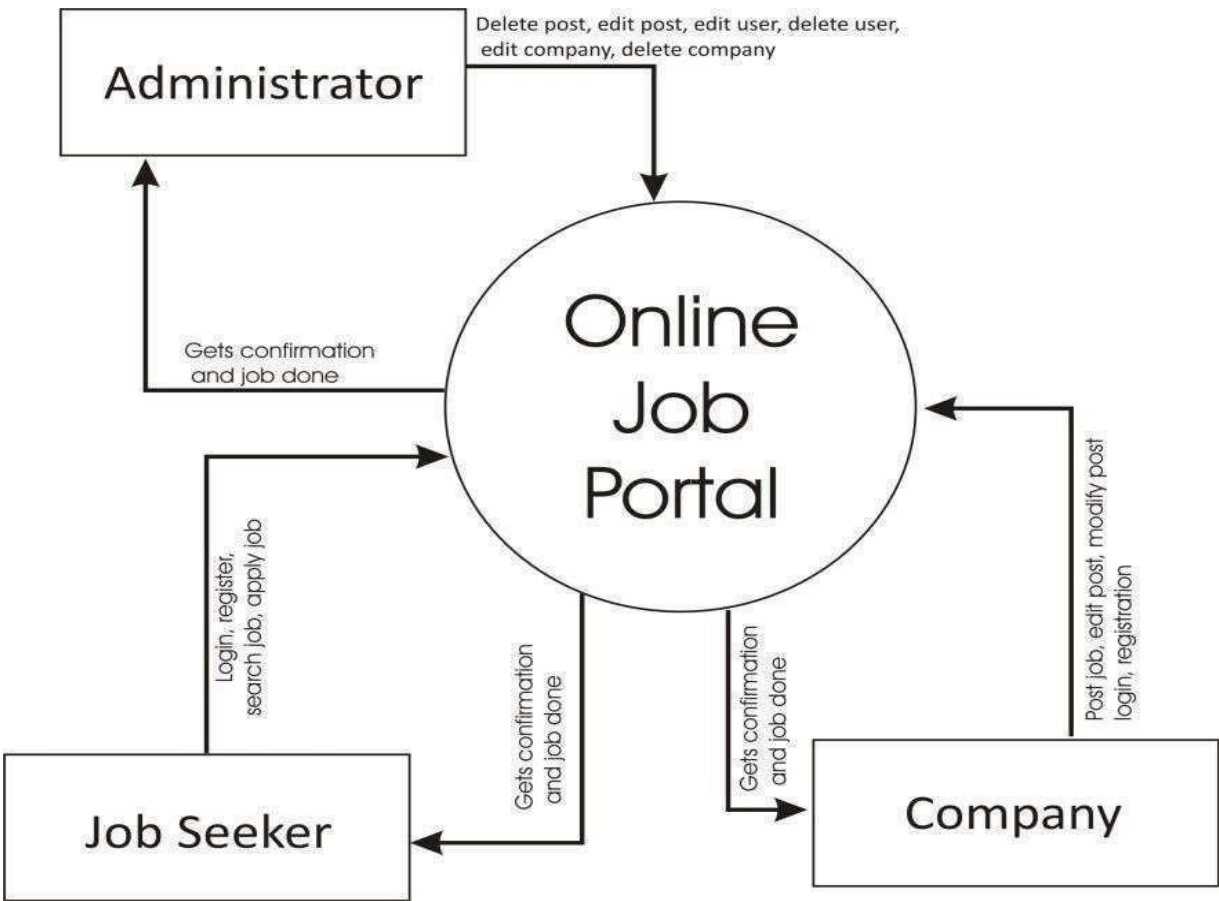
4 Activity Diagram

7. DATA FLOW DIAGRAM

DATAFLOW DIAGRAM FOR USER LOGIN:

After accessing the home page of the site, if the user does not have a username and password, he can log in by entering the username and password provided. You need to register first. A valid user login page is displayed. This is the flow of data when the user logs in. There are four icons for drawing a DFD data flow diagram which shows the data flow from one entity external to the system and the data flow from one process in the system to another.

1. The rectangle represents an external entity of the entity, the source or the destination of the data.
2. A circle represents the process, takes the input data, validates it and processes it, and issues it.
3. Arrows represent data flow. They can be electronic data or physical elements.
4. A white rectangle or disk symbol representing a data store that contains electronic stores, such as databases and XML files, and physical stores, such as mail item and wrapping paper.



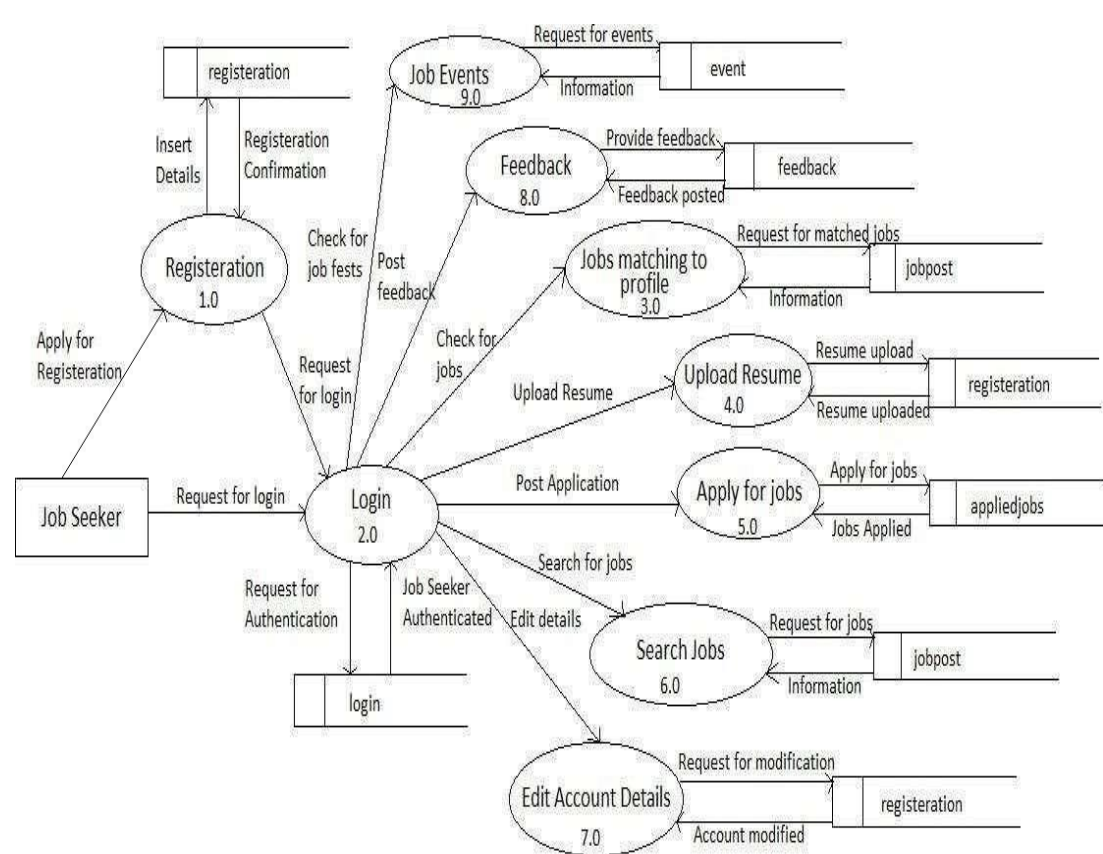
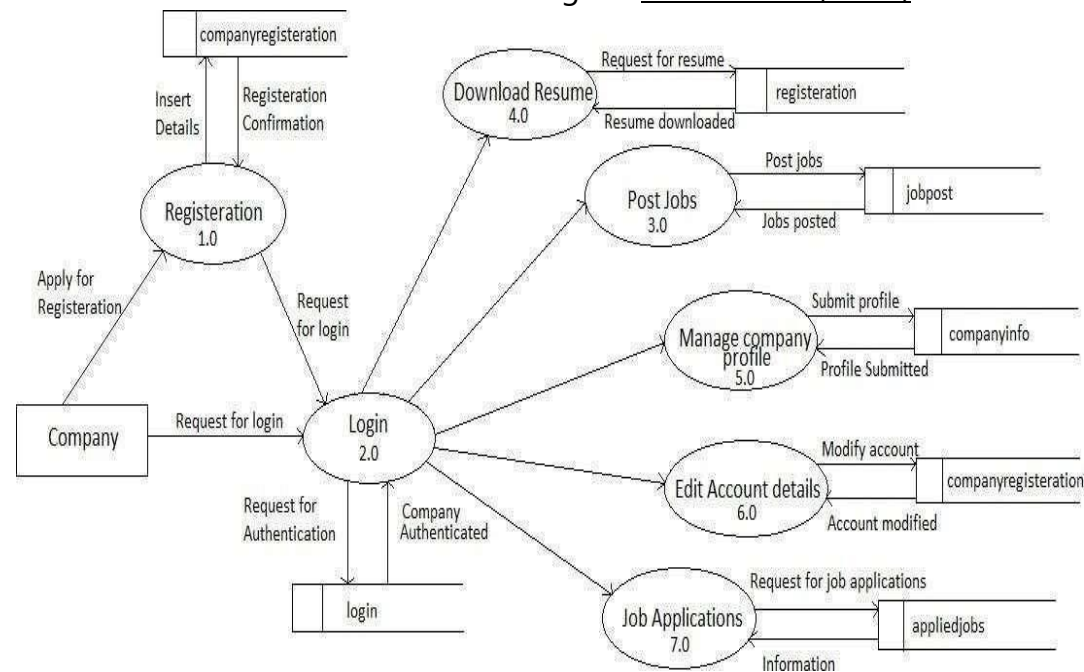


Fig. 1:- Level 0 DFD

Fig. 2:- Level 1 DFD (USER)



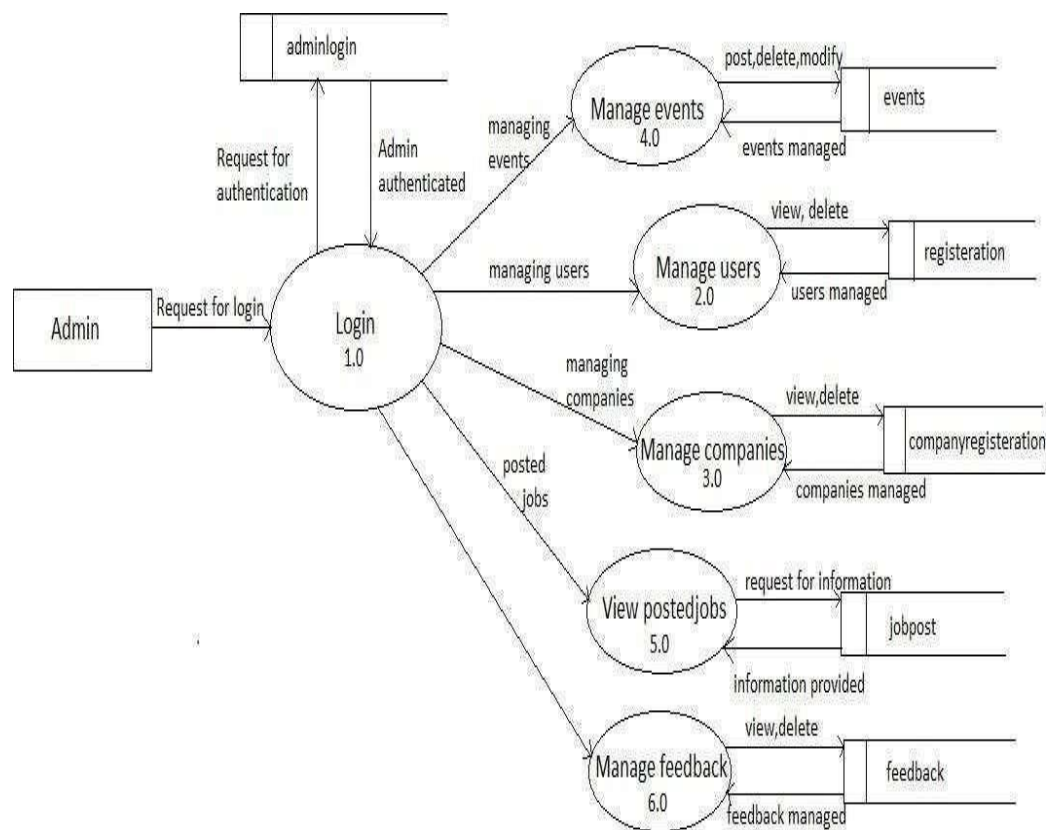
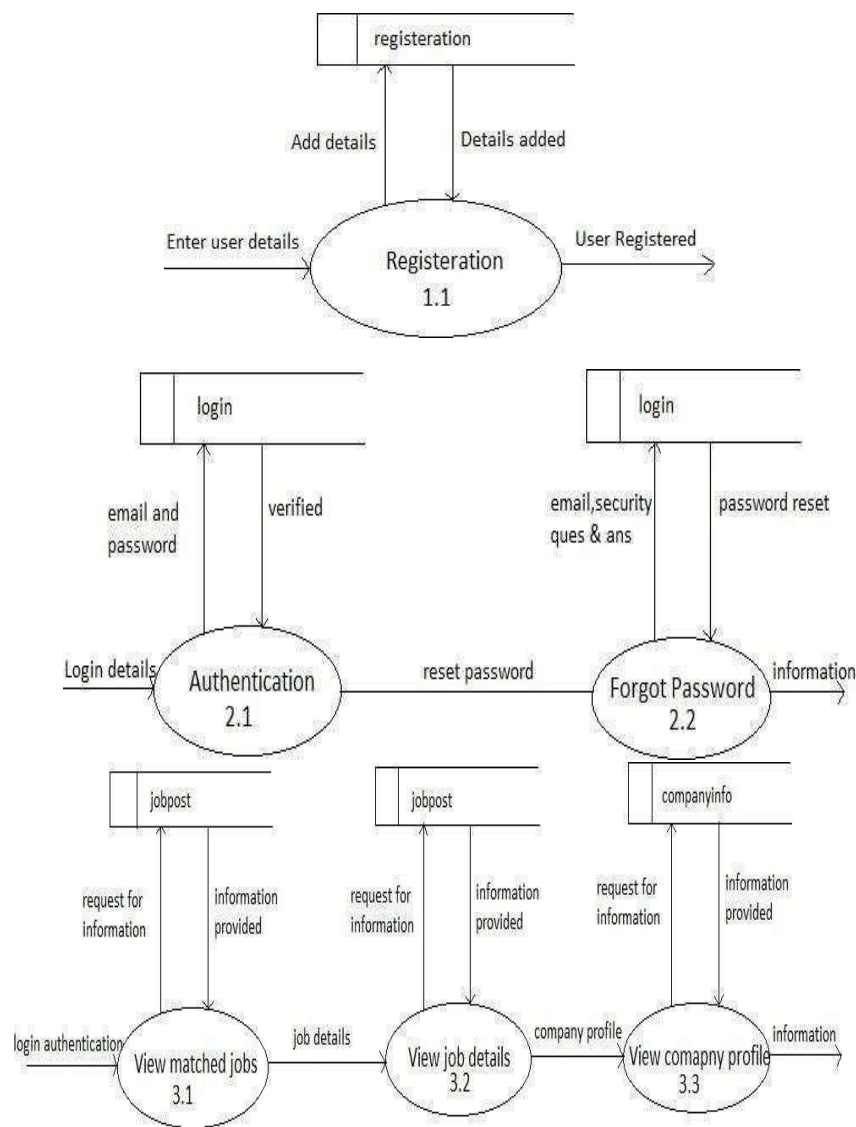
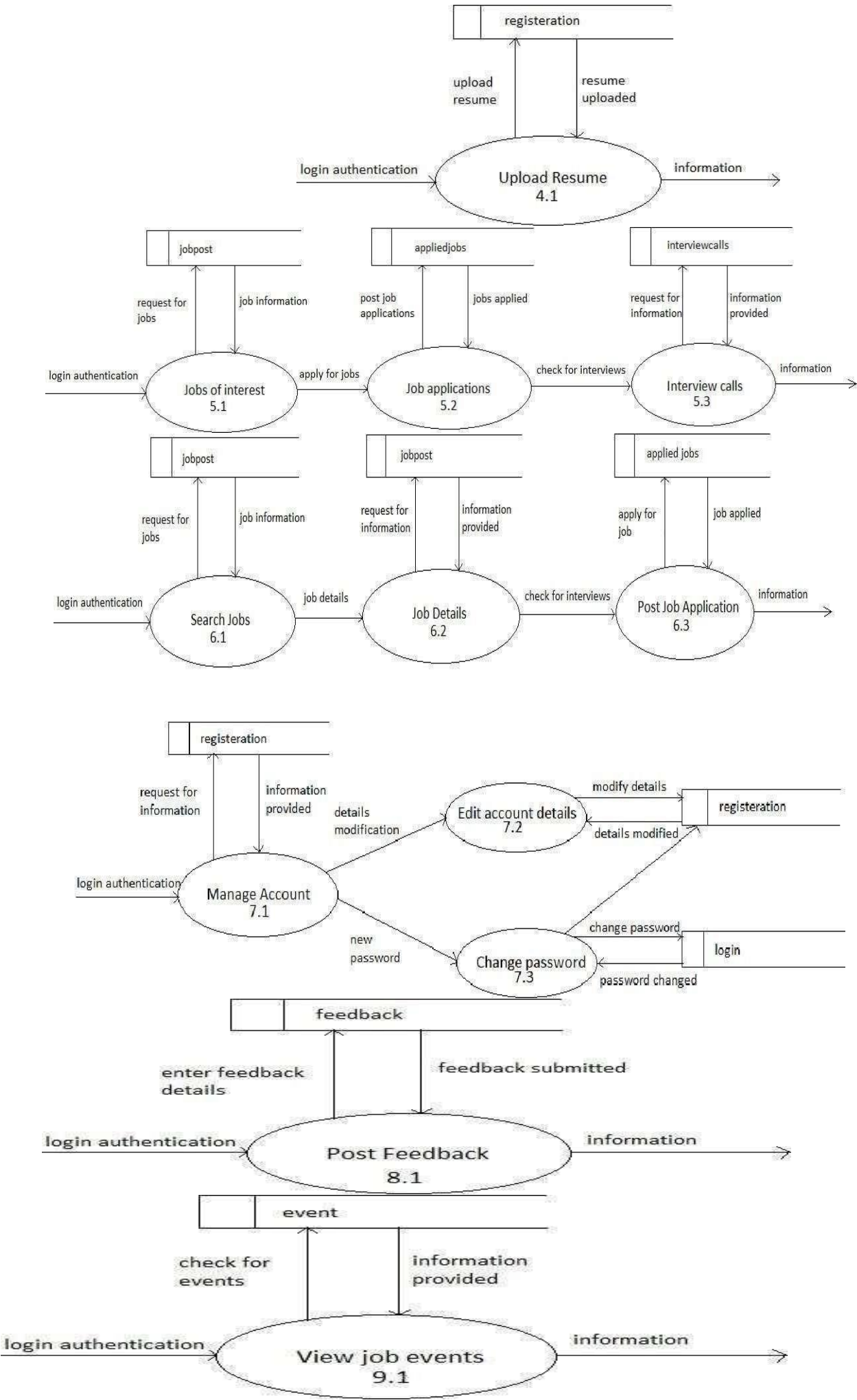


Fig. 3:- Level 1 DFD (Company)

Fig. 4:- Level 1 DFD (Admin) Fig. 5:- Level 2 DFD





8. ER DIAGRAM

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a relational database. While useful for organizing data that can be represented by a relational structure, an entity relationship diagram cannot sufficiently represent semi-structured or unstructured data, and an ERD is unlikely to be helpful on its own in integrating data into a pre-existing information system .

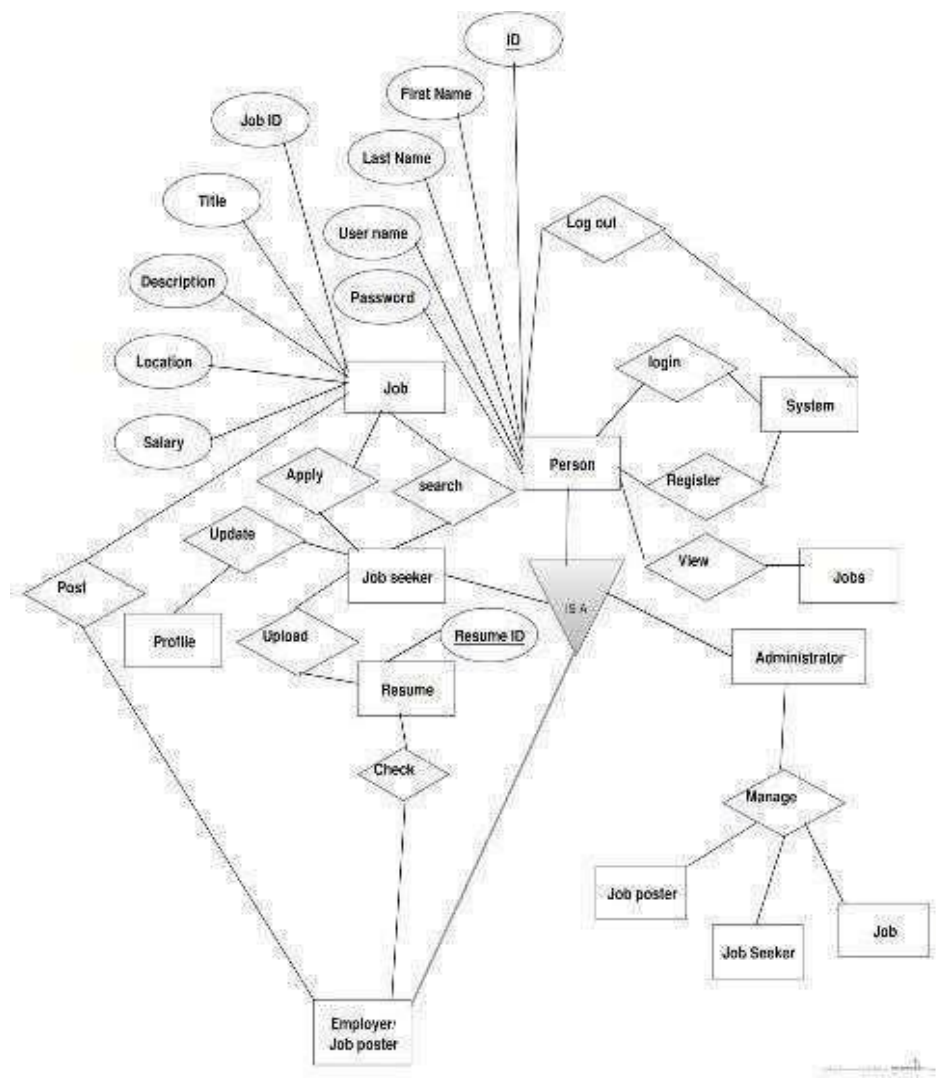
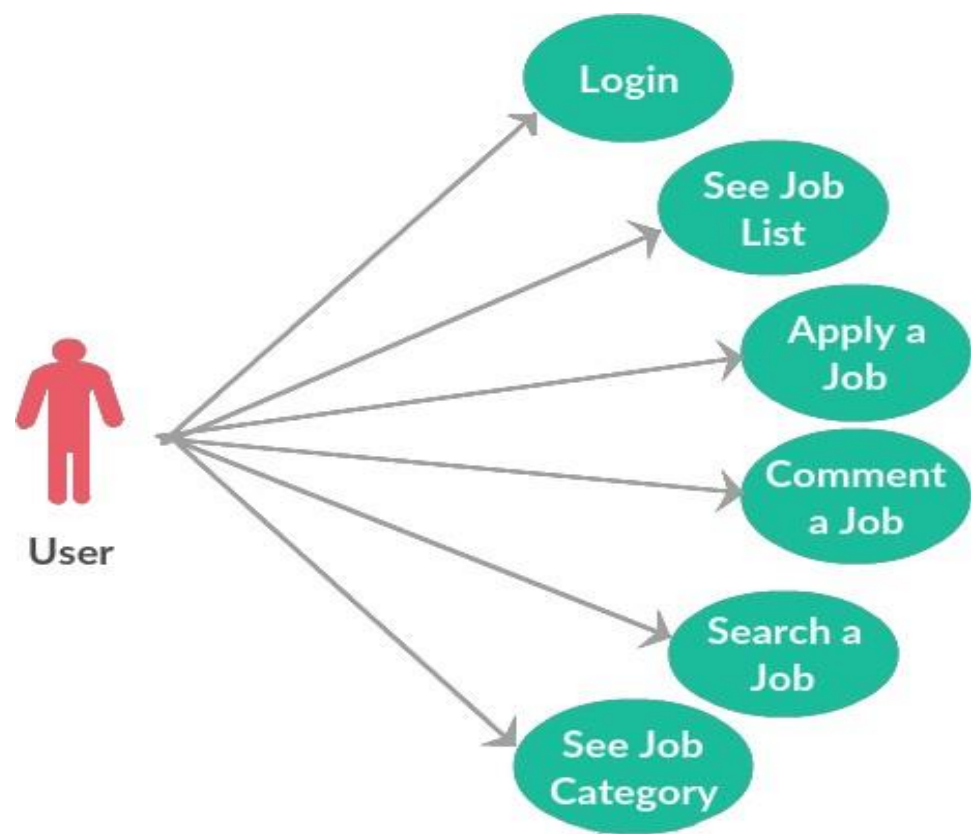
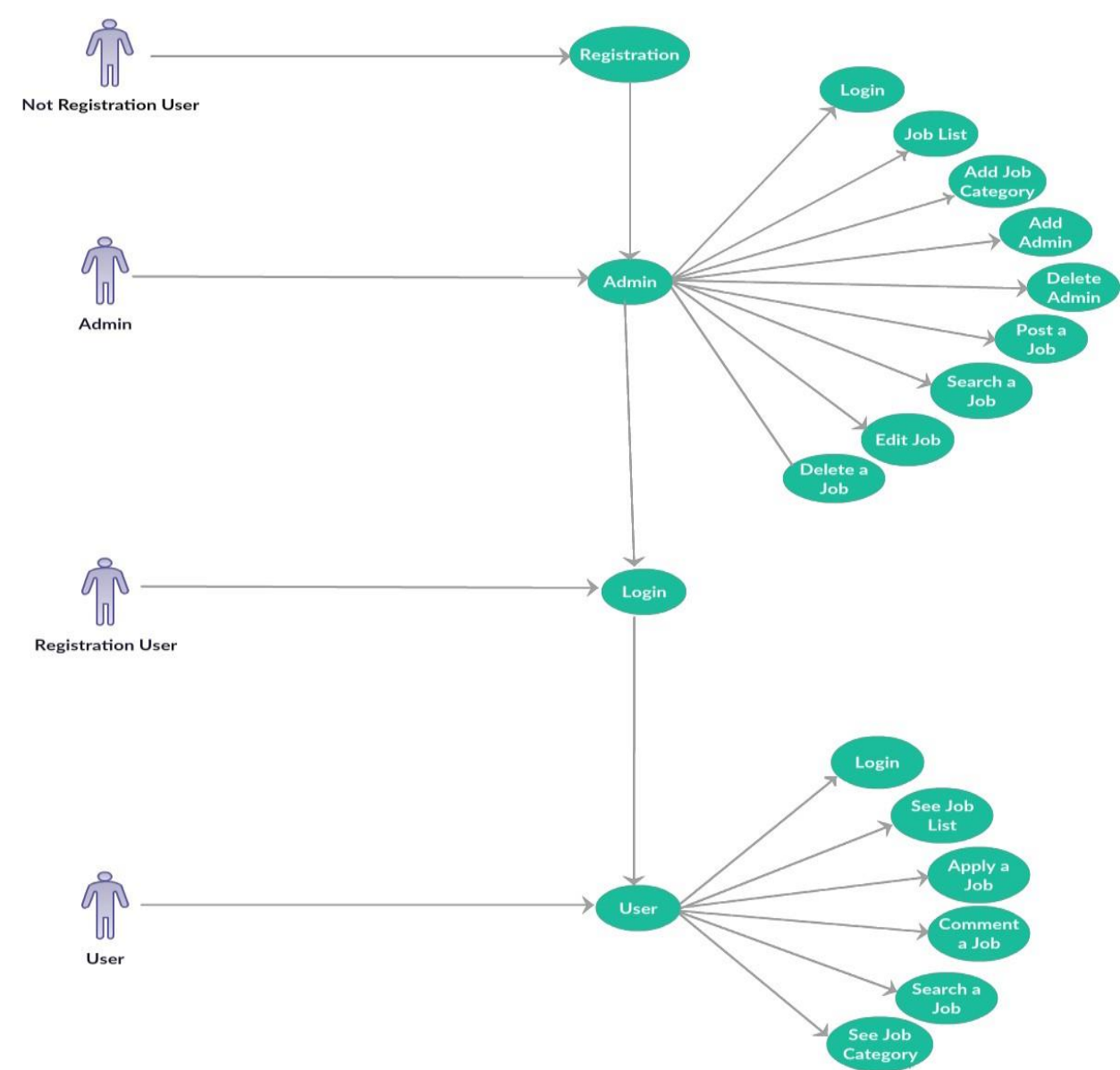


Fig. 6:- ER Diagram

9 Use Case Diagram for User

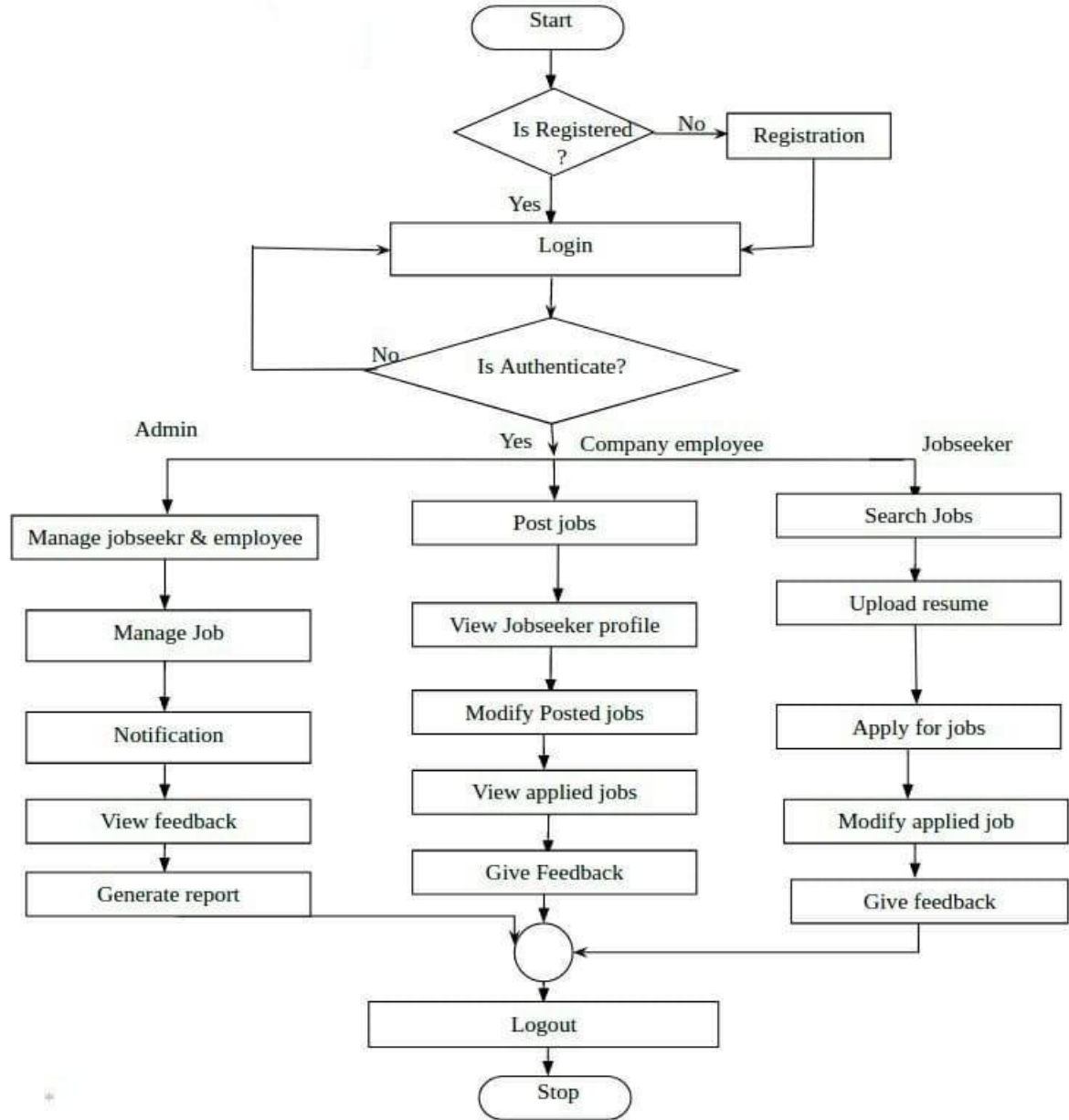




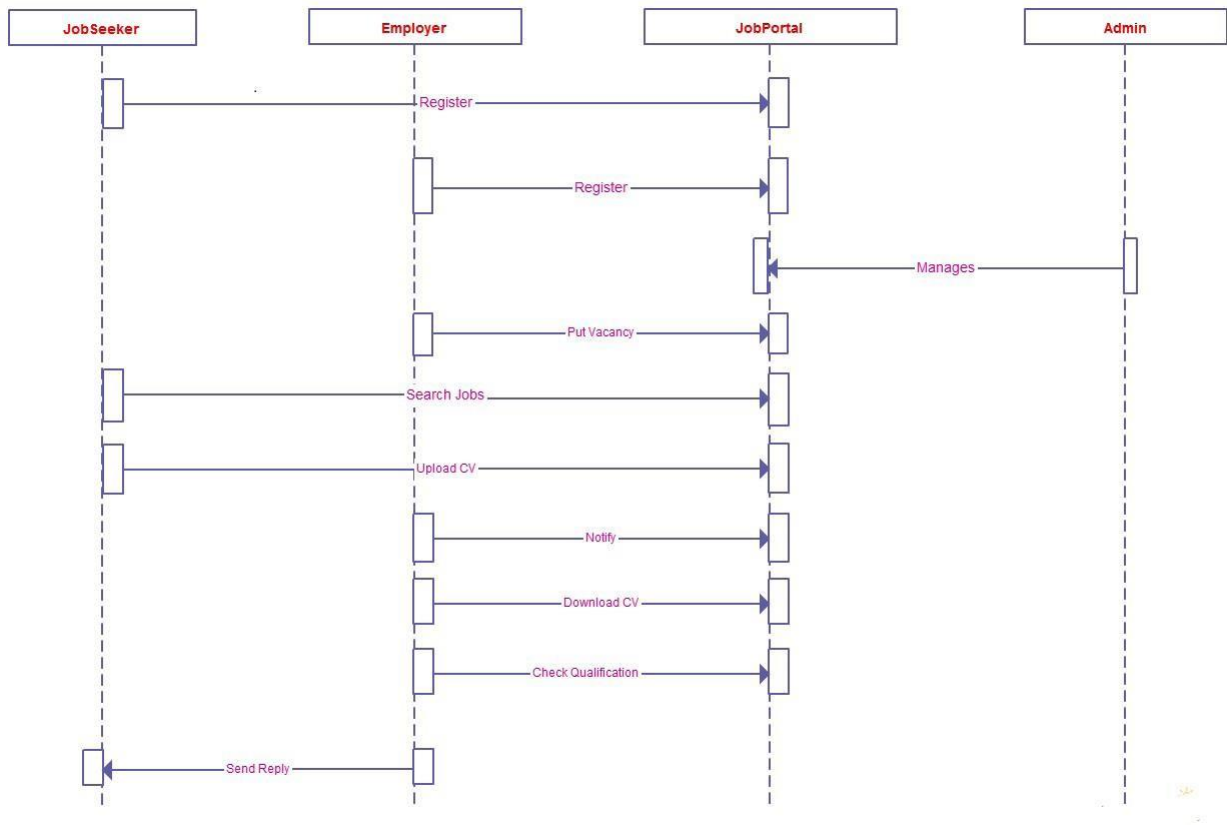
Use Case Diagram for Online Jobs

10

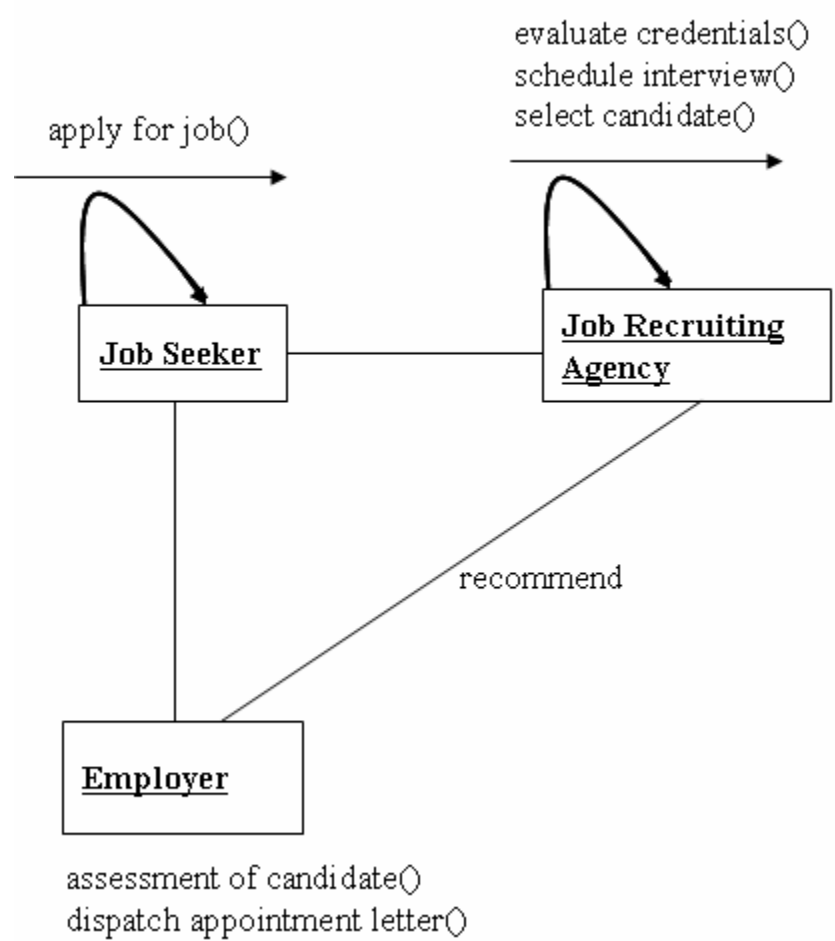
Flow chart



11 Sequence Diagram



12Collaboration Diagram



9. Modules and their description

- Admin

In this module admin add all qualifications, skills, experience, city, state, country and update and delete the submitter information job application or job applicant. You can also search for job seekers and offer job seekers a job.

- Job Seekers

In this module, job seekers log in, upload syllabus summaries, and complete the profile specified by the administrator. Your resume and resume can be applied to the job under different conditions.

- Job Provider

You can see the response from the company, and you can call the company person for an. You can also add new jobs, search for job seekers under different conditions, offer jobs to job seekers according to their job profiles, and view job feedback. Modules, admins and job providers notify job applicants.

- Authentication

This module contains all the information on authenticated users. The user does not have a username and the password cannot be entered if it is only an authenticated user. You can then enter your identifiers.

- Generate Report

Generates a report for the following entities.

- a) List of existing jobs

b) List of employers

In this module, job seekers log in, upload syllabus summaries, and complete the profile specified by the administrator. Your resume and resume can be applied to the job under different conditions.

- Job Provider

You can see the response from the company, and you can call the company person for an. You can also add new jobs, search for job seekers under different conditions, offer jobs to job seekers according to their job profiles, and view job feedback. Modules, admins and job providers notify job applicants.

- Authentication

This module contains all the information on authenticated users. The user does not have a username and the password cannot be entered if it is only an authenticated user. You can then enter your identifiers.

- Generate Report

Generates a report for the following entities.

c) List of existing jobs

d) List of employers

10. Testing process used

You can run some or all of the following types of tests

i. Functional Tests:

These sites can be easily crawled by search engines. HTML and CSS tests to verify, includes checking for syntax errors, readable palettes that conform to the standard. Testing the W3C Database:

ii. Database Testing

Standards like the database are one of the key components of a web application and should be underlined to be thoroughly tested.

- Check if an error is displayed when executing a query
- Data integrity is maintained when creating, updating or deleting data in the database.
- Check the response time of the request and adjust it if necessary. The test data retrieved from the database is displayed correctly in the available web application tools.

- Test tools Selenium

iii. Interface Testing:

Three areas to test here are the application, the web, and the database server.

- Application:

The test request is successfully sent to the database and the client-side output is displayed correctly. If there is an error, it will be detected by the application and will only be visible to the administrator and not to the end user.

Web Server-

The test web server handles all application requests without denial of service.

- Database server:

Check the following: Send a request to the database and you'll get the results you expect.

Tools that can be used : Ranorex

iv. Security Feature

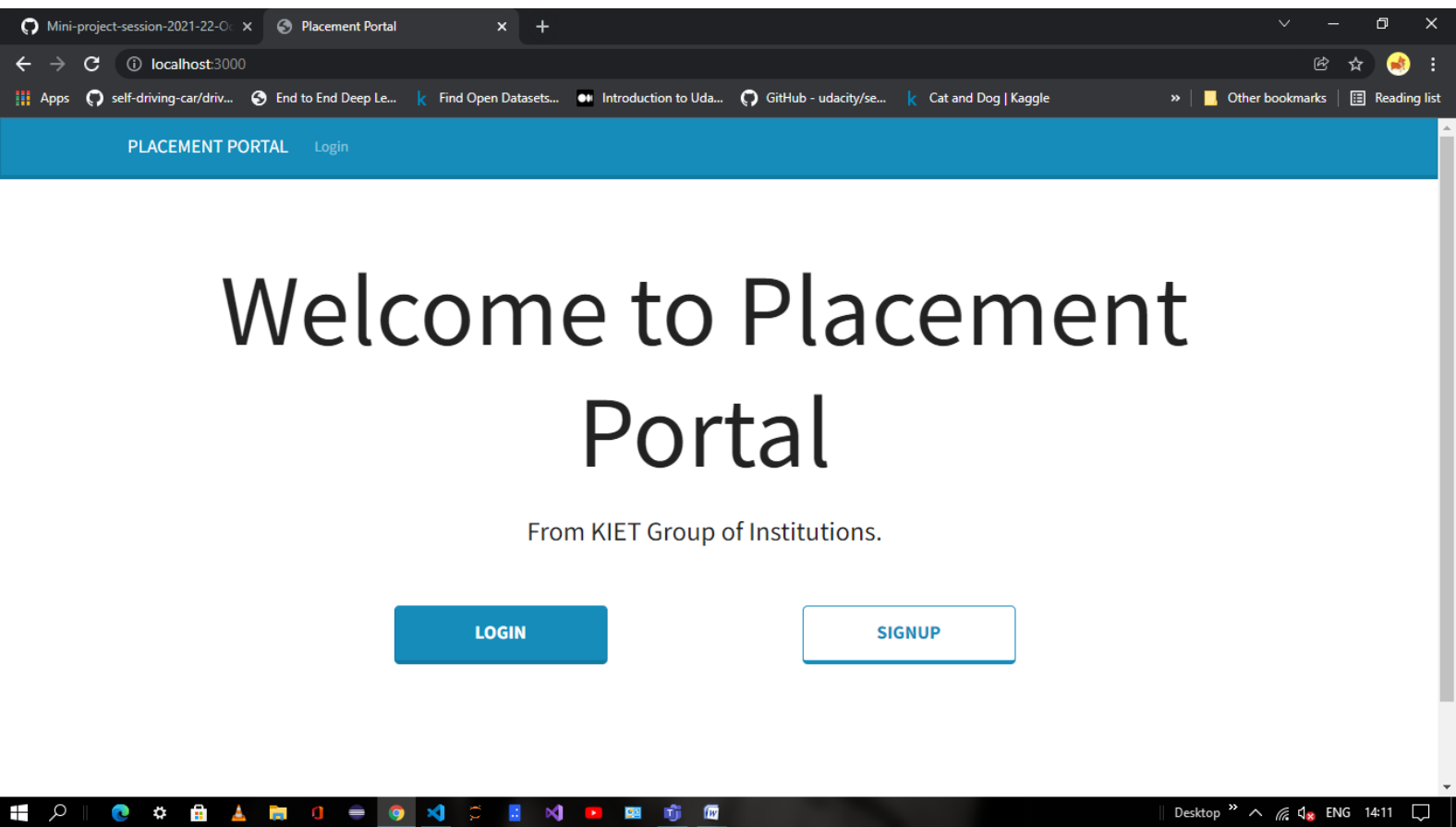
The main concern that needs to be addressed to protect this web application is to prevent unauthorized users from accessing the protected content. Declaring (that is, authenticating) (2) grants or denies user access to the requested resource (such as permitting).

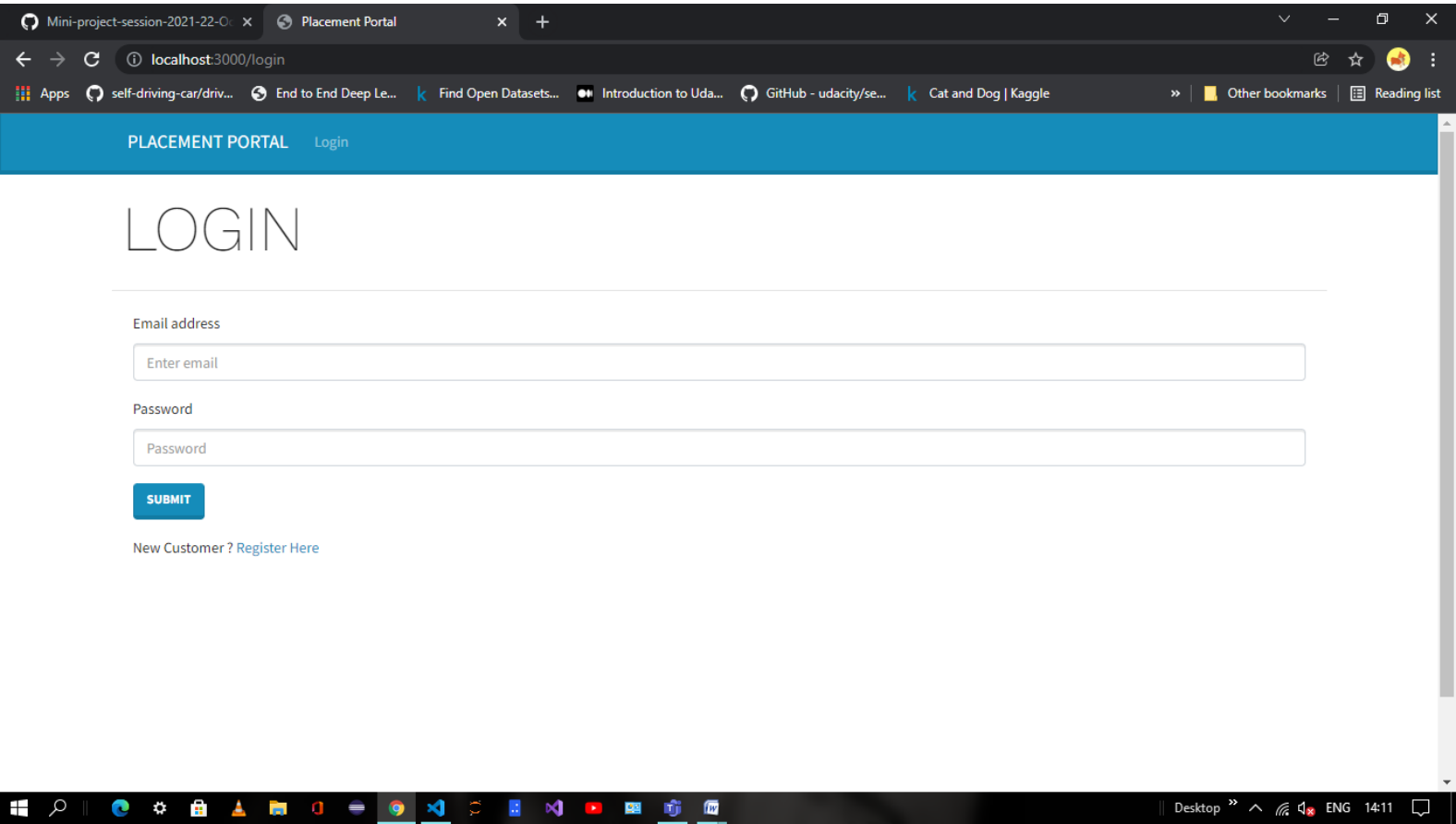
A simple and common way to implement access control for a web application is to use a login form that allows the server to compare a user's credentials with a list of previously authenticated users.

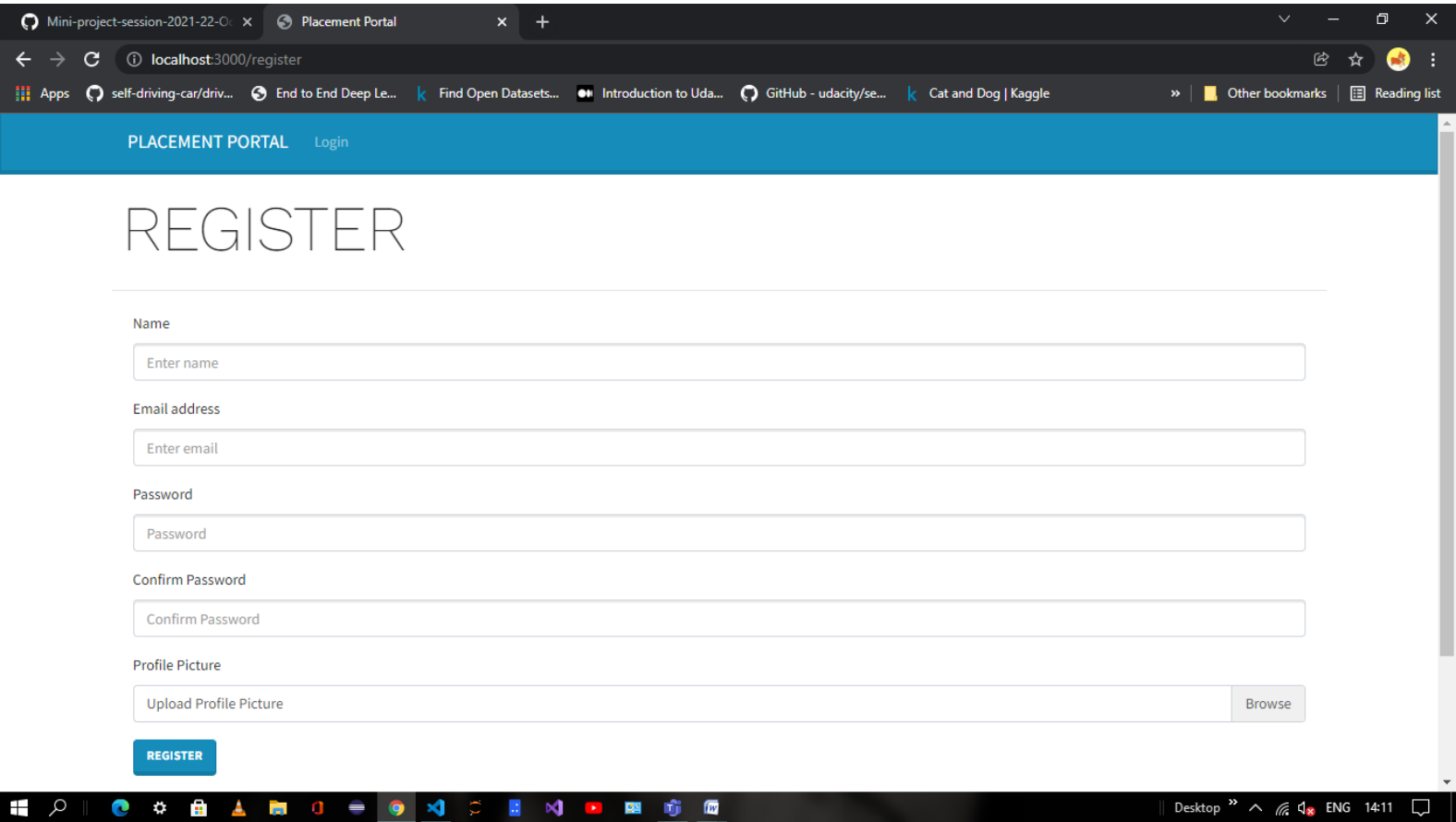
create pages for login and login failover Format-based authentication guides you through the authentication and authorization process in four steps:

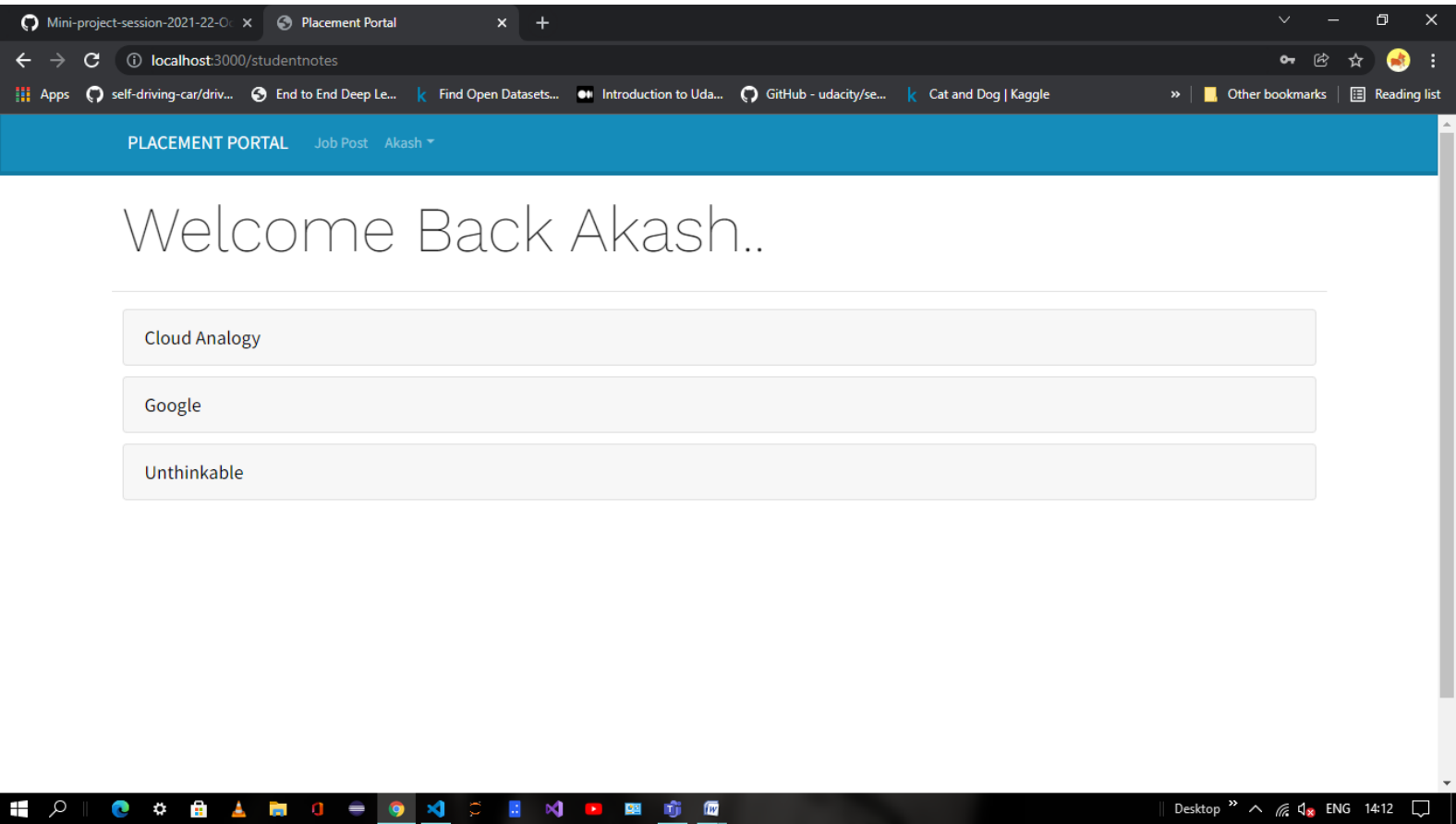
- The client sends a request for protected resources to the server
- The server recognizes that: A protected resource is requested and a login page is returned to the client.
- Customer uses the provided form to submit username and password login information.
- If the server handles the connection and an authorized user is defined, the protected resource is returned. Otherwise, the error returned the page.

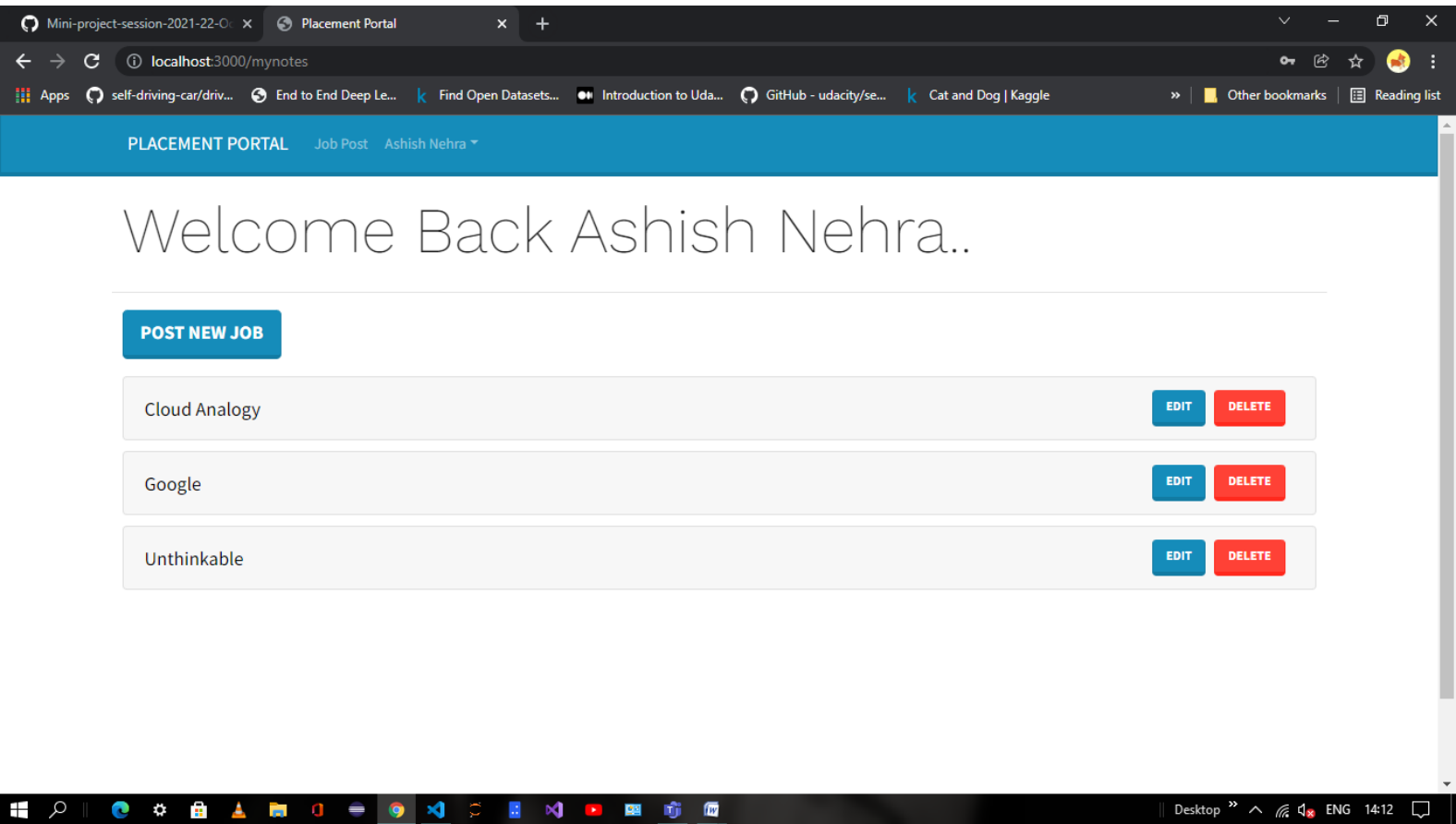
ScreenShots :

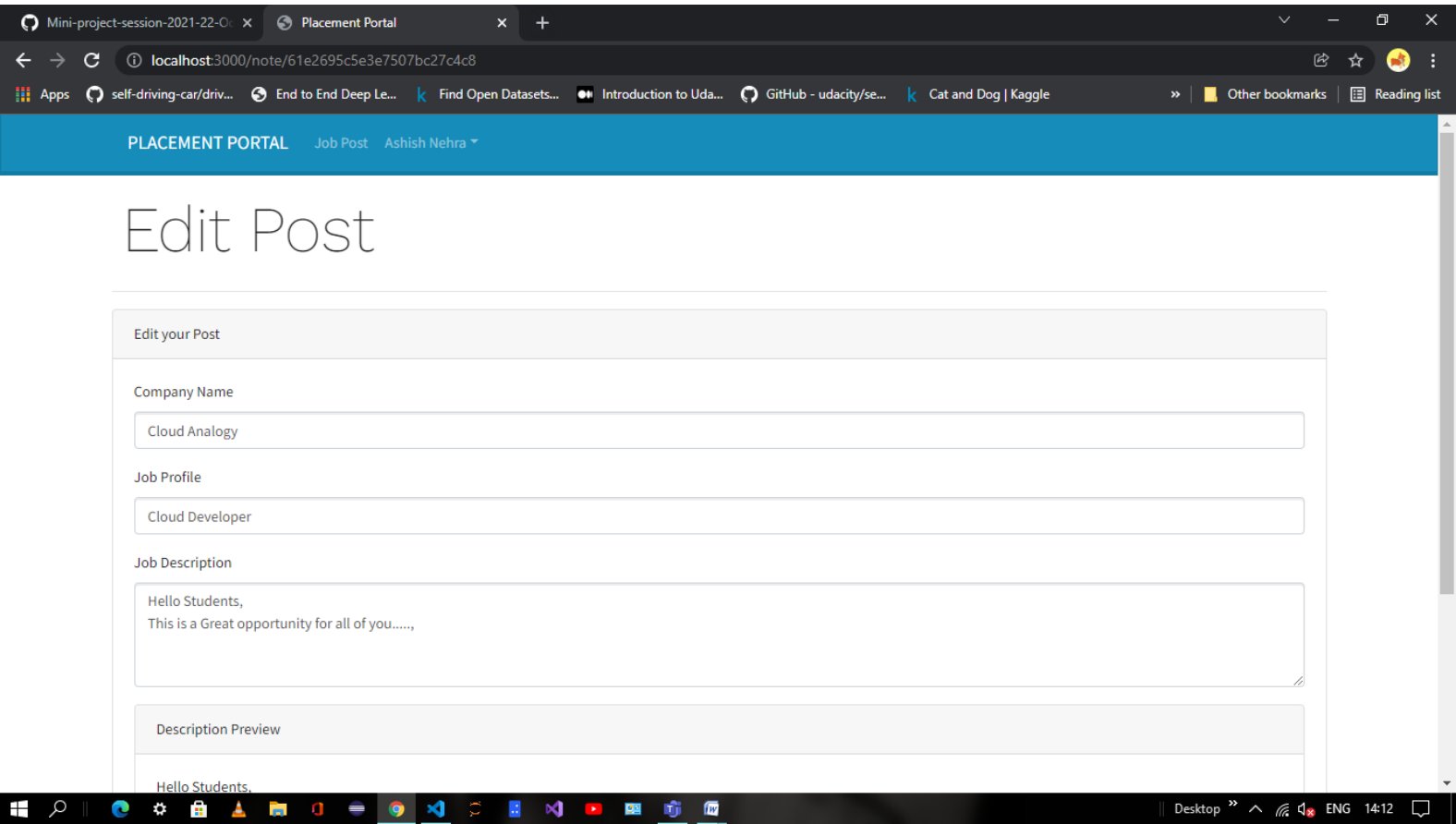


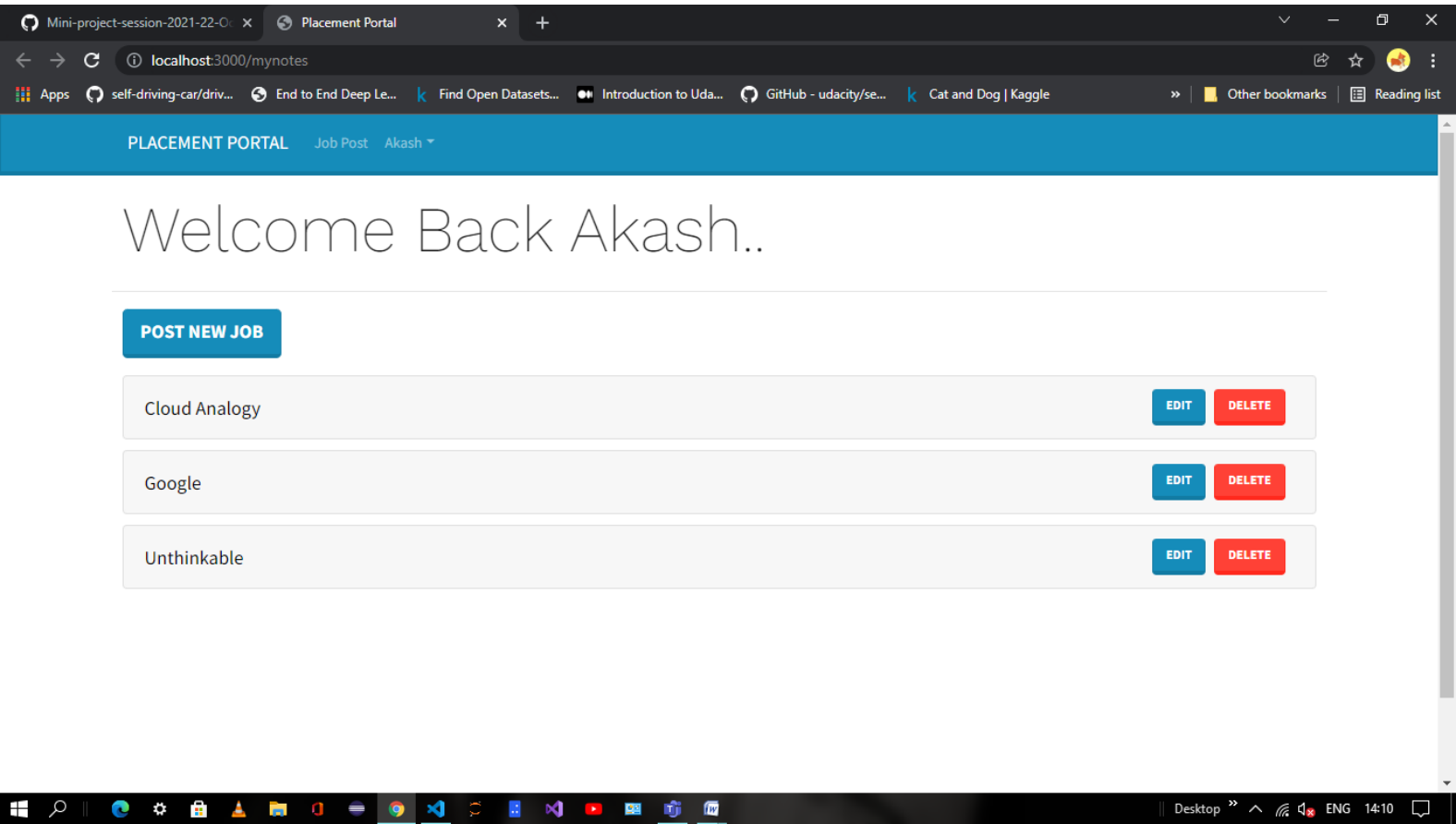


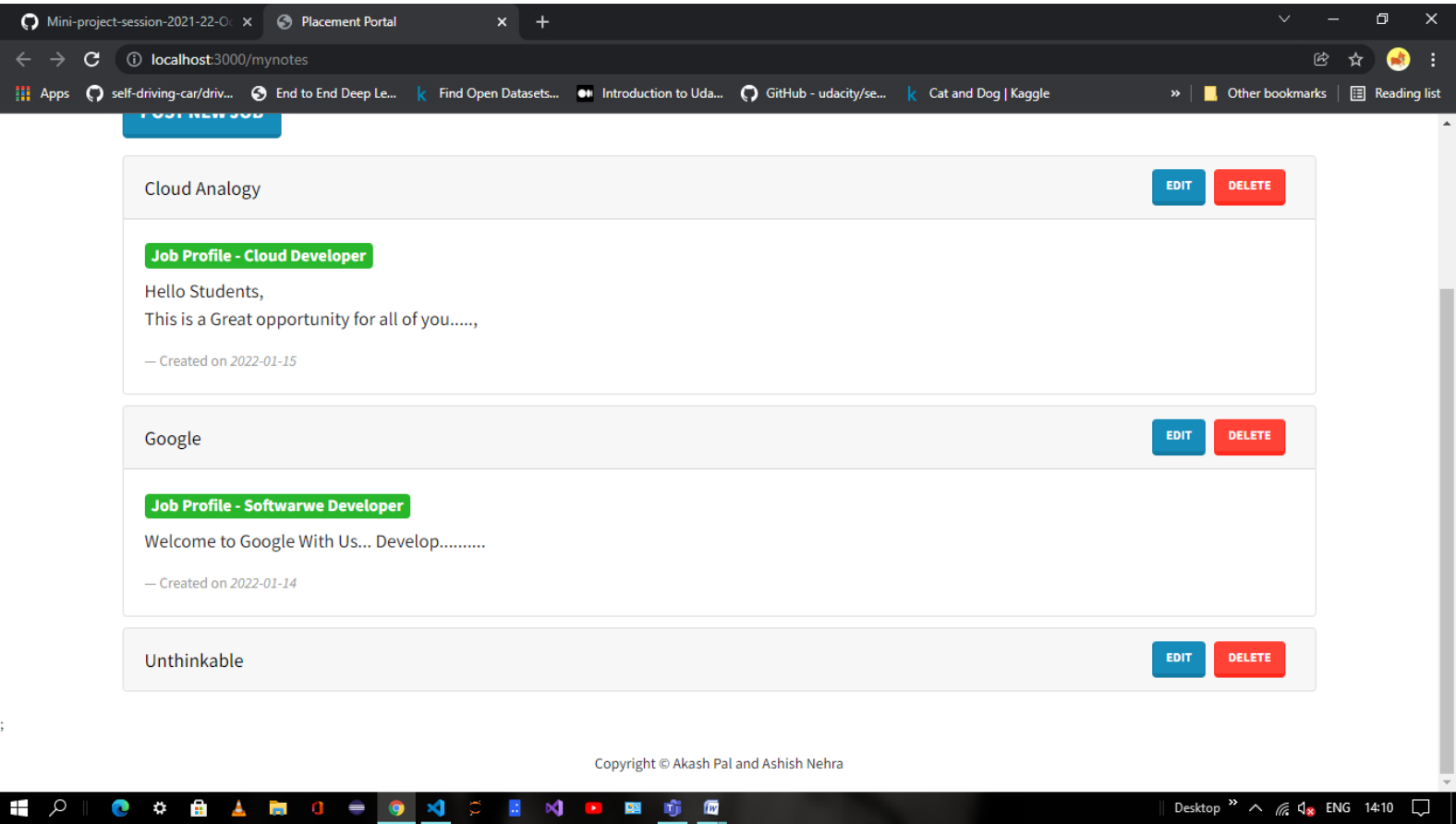


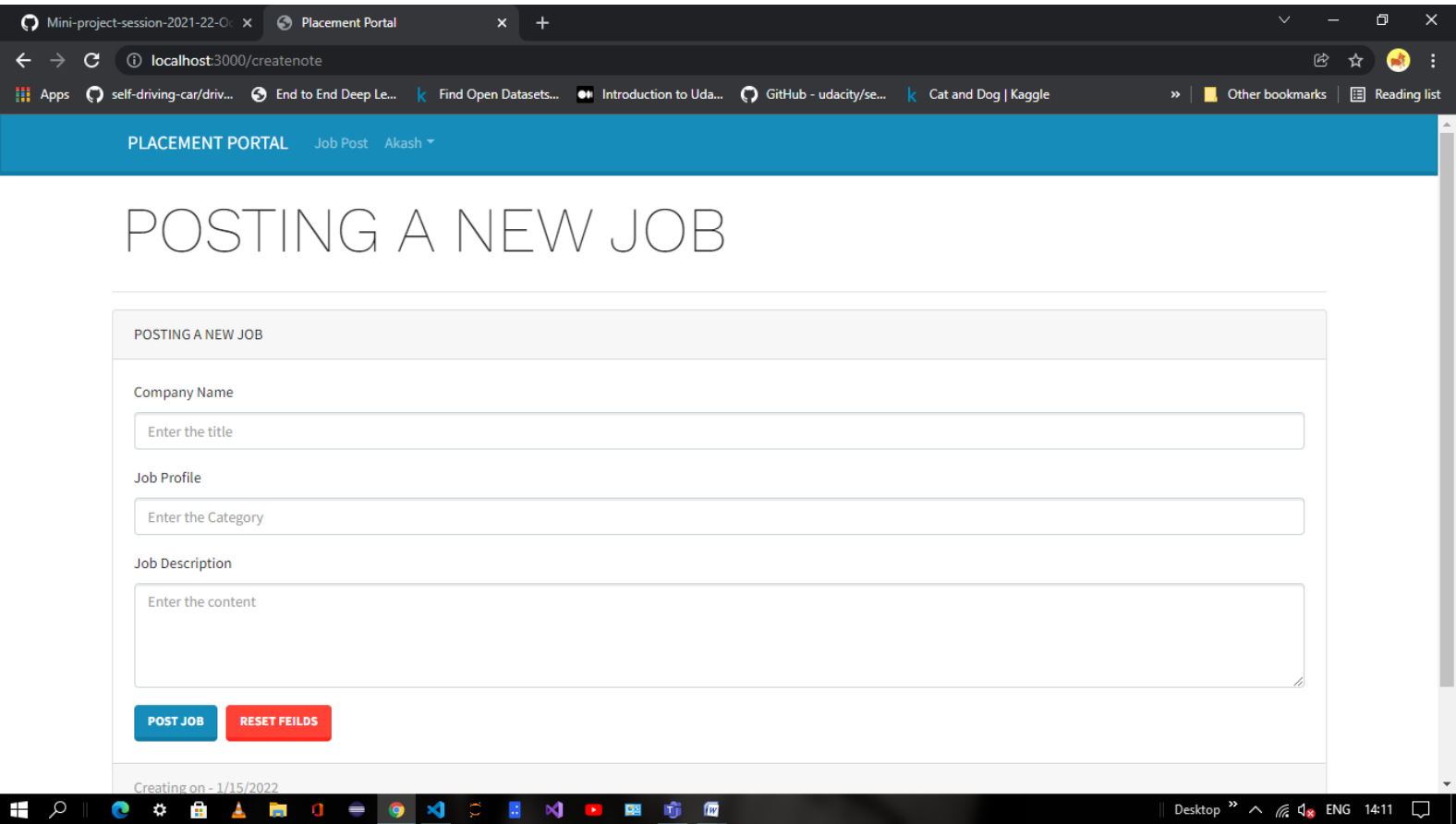


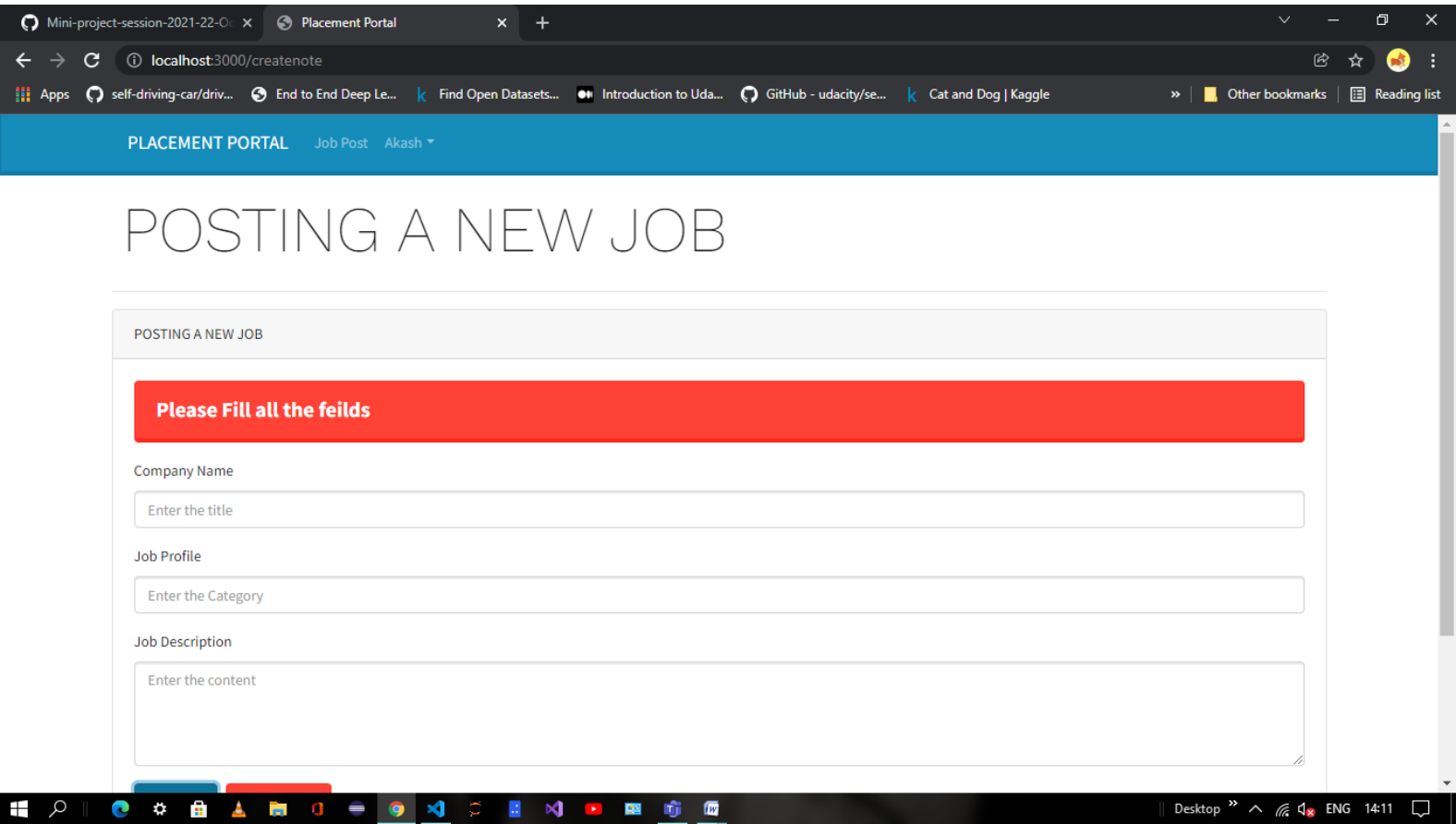


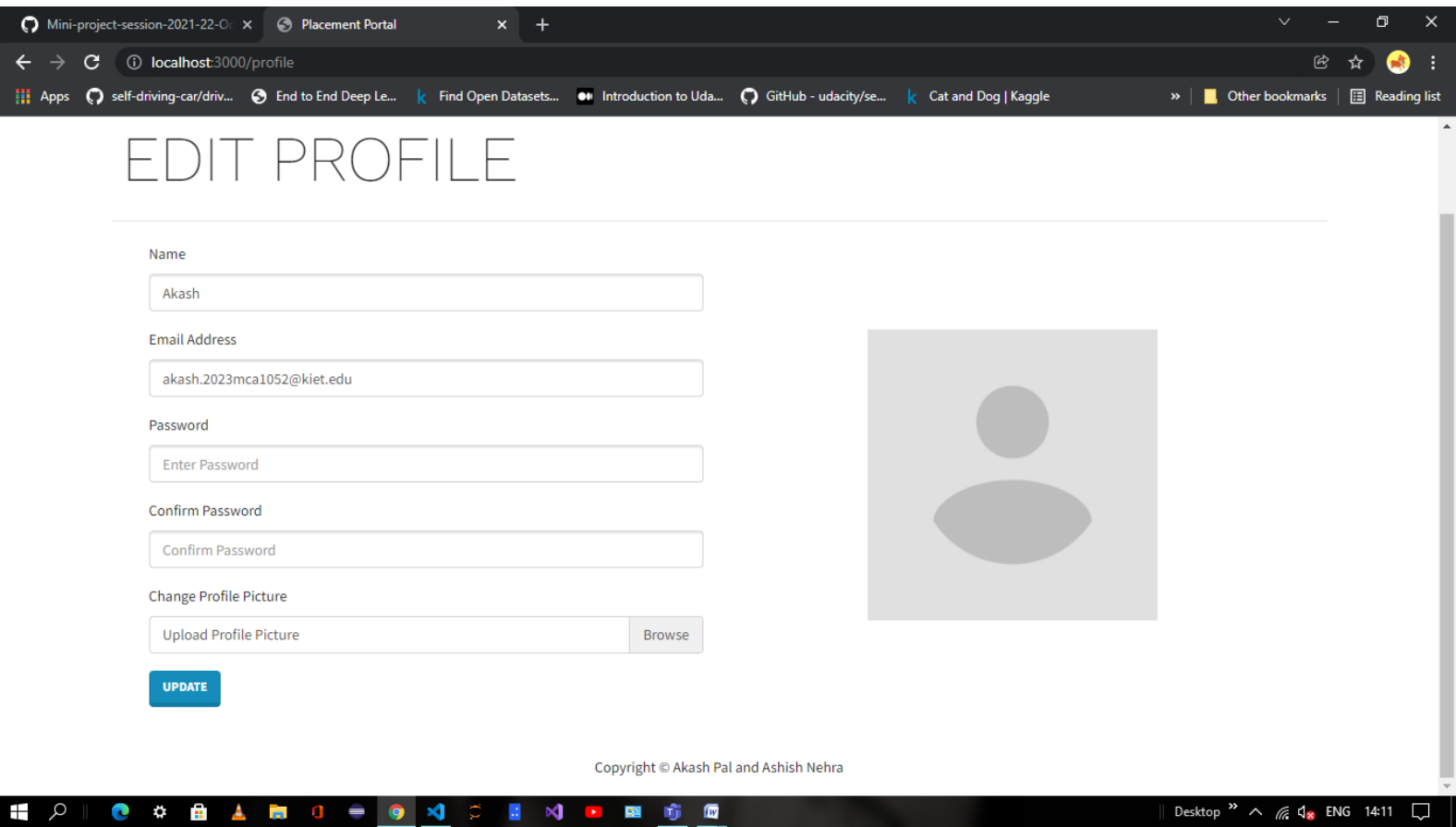












17 Conclusion

This system has been developed successfully incorporate all the requirements. Appropriate care has taken during database design maintain database integrity and to avoid redundancy of data. This project was intended to help tackle the unemployment issues among the youth in Nigerian by means of providing an online recruitment Portal. The findings from the pilot study show that there is a demand for such a system to be implemented in Nigerian. This site was developed in such a way that any further modifications needed can be easily done.

18 Future Plan

We are planning to run an PLACEMENT PORTAL, similar to monster, where both job seekers and employers can meet. In future we will add change a profile description and cover images. If admin need delete a user, they will be doing this. If user need post a job, they will be sending a message in admin. Admin can approve this posting job

19References

- 1 <https://www.firstnaukri.com/>
2. <https://www.freshersworld.com/>
3. <https://jobs.google.com/>