Project Name: **Hire Torch - Job Finder web portal**

Project Member:

PRN No.	Name
220943120027	Durkar Utkarsha Jalindar
220943120030	Ghatole Snehal Rajendra
220943120097	Chavan Shubham Anil
220943120100	Prajapati Shubham Brijlal

Introduction of Project:

As we know, especially in the present-day scenario Job portal plays an important role in bridging the gap between the recruiters and the job seekers. The qualified job seekers search for a place where they can apply their knowledge and skills to burgeon in the professional sector. On the other hand, the recruiters also look for the candidates that possess the right talent, qualification, aptitude, and efficiency that can fulfill the vacancy. In simpler words, it is the platform where the job seekers, whether fresher or experienced, and employers meet to fulfill each other's requirements.

This project deals with developing a website for Job seekers. The user will able to search a better job and can apply to them as well as companies will get a better employee as we are providing them potential employee. The system is implemented using a 3-tier approach, with a backend database, a middle tier of Spring Framework and web browser as the front end client.

Objective and Scope of Project:

- This system provides service to the job applicants to search for working opportunities.
- Job Portal will allow job provider to establish one to one relationships with candidates.
- This system is designed such that ultimately all vacancies will be posted online and would offer employers the facilities to post their vacancies online.
- It helps to review and manage the resulting applications efficiently through the web. Employer can also find the resume according to key skill in very less amount of time.

Scope:
As of Indian market, there is ample opportunities for the job portal sites, as more and more number of educated and skilled young people are coming out each and every year. Also, as the growth rate of India is zooming to be at a healthy rate over 7%, so it is boom time for corporate also. So, more and more number of lucrative careers will be available for the job seekers. So, it is now the right period for the job portal sites to think out of the box, and to make most of the opportunities available.

Modification and improvement over the existing Implementation:

There is always a need for a unified platform for job seekers and employers for the obtrusive business tasks of job placement. 94% of recruiting professionals say that recruitment software has positively impacted their hiring process.
Typical every job portal and recruitment software should have features included with intelligent job search, resume parsing functionality, finding best match candidate, hiring workflow, and collaboration tool.

Modification and improvement :
This Job Portal are commonly designed with the significant topographies of higher engagement for both employers and job seekers and can avail the benefits of the features to enhance their user experiences to select the right candidate on right place.

The benefit of a this job portal is concerning to mainly three groups of stakeholders we can distinct into:

- Job Board Business Owner as **Portal Admin**
- Hiring Companies as **Employer**
- Job seekers as **Candidate**

Project Plan:

Users-

1. **Admin:** Admin can manage Candidate as well as company.
   Admin will have authority to do an operations like update,create and delete from both of the accounts.
   He/She will only view the resume and requirements.
2. **Candidate:** Candidate can manage only his account.

He/She will have permissions to Upload resume,search job,Apply for Job and can also see the status of applied job.

3. **Company:** Company can manage his account.
   Company will have permissions to be register or login,upload jobs,search key word for resume.

Modules:

1. **Registration :**In the registration module job seeker have to include all the details like personal details, contact details, education details like school , graduation, post-graduation, course certification details etc. Also job seeker has to add his experience details, job requirements and uploading resume and photo. While job recruiter has to add his contact details and organization details for the registration and upload company logo and profile.

2. **Job Post:** Employer can post a job by providing all the job details like qualifications details, requirements for the job, designation details, job salary details and also provide type of jobs. They also can delete the jobs whenever they want. After successfully posted a job it will be available for all the job seekers who are searching for a job. And it will be available on home page as recently posted job.

3. **Search Employee:** Can Search job according to their interest. And also apply for that job or they can add into wishlist for future whenever they find for job for that company then they easily find out company from wishlist. Employer search candidates for their requirements using keyword like technology. And also can communicate with employee for their any other query or information via send message .and also employer see the resume of applicants.

4. **Manage Account:** While employers can manage their job postings. And providing all the job details like qualifications details, requirements for the job, designation details, job salary details and also provide type of jobs. They also can delete the jobs whenever they want. While employee can manage their wishlist, applied for job and also getting full details of employer. Employees can delete their account anytime. Also they can apply for the different jobs according to their interests

Technologies:

Frontend-

1. **React JS:**

React.js is a javascript library for building user interfaces based on components. It is used to build single page application with the help of reusable UI components and compose them together.React is only concerned with the user interface and rendering components to the DOM, so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality.

1.1 Features of React JS:

A. Declarative: React makes it easy to create complex UI by breaking them down into small,reusable components.

B. Virtual Dom: React uses a virtual DOM that allows it to update only the necessary parts of the UI when changes occur, improving application performance and reducing the time needed for updates.

C. JSX: React uses a syntax called JSX that allows developers to write

HTML-like code within JavaScript, making it easy to create UI components and manage them within the code.

D. Component-based architecture: React is based on a component-based

architecture that enables developers to build complex user interfaces

using small, reusable components.

E. One-way data binding: React follows a unidirectional data flow that

ensures that data flows in one direction, from the parent component to

the child components. This helps to simplify the application's data flow and makes it easier to debug and manage.

Backend-

2. Spring Framework:

Spring Framework is a Java platform that provides comprehensive infrastructure support for developing Java applications. Spring handles the infrastructure so you can focus on your application.

Spring enables you to build applications from “plain old Java objects” (POJOs) and to apply enterprise services non-invasively to POJOs. This capability applies to the Java SE programming model and to full and partial Java EE.

Features of Spring Framework:

1. Lightweight

Spring is modular lightweight framework which allows you to selectively use any of its modules on the top of Spring Core.

2. Inversion of Control (IOC)

This is another top feature of Spring framework where application dependencies are satisfied by the framework itself. Framework creates the object in runtime and satisfies application dependencies.

3. Aspect Oriented Programming (AOP)

Aspect Oriented Programming (AOP) is very popular in programming world and in Spring it is well implemented. Developer can use Aspect Oriented Programming (AOP feature of Spring to develop application in which business logic is separated from system services.

4. Container

Spring provides their own container for managing the bean lifecycle.

5. MVC Framework

Spring MVC Framework is used for developing MVC based web applications.

6. Transaction Management

Spring framework provides generic Transaction Management layer which can be used with or without J2EE(JEE) environment.

7. JDBC Exception Handling

Spring provides their own abstraction of JDBC exception which further simplifies the exception handling in program.

Advantages of Spring Framework:

1. Solving difficulties of Enterprise application development

Spring is solving the difficulties of development of complex applications, it provides Spring Core, Spring IoC and Spring AOP for integrating various components of business applications.

2. Support Enterprise application development through POJOs

Spring supports development of Enterprise application development using the POJO classes which removes the need of importing heavy Enterprise container during development. This makes application testing much easier.

3. Easy integration other frameworks

Spring designed to be used with all other frameworks of Java, you can use ORM, Struts, Hibernate and other frameworks of Java together. Spring framework do not impose any restriction on the frameworks to be used together.

4. Application Testing

Spring Container can be used to develop and run test cases outside enterprise container which makes testing much easier.

5. Modularity

Spring framework is modular framework and it comes with many modules such as Spring MVC, Spring ORM, Spring JDBC, Spring Transactions etc. which can used as per application requirement in modular fashion.

6. Spring Transaction Management

Spring Transaction Management interface is very flexible it can configure to use local transactions in small application which can be scaled to JTA for global transactions.

Database-

MySQL

MySQL, the most popular Open Source SQL database management system, is developed, distributed, and supported by Oracle Corporation.

Features of MySQL:

- **MySQL is a database management system.**

A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

- **MySQL databases are relational.**

  A relational database stores data in separate tables rather than putting all the data in one big storeroom. The database structures are organized into physical files optimized for speed. The logical model, with objects such as databases, tables, views, rows, and columns, offers a flexible programming environment.

- **MySQL software is Open Source.**

  Open Source means that it is possible for anyone to use and modify the software. Anybody can download the MySQL software from the Internet and use it without paying anything.

- **The MySQL Database Server is very fast, reliable, scalable, and easy to use.**

  MySQL Server was originally developed to handle large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Although under constant development, MySQL Server today offers a rich and useful set of functions. Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.

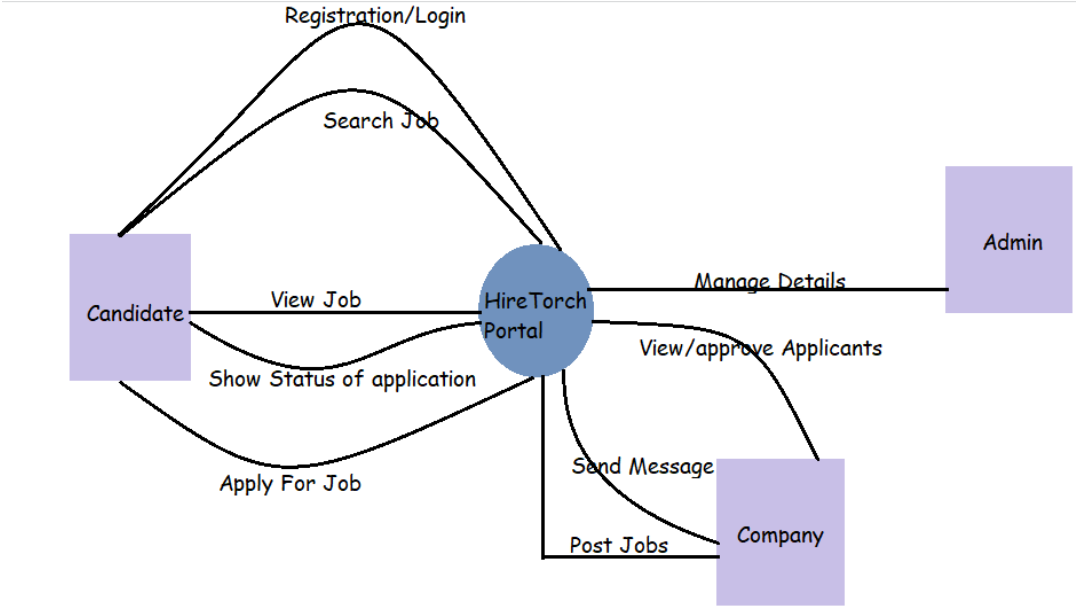
- **MySQL Server works in client/server or embedded systems.**

  The MySQL Database Software is a client/server system that consists of a multithreaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and a wide range of application programming interfaces (APIs).

Roles and Responsibilities:

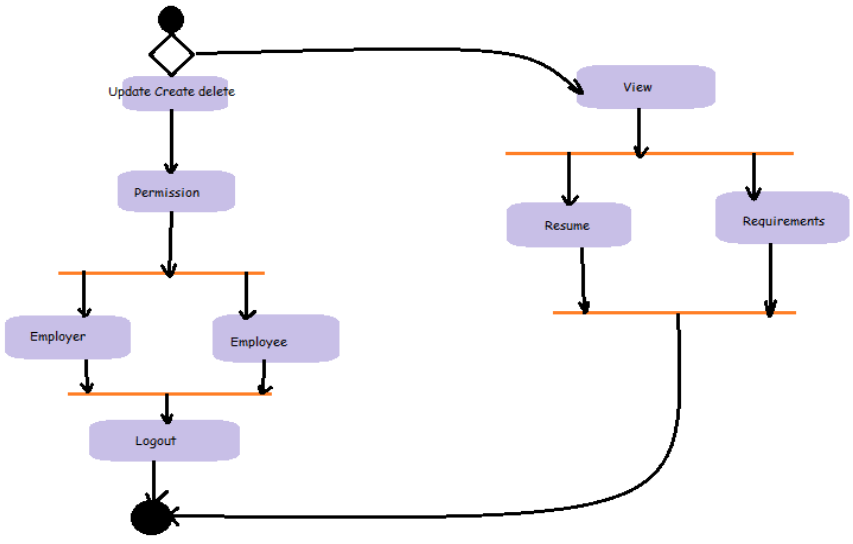
Roles And Responsibilities		
1	Role	Backend Devloper
	Member Name	Durkar Utkarsha Jalindar
	PRN No	220943120027
	Description	Manages all activities related to databases,back-end logic, application programming interface (APIs), architecture, and servers.
2	Role	Database developer
	Member Name	Ghatole Snehal Rajendra
	PRN No	220943120030
	Description	Manages performance, integrity and security of databases.
3	Role	Frontend Devloper
	Member Name	Chavan Shubham Anil
	PRN No	220943120097
	Description	Manages all activities related to UI and navigation
4	Role	Leader
	Member Name	Prajapati Shubham Brijlal
	PRN No	220943120100
	Description	Frontend/Backend Devloper Manages all activities related to databases,back-end logic, application programming interface (APIs), architecture, and servers as well as User Interface.

Data Flow Diagram (DFD):



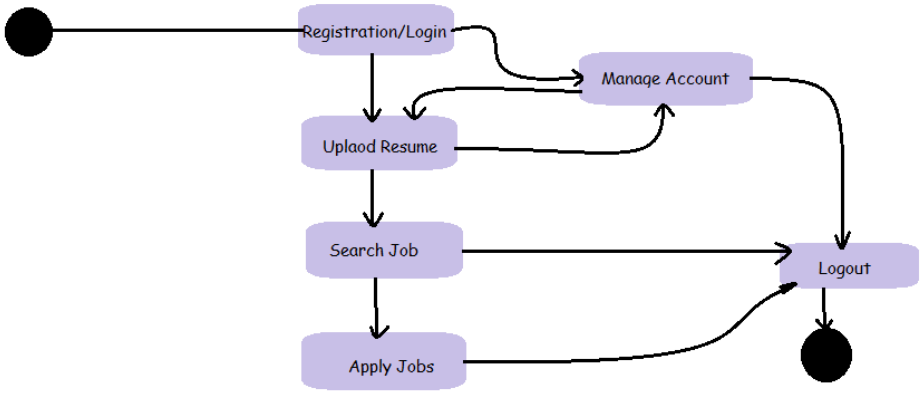
Activity Diagram

Admin:



Admin Activity Diagram

Candidate:



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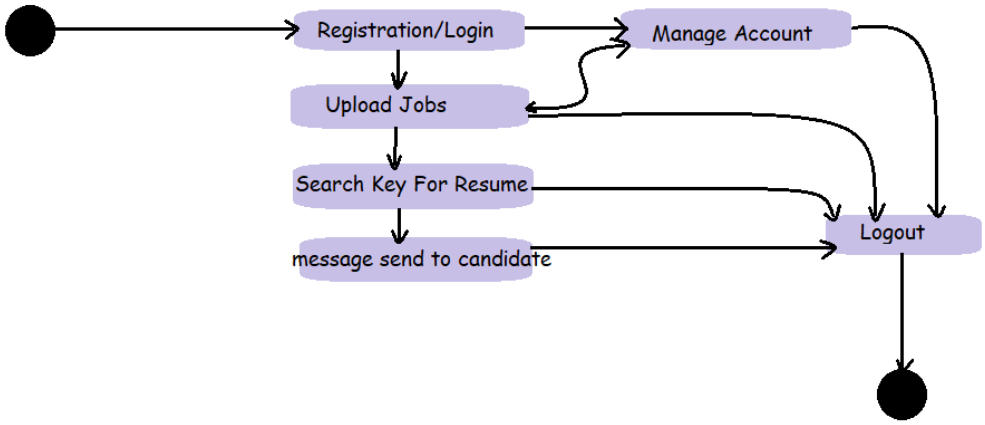
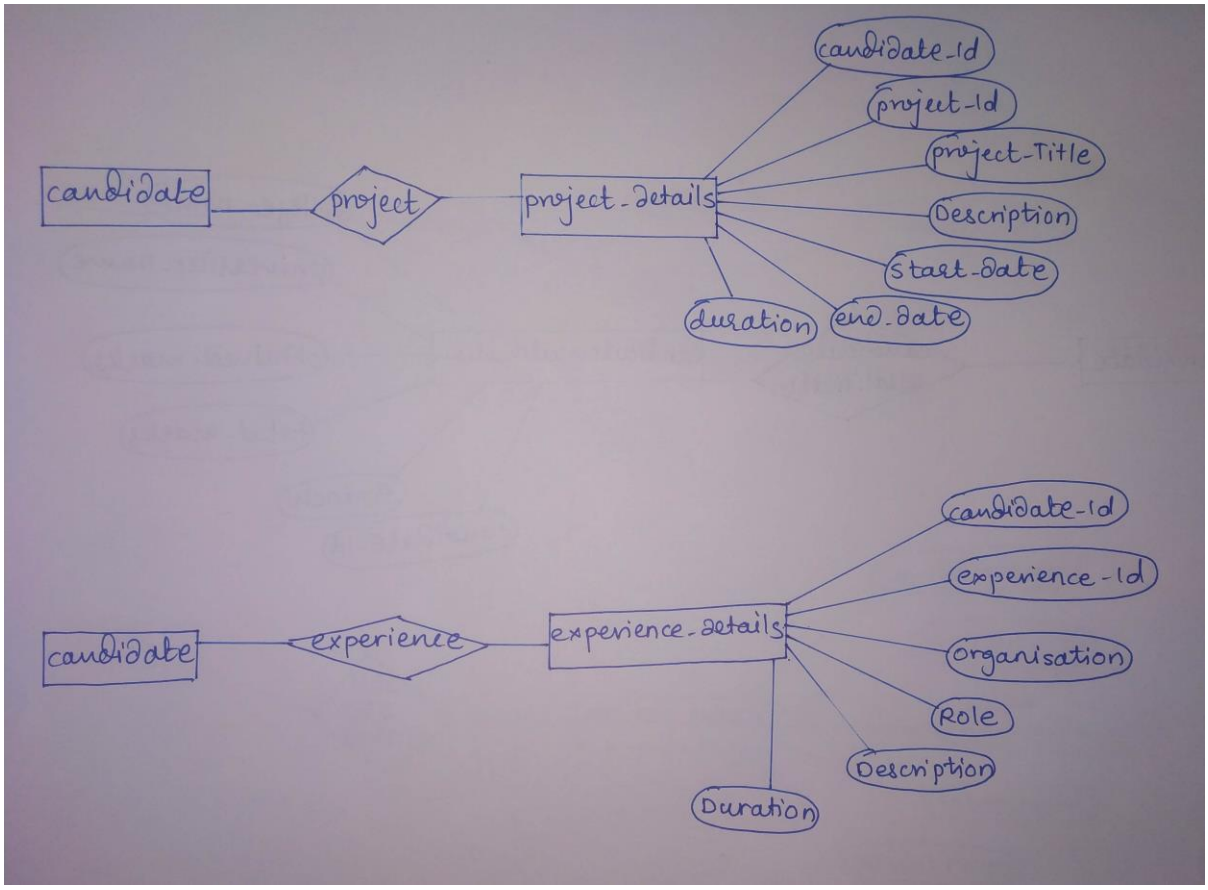


Company Activity Diagram

ER Diagram: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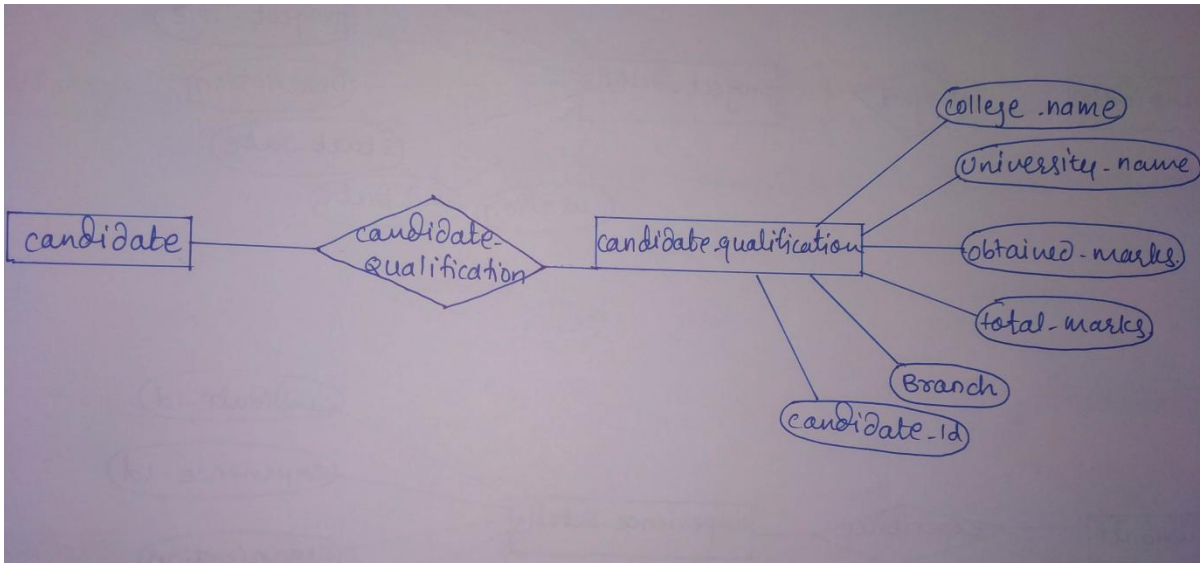
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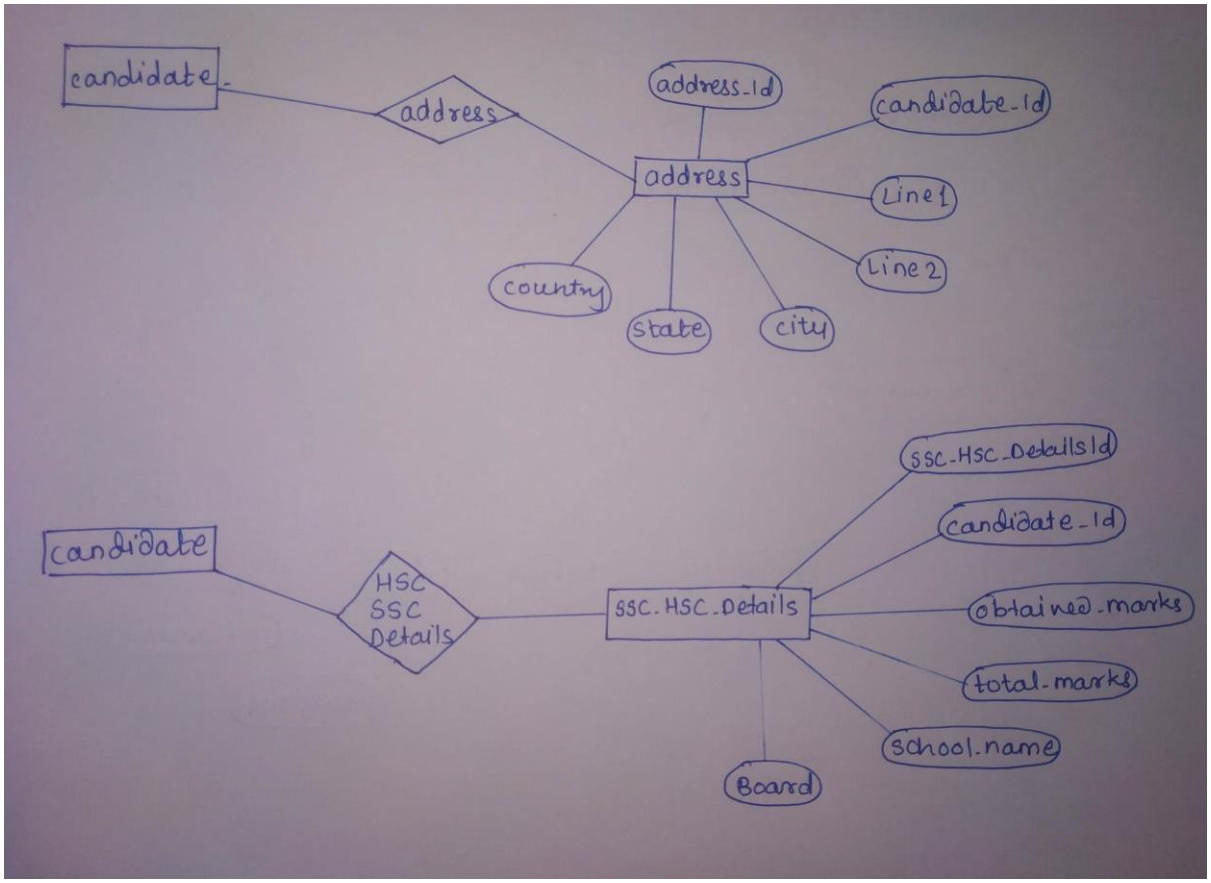
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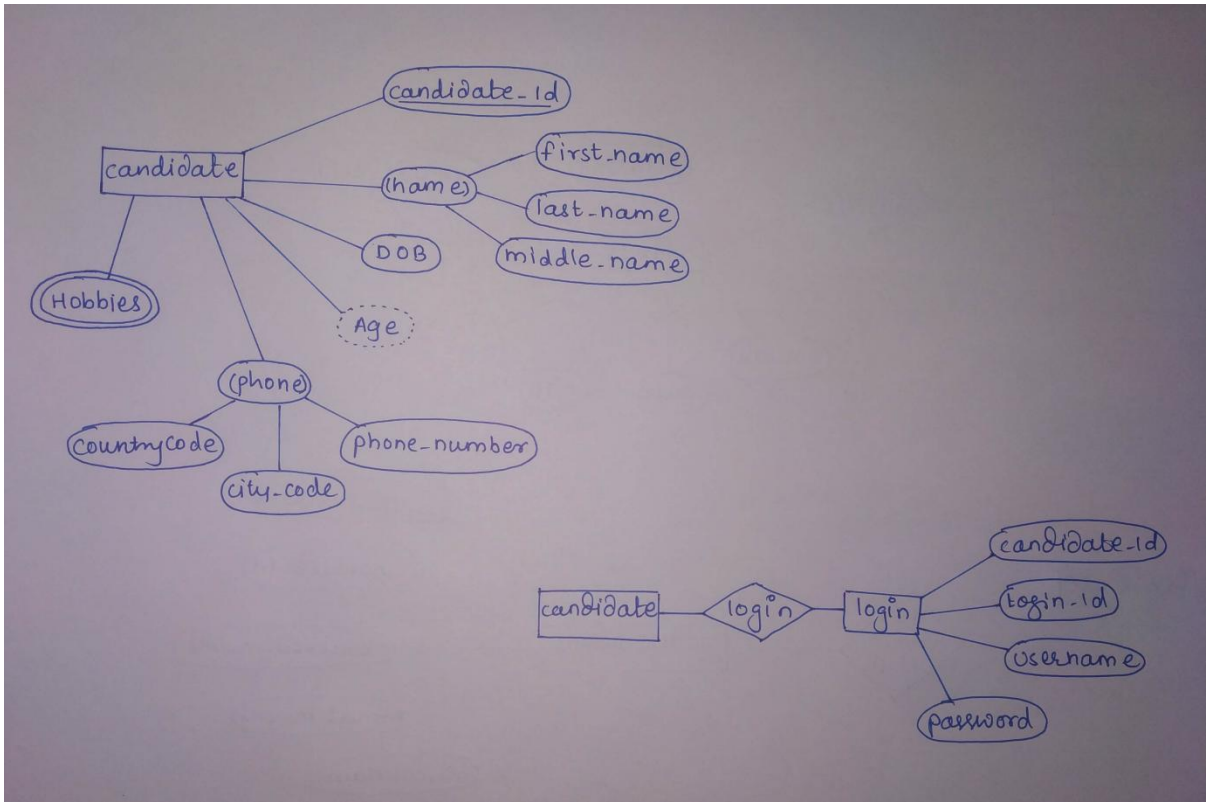
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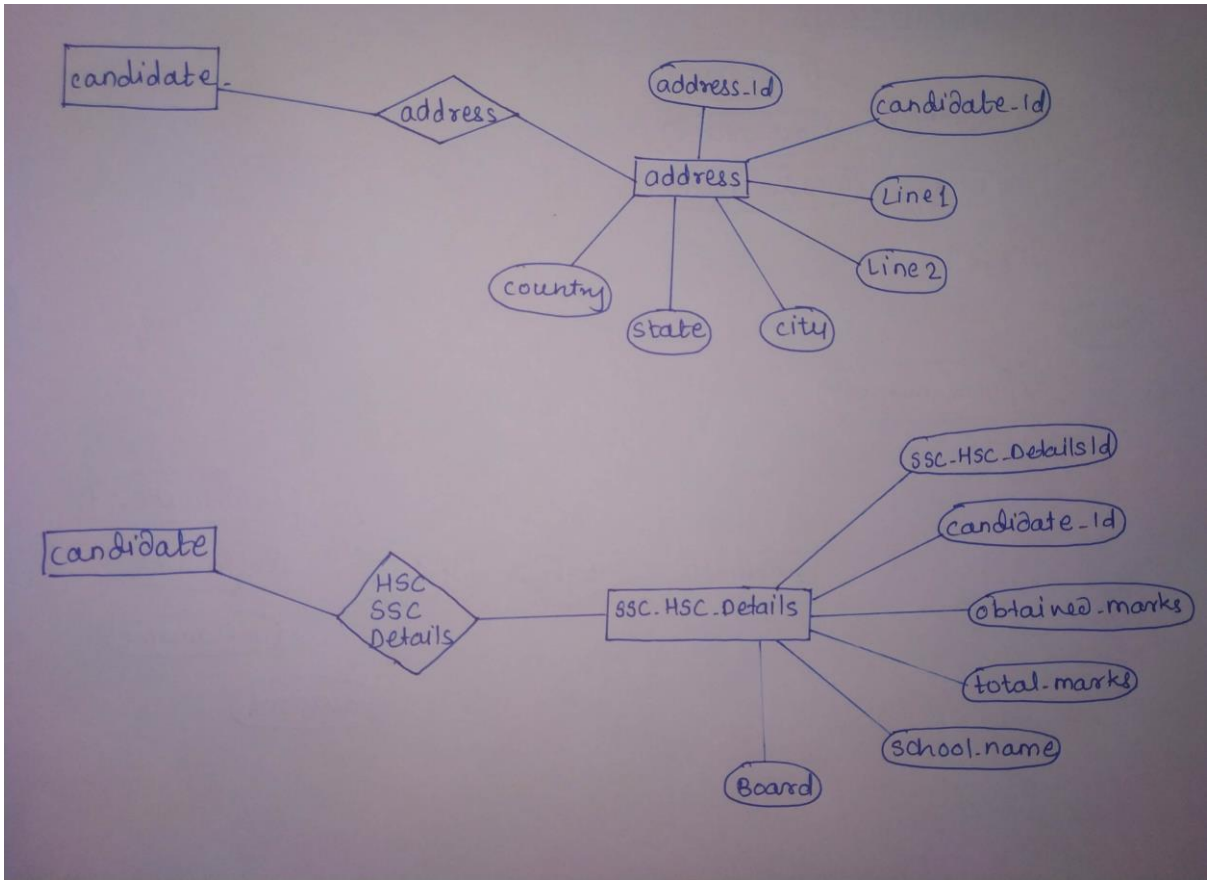
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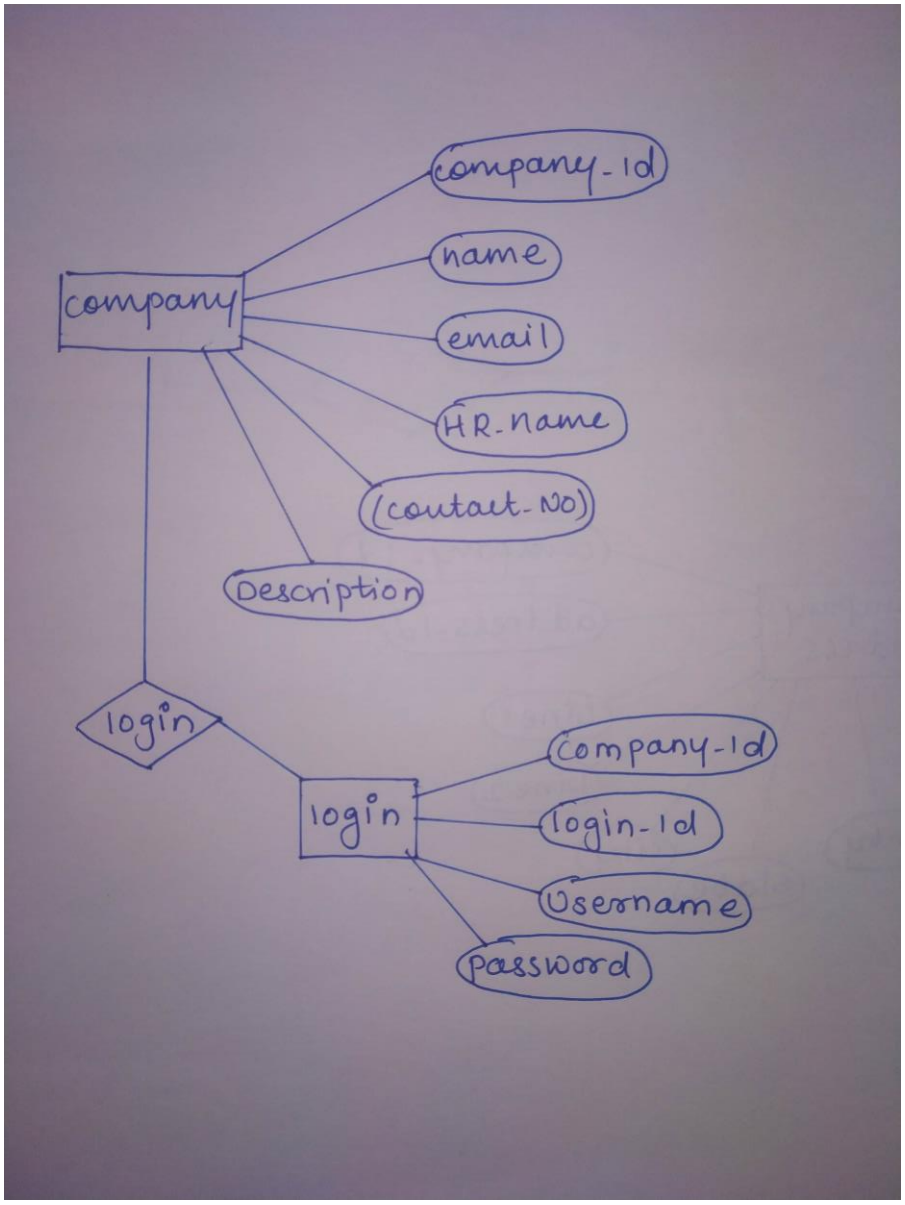
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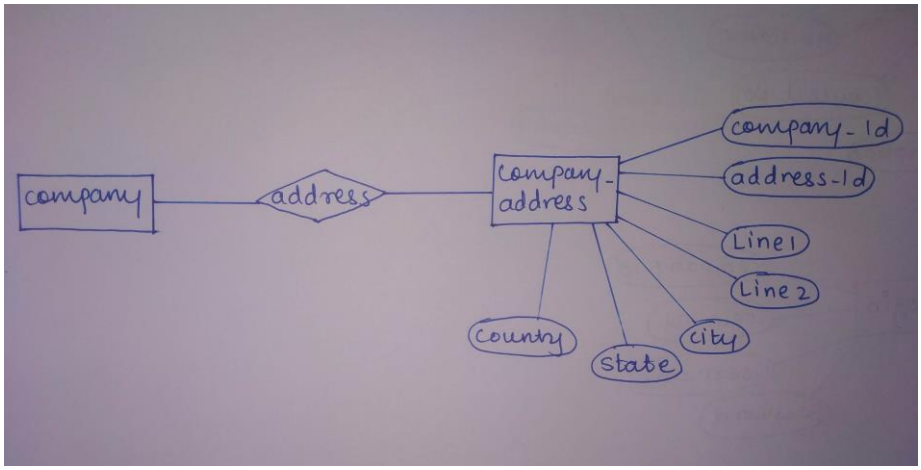

Future Scope of Project:

- End to end Virtual campus hiring
- Recruiters and job seekers will experience an entirely automated process of searching and connecting.
- All job boards should be perfectly indexed, highly responsive, and exhaustive in job descriptions to establish their credibility and reliability.
- These features can be clubbed with technical upgrades like job tags supported with search engine optimisations and resume-matching criteria that are need of the hour.

Thank You!