

Project Proposal

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Topic: Job Search and Application Portal

Description

We intend to create a job search portal, that allows a *User* to register or log in as job *Applicants*. Another role for the *User* is *Recruiter* that works for an organization. The *Recruiter* can create *Job* postings on behalf of the *Organization*. An *Organization* and each *Job* also have a *Location* associated with them. *Applicants* can view all job listings on the web portal. Users can also search, and filter based on various attributes of the *Job*. The web portal allows *Applicants* to create *Applications* to apply for a *Job*. *Documents* related to an *Application* are also stored in the database.

Each user can do the following actions:

- Applicant
 1. Log in or register on the web portal
 2. Search all job postings, with features like filtering based on location, position. etc.
 3. Apply to a job posting by creating an Application
 4. View/Update their Applications
- Recruiter
 1. Log in or register on the web portal
 2. Create job postings
 3. Update job postings
 4. View applicant applications for their job postings
- Non-registered users
 1. Search all job postings, with features like filtering based on location, position, etc.
- System admin
 1. Add new Organizations (It is an invite-only web portal for organizations)

SQL vs NoSQL

- Our application consists of a rigid set of entities and relationships between those entities, the schema is not dynamic and therefore there is no need for a NoSQL database.
- SQL also allows high-level ad-hoc queries for flexible access to data.
- SQL has a strict implementation of ACID properties, whereas NoSQL databases have variance in their description and implementation of ACID properties. Thus, SQL guarantees a valid transaction.

Software & Technical Specifications

Database: MySQL

Back-end: NodeJS

Front-end: HTML, CSS, Javascript

Software: MySQL Workbench, Git, Github

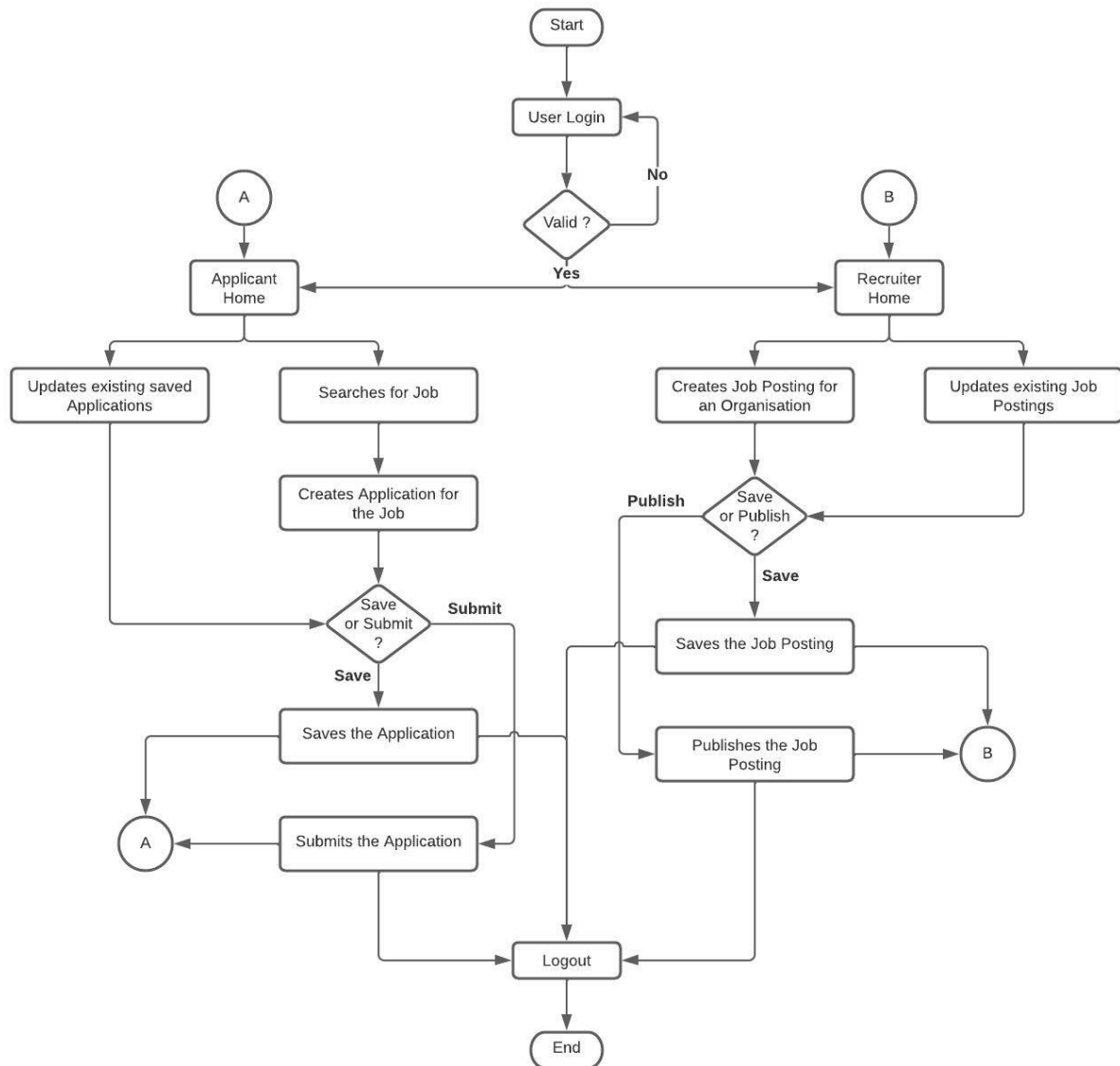
Domain Interest

As students, we have seen job application portals become an integral part of our lives as internship and co-op season approaches. It is essential to have a system that allows you to apply to multiple jobs and keep track of your application status during the hiring season. We decided to emulate the same experience in our CS5200 project since it is a topic of personal interest.

User Interaction

1. Users can view job postings on the website. Job postings can be filtered based on location, position, type, salary.
2. The user can log into their account with an email and password which can result in a valid or invalid result.
 - a. If Valid, the user is sent to their Home screen based on their role.
 - b. If Invalid, the user is asked to reenter the credentials.
3. If the user is of Applicant role, he/she can perform the following operations:
 - a. Search jobs based on location, position, type.
 - b. Apply to published job postings by filling in the required details.
 - c. Attach documents like Resume, Cover Letter, etc. to their applications.
 - d. Save/Update/Submit the unsubmitted job applications.
 - e. View/Withdraw submitted applications.
4. If the user is a Recruiter, he/she can perform the following operations:
 - a. Create job postings.
 - b. View all job postings.
 - c. View applications to the job postings.
 - d. Update/Publish existing job postings.
5. Users can then log out from the website.

Flowchart



UML