COMP 3340 Project Proposal

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1 Topic, scope and use cases

Title: Job Bank

Topic & scope:

In this project, I will develop a job posting system that all users including visitors can browse and search for job positions, recruiters can manage job positions on the Job Bank website, job seekers can manage job applications, and admin users can manage the system, view, and generate reports in the system. The final project would be finished by the end of July.

Use Cases:

(1). A job seeker can register an account by providing an email address and entering an password.
(2). A recruiter can register an account by entering an company name and an email address
(3). A job seeker or a recruiter can activate his/her account by access an link in an email sent by the system.
(4). A recruiter can only use recruiter roles' functionalities after his/her account has been approved by an admin user.
(5). A register user (a job seeker or a recruiter) can receive an email sent by the system once registered.
(6). An admin user can manage all the admin user accounts (actions include: search, create, delete, and modify).
(7). An admin user can manage all the job seeker accounts (actions include: enable, disable, search, modify, and delete).
(8). An admin user can manage all the recruiter accounts (actions include: review, approve, enable, disable, search, create, delete, and modify).
(9). A user can browse jobs description.
(10). A user can search for an job position based on a job title.
(11). A user can search for all jobs in a company based on a company name.
(12). A user can search for all job information based on a keyword.
(13). A user can search for all job information based on a city or a province.
(14). A user can filter the search result base on company.
(15). A user can filter the search result base on salary range.
(16). A user can filter the search result base on the distance.
(17). A user can filter the search result base on the job type (full-time/part-time/internship/contract/permanent/temporary).
(18). A user can filter the search result base on a location.

(19). A user can filter the search result base on a job title.
(20). A user can sort the search result based on relevance or date.
(21). A job seeker can apply an job by clicking the button "apply now" in an job description page and then enter the name, email, phone(optional), and choose a résumé if already uploaded.
(22). A job seeker can upload a résumé in his/her profile page.
(23). A normal recruitor user can post job positions with descriptions up to 10.
(24). The system can calculate and set the expire date of a vip recruitor user based on the method and the date of payment (monthly, quarterly, yearly).
(25). The system can generate a daily/monthly/yearly report by cities, positions, and position states.

2 Different user levels (privileges)

There are four types of users:

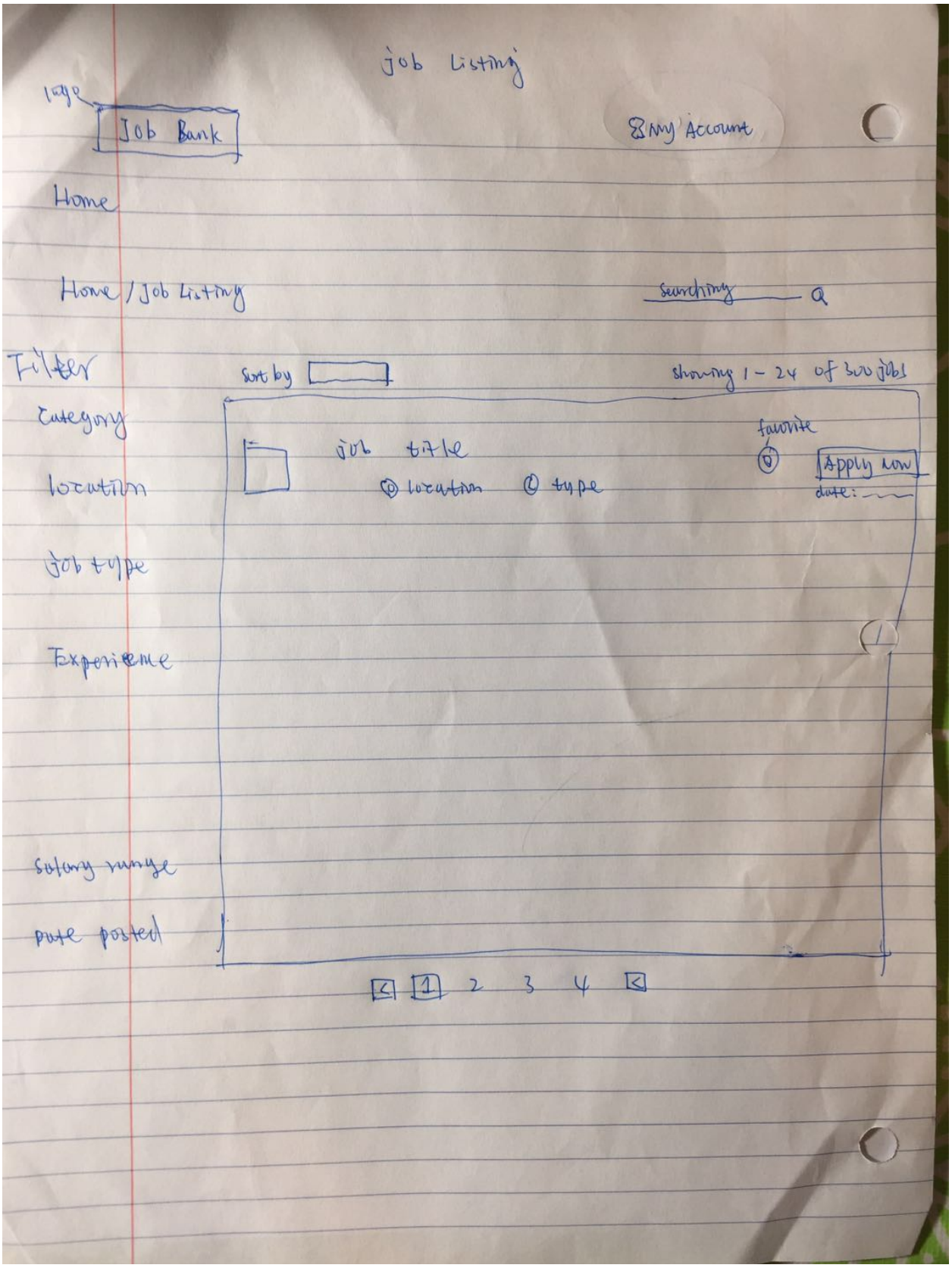
- visitors (non-authenticated users): they can browse posted jobs and companies.
- candidates: they can search for jobs and submit job applications.
- employers: they can manage received job applications and employer information.
- admins: they can manage the system (including managing users, job categories).

3 Queries (at least common questions about your project)

- What is the most wanted job?
- How many opening for a particular job?
- What is the most paid job?
- What are the openings in some particular area/city/country?
- What are the openings in a target salary range?
- What are the opening for a searching keyword?
- What are the openings for a particular company?
- What are the openings for a particular job type?
- What are the job seekers in current open jobs in a employer's dashboard?
- What are the closed applications in a employer's dashboard?
- What are the pending applications in a employer's dashboard?
- What are the jobs seekers waiting to be interviewed?
- What are the job seekers who have been made a job offer?
- What are the job seekers who have accept a job offer?
- What are the jobs that a candidate has applied in a candidate's dashboard?
- What are the jobs that a candidate has received a job offer?
- What are the jobs that a candidate has been refused?
- What are the jobs that a candidate has accepted?

4 Website design

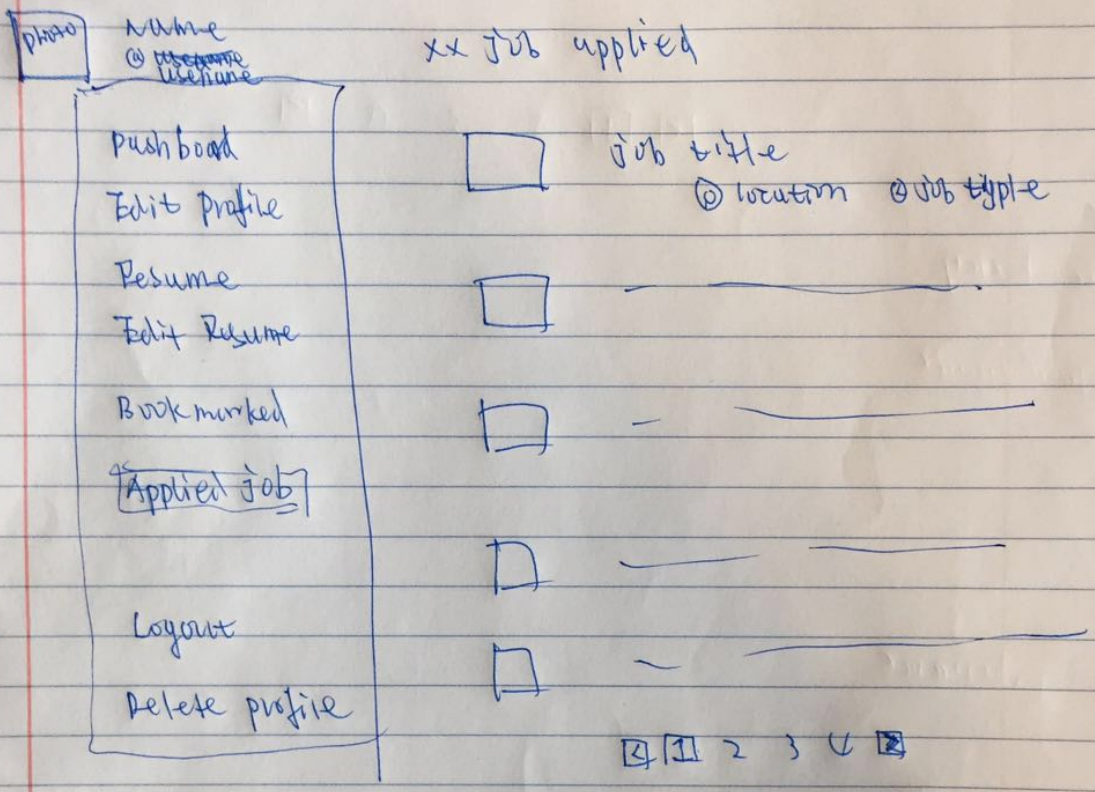
job listing:



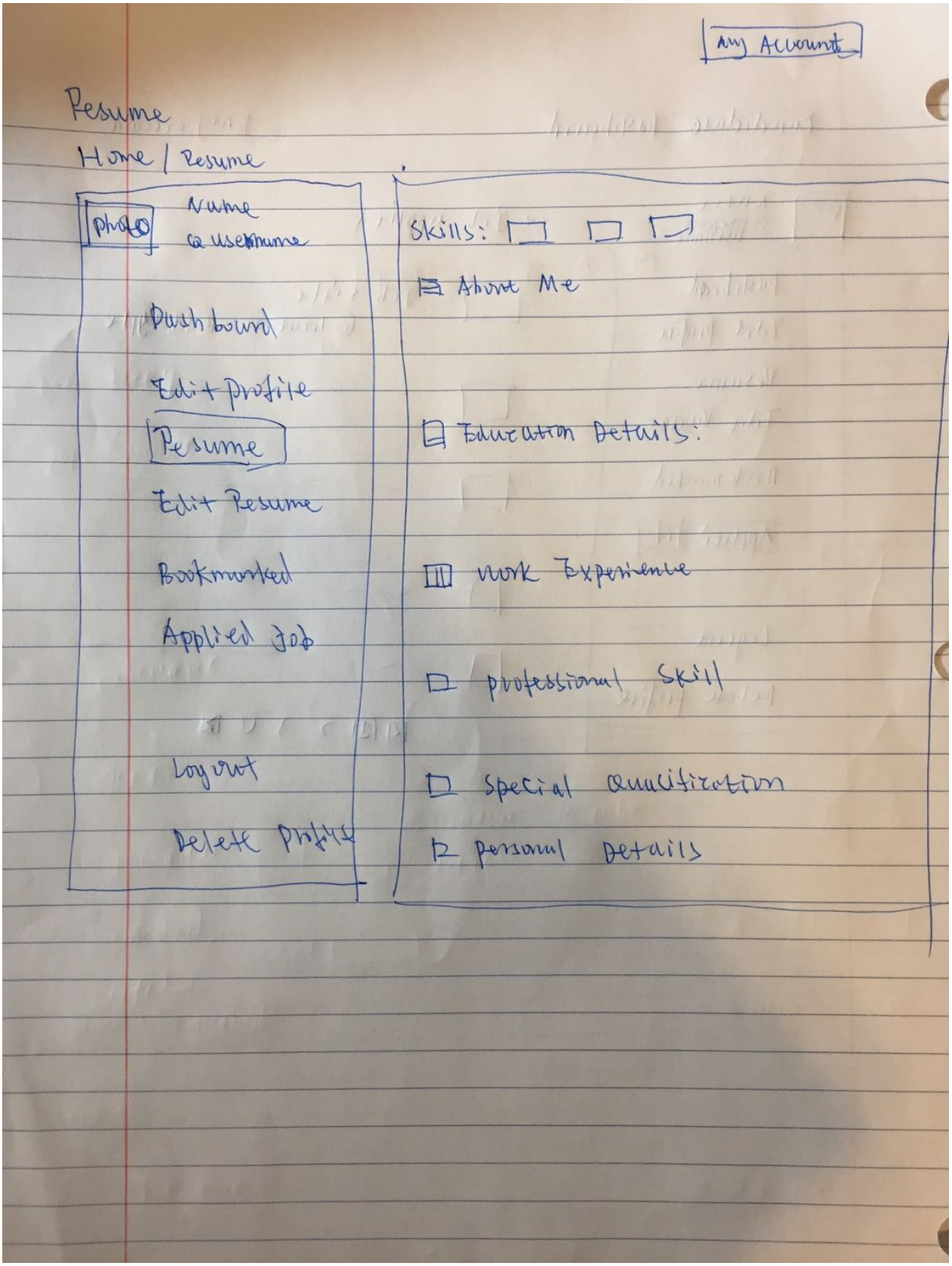
Candidate Dashboard:

Candidate pushboard

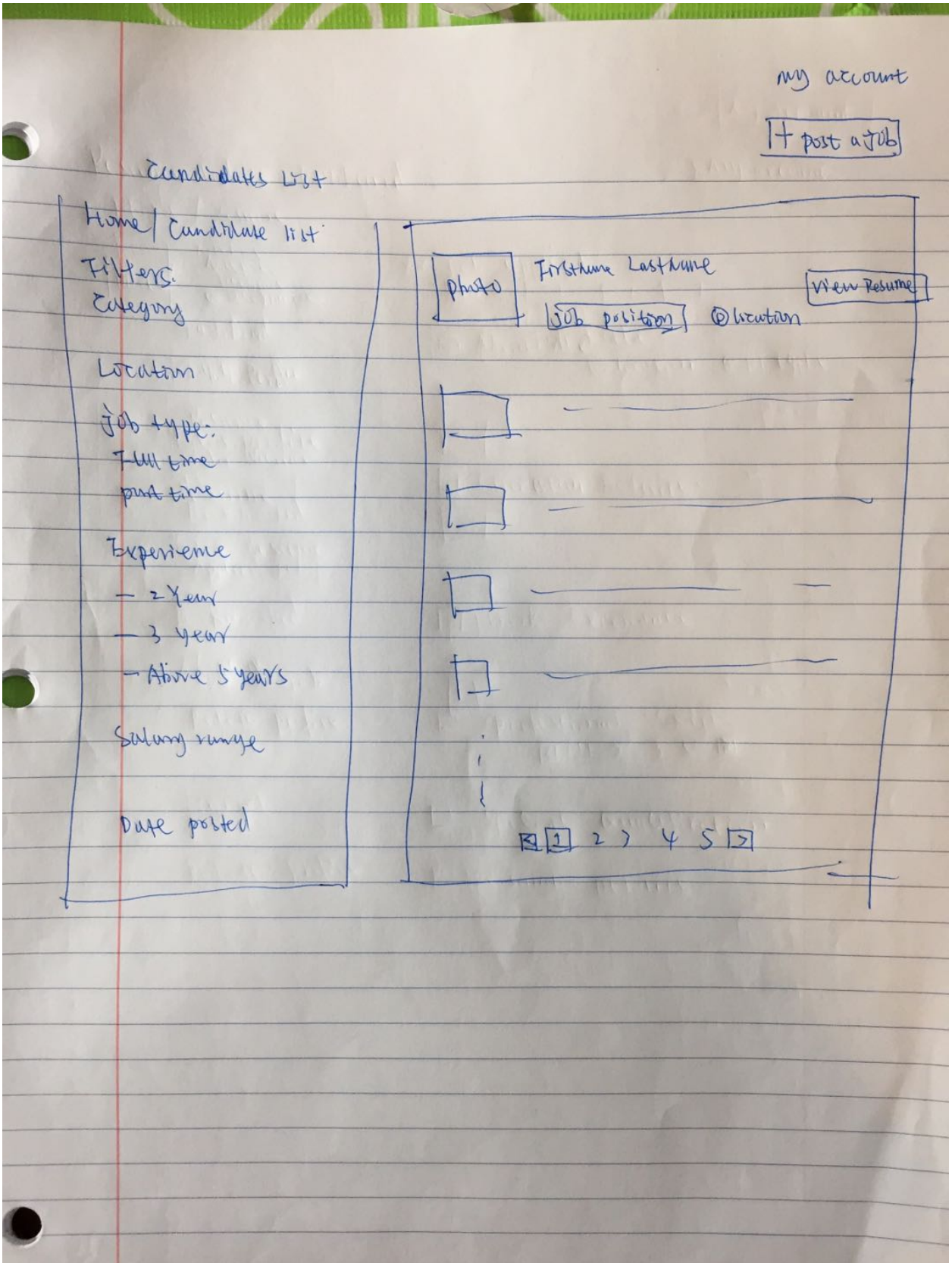
My account



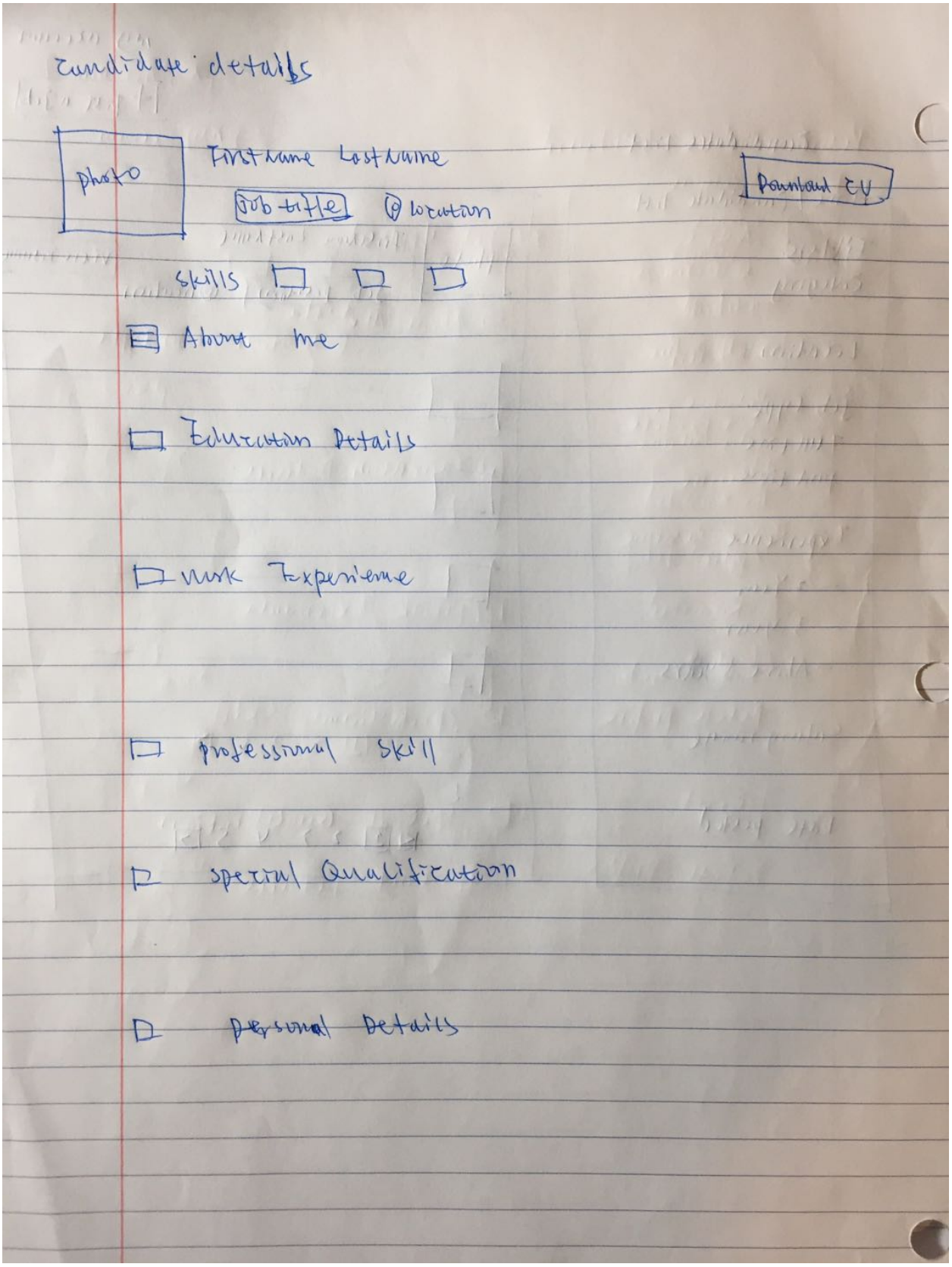
Resume:


Any Account
Resume
Home / Resume
photo
Name
@username
Push board
Edit profile
Resume
Edit Resume
Bookmarked
Applied Job
Logout
Delete Profile
Skills:
About Me
Education Details:
Work Experience
Professional Skill
Special Qualification
Personal Details

Candidates List:

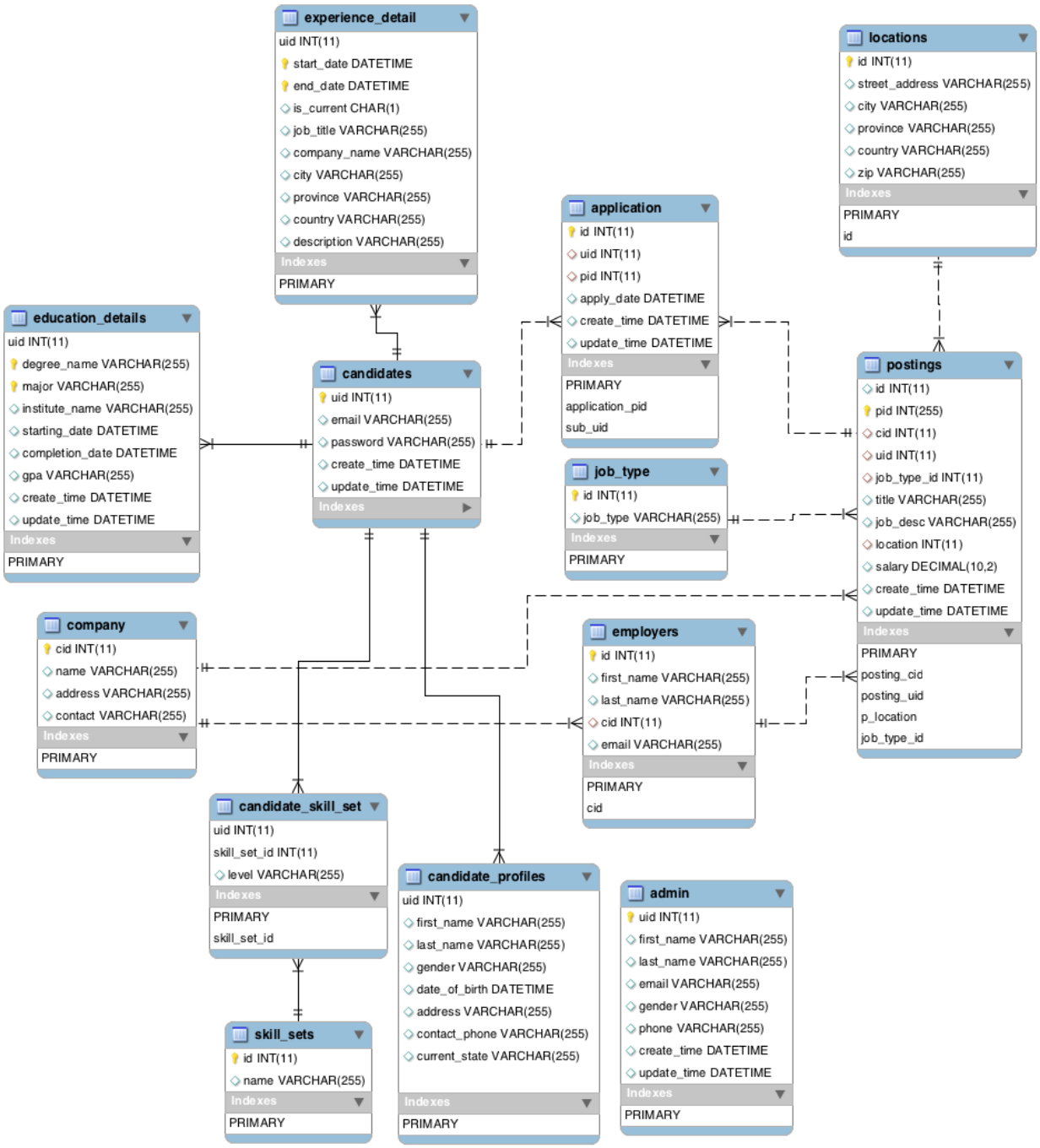


Candidate Details:



5 database design

ER Diagram:



6 Data Analysis

We can generate reports like this:
(1). How many job openings for each month during a specific year?
(2). How many job closed after one or two month since its opening?
(3). How many candidates find their job within 1-3 week, or 1-2 month?
(4). How many candidates applied jobs during a specific year?
(5). How many candidates get job offers during a specific year?
(6). How many candidates fail to find a job or get zero job offer during a specific year?
(7). What are the top 10 popular jobs during a specific year?
(8). Which jobs are the 10 most in-demand jobs in the a specific year?
(9). Which companies post the most jobs during a specific year?

7 System administration, testing, and maintenance plan

(1). Files naming convention:
All file names must be alphanumeric characters, underscores, and the dash character. And a file must be saved with encoding UTF-8.

(2). **compatibility**
The system will be tested on popular browsers of different OSs including Windows, Linux, , Mac OS X, and mobile systems.

(3). Testing plan and quality assurance
Testing:
ensure all features are tested based on the requirements.

quality objectives:
For this project, we must meet the requirements of the software. And ensure that requirements are clearly stated and accepted at each phase of the software life cycle. Also verify result of testing, create required reports and to ensure quality reviews of all artifacts are held timely.

Product Quality:
assess each artifact based on two factors:
How well it meets the defined accpetance criteria
How it implement a solution that operates requirements.

Proess Quality:
Objectives: ensure the work performed follows project plans.

(4) directory structure

This project's directory structure is managed by the laravel web framework, and all resources should be put into the corresponding directory. E.g.,: resources/images, resources/js, resouces/css and etc.,

(5) maintenance plan

(a). maintaining the system's day-to-day functions
(b). maintaining the system's modification.
(c). refine the existing functions.
(d). identifying the security threats and fixing security bugs.
(e). preventing software performance from degrading to unacceptable level.
(f). keep documentation up-to-date.