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**JobLine - Final Project Write-Up**

**Introduction**

JobLine is a website that is meant to be the universal job application. Often times when applying for a job, people find themselves entering the same information over and over again, which can be a very tedious and repetitive process. That’s exactly what happened to group member Samad Farooqui when he was applying for an internship, and inspired the group to create JobLine; JobLine would be synonomous with the phrase “apply online”. Applicants would first create an account for the website, and then fill out their basic information usually required for all jobs once, on their own time. This information would be stored in a database. After that, they can search for whatever jobs they want based on keyword or location and go on an application spree, where job postings come from companies who create the jobs which are placed in a database.

As the site will be easy-to-use for applicants, it will naturally be that way for companies as well. Of course, companies might have their own reasoning for wanting to have their own websites for applications, but JobLine aims to fulfill those needs. Companies are able to submit their own supplemental question to any question they post, in multiple formats of question. They are able to view all the applicants to a job in one, easy place accessible from their profile page and can always go back and edit their job postings. All the job postings are stored in a database, and all their edits will change the job postings for everyone to see.

The site is meant to be easy-to-use and have neat functionality with the technologies of HTML, CSS, Javascript, JQuery, and Firebase. The HTML and CSS are carefully coded with the intention of readibility in mind, as the scope of this project calls for it to be usable for anyone looking for a job. The JavaScript and JQuery are meant to be there in order to improve user experience, with nice functionality such as highlights on mouse hovers and the like. Finally, Firebase is chosen to host all the data of the users. Firebase is easy to access and use, perfect for allowing for improvements in case anything has to be changed as well as easy modification of tables. JobLine should be accessible for everyone, use state-of-the-art technology, and have innovative design in order to be a complete project of its scope.

**User Interface**

The first thing a user sees is the landing page, full of company logos meant to impress the client and get some extra money from our partners who can pay to have their logo displayed (otherwise, it would be chosen by staff of JobLine). If it is the first time the user has visited the website, they can be taken to the registration page via the navbar at the top. If interested, the navbar can take the user to the About Us page to learn a little bit more about our mission. Upon hovering over the (now red) link and clicking on it, the user is prompted with the question of whether they are a candidate or a company. Assuming this user is an applicant, they would click the “I’m a candidate” option and are shown the candidate registration form where they can enter in basic information for their profile to be made. As long as all the information is valid, they will be re-directed to their own brand new profile, which is the central hub of their job search. If the user already has an account, they can log in and view their profile. A candidate’s profile has their application statuses to job applications they have completed, any upcoming deadlines they may have for applications they are currently working on, and a preview of what their profile looks like to companies who view them. Candidates can edit their information via a page they are taken to upon pressing the “Edit information” button, and that information is what they should fill out in order to have a completed job application. They can also upload and view a resume they would like companies to be able to see.

The applicant profile also contains a link to the explore jobs page, the same link as the “explore jobs” in the header. On this page, the user can search by keyword or location (depending on what is more important to them) in order to find the job right for them. The user can view the results and click on a clearly-highlighted label in order to view the job description, and if they are logged in they can click the button to apply. If the company has no supplemental questions, they are done! However, if there are supplemental questions, the applicant only has to answer those. The applicant does not have to enter their name, contact information, etc. since all that should have already been entered by them. All the applicant has to do now is wait.

On the other side, if a company would like to become a partner of JobLine, they need to register and instead select “I’m a company”. This will bring them to a form which requires an ID, which they can click another link in order to get to. The point of the ID is to make sure that a member of the public is not signing up for a company that does not want to be a partner - the company would then have to wait for a confirmation call from JobLine’s staff. After the ID is given to the company by JobLine, they can go back to the company registration and register, similar to how an applicant would. They are then taken to their own profile page, where they can add job postings and view applicants to those job postings. Applicants can be seen on the left while editing information and adding job postings can be acheived with two buttons on the right. Meanwhile, the center of the company profile page has a description of the company and information about the jobs posted for easy review. From the view applicants link, companies can see the profiles of applicants that are applying to their positions.

Finally, there is a navbar in the footer with a couple of links which are the same for anyone. There is another About Us link, a link to those who are interested in joining JobLine, a standard Contact Us, and our Privacy Policy. Then there are nice, font-awesome icons for our social media pages. They only link to their respective websites landing pages as we do not have social media accounts yet, but they will when those are set. Of course, the logo also links to the landing page as standard practice is. Again, using a combination of HTML, CSS, and JavaScript allows the website to have ease of access and functionallity.

**Nielsen’s Ten Usability Heuristics**

**Visibility of System Status**

Upon logging in, applicants can view their application statuses for jobs they have applied for via a red “denied” message or a green “Expecct contact!” message. A yellow “in progress…” message is in development for applications being considered. They also know they are logged in with a welcome message on their profile page. Companies have something similar; they also have a welcome message and a thanks message for agreeing to use JobLine.

**Match between System and the Real World**

Candidates and companies were kept in mind when designing JobLine, as it was thought of by frustrated applicants. The information that has to be entered applicant side benefits both the applicant and the company since it is general information that all companies require of applicants, in the same language that is usually presented on all job applications. The table columns of the search results are all important aspects of a job posting, but the actual descriptions and specfics are left to the company. Regardless, it is all based off of the application process one can see all around them when applying.

**User Control and Freedom**

There is a navbar that is present for most of the site for those who are new to it, but that is eventually taken away once the team felt a user is familiar with the website. Regardless, there is always a clickable logo in the top left of every page in order for anyone to go back to the landing page. There are also multiple options to go back to previous pages; for example, when an applicant has finished applying for a job, there is a big button they can click to take them back to their profile. The applicants and companies also always have the option to change their profiles, basic information, or job postings whenever they like.

**Consistency and Standards**

The same terms are used for classification and readability for both applicants and companies all throughout the website. “Register” will always mean registertation and “Work experience” won’t ever mean “Education”.

**Error Prevention**

Login, registration, and search terms are always checked on submission to make sure they are valid, and will alert the users if they are not.

**Recognition Rather than Recall**

All the links on the website are clearly labeled and standard for a website. The navbar links also change color when hovered over! Really, the only thing not specifically stated is the fact that the logo in the top right takes one back to the landing page but that is already a very standard practice for website design.

**Flexibility and Efficiency of Use**

The entire premise of the website is that it should be efficieint for applicants and companies to apply for jobs and select candidates. Job candidates only have to fill out their major information once, and always have the option to go back and change or add other entries. After that, they can just search and go on an applicaiton spree. The only thing that may be needed from applicants are questions employers want answered specifically. Companies also have a very easy-to-use system to add supplemental questions and add actual job postings in the first place, and with just a few clicks they can have their jobs up for applying. Once information is entered once, that is all that is needed.

**Aesthetic and Minimalist Design**

JobLine does not use as many colors as is, and the colors that are used were selected to display professionalism and minimalism at the same time. The only major colors that come are from the company logos, which cannot have much done about that. The applicants only ever see what they have done on their profile page and what they are looking for on the searching page, and likewise for companies.

**Helps Users Recognize, Diagnose, and Recover from Errors**

Form validation occurs on the most important forms, being restration, login, and searching for jobs. Without that information, the applicant cannot even start looking for jobs, and the company cannot even apply. If an application is not completed by the applicant, the applicant’s profile will make note of it on their profile as well to help them realize they have to finish an application.

**Help and Documentation**

Alerts will let the user know what they have to enter in order to move on. Also, if there are any issues, the user can always contact JobLine from the Contact Us link in the footer.

**Use Cases**

**Use Case 1: A member of the public looking for a job…**

Karen Findajob has just graduated from college with a degree in communication and marketing and is now looking for a job related to her field. She decides to use the service JobLine, as she read news that it is where companies are moving towards for hiring applicants. she visits the website and is impressed by all the big name companies that use it already. She decides to create an account, and clicks the register page expecting to go somewhere. She picks the candidate option, and fills out some basic information. Karen is redirected to her profile page after hitting “Register Now!”, and notices she can edit her profile and upload a resume. She edits her information first and enters information about her internship at a local marketing consultant firm and her current job as a barista at Starbucks. She then added information about her education history. When she was done, she clicked “save” and it took her back to her profile where her information was updated and then uploaded a resume for good measure. After that, Karen noticed the link at the top of her profile to search for jobs and clicked it to be taken to the search page. She entered “marketing, communication” in the “keyword” section and clicked the magnifying glass to find jobs. She clicked on the first result to find an entry-level social media agent for a marketing firm in New York City, and applied by pressing apply now. After hitting the congragulations page, she went back and searched with the same credentials and applied for another similar job in Salt Lake City, but this time she had to answer some supplemental questions about how she heard about that particular marketing firm. Content, she then went to go watch Youtube cat videos.

After waiting for any kind of response, Karen checked her profile a week later and saw some news on her profile. In the sidebar it said she was denied from the Salt Lake City job, but to expect contact about the New York City one! Excited, she went to go on and study the company by going to their profile on JobLine to read up on them, which led her to the company’s actual website. She was also pleased with JobLine for being how she got this oppurtunity and she did not have to deal with multiple websites’ different designs and requirements. Karen could keep all her information saved in case she did not get this job.

**Use Case 2: A compapany looking for new employees…**

Moist Enterprises, a water purification company, wanted to expand their research and development team in order to see if they could find an easy way to purify swamp water. Head of HR Brandon Thorne (who thought of the company’s name when it was founded) knew exactly where to go to find a pool of applicants from everywhere: JobLine, which had been used previously by Moist Enterprises to hire their current head of marketing. Brandon hit the landing page of the website and made note to research into how to get Moist Enterprise onto the list of logos that everyone sees upon visiting the website. He hit the log in link in the header and took out the company’s ID number which he had written on a note on his desk, happy that no one could impersonate his company since only he and some members of the hiring team knew the ID number. He decided to edit the company’s location first since they had moved to a new office, and hit the “Edit information” button from Moist Enterprises’ profile to change that. After saving it, he clicked the “Add open position” button and entered the information prompted for. The soon-to-be leader of the team wanted Brandon to make sure the description specified the applicant should have worked in a biology lab before, whether in work or school, and wanted them to answer an open-ended question about what their first step would be if presented with a difficult research problem. Brandon added the former requirement in the requirements section among some others, and the latter as an additional question. Content, he selected save and then went to make sure the job was posted by searching for it. He selected the job posting, and it looked just as he intended.

After a week of open applications, Brandon logged back onto the website and viewed Moist Enterprises’ profile. On the left side, he saw there were three applicants to view. He clicked the “View Applicants” link and saw a basic overview of their skills. After clicking “resume” to view their profiles, he found that only two were suitable since one did not mention anything about working in a lab. He let the website notify them by selecting the “expect contact!” and “denied” option from the “View applicants” page (not implemented yet). He then made preperations to contact the two good candidates, content with having a base to start with. He would receive more applications over the next coming weeks, and could keep them all in one area together.

**Challenges and Learning Experiences**

Unfortunately, there were some aspects of JobLine we could not finish with the time limitations present. Our team could not add as many back-end related aspects as we had originally wanted - our current back-end only has a registration system. However, we decided that since our primary focuses were HTML, CSS, and JavaScript were our focus, databases and back-end technologies were to come second to those. It was also difficult getting everyone to meet and be on the same page, but once we had a system established, the team was able to function well. Scope-creep was also an issue; we started off with a big idea and kept adding functionalities to it, which made it more difficult to acheive our goals in the project. We could not finish the implementation of the edit company profile, which is something we should have communicated more about. If we were to do this project again, it would be beneficial to plan out specifics of the project in a more timely manner, and to realize what we would be able to do.

Another issue was defining coding standards between the team. Some people were using camel case, others were using hyphens and underscores for file names, and it was making it difficult to link to other pages. Code itself was also rather messy as sometimes tabs were used or two spaces were used. Had we defined a standard earlier, this could have been avoided.

That being said, the team gained a lot of knowledge by working on this project. None of the group had ever done a project of this magnitude before, so that in it of itself was a learning experience. The importance of collaboration was also realized, and how the team could fairly divide up work. JavaScript knowledge was also expanded on, as a majority of the team had never used JavaScript or jQuery before ITWS 1100, so it was a good way to figure out what one could achieve with JavaScript. An introduction to databases (specifically FireBase) was also acheived, and how much effort has to go into a simple registration system. All in all, it was a great learning experience for the entire team.

**Prototypes**

Please refer to ITWS-1100-Term-Project-MedFi.docx for the medium fidelity prototype and LoFi-Prototype.pdf for the low fidelity prototype.