## **Project Report**

## **Startup MatchMaking**

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#### 1.Introduction

Our platform will help in networking and will solve a problem for the start ups who are just building out by getting them their desired team so that they can kick start right away. This web application will allow job finders to get jobs in startups, be it low level business or a small scale start up looking for a team so that they can build upon, our platform helps in building up a connection between the startups and the people in need of jobs desperately. On the basis of the user interest and his location, preferences he will be showcased job openings in the nearby start ups and will give the user an ease to apply to them Freshers who are just like out for some experience in working as an employee in startup, will get a sense of comfort for applying to them and help in connection building.

This will get him a chance to get Letter of recommendation and referrals for applying in product based companies and grow up in his/her career.

Also, undergraduates will be also given an opportunity to apply to the start up as an internship and get relevant experience and also an opportunity for freelancing jobs.

#### 2.Background

The majority of the front end of the web application is coded using HTML 5 and CSS 3 – CSS and its framework Bootstrap is used for all the styling and positioning. However, for added functionality, animations and interaction JavaScript is used

The back end of the website is coded in the Django framework of Python. The current version is 3.0. We have chosen to use a framework because as well as making development a faster process, it makes the code well organised and clean, which makes it more reusable. Most frameworks, including Django use a MVT architecture which ensures separation of presentation and logic. We chose to use Django because it is coded in Python and it has sufficient documentation which makes the learning process easier, and also makes managing databases simpler.

#### 2.1 Python

Python is an interpreted high-level general-purpose programming language. Python's design philosophy emphasizes code readability with its notable use of significant indentation.

#### 2.2 Django framework

Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web

development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source.

Reasons we choose Django framework:

- Ridiculously fast.
  - Django was designed to help developers take applications from concept to completion as quickly as possible.
- Reassuringly secure.
  - Django takes security seriously and helps developers avoid many common security mistakes.
- Exceedingly scalable.
   Some of the busiest sites on the Web leverage Django's ability to quickly and flexibly scale.

#### 2.3 HTML, CSS JavaScript

HTML provides the basic structure of sites, which is enhanced and modified by other technologies like CSS and JavaScript.

CSS is used to control presentation, formatting, and layout.

JavaScript is used to control the behavior of different elements.

#### 2.4 Bootstrap framework

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

#### 3. Database Design

The database that is used to design the web application is Sqlite 3. **SQLite** allows a single database connection to access multiple database files simultaneously. This brings many nice features like joining tables in different databases or copying data between databases in a single command. **SQLite** is capable of creating in-memory databases that are very fast to work with.

In this web application development, we have used Sqlite to store the employer details, applicant details, applied jobs by the applicants, jobs posted by the employer

Hence, we have identified five tables to achieve desired functionality.

- i. Founder table: holds details of Employer
- ii. Applicant table: holds details of applicant
- iii. Applied\_Jobs table: holds details of jobs applied by the job seeker
- iv. Posted Jobs table: holds details of jobs posted by the Employer

When an employer registers with the application, the application inserts the details of the employer into the Employer table. Similarly, when an applicant creates an account, his/her details will be inserted into the applicant table.

When an applicant searches for the available job vacancies, the application queries the database to retrieve the job vacancies that are posted by the employer from the Posted\_Jobs table.

Similarly, when an employer wishes to view the applicants for a particular job posting, the application queries the database to retrieve the details of the job and job seeker from the Applied\_Jobs table. In addition, the employer can activate or deactivate the job status thus updating the database.

#### **DATA STORES:**

Table_name	Fields	Description	Туре	Constraints
User's Table	username	User Username	Varchar(30)	NOT NULL
	Email	User Email	Varchar(10)	PRIMARY KEY
	First Name	User first name	Varchar(10)	NOT NULL
	Last Name	User's last name	Varchar(13)	NOT NULL
	is_startup_founder	is user startup founder or applicant	bool	NOT NULL

Table name	Fields	Description	Time	Constraints
Table_name	Fields	Description	Туре	Constraints
Resume	user	corresponding user	Varchar(30)	FORIEGN KEY
	description	user's description(bio)	Varchar(10)	NOT NULL
	avatar	user's image	Image Field	NOT NULL
	contact no.	user's contact no.	Integer Field	NOT NULL
	primary city	user's primary city	Varchar(100)	NOT NULL
	secondary city	user's secondary city	Varchar(100)	NOT NULL
Table_name	Fields	Description	Туре	Constraints
Education	user	corresponding user	Varchar(30)	FOREIN KEY
	status	is user pursuing currently	bool	NOT NULL
	college	user's college	Varchar(10)	NOT NULL
	start year	college starting year	Integer Field	NOT NULL
	end year	graduation ending year	Integer Field	NOT NULL
	stream	stream user is pursuing	Varchar(50)	NOT NULL
Job	user	corresponding user	Varchar(30)	FOREIN KEY
	profile	user's profile	Varchar(10)	NOT NULL
	organisation	job organisation	Varchar(10)	NOT NULL
	location	job location	Varchar(300)	NOT NULL
	start date	starting date of job	Date Field	NOT NULL
	end date	ending date of job	Date Field	NOT NULL
	job desc	description of job	VarChar(30)	NOT NULL

Table_name	Fields	Description	Туре	Constraints
Skill	user	corresponding user	Varchar(30)	FOREIN KEY
	skill name	name of skill	VarChar(30)	NOT NULL
	level	skill level(beginner, intermediate, advanced)	VarChar(30)	NOT NULL

Table_name	Fields	Description	Туре	Constraints
Portfolio	user	corresponding user	Varchar(30)	FOREIN KEY
	project name	name of the project	Varchar(30)	NOT NULL
	link	link of the project	Varchar(30)	NOT NULL
	description	project description	Varchar(30)	NOT NULL
	start date	starting date of project	Date Field	NOT NULL
	end date	ending date of project	Date Field	NOT NULL

Table_name	Fields	Description	Туре	Constraints
Accomplishments	user	corresponding user	Varchar(30)	FOREIN KEY
	description	description	Varchar(30)	NOT NULL

Table_name	Fields	Description	Туре	Constraints
Company	user	corresponding user	Varchar(30)	FOREIN KEY
	company name	name of the company	Varchar(30)	NOT NULL
	description	company's description	Varchar(30)	NOT NULL
	logo	company's logo	Varchar(30)	NOT NULL
	website	link of company's website	Varchar(30)	NOT NULL
Table_name	Fields	Description	Туре	Constraints
Job_Opening	company	corresponding company	Varchar(30)	FOREIN KEY
	title	job's title	Varchar(30)	NOT NULL
	job description	job's description(short)	Varchar(30)	NOT NULL
	job type	type of job(remote/on-field)	Varchar(30)	NOT NULL
	start date	joining date of job	Date field	NOT NULL
	end date	deadline to apply for job	Date field	NOT NULL
	experience	experience required for this job	Integer	NOT NULL
	salary	salary of the job	Integer	NOT NULL
	about job	Detailed description of job	Varchar(30)	NOT NULL
	skills	skills required for the job	Varchar(30)	NOT NULL
Table_name	Fields	Description	Туре	Constraints
Applications	user	user which applied to corresponding job	Varchar(30)	FOREIN KEY
	job_opening	corresponding job to which user applied	Varchar(30)	FOREIGN KEY
	status	status if the applicant , whether he is selected for the job or not	varchar(30)	NOT NULL

### 4.Implementation

The Online Job Search Portal is a website which revolutionizes the way companies hire the candidates and jobseekers search for job vacancies.. The website provides a flexible and easy to use environment on desktops for the users to achieve their respective objective.

The modules that I have implemented in the Job Search Portal are as listed.

- Admin
- Founder(Startup Founder)
- Applicant

#### 4.1 Admin

Admin provides the Admin login. The Admin module provides various functionalities. The Admin users are responsible for activating and deactivating the employer accounts. In addition, Admin users can view the list of employers registered with the application.

#### 4.2 Founder

Founder users will be able to perform functions such as registering with the application and creating an account by providing the details of Founder Name, Company Email, Mobile Number, Login Name, and Password, etc that are stored in the Company table of SQLite database. Once the account is activated, this module allows founders to post jobs summarizing responsibilities and expected skills that will be saved in the Job\_Opening table of SQLite database. The founder will also be given privilege to put a deadline on the Job post. He/she can view the list of job postings that are active. He/she can also view the applicant details that have applied for a particular job posting.

#### 4.3 Applicant

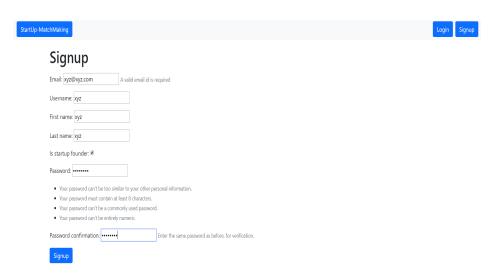
The applicant users will be able to perform functions such as registering on the website and creating an account by providing the details of First Name, Last Name, E-mail, Password, Mobile Number, Primary Skill and Experience that are stored in the applicant table of SQLite database. Once the account is activated, applicants can search, view and apply for active job openings(or job postings). All the applied jobs details are stored in the applications table of SQLite database.

### 5. Graphical User Interface:

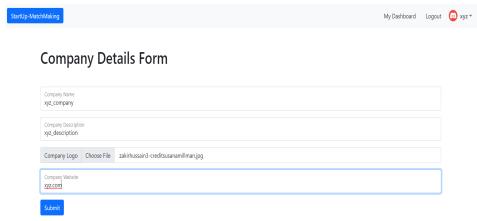
Now let's look at the working of our responsive website. The Graphical User Interface is developed using HTML5, CSS, JavaScript, and Bootstrap to provide easy to understand interactive screens. Various screens and the navigation between screens are discussed below. So, when one goes to the homepage of our website



#### When user signup as a startup founder



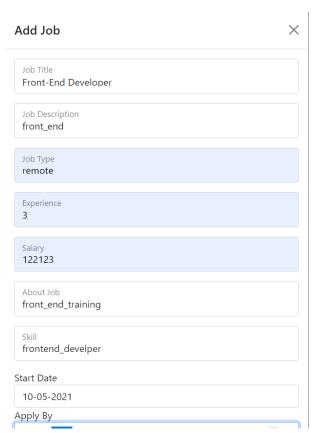
#### Next founder will see a form to fill startup details



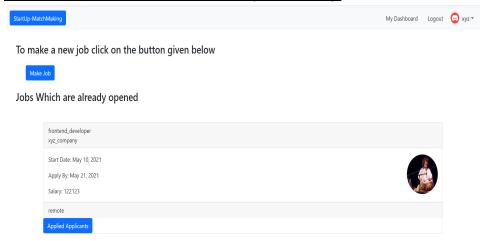
## Next the Founder will see his/her dashboard, where the founder can add/view job openings made by the founder.



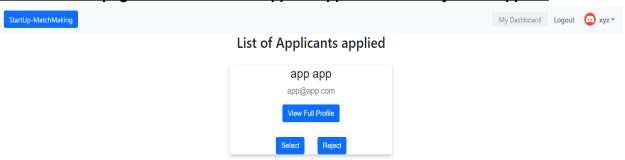
# Now when the founder will click on the Make Job button, a form will appear to fill job opening details.



Now the new job opening will appear on the founder's dashboard, Founder can also see the list of applicants applied to that job opening.

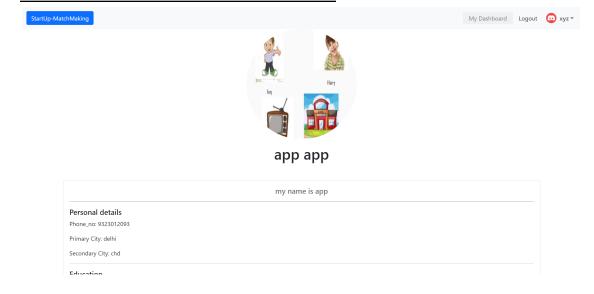


When the founder clicks on the "Applied Applicants" button, the founder will be redirected to a page where a list of all applied applicants to that job will appear.



Here, the founder can either view the full profile of the applicant, and select/reject that applicant.

1. If founder clicks on "View Full Profile" button



2. Now after reviewing the applicant profile, the founder can either select/reject the applicant. Let's say the founder selected the applicant, the select/reject button will change to "selected".

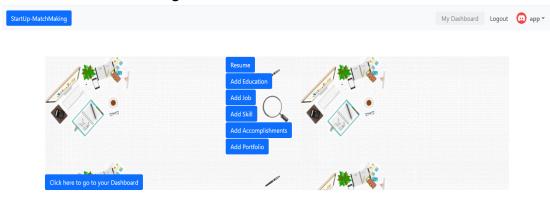


#### Founder can also view his/her company's profile

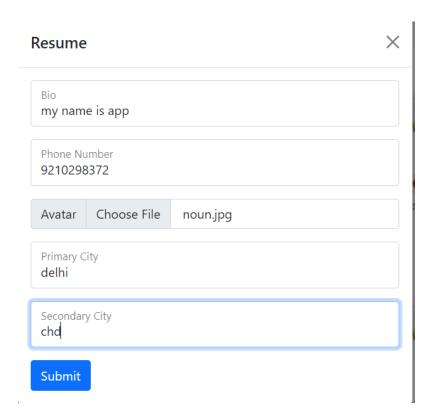
StartUp-MatchMaking		My Dashboard	Logout	xyz ▼
	xyz xyz			
	xyz_company			
	company name: xyz_description website: xyz.com			
	website. xyz.com			
	Edit Profile			

Founder can also edit the company's details by clicking on the "Edit Profile" button.

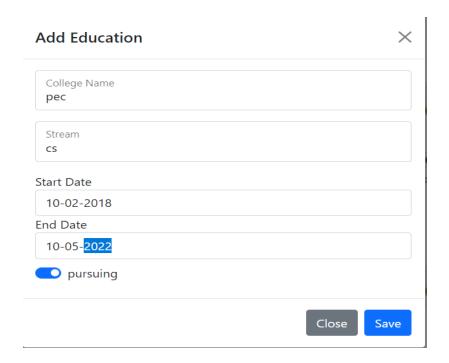
Now if the user signs up as an applicant, after signing up, the applicant needs to fill in his/her educational background details.



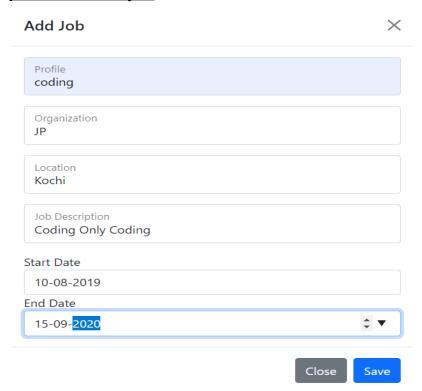
1. if applicant clicks on resume, a form will appear to fill the details:



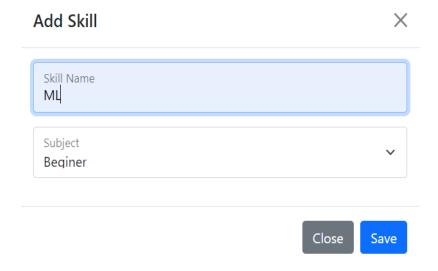
2. By clicking on "Add Education", the applicant is required to fill his/her education details.



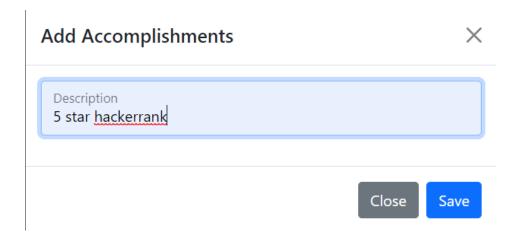
3. <u>By clicking on "Add Job", the applicant is required to fill details of his/her previous/current job.</u>



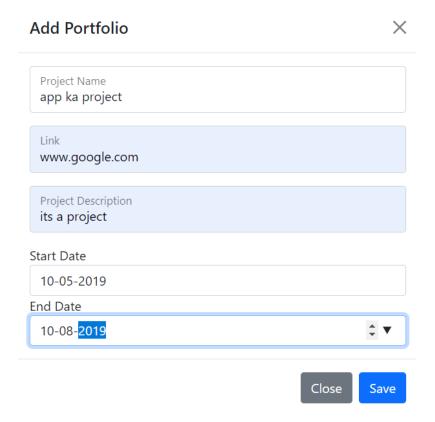
4. By clicking on "Add Skill", the applicant is required to fill the skill he/she has and the level of skill.



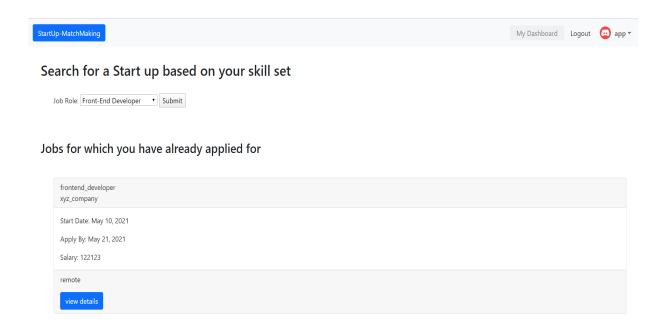
5. By clicking on "Add Accomplishments", the applicant can fill his/her achievements.



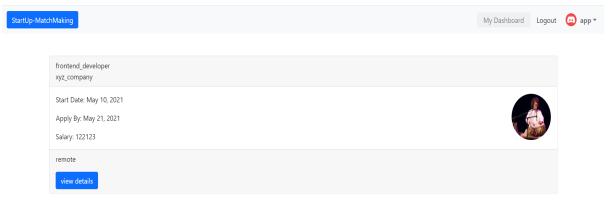
6. <u>By clicking on "Add Portfolio", the applicant can fill his/her previous projects.</u>



After filling details, the applicant will reach his/her dashboard where the applicant can view a list of jobs he/she has applied for and also search for new jobs based on the filter.



# When an applicant will search for a job, a list of job openings will appear based on the filter.

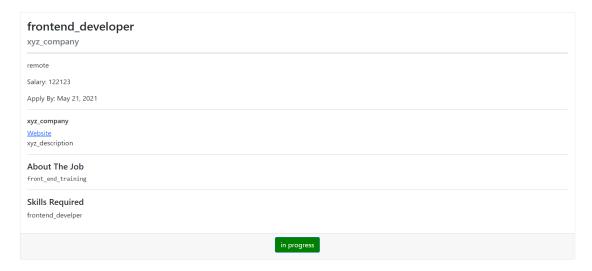


By clicking on "view details" button, applicant can view full details of job opening

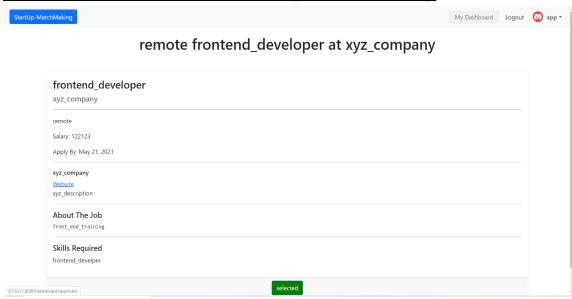


By clicking on "Apply", applicants can apply for this job. Now under "Jobs for which you have already applied for", when the applicant will view details of job opening, he/she will see his/her application status.

### remote frontend\_developer at xyz\_company



# If the founder of that job opening has selected/rejected an applicant, application status will be updated to "selected" or "rejected" respectively.



Applicants can also view their profile, and edit it.

#### 6. Conclusion

StartUp-MatchMaking stands as a revolutionizing element in the sphere of recruitment. They act as a communication bridge between applicants and startup founders facilitating their requirements. This application helps startups to have a greater exposure to the candidate pool and also applicant facilitating wide search of jobs matching their interests. The web application provides flexibility to the applicants to view the openings and applied jobs. This application provides a good user experience for both startup founder and applicant. The application has achieved all the requirements that were initially set in the requirements gathering phase. This project taught us some best practices in the technology stack like Django framework, SQLite, Javascript. Starting from requirements elicitation to design, construction and implementation. We have gained a very good experience working with various technologies at every phase. Development of this project boosted our confidence in web development.

#### 7. Future Work

This project fulfills the primary requirements of the Applicants and startup founders. It can be extended in several ways – We can provide recommendations and email updates for new job postings based on the Applicant's search history. Since, the Applicants might be interested in building a strong Resume, we can provide tips and information for the same. We can also provide templates for building the Resumes which might interest most applicants.