SKILL OR JOB RECOMMENDER APPLICATION

NALAIYA THIRAN PROJECT BASED LEARNING ON PROFESSIONAL READLINESS FOR INNOVATION, EMPLOYMENT AND ENTERPRENEURSHIP

A PROJECT REPORT

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1 INTRODUCTION

1.1 Project Overview

We have come up with a skill recommender solution through which the fresher or the skilled person can log in and find the jobs by using the search option or they can directly interact with the chatbot and get their dream job.

1.2 Purpose

To develop an end-to-end web application capable of displaying the current job openings based on the user skillset so that they don't miss out on the job postings which are relevant to them, as there is an ocean of existing system which list millions of jobs which are generally not relevant to most of the users. An interactive chatbot is developed to help job seekers to find job recommendations based on their skills.

2 LITERATURE SURVEY

2.1 Existing problem

In the ultimate years, job recommender systems have emerge as famous for the reason that they correctly minimize data overload by using producing customized job suggestions. Although in the literature exists a variety of strategies and techniques used as part of job recommender systems, most of them fail to recommending job vacancies that healthy proper to the job seekers profiles.

[1] Job Recommendation through Progression of Job Selection

This paper introduces a novel laptop gaining knowledge of mannequin that accommodates the dynamics of a fairly volatile job market by using candidates' job preferences over time.Additionally, this method

includes a range of smaller hints that aggravate the troubles with a) producing serendipitous recommendations. b) addressing the cold-start problem for new jobs and candidates. Skills are used as embedded aspects to derive latent capabilities from them, thereby increasing job and candidate capabilities to attain greater insurance in the ability domain. This mannequin was created and tested in a desirable job recommender system, and the fine feasible overall performance of the clickthrough price metric was accomplished through combining laptop getting to know and non-machine learning recommendations. The quality effects were acquired using Bidirectional Long Short-Term Memory Networks (Bi-LSTM) with Attention for recommending jobs via machine learning, which types a extensive portion of our recommendation.

[2] Generating Unified Candidate Skill Graph for Career Path Recommendation

Given the quantity of profession role statistics of individuals handy online, personalised profession route recommendation systems that should mine and advocate the most relevant profession paths for a consumer are on the rise. However, such advice systems usually are solely positive inside a single company the place there are standardized job roles. At an enterprise area level such as Information Technology or across such one of a kind enterprise sectors (such as retail, insurance, health care), mining and recommending the most applicable career paths for a user is still an unsolved lookup challenge. Towards addressing this problem, this paper proposes a machine that leverages the concept of competencies to construct talent graphs that can shape the foundation for profession path recommendations. Skills are perceived to be greater amenable for profession path standardizations across the organizations. The proposed device ingests a user's profile (in a pdf, phrase format or different public and shared data sources) and leverages an Open IE pipeline to extract education and experiences. Subsequently, the extracted entities are mapped as precise capabilities that are expressed in the form of a novel unified skill graph. Such ability graphs which capture both spatial and temporal relationships are believed to aid in producing specific profession path recommendations. An comparison of this modern ability extraction mannequin with an industrial scale dataset yielded a precision and recall of 80.54% and 86.44% respectively.

[3] CaPaR: A Career Path Recommendation Framework

Existing job suggestion structures only reflect onconsideration on the user's subject of pastime and omit the user's profile and skills, which should result in extra relevant career guidelines for users. CaPaR, a Career Path Recommendation framework, is proposed in this paper to address such shortcomings. The gadget scans the user's profile and resume, identifies the candidate's key skills, and generates customized job recommendations using textual content mining and collaborative filtering techniques. Furthermore, the device suggests to student's extra competencies needed for related job openings, as nicely as learning assets for each skill. As a result, the gadget not only permits its customers to explore big quantities of information, but additionally to enlarge their portfolio and resume in order to enhance their careers.

[4] Collaborative job prediction based on Naïve Bayes Classifier using python platform

The reason of this paper is to put in force a advice device for job portals based on collaborative filtering techniques. The machine is designed to recommend jobs to the consumer based on his profile and by means of calculating a similarity index between two skill units the use of Euclidean distance and then rating them the use of their naive Bayes algorithm. Python was once used to implement the suggestion system.

2.2 References

[1] Job Recommendation through Progression of Job Selection: Aakash Roy, Amber Nigam and Harsimran Walia, Hartaran Singh published IEEE 6th International Conference on Cloud Computing and Intelligence Systems (CCIS) in 2019.

[2] Generating Unified Candidate Skill Graph for Career Path Recommendation Akshay Gugnani,

Karthikeyan Ponnalagu and Vinay Kumar Reddy Kasireddy published IEEE International Conference on Data Mining Workshops (ICDMW) in 2018.

[3] A Career Path Recommendation Framework :Magdalini Eirinaki, Bharat Patel,Varun Kakuste published IEEE Third International Conference on Big Data Computing Service and Applications (BigDataService) in 2017.

[4] Collaborative job prediction based on Naïve Bayes Classifier using python platform:Savita Choudhary Siddanth Koul, Shridhar Mishra,Anunay Thakur, Rishabh Jain published International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS) in 2016.

2.3 Problem statement definition

A job seeker finding a job which suits his skills is hard as there are many list of jobs and for a recruiter they cannot find right candidates as the candidates lack required skills so we address the problem by developing a Skill/Job recommender application.

3 IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

SKILL /JOB RECOMMENDER

What do they HEAR?

What does he or she Hear?
What friends say ?
What boss say?
What influencers say?

What do they THINK and FEEL?

PAINS
What are their fears, frustrations, and anxieties?

GAINS
What are their wants, needs, hopes, and dreams?

What do they SEE?

What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

Enrichment of skill and career growth

Follow current market trends

Trustworthy website for job searchig

suggest jobs according to skills

Don't have a professional network

Fear of fake job offers

Get correct job for your skill set

More opportunities for getting a job

Efficient filter for curated jobs

Listing of various job profiles

Efficient UX and attractive UI

What other thoughts and feelings might influence their behavior?

Where to look for job . Is there job vaccancy?

Does my skill set match the job requirement

What do they DO?

What do they do today?
What behavior have we observed?
What can we imagine them doing?

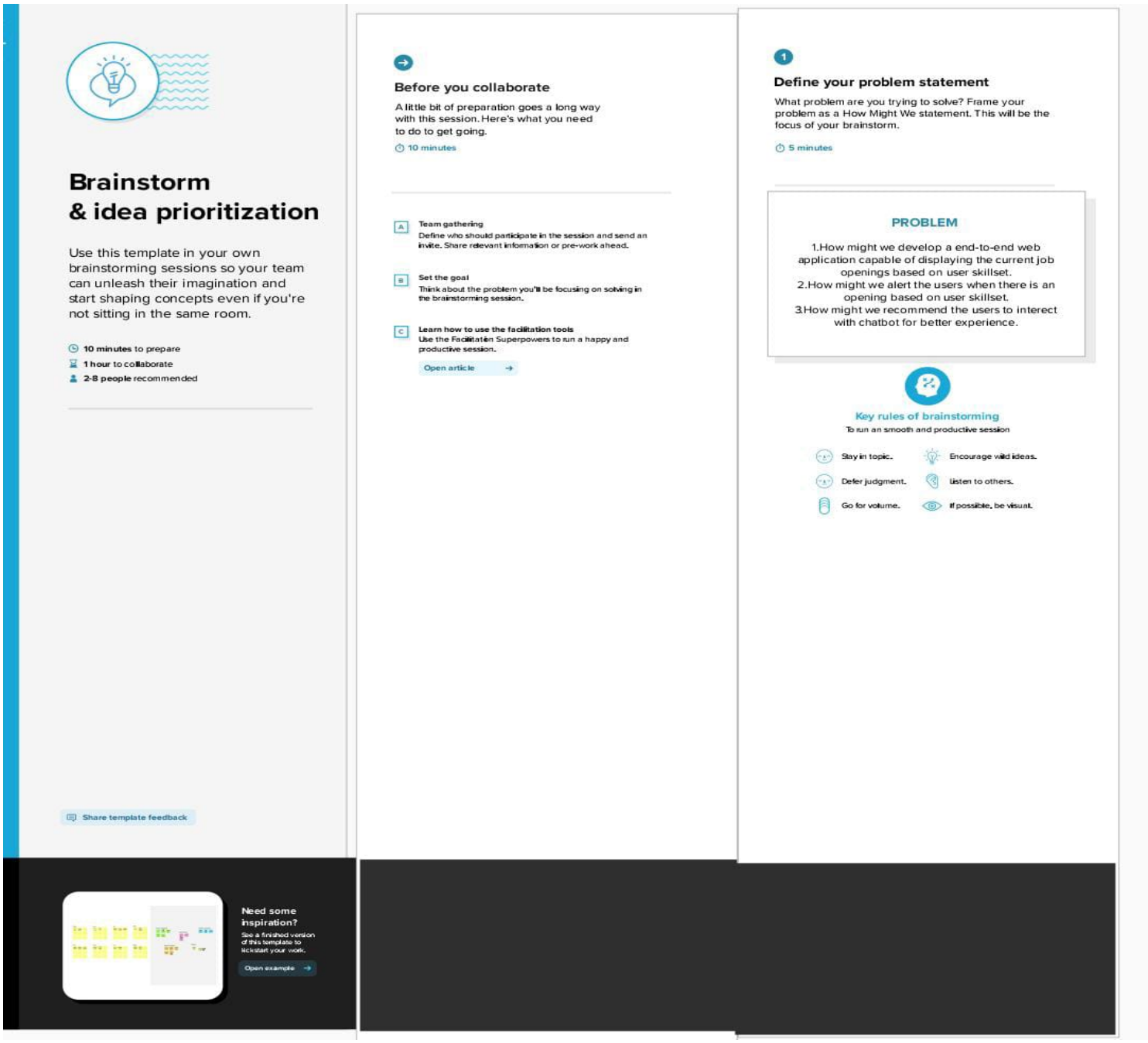
Common platform for job seekers and recuriters

What do they SAY?

What have we heard them say?
What can we magine them saying?

Customize your resume and cover letter

3.2 Ideation & Brainstorming



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

10 minutes to prepare
1 hour to collaborate
2-8 people recommended

Share template feedback

Need some inspiration?
See a finished version of this template to kickstart your work.
Open example

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

5 minutes

PROBLEM

1.How might we develop a end-to-end web application capable of displaying the current job openings based on user skillset.
2.How might we alert the users when there is an opening based on user skillset.
3.How might we recommend the users to interect with chatbot for better experience.

Key rules of brainstorming
To run an smooth and productive session

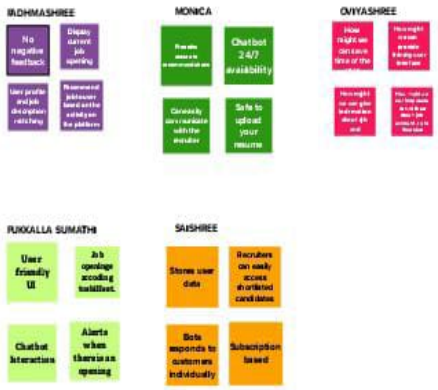
Stay in topic.
Encourage wild ideas.
Defer judgment.
Listen to others.
Go for volume.
If possible, be visual.

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

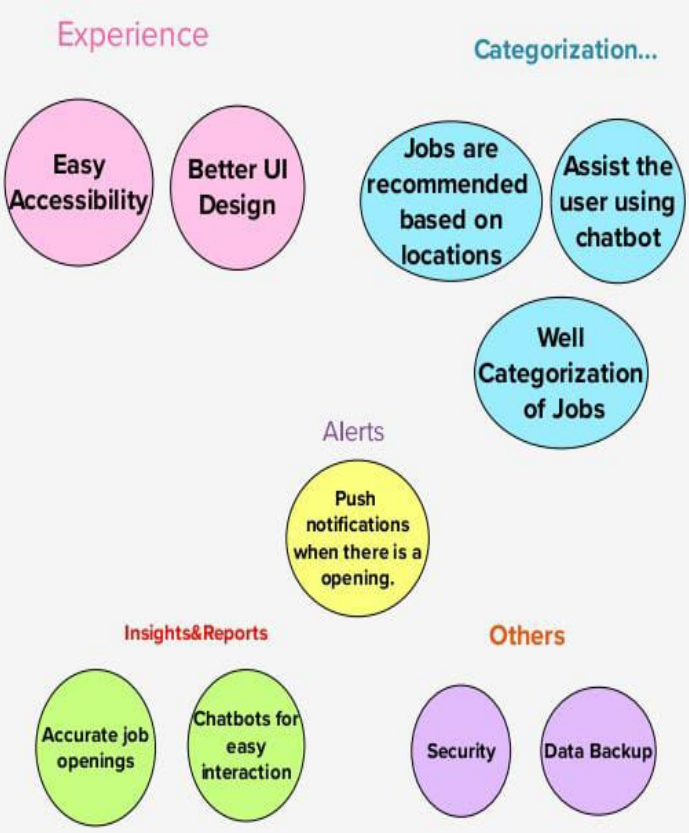


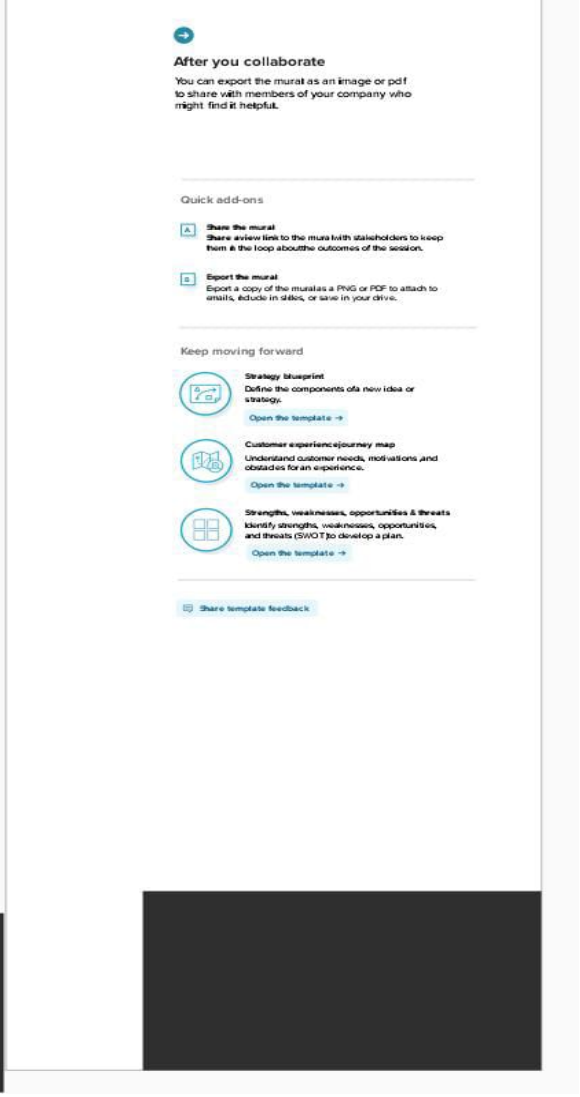
3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes





3.3 Proposed Solution

S.No	Parameter	Description
1	Problem Statemen(Problem to be solved)	Having lots of skills but wondering which job will best suit you? Don't need to worry! We have come up with a skill recommender solution through which the fresher or the skilled person can log in and find the jobs by

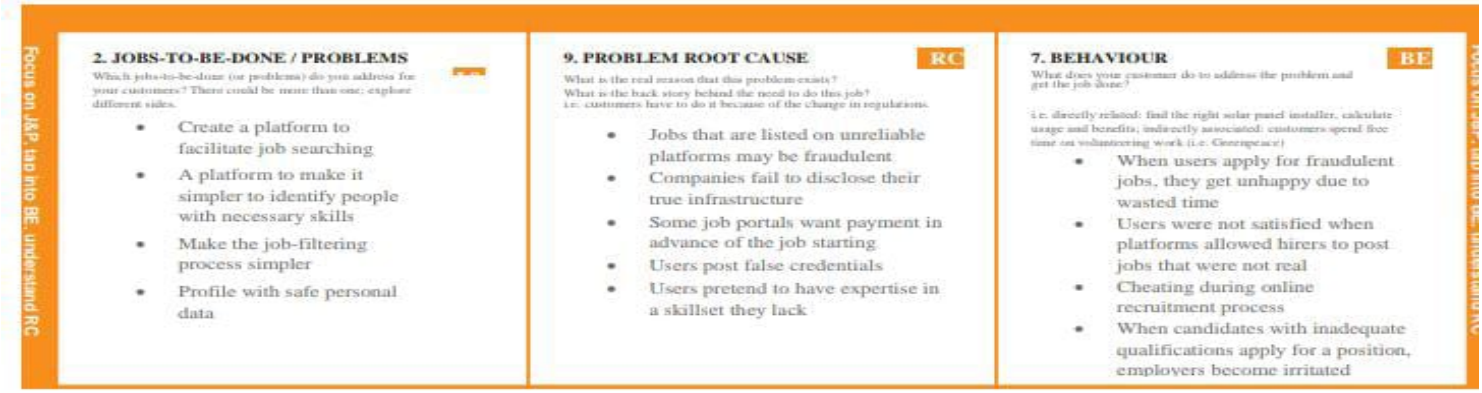
		using the search option or they can directly interact with the chatbot and get their dream job. To develop an endtoend web application capable of displaying the current job openings based on the user skillset. The user and their information are stored in the Database. An alert is sent when there is an opening based onthe user skillset. Users will interact with the chatbot and can get the recommendations based on their skills. We can use a job search API to get the current job openings in the market which will fetch the data directly from the webpage
2	Idea / Solution description	The contributions of this work are threefold, we: i)made publicly available a new dataset formed by a set of job seekers profiles and a set of job vacancies collected from different job search engine sites ii) put forward the proposal of a framework for job recommendation based on professional skills of job seekers iii) carried out an evaluation to quantify

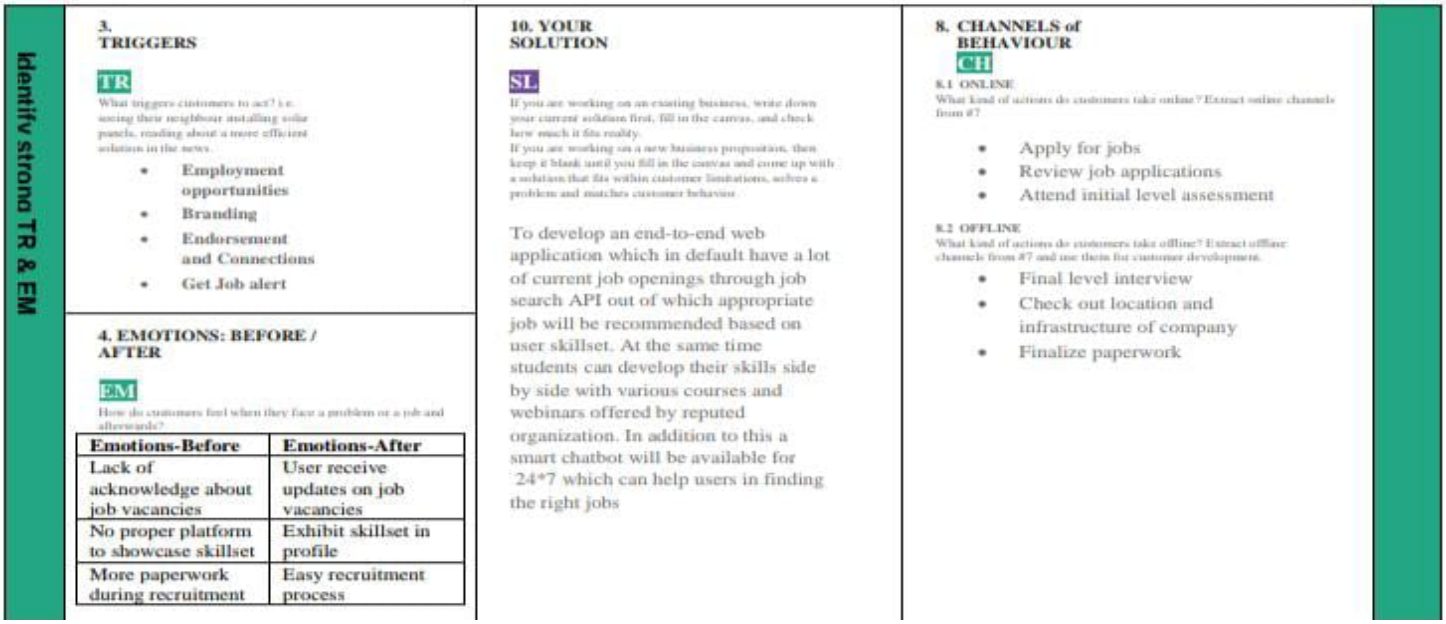
		empifcally the recommendation abilities of two stateoftheart methods, considering different configurations, within the proposed fssramework. We thus present a general panorama of job recommendation task aiming to facilitate research and realworld application design regarding this important issue.
3	Novelty / Uniqueness	The best position are suggested to any person according to her skills.While the position of known profiles are assumedshould be noted that there are usually multiple advisable positions corresponding to a set of skills. A recommendation system should return a set of most likely positions and all of them can be equally valid. The recommendation method we use is simply based on representing both positions and profiles as comparable vectors and seeking for each profile the positions with the most similar vectors
4	Social Impact / Customer Satisfaction	Students will be benefited as they will get to know

		which job suits them based on their skill set and therefore lack of unemployment can be reduced
5	Business Model (Revenue Model)	We can provide the application for job seekers in a subscription based and we can share the profiles with companies and generate the revenue by providing them best profiles.

3.4 Problem Solution Fit

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers, and corporate innovators identify behavioral patterns and recognize what would work and why?





4 REQUIREMENT ANALYSIS

4.1 Functional requirement

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login through Form Login through Gmail Login through LinkedIN
FR-4	User Profile	Updation of the user profile through the login credentials
FR-5	User Search	Exploration of Jobs which suits their skillset

FR-6	User Acceptance	Confirmation of the job

4.2 Non-Functional requirements

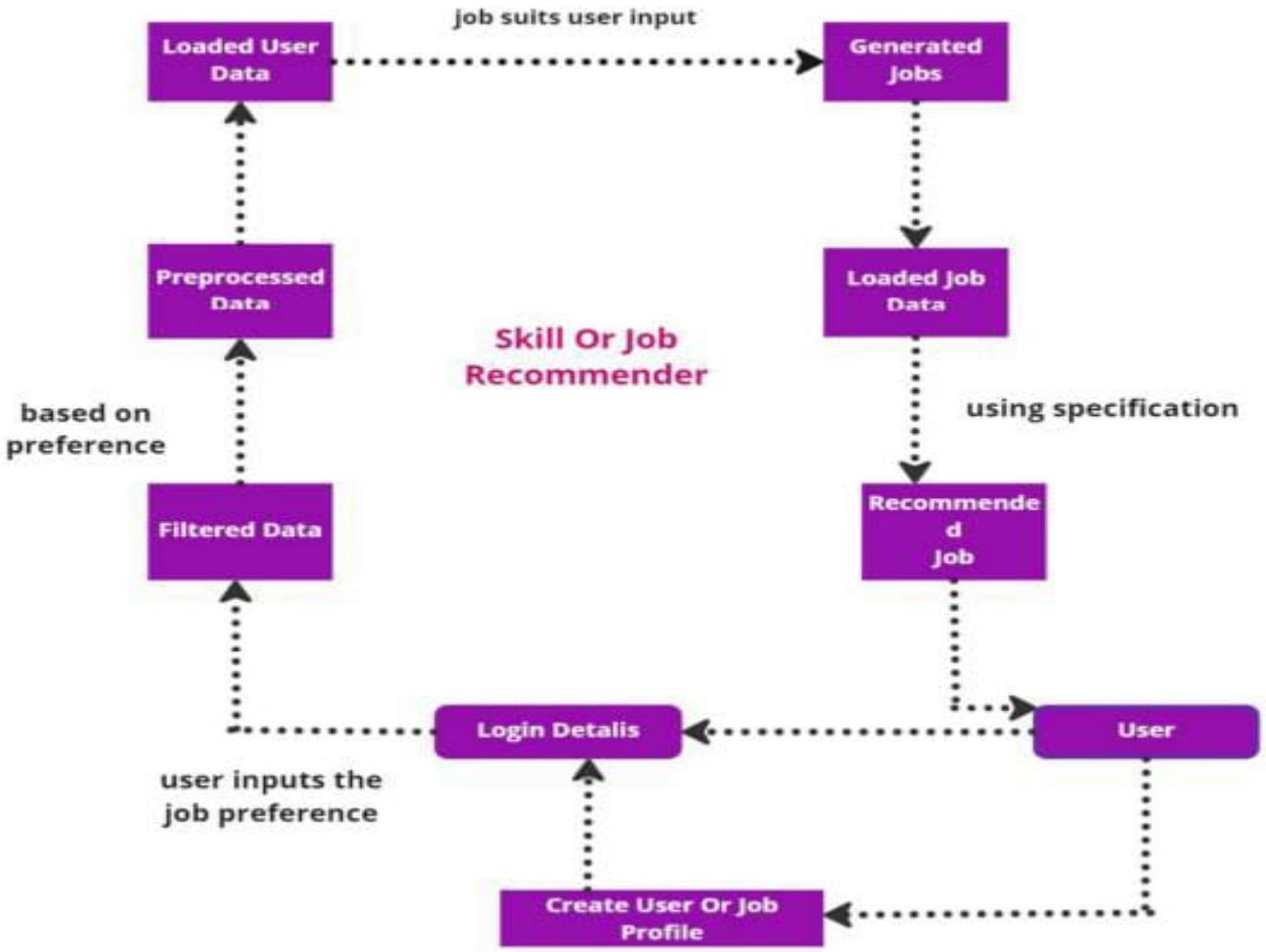
NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	This application can be used by the job seekers to login and search for the jobs and by the recruiters to login and post a job
NFR-2	Security	This application is secure with the personalised login credentials
NFR-3	Reliability	This application is trustworthy which provides good job offers and suggestions of skill set with real time notifications
NFR-4	Performance	The performance of the application is to provide quicker responses to job seekers and recruiters
NFR-5	Availability	This application provides job offers based on the skillset of user
NFR-6	Scalability	Data can be scaled up and scaled down according to number of current job

		openings available

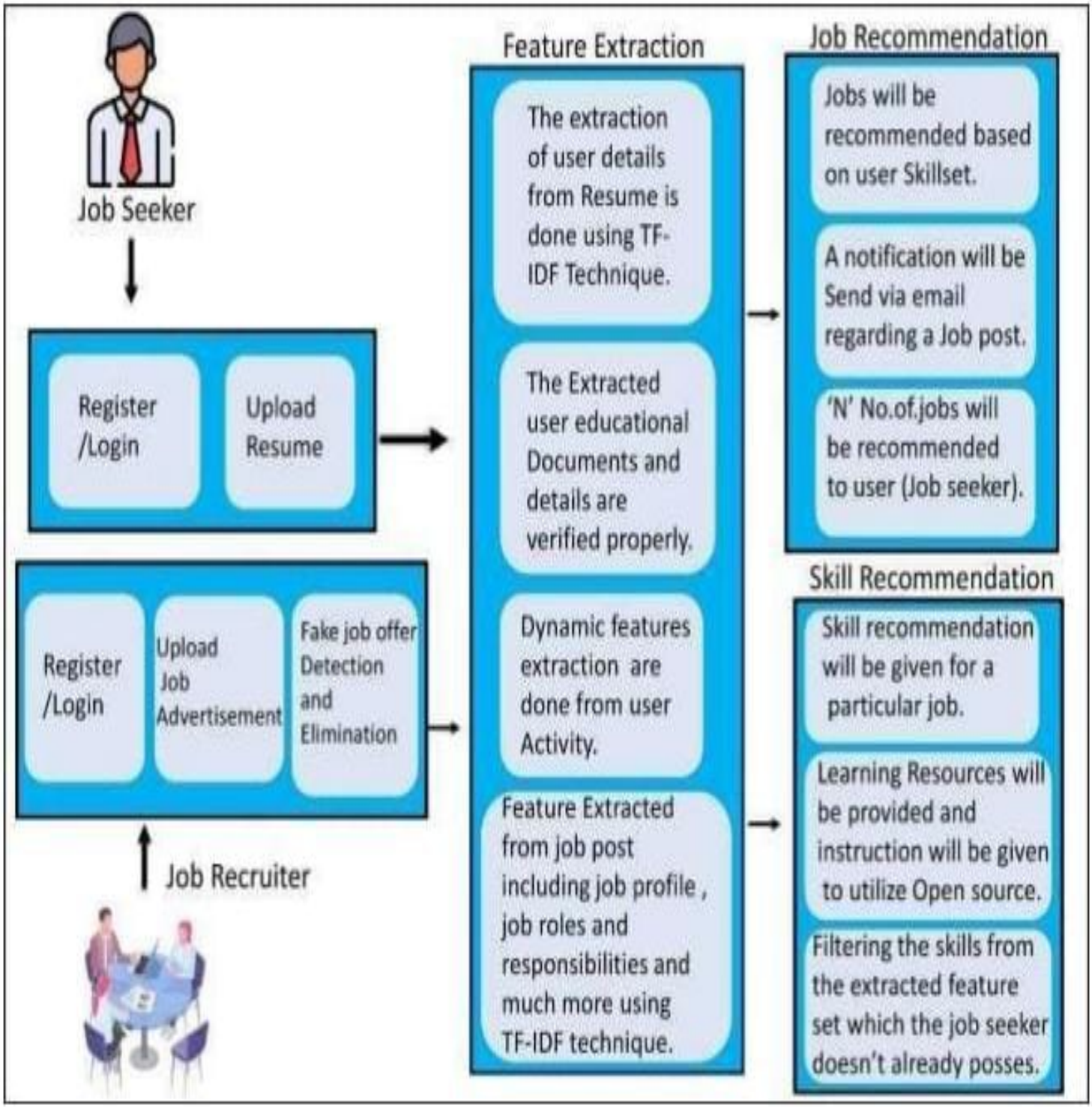
5 PROJECT DESIGN

5.1 Data Flow Diagrams

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



5.2 Solution & Technical Architecture



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Job Seeker (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1

	Dashboard	USN-6	As a user, I can access the dashboard for jobs to search	I can access the dashboard	High	Sprint-1
Job Seeker (Web user)	Login	USN-7	As a user, I can log into the application by entering email & password	I can log into the account I have created	High	Sprint-1
Administrator	Registration	USN-8	As a administrator, I can see the registration details	I can access the registration details	High	Sprint-1
	Login	USN-9	As a administrator, I can see the login details	I can access the login details	High	Sprint-1
	Dashboard	USN-10	As a administrator, I can update the dashboard	I can update the dashboard	High	Sprint-1

6 PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

Project Milestone

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	18	6 Days	24 Oct 2022	29 Oct 2022	18	29 Oct 2022
Sprint-2	27	6 Days	31 Oct 2022	31 Oct 2022	27	05 Nov 2022

Sprint-3	29	6 Days	07 Nov 2022	12 Nov 2022	29	12 Nov 2022
Sprint-4	14	6 Days	14 Nov 2022	19 Nov 2022	14	19 Nov 2022

Activity List

Functional Requirement (Epic)	**User Story / Task**
UI Design & Frontend Development	As a user I can expect to experience a cool user interface and smooth user experience
Home	As a user, I will land on the landing page of the website
Database	As a user my data will be stored in database for further use
Registration	As a user, I can register for the application as a Job seeker or Recruiter.
	As a user, I can register for the application as a Job seeker or Recruiter.
	As a user, I can register for the application as a Job seeker or Recruiter.
	As a user, I can register for the application through Sign in with LinkedIn
Login	As a user, I can log into the application as Jobseeker or Recruiter by entering registered email & correct password
	As a user, I can log into the application using google sign in option
	As a user, I can log into the application using LinkedIn Login
Profile Setup	As a fresh user I need to setup my profile initially by filling required details which can be modified later
	As a fresh recruiter I need to setup profile for my company by filling
	required details which can be modified later
Cloud Storage	As a user I can upload my Image, Resume and much more in the website
Posting	As a Recruiter I can post various job openings
Job Listing	As a user I can access jobs posted by recruiters and Google Job Search API
Applying	As a Job Seeker I can view all Job openings in the home page and also, I can search for specific jobs and apply for the same
Shortlisting	As a Recruiter I can view applied candidates and shortlist few among them
Chatbot	As a User I can access chatbot to avail any kind of guidance in the website
Notification (SendGrid)	As a User, I can get notification on new Job openings via email using SendGrid service

Courses & Webinars	As an administrator I can suggest users' various courses from famous websites like Udemy, Coursera based on their skillset to improve their skills
Interviews	As a recruiter I can schedule face to face Interview with shortlisted candidates using WebRTC frame work
	As a shortlisted candidate I can join the scheduled interview using the meeting link
System testing	As a user I can access my website without any fault or malfunction
Docker	As a user I can access my containerized application in any device
Kubernetes	As a user I can access my containerized application in any device with greater security

Deployment in the Cloud	As a user I can access the website from anywhere in the world

6.2 Sprint Delivery Schedule

Product Backlog, Sprint Schedule, and Estimation

Use the below template to create product backlog and sprint schedule.

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	UI Design & Frontend Development	USN-1	As a user I can expect to experience a cool user interface and smooth user experience	8	High	Pukkalla Sumathi, Monica R
Sprint-1	Home	USN-2	As a user, I will land on the landing page of the website	1	High	Pukkalla Sumathi, Monica R
Sprint-1	Database	USN-3	As a user my data will be stored in database for further use	5	High	Monica R, Sai Shree GR, Oviya Shree A
Sprint-1	Registration	USN-4	As a user, I can register for the application as a Job seeker or Recruiter.	2	High	Padma Shree G
Sprint-2		USN-5	As a user, I will receive verification email once I have registered for the application	2	Medium	Monica R, Sai Shree GR
Sprint-3		USN-6	As a user, I can register for the application through Google Signup	3	Low	Monica R, Sai Shree GR
Sprint-3		USN-7	As a user, I can register for the application through Sign in with LinkedIn	3	Low	Monica R, Sai Shree GR
Sprint-1	Login	USN-8	As a user, I can log into the application as Jobseeker or Recruiter by entering registered email & correct password	2	High	Oviya Shree A, Monica R
Sprint-3		USN-9	As a user, I can log into the application using google sign in option	3	Low	Oviya Shree A, Monica R

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	UI Design & Frontend Development	USN-1	As a user I can expect to experience a cool user interface and smooth user experience	8	High	Monica R, Pukkalla Sumathi
Sprint-1	Home	USN-2	As a user, I will land on the landing page of the website	1	High	Monica R, Pukkalla Sumathi
Sprint-1	Database	USN-3	As a user my data will be stored in database for further use	5	High	Monica R, Sai Shree GR, Oviya Shree A
Sprint-3		USN-10	As a user, I can log into the application using LinkedIn Login	3	Low	Monica R, Sai Shree GR, Oviya Shree A
Sprint-2	Profile Setup	USN-11	As a fresh user I need to setup my profile initially by filling required details which can be modified later	3	High	Monica R, Sai Shree GR, Pukkalla Sumathi.
Sprint-2		USN-12	As a fresh recruiter I need to setup profile for my company by filling required details which can be modified later	3	High	Monica R, Sai Shree GR, Pukkalla Sumathi
Sprint-2	Cloud Storage	USN-13	As a user I can upload my Image, Resume and much more in the website	3	Medium	Padhma Shree, Monica R, Pukkalla Sumathi
Sprint-2	Posting	USN-14	As a Recruiter I can post various job openings	5	High	Sai shree GR, Padhma Shree G, Oviya ShreeA
Sprint-2	Job Listing	USN-15	As a user I can access jobs posted by recruiters and Google Job Search API	5	High	OviyaShree A, Padma Shree
Sprint-2	Applying	USN-16	As a Job Seeker I can view all Job openings in the home page and also, I can search for specific jobs and apply for the same	3	High	Pukkalla Sumathi, Padma Shree GR
Sprint-2	Shortlisting	USN-17	As a Recruiter I can view applied candidates and shortlist few among them.	3	High	Monica R Padma Shree
Sprint-3	Chatbot	USN-18	As a User I can access chatbot to avail any kind of guidance in the website	5	High	Sai shree GR, Pukkalla Sumathi

Project Tracker, Velocity & Burndown Char:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	18	6 Days	24 Oct 2022	29 Oct 2022	18	29 Oct 2022
Sprint-2	27	6 Days	31 Oct 2022	05 Nov 2022	27	05 Nov 2022
Sprint-3	29	6 Days	07 Nov 2022	12 Nov 2022	29	12 Nov 2022
Sprint-4	14	6 Days	14 Nov 2022	19 Nov 2022	14	19 Nov 2022

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day).

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

Average Velocity for Sprint 1 => **18/6 = 3 => 3 Story points per day**

Average Velocity for Sprint 2 => **27/6 = 4.5 => 4 Story points per day**

Average Velocity for Sprint 3 => **29/6 = 4.8 => 4 Story points per day**

Average Velocity for Sprint 4 => **14/6 = 2.3=> 2 Story points per day**

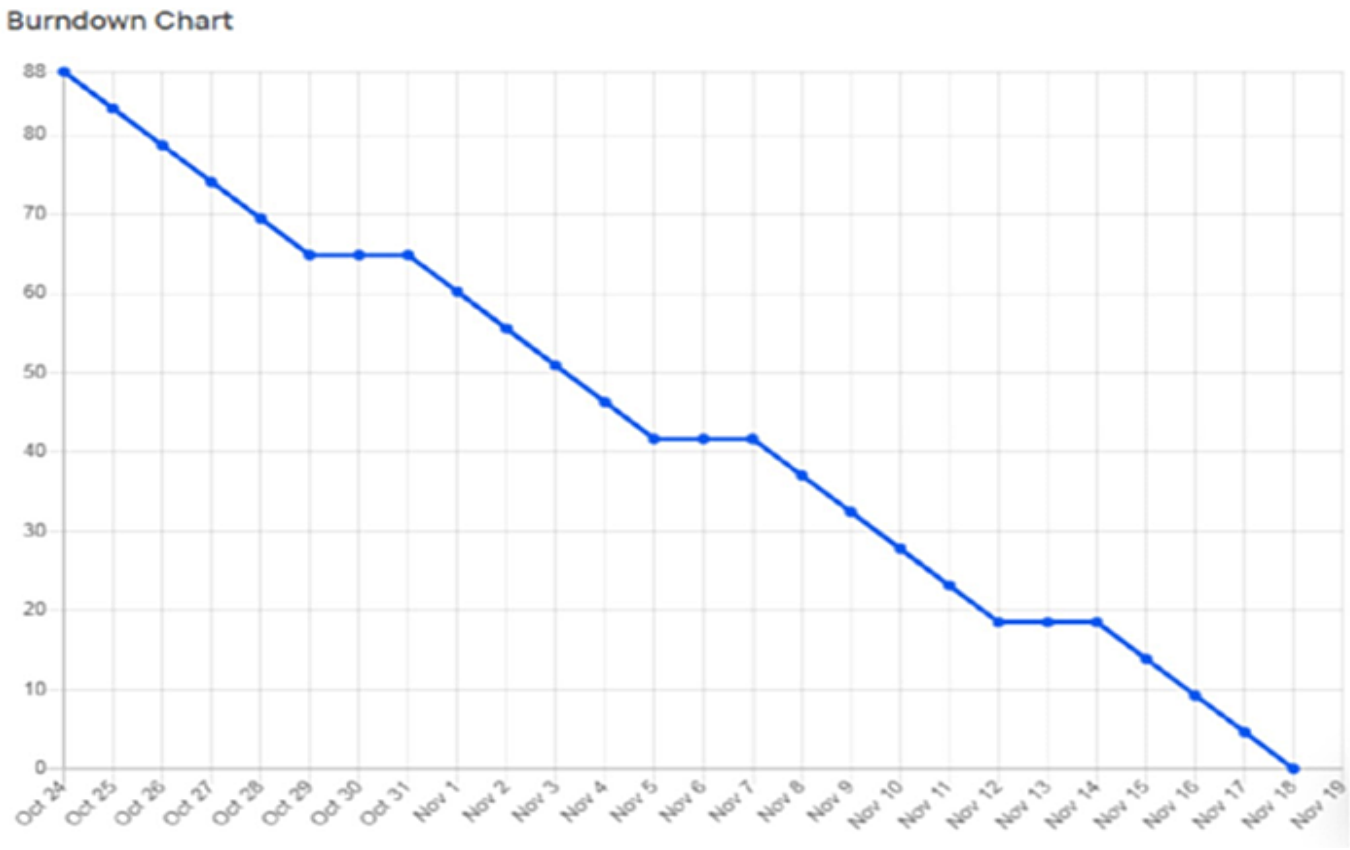
Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

Total Story Points: 88

Project Start Date: 24th October 2022

Project End Date: 19th November 2022



6.2 Report From JIRA

7.CODING & SOLUTION

7.1 Feature 1

Easy to integrating with recommendation by using Chatbot.

```
<script type="text/java script">
(function(d, m){var communicate Settings =
{"appId":"34fd60fcb27019f1da0f50c35626a9694","popupWidget
":true,"automaticChatOpenOnNavigation":true};  var s = document.
Create Element("script"); s. type =
"text/java script"; s. async = true;
 s. src = "https://widget.kommunicate.io/v2/communicate . app";var h = document
.get Elements By Tag Name("head")[0]; h . append Child(s);
```

```
 window. communicate = m; m._  goals = communicate
Settings;
 })(document, window .communicate || {});
   </script>
```

7.2 Feature2

We can use a job search API to get the current job openings in the market which will fetch the data directly from the webpage.

7.3 Database Schema

A database schema **defines how data is organized within a relational database**; this is inclusive of logical constraints such as, table names, fields, data types, and the relationships between these entities.

In our application we have used many data base there are IBM (DB2), Job Search API, Container Register, Kubernetes Cluster .

8.TESTING

8.1 Test Case

A test case is a set of action performed on a system to determine if it satisfies software requirements and function correctly. The purpose of a test case is to determine if different feature within a system are performing as expected and to confirm that the system satisfies all related standards, guidelines and customer requirements. The process of writing a test case can also help reveal errors or defect within system.

8.2 User Acceptance Testing

User Acceptance testing (UAT), also called application testing or end-user testing, is a phase of software development in which the software is tested in the real world by its intended audience.

Test case ID	Feature Type	Component	Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
LoginPage_TC_001	Functional	Home Page	Verify user is able to see the Login/Signup button when he clicks the URL	Having the URL	1.Enter URL and click go 2.Verify login/Signup button displayed or not	http://2042.0.0.1:5000/	Login/Signup button should display	Working as expected	Pass	Steps are easy to follow			
LoginPage_TC_002	UI	Home Page	Verify the UI elements in Login/Signup		1.Enter URL and click go 3.Verify login/Signup page with below UI elements: a.email text box b.password text box c.Login button d.New customer? Create account	http://2042.0.0.1:5000/	Application should show below UI elements: a.email text box b.password text box c.Login button d.New customer? Create account	Working as expected	Pass	Steps are clear to follow			
LoginPage_TC_003	Functional	Home page	Verify user is able to log into application with Valid credentials	Have an account	1.Enter URL and click go 2.Go to login page 3.Enter Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: chalam@gmail.com password: Testing123	User should navigate to user account homepage	Working as expected	Pass	Steps are clear to follow			
LoginPage_TC_004	Functional	Login page	Verify user is able to log into application with Inlvalid credentials		1.Enter URL and click go 2.Go to login page 3.Enter Inlvalid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: chalam@gmail password: Testing123	Application should show "Incorrect email or password" validation message.	Working as expected	Pass	Steps are clear to follow			
LoginPage_TC_004	Functional	Login page	Verify user is able to log into application with Inlvalid credentials		1.Enter URL and click go 2.Go to login page 3.Enter Valid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	Username: chalam@gmail.com password: Testing12367868678687676	Application should show "Incorrect email or password" validation message.	Working as expected	Pass	Steps are easy to follow			
LoginPage_TC_005	Functional	Login page	Verify user is able to log into application with Inlvalid credentials	Does not have an account	1.Enter URL and click go 2.Go to login page 3.Enter Inlvalid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	Username: chalam password: Testing12367868678687676	Application should show "Incorrect email or password" validation message.	Working as expected	Pass	Steps are clear to follow			

9.RESULTS

9.1 Performance Metrics

Performance metrics are defined as figure and data representative of an

organization’s action , abilities , and overall quality.

10.ADVANTAGES

Simply put , it is a system that gives us recommendations based on the data that it has collected from us, and other users like us, over a course of time.

These systems today, work in areas like movies, music, news, research articles, search queries, restaurants, hashtags, and more.

11.CONCLUSION

In this paper, the efforts were put to take into consideration the job preference of the candidates along with the content based profile matching, providing SMS based recommendation. Also the skill or jobs are recommended from the online website seekers.com. Thus proper job recommendation are provided to the students.

12.FUTURE SCOPE

To develop an end-to-end web application capable of displaying the current job openings based on the user skillset. The user and their information are stored in the Database. Users will interact with the chatbot and can get the recommendations based on their skills.

13.APPENDIX

Source Code

APP.PY

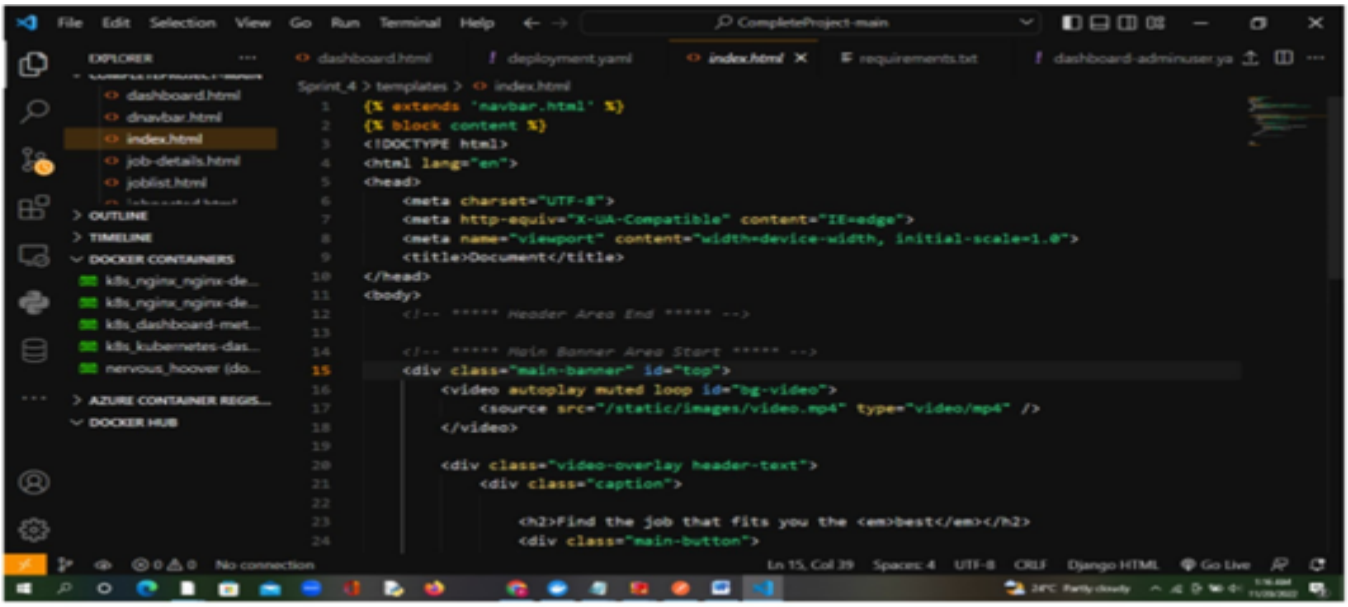
```python
def dashboard():
    return render_template('dashboard.html')



@app.route('/users',methods=['POST'])
def user():
    fname=request.form.get('fname')
    lname=request.form.get('lname')
    currentaddress = request.form.get('currentaddress')
    permanentaddress = request.form.get('permanentaddress')
    mnumber = request.form.get('mnumber')
    alternatenumber = request.form.get('alternatenumber')
    email=request.form.get('email')
    alternateemail=request.form.get('alternateemail')
    cv=request.form.get('cv')
    photo=request.form.get('photo')
    cursor=mysql.connection.cursor(MySQLdb.cursors.DictCursor)


    cursor.execute("insert into profilesetup(fname,lname,currentaddress,permanentaddress,mn
    #fetching all records from database
    mysql.connection.commit()
    cursor.close()
```

```python
    cursor=mysql.connection.cursor(MySQLdb.cursors.DictCursor)


    cursor.execute("insert into profilesetup(fname,lname,currentaddress,permanentaddress,mn
    #fetching all records from database
    mysql.connection.commit()
    cursor.close()
    return render_template('users.html')


##################################      Profile Setup      ##############################

@app.route('/profilesetup')
def profilesetup():
    return render_template('profilesetup.html')


@app.route('/completeSetup',methods=['POST'])
def completeSetup():
    fname=request.form.get('fname')
    lname=request.form.get('lname')
    currentaddress = request.form.get('currentaddress')
    permanentaddress = request.form.get('permanentaddress')
    mnumber = request.form.get('mnumber')
```

```python
    cv=request.form.get('cv')
    photo=request.form.get('photo')
    cursor=mysql.connection.cursor(MySQLdb.cursors.DictCursor)


    cursor.execute("insert into profilesetup(fname,lname,currentaddress,permanentaddress,mn
    #fetching all records from database
    mysql.connection.commit()
    cursor.close()


    return render_template('dashboard.html')


@app.route('/searchJob')
def searchJob():
    return render_template('searchJob.html')


@app.route('/postJob')
def postJob():
    return render_template('postJob.html')
```

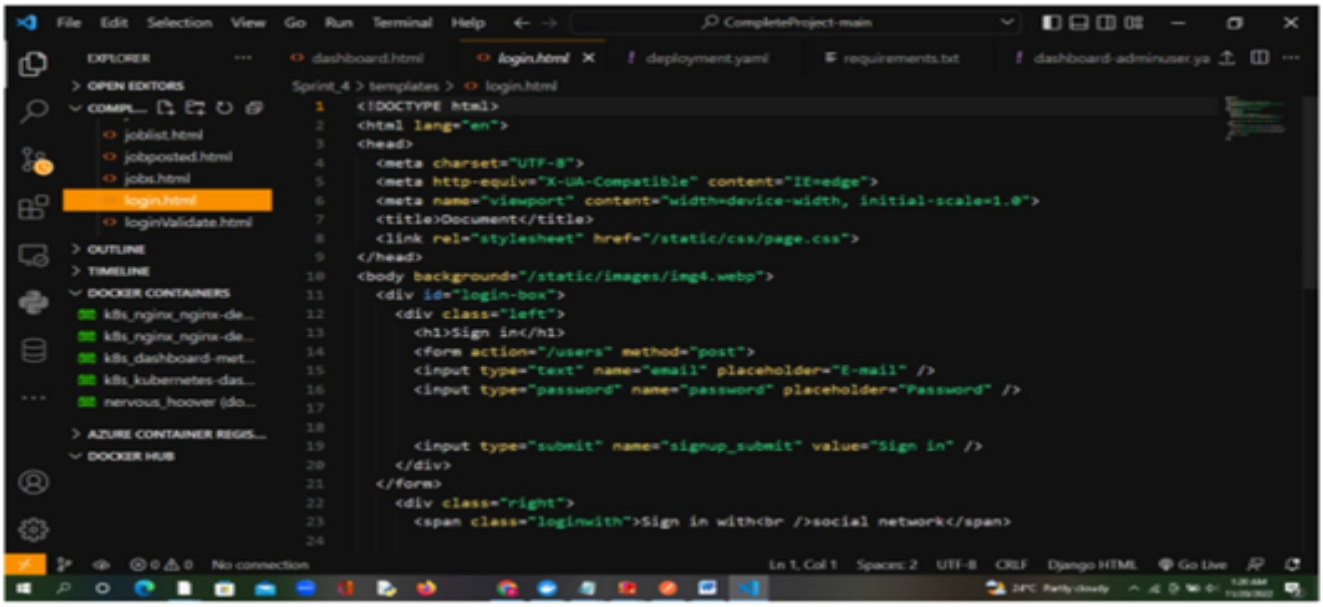
```python
@app.route('/postJob')
def postJob():
    return render_template('postJob.html')

@app.route('/sent')
def sent():
    return render_template('sent.html')


@app.route('/jobs',methods=['POST'])
def jobs():
    Category=request.form.get('Category')
    location=request.form.get('location')
    cursor=mysql.connection.cursor(MySQLdb.cursors.DictCursor)



    cursor.execute("""select * from `postjobs` where `location` like '{}' AND `Category` li
    data = cursor.fetchall()
    if(len(data)>0):
        return render_template('jobs.html',data=data)
    else:
        return render_template('NoJobs.html')
```

Index.html:



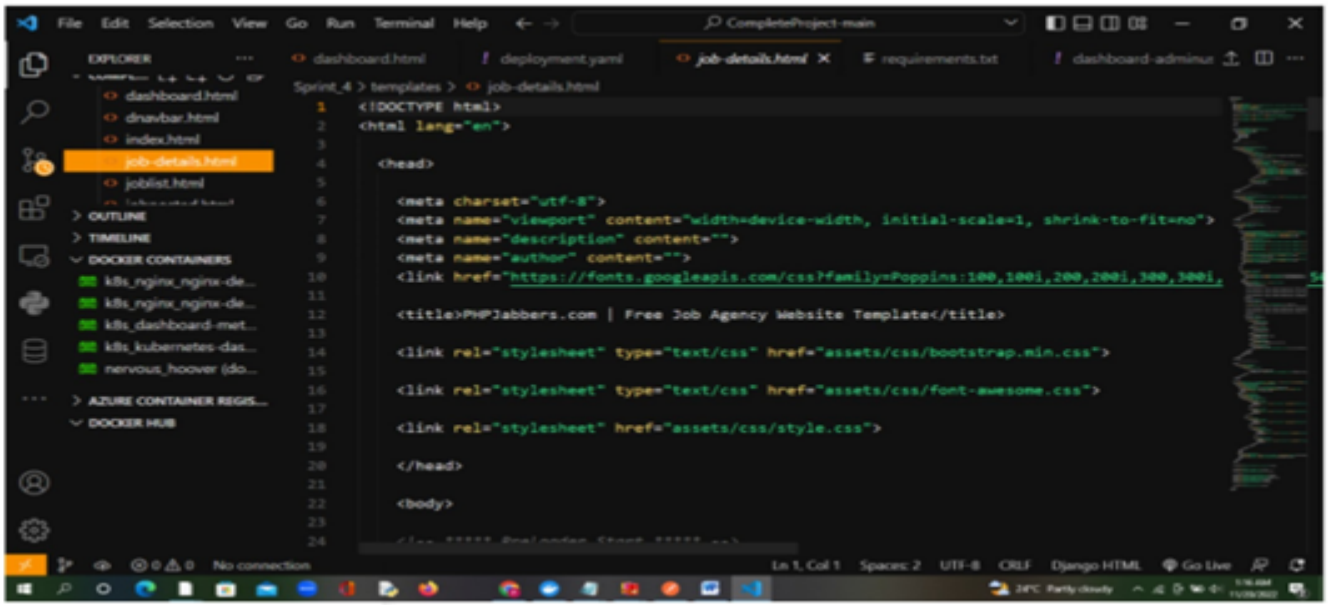
```
{% extends 'navbar.html' %}
{% block content %}
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <!-- ***** Header Area End ***** -->

    <!-- ***** Main Banner Area Start ***** -->
    <div class="main-banner" id="top">
        <video autoplay muted loop id="bg-video">
            <source src="/static/images/video.mp4" type="video/mp4" />
        </video>

        <div class="video-overlay header-text">
            <div class="caption">

                <h2>Find the job that fits you the <em>best</em></h2>
                <div class="main-button">
```

Login.html:

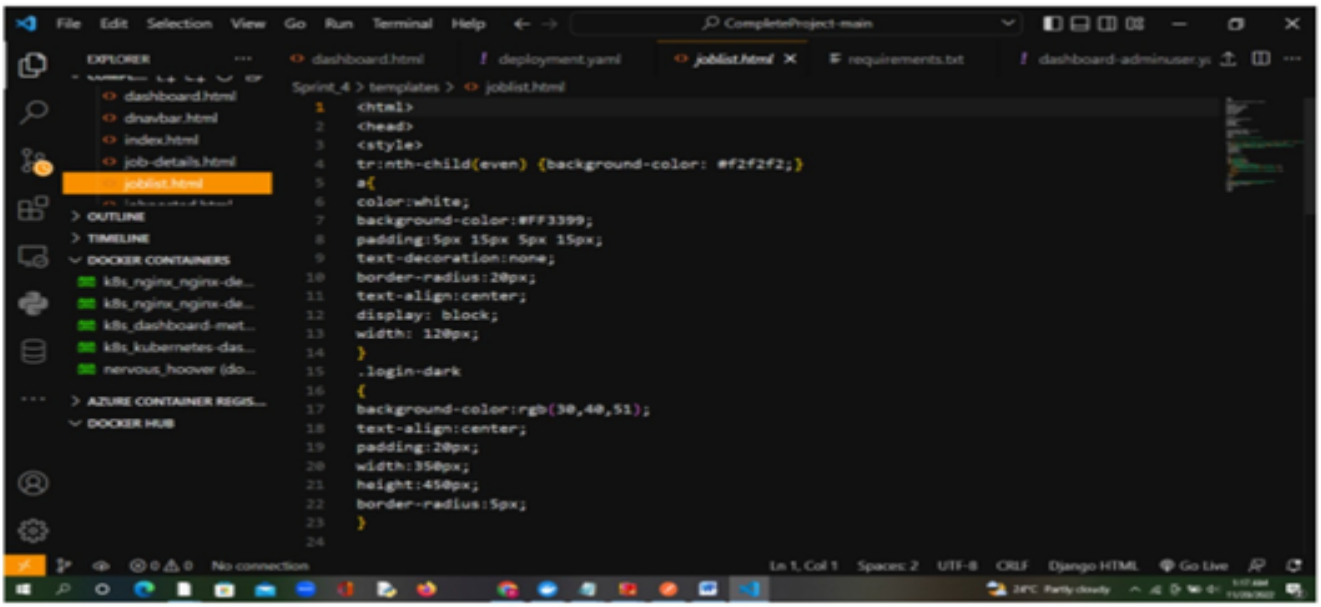


```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="/static/css/page.css">
</head>
<body background="/static/images/img4.webp">
  <div id="login-box">
    <div class="left">
      <h1>Sign in</h1>
      <form action="/users" method="post">
      <input type="text" name="email" placeholder="E-mail" />
      <input type="password" name="password" placeholder="Password" />


      <input type="submit" name="signup_submit" value="Sign in" />
    </div>
  </form>
    <div class="right">
      <span class="loginwith">Sign in with<br />social network</span>
```

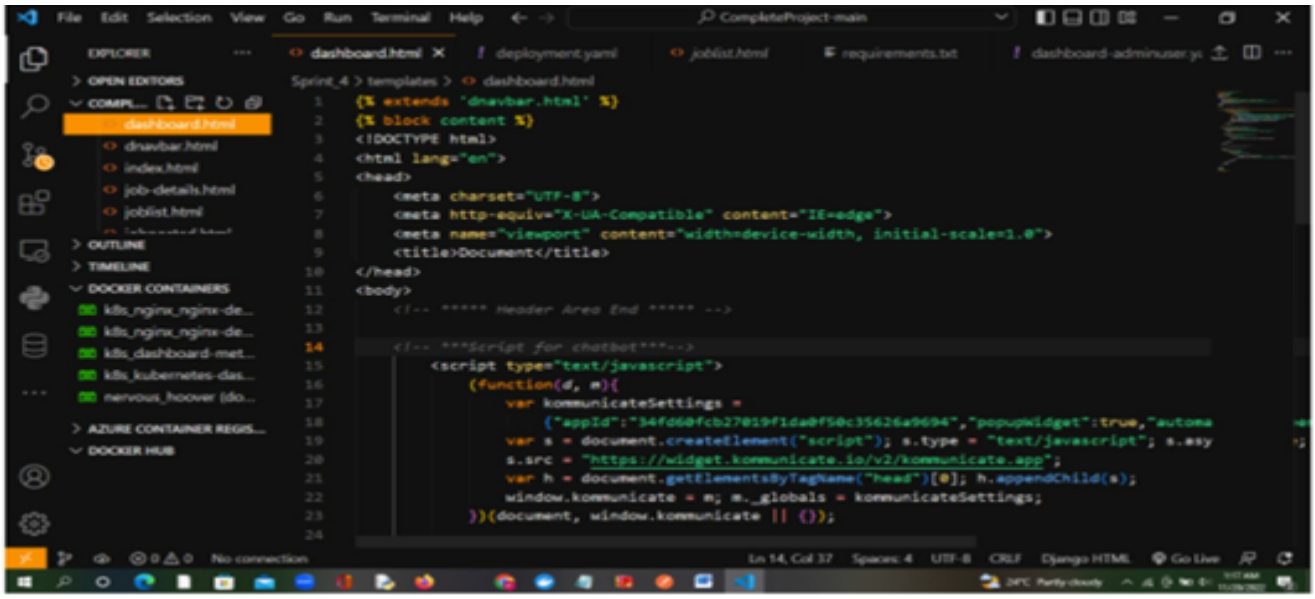
Jobdetails.html:



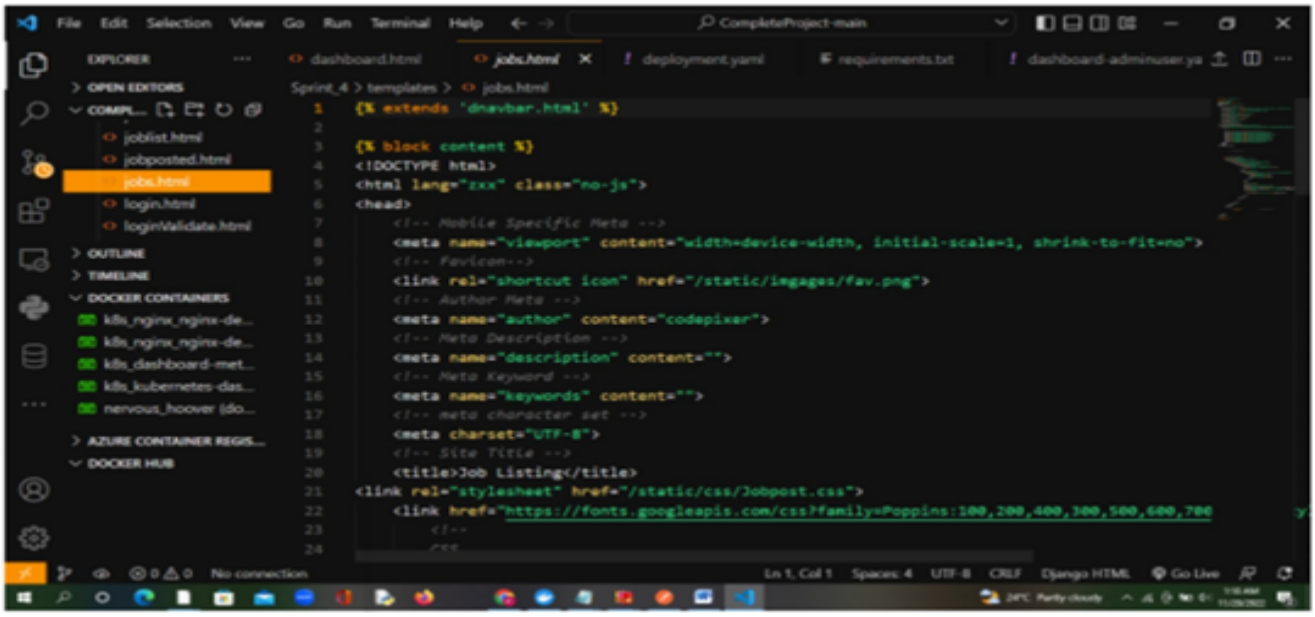
Joblist.html:



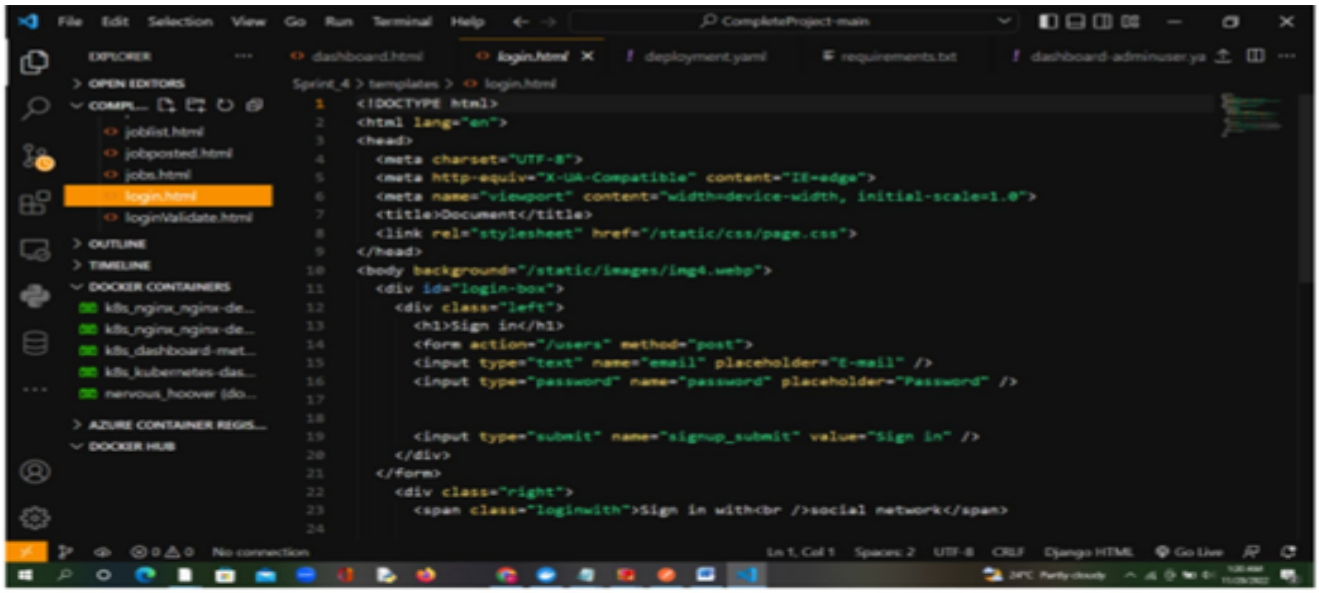
Dashboard.html:



Jobs.html:



Main.css:


File Edit Selection View Go Run Terminal Help
CompleteProject-main
EXPLORER
dashboard.html
login.html
deployment.yaml
requirements.txt
dashboard-adminuser.ya
OPEN EDITORS
Sprint_4 > templates > login.html
joblist.html
jobposted.html
jobs.html
login.html
loginValidate.html
OUTLINE
TIMELINE
DOCKER CONTAINERS
AZURE CONTAINER REGIS...
DOCKER HUB
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Document</title>
<link rel="stylesheet" href="/static/css/page.css">
</head>
<body background="/static/images/img4.webp">

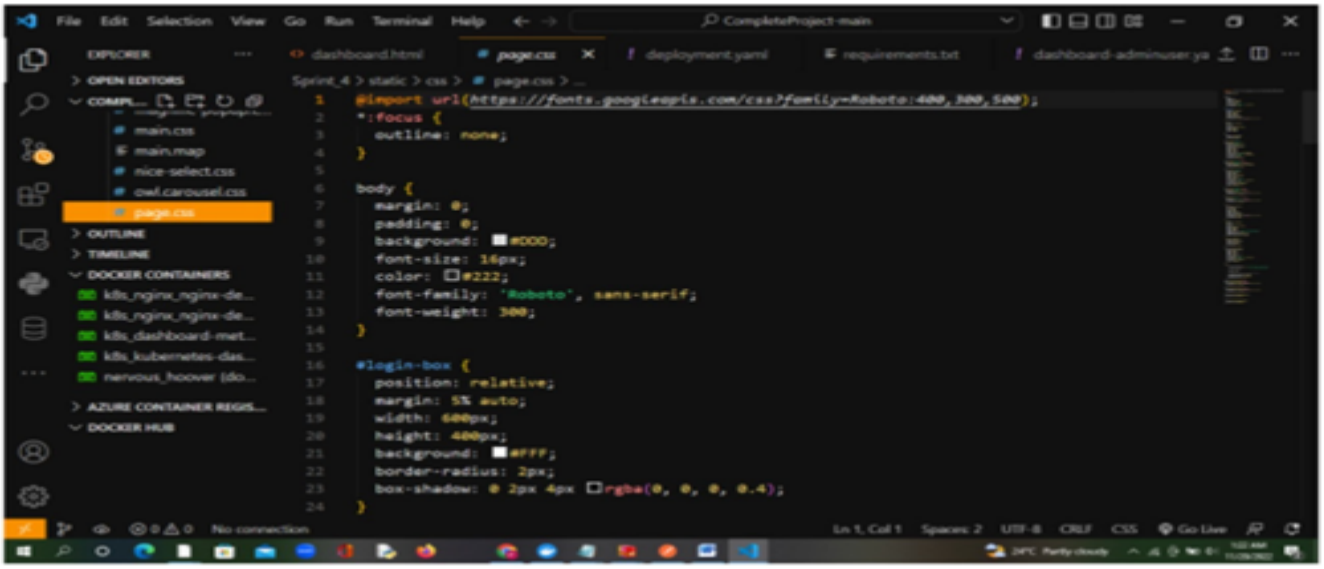
<h1>Sign in</h1>
<form action="/users" method="post">
<input type="text" name="email" placeholder="E-mail" />
<input type="password" name="password" placeholder="Password" />
<input type="submit" name="signup_submit" value="Sign in" />

</form>

Sign in with
social network
No connection
Ln 1, Col 1
Spaces: 2
UTF-8
CRLF
Django HTML
Go Live

File Edit Selection View Go Run Terminal Help
CompleteProject-main
EXPLORER
dashboard.html
main.css
deployment.yaml
requirements.txt
dashboard-adminuser.ya
OPEN EDITORS
Sprint_4 > static > css > main.css > ...
main.map
nice-select.css
owl.carousel.css
page.css
OUTLINE
TIMELINE
DOCKER CONTAINERS
AZURE CONTAINER REGIS...
DOCKER HUB
::-moz-placeholder {
/* Mozilla Firefox 19+ */
color: #777777;
opacity: 1;
font-weight: 300;
}
:-ms-input-placeholder {
/* Internet Explorer 10-11 */
color: #777777;
font-weight: 300;
}
::-ms-input-placeholder {
/* Microsoft Edge */
color: #777777;
font-weight: 300;
}
body {
color: #777777;
font-family: "Poppins", sans-serif;
font-size: 14px;
No connection
Ln 1, Col 1
Spaces: 2
UTF-8
LF
CSS
Go Live

Page.css:



Project Demo Link:

Link 1:

https://skillandjobrecommendervideolink.s3.jp-tok.cloudobjectstorage.appdomain.cloud/jobandskillrecommendervideolink.mp4

Link 2:

cos://jp-tok/skillandjobrecommendervideolink/jobandskillrecommendervi deolink.mp4