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1. INTRODUCTION

1.1 Project overview

Job recommendation is an important task for the modern recruitment industry. An excellent job recommender system not only enables to recommend a higher paying job which is maximally aligned with the skill-set of the current job, but also suggests to acquire few additional skills which are required to assume the new position.

In this work, we created three types of information networks from the historical job data:

- (i) job transition network,
- (ii) job-skill network, and
- (iii) skill co-occurrence network.

We provide a representation learning model which can utilize the information from all three networks to jointly learn the representation of the jobs and skills in the shared k-dimensional latent space.

In our experiments, we show that by jointly learning the representation for the jobs and skills, our model provides better recommendation for both jobs and skills. Additionally, we also show some case studies which validate our claim.

To develop an end-to-end web application capable of displaying the current job openings based on the user skill set.

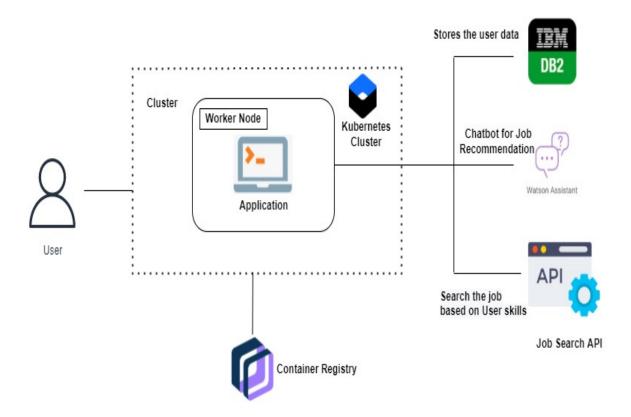
The user and their information are stored in the Database. An alert is sent when there is an opening based on the user skill set.

Users will interact with the chat bot 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

1.2 Purpose

An excellent job recommender system not only enables to recommend a higher paying job which is maximally aligned with the skill-set of the current job, but also suggests to acquire few additional skills which are required to assume the new position.

To create a software that filters the job based on the skill set of the candidates who are seeking for the job Then that filtered job is recommended for that candidates based on their skill set.



2. LITERATURE SURVEY

2.1 Existing problem

"Job Recommendation based on Job Seeker Skills. Jorge ValverdeRebaza ,Ricardo Puma ,Paul Bustios ,Nathalia C. Silva. : First Workshop on Narrative Extraction From Text co-located with 40th European Conference on Information Retrieval March 2018"

In this ,when a candidate submits his/ her profile at a job seeker engine.

Their job recommendations are mostly suggested taking their academic qualification and work experience into considerations.

A survey of job recommender systems, Shaha Alotaibi ,International Jounal of Physical Sciences July 2012"

The recommender system technology aims to help users in finding items that match their personnel interests, it has a successful usage in e-commerce applications to deal with problems related to information overload efficiently.

This article will present a survey of e-recruiting process and existing recommendation approaches for building personalized recommender systems for candidates/job matching

A Research of Job Recommendation System Based on Collaborative Filtering: Cheng Yang, Yingya Zhang, Zhixiang Niu, 2014 Seventh International Symposium on Computational Intelligence and Design, December 2014"

It analyze the candidate's resume and the companies' recruitment guidelines.

To compare and come to a better conclusion upon finding the best suited candidates for the job

2.2 References

- 1.Schafer J B, Frankowski D, Herlocker J, et al. Collaborative _ltering recommender systems[M]//The adaptive web. Springer Berlin Heidelberg, 2007: 291-324.
- 2.Pazzani M J, Billsus D. Content-based recommendation systems[M]//The adaptive web. Springer Berlin Heidelberg, 2007:325-341.
- 3.Sarwar B, Karypis G, Konstan J, et al. Item-based collaborative _ltering recommendation algorithms[C]//Proceedings of the 10th international conference on World Wide Web. ACM, 2001: 285-295.
- 4.Nikolaos D. Almalis ,Prof. George A. Tsihrintzis ,Nikolaos Karagianniset al."FoDRA A New Content-Based Job Recommendation Algorithm for Job Seeking and Recruiting".
- 5. Anika Gupta, Dr. Deepak Garg. "Applying Data Mining. Techniques in Job Recommender System for Considering Candidate Job Preferences".
- 6. Dunning T. Accurate methods for the statistics of surprise and coincidence[J]. Computational linguistics, 1993, 19(1): 61-74.
- 7.Emmanuel Malherbe , Mamadou Diaby , Mario Cataldi et al. "Field Selection for Job Categorization and Recommendation to Social Network Users". 2014 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining ASONAM 2014).

2.3 Problem Statement Definition

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

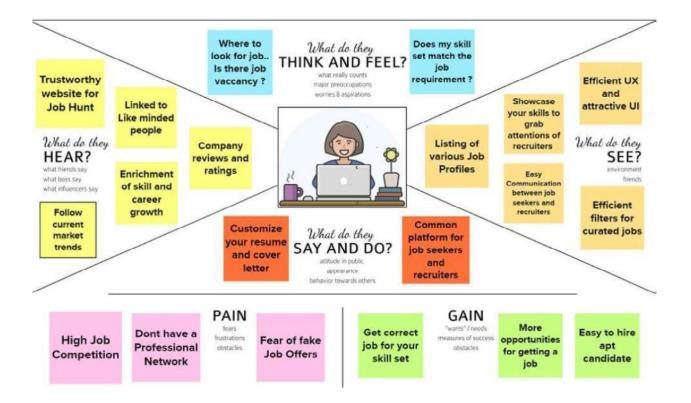
To develop an end-to-end web application capable of displaying the current job openings based on the user skillset. The user and their information are stored in the Database. An alert is sent when there is an opening based on the user skillset. Users will interact with the chatbot and can get the recommendations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

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes.

It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and Challenges



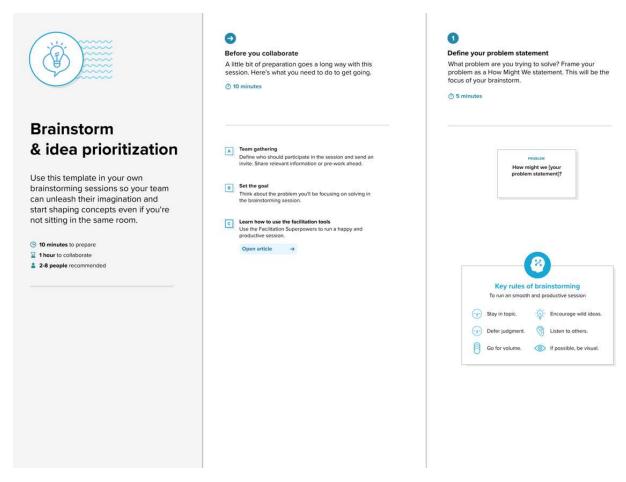
3.2 Ideation & Brainstorming

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

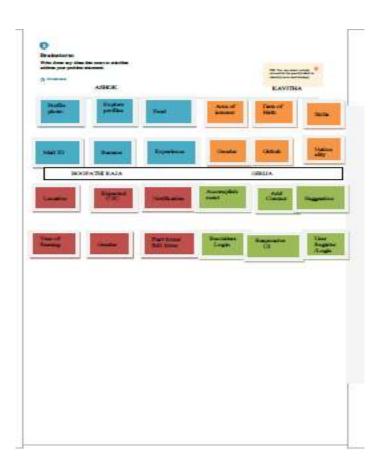
Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: https://www.mural.co/templates/empathy-map-canvas

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Step-2: Brainstorm, Idea Listing and Grouping Step-3: Idea Prioritization

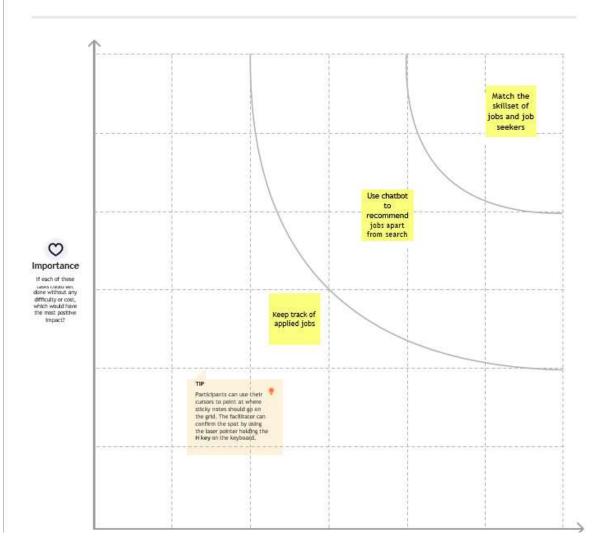




Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

o 20 minutes



3.3 Proposed Solution

S.NO.	PARAMETER	DESCRIPTION
1.	Problem Statement (Problem to be solved)	Nowadays a lot of students have great skills but unable to get a desired/appropriate job, so an end-to-end web application can be created which is capable of displaying current job openings based on user skill set making it easier to hire and get hired.
2.	Idea / Solution description	To develop an end-to-end web application which in default have a lot of current job openings through job search API out of which appropriate job will be recommended based on user skill set. At the same time students can develop their skills side by side with various courses and webinars offered by reputed organization. In addition to this a smart chatbot will be available for 24*7 which can help users in finding the right job.
3.	Novelty / Uniqueness	Though we have a lot of job searching applications, this one is unique because, We have a smart chatbot built with IBM Watson Our platform not only helps in getting job but also helps in developing skills to get right job. Here you can save/bookmark jobs for later use and also turn on notification for company specific job alerts Add media files to your profile to showcase your achievements It is made responsive to all sreen sizes
4.	Social Impact / Customer Satisfaction	The job & skill recommender system will minimize the unemployment and improve the skills of job seekers to boost the country's economy. The customer satisfaction can be

		measured by customer loyalty
		and customer reviews
		after deployment of the project.
5.	Business Model (Revenue	A subscription model will be
	Model)	provided for both employees and
		employers with additional costs
		for features along with recurring
		monthly or yearly costs.
6.		Scalability of the Solution
		In order to provide the best
		scalability, cloud computing is
		utilised.
		The cloud is capable of
		increasing or decreasing IT
		resources as needed to meet
		the changing demand and
		workload.

3.4 Problem Solution Fit

1.CUSTOMER SEGMENT(S) Job Seeker Job Recommender	Lack of awareness about a job Openings. Personal data security. Vulnerable to employment scams	AVAILABLE SOLUTIONS Linked in, indeed, and Naukri are some of the leading sources for job opportunities. They intimate user (Job seeker) with a notification about a recent Job Openings based on their skillset. Premium user will get more features including learning resources, etc
2.JOBS-TO-BE-DONE / PROBLEMS Job Seeker: Finding desired job is not an easy task. They need to gain knowledge before applying a particular job. They should Be aware of fraudulent job post. Job Recruiter: They need to find a skilled candidate for her company. The hiring process takes so much time to complete. Filtering candidates is difficult.	PROBLEM ROOT CAUSE Increasing in population as well as increasing in graduates on particular domain leads to Job Crisis. The education system does not fulfill and focus on individual person skill development.	7.BEHAVIOUR Learn and see more about a Job Openings in job posting website. Develop and improve her knowledge. Connect with recruiters on Linked in platform and maintain a friendly connection with people.
3.TRIGGERS • Financial Problem • Societal pressure • Dissatisfaction of Job • Finds a better way to improve her knowledge as well as career growth. 4.EMOTIONS: BEFORE • Sad, depressed, and low confidence. • Fear of Rejection before attending any hiring process. AFTER • Highly Motivated • Gained confidence to do any task.	A Fake Job Offer is detected and removed automatically. Recommend a skill to job seeker for a particular Job Openings. A notification will be Send via email regarding job openings.	8. CHANNELS of BEHAVIOUR ONLINE: Apply and maintain a connection with recruiters. Also search about job openings. OFFLINE Learn and gain the required skills in open Source platform as well as in our Job Website.

4. REQUIRMENT ANALYSIS

4.1 Functional requirement

		Sub Requirement (Story / Sub-Task)
FR No.	Functional Requirement (Epic)	
FR-1	User Registration	Registration through Form Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Chat Bot	A ChatBot will be there in website to solve user queries and problems related to applying a job, search for a job and much more.
FR-4	User Login	Login through Form Login through Gmail
FR-5	User Search	Exploration of Jobs based on job filters and skill recommendations.
FR-6	User Profile	Updation of the user profile through the login credentials
FR-7	User Acceptance	Confirmation of the Job.

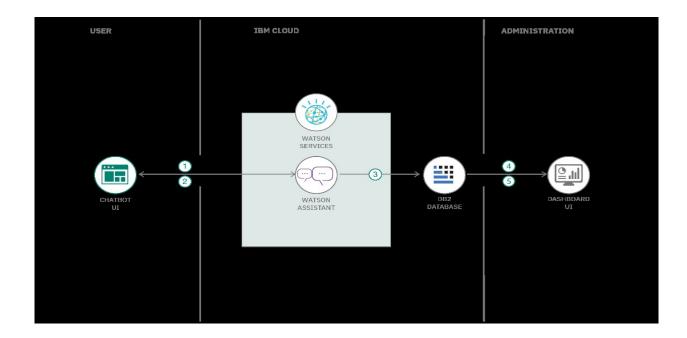
4.2 Non-Function requirement

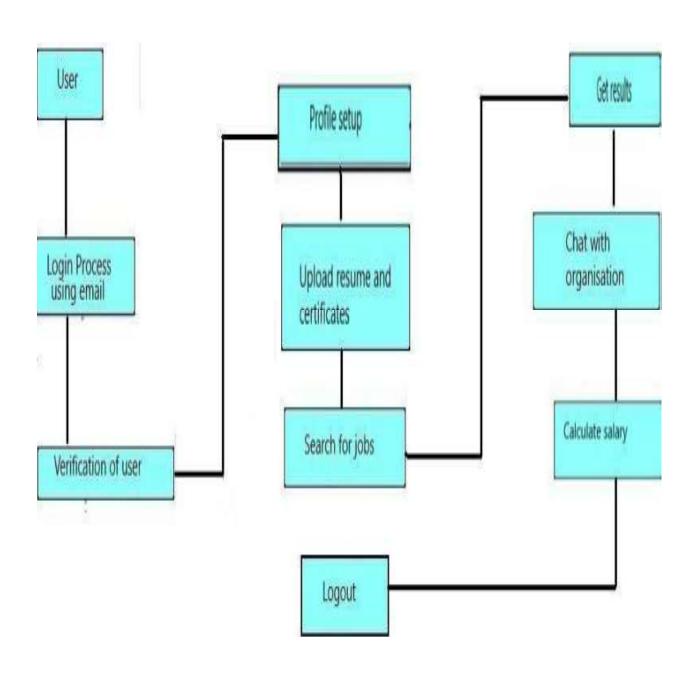
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This application can be used by the job seekers to login and search for the job based on her Skills set.
NFR-2	Security	This application is secure with separate login for Job Seekers as well as Job Recruiters.
NFR-3	Reliability	This application is open-source and feel free to use, without need to pay anything. The enormous job openings will be provided to all the job seekers without any limitation.
NFR-4	Performance	The performance of this application is quicker response and takes lesser time to do any process.
NFR-5	Availability	This application provides job offers and recommends Skills for a Particular Job openings.
NFR-6	Scalability	The Response time of the application is quite faster compared to any other application.

5. PROJECT DESIGN

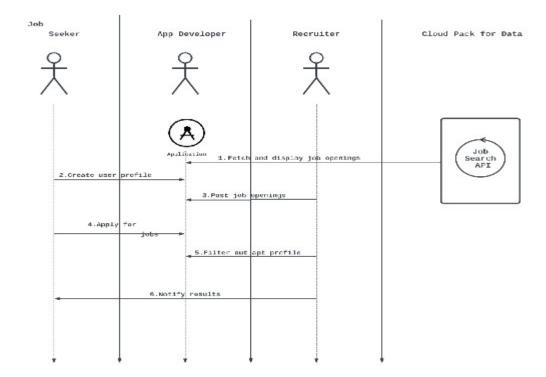
5.1 Data Flow Diagram

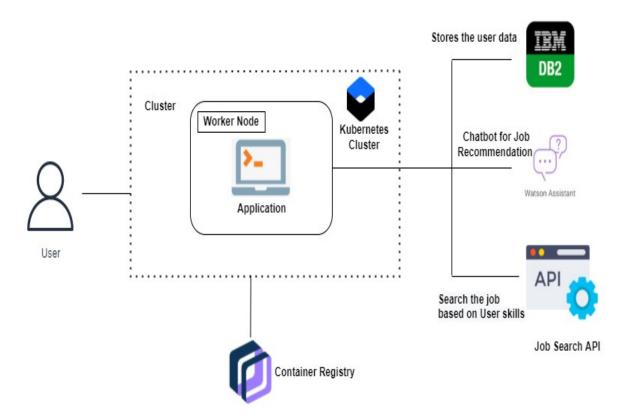
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.





5.2 Solution & Technical Architecture





5.3 User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requireme nt (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (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 a 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-5	As a user, I can access my dashboard after signing in.	I can access my account / dashboard	High	Sprint-1
Customer (Web user)	Access	USN-6	As a user, I can setup a profile, and basic details by signing in.			
		USN-7	As a user, I will upload my resume, certificates, and other requirements.	I can perform several task in the application	Medium	Sprint-1
Customer Care	Executive Chat bot	USN-8	As a user, I can seek guidance from the customer care executive.		High	Sprint-1
Administrator	DBMS	USN-9	As an administrator, I can keep the applications your organization relies on running.	I can perform various modifications in the applications.	High	Sprint-1

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requiremen t (Epic)	User Story Numbe	User Story / Task	Priority	Acceptance criteria	Team Members
Sprint-1	UI Design	USN-1	As a user, I can see and experience an awesome user interface in the website	Medium	Better Impression about a website	ASHOK P KAVITHA P
Sprint-1	Registration	USN-2	As a user, I can register for the application by entering my email,password, and confirming my password.	High	I can access my account I dashboard	BOOPATHI RAJA G GIRIJA S
Sprint-1		USN-3	As a user, I will receive confirmation email once I have registered for theapplication	High	I can receive confirmation email & click confirm	KAVITHA P
Sprint-1		USN-4	As a user, I can register for the application through Facebook	Low	I can register & access the dashboard with Facebook Login	ASHOK P GIRUA S
Sprint-1		USN-5	As a user, I can register for the application through Gmail	Medium	I can receive confirmation email & click confirm	BOOPATHI RAJA G. KAVITHA P
Sprint-1	Login	USN-6	As a user, I can log into the applicationby entering email & password	High	I can access my account I dashboard	ASHOK P BOOPATHI RAJA G

Sprint-1	Flask	USN-7	As a user, I can access the website in a second	High	I can access my account I dashboard
					1/2

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Priority	Acceptance criteria	Team Members
Sprint-1	Dashboard	USN-8	As a user, If I Logged in correctly, I can view my dashboard and I can navigateto any pages which are already listed there.	High	I can access all the pages/ dashboard	ASHOK P
		2	Submission Of Sprint-1			0
Sprint-2	User Profile	USN-9	As a user, I can view and update my details	Medium	I can modify my details/data	ASHOK P KAVITHA P
Sprint-2	Database	USN-10	As a user, I can store my details anddata in the website w	Medium	I can store my data	GIRIJA. S KAVITHA P
Sprint-2	Cloud Storage	USN-11	As a user, I can upload my photo, resume and much more in the website.	Medium	I can Upload my documents and details	ASHOK P
Sprint-2	Chatbot	USN-12	As a user, I can ask the Chatbot about latest job openings, which willhelp me and show the recent job openings based on my profile	High	I can know the recent job openings	ASHOK P KAVITHA P
Sprint-2	Identity-Aware	USN-13	As a User, I can access my accountby entering by correct login credentials. My user credentials is only displayed to me.	High	I can have my account safely	BOOPATHI RAJA G. KAVITHA P

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Priority	Acceptance criteria	Team Members
Sprint-3	Sendgrid service	USN-14	As a user, I can get a notification or mail about a job opening with the helpof sendgrid service.	Medium	I can get a notification in a second.	ASHOK P KAVITHA P
Sprint-3	Learning Resource	USN-15	As a user, I can learn the course andI will attain the skills which will be useful for developing my technical skills.	High	I can gain the knowledge and skills	GIRUA. S
Sprint-3	Docker	USN-16	As a user, I can access the website inany device	High	I can access my account in any device	BOOPATHI RAJA G GIRIJA. S
Sprint-3	Kubernates	USN-17	As a user, I can access the website in any device	High	I can access my account in any device	ASHOK P KAVITHA P
Sprint-3	Deployment in cloud	USN-18	As a user, I can access the website in any device	High	I can access my account in any device	BOOPATHI RAJA G ASHOK P
Sprint-3	Technical support	USN-19	As a user, I can get a customercare support from the websitewhich will solve my queries.	Medium	I can tackle my problem & queries.	KAVITHA P ASHOK P
			Submission of Sprint-3			
Sprint-4	Unit Testing	USN-15	As a user, I can access the website without any interruption	High	I can access the website withoutany interruption	ASHOK P KAVITHA P

Sprint Delivery Schedule

Sprint Delivery planning:

Project Tracker, Velocity & Burndown Chart: (4 Marks)

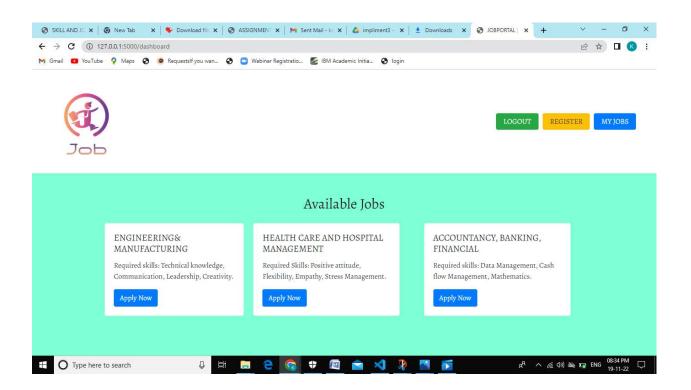
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

7. CODING & SOLUTIONING

7.1 Feature

The software has an In-built "Chat Bot" which can help assist with ongoing queries and provide fast and effective solutions to user problems which may occur and also redirect to

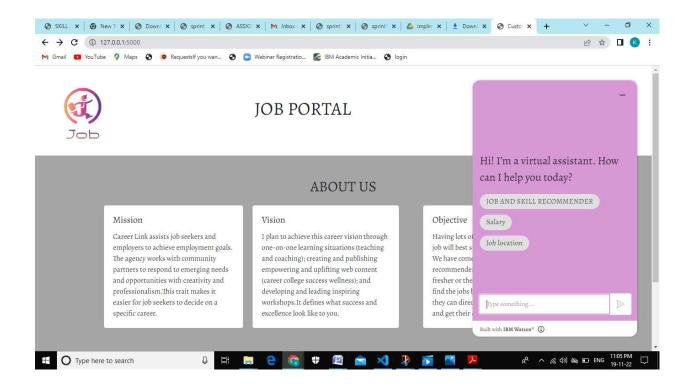
management attention if need be there any complications the customer service will be available 24*7 to assist in case of any controversial issues arise



7.2 Feature

In this project we have created the dashboard page to view the jobs available and to make ease to access the website

- They communicate information quickly.
- They display information clearly and efficiently.
- They show trends and changes in data over time.
- They are easily customizable.
- The most important widgets and data components are effectively presented in a limited space.



8.TESTING

8.1 Test Cases

Software testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. The benefits of testing include preventing bugs, reducing development costs and improving performance.

This Software is tested and evaluated successfully.

8.2 User Acceptance Testing

Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the Inventory Management System project at the time of the release to User Acceptance Testing (UAT)

User Acceptance Testing is carried out in a separate testing environment. A change, an update, or a new feature is requested and developed. Unit and integration tests are run. All seems to be in order. But then, after it is released to the public, serious problems appear. Rework and retesting are not the most expensive consequences when that happens. Loss of reputation is.

9. RESULTS

9.1 Performance Metrics

Based on the two types of user recommendations mentioned above, we analyze the performance of all the techniques mentioned above. The resultant jobs recommended to each new user are then checked with the job that the user is originally in as per the test dataset. If the original user job is recommended in the model result, then the model appends 1 for yes else, it appends 0 for no.

This array of 0's and 1's thus received is then checked for accuracy by computing the count of 1's from the total user predictions

Among all the models made with the incorporation of different similarity metrics, the cosine similarity based job recommendation system model outperformed rest of them all. The metrics used to analyse the model performance are: accuracy, precision, recall and F1-score. This is because cosine considers the existence of duplicate terms while computing similarity. Also, computationally, cosine has low complexity and ease over handling spare data vectors since only non-zero dimensions are considered.

Upon analyzing the result table we observe that the short-comings of some similarity measures upon recommending top 5 and highest-score based job recommendations as even upon achieving high . similarity scores is due to the fact that users are seen to have different jobs than the ones recommended by the models, thus resulting in 6-10% error rates.

10. ADVANTAGES

- The model doesn't need any data about other users, since the recommendations are specific to this user.
- This makes it easier to scale to a large number of users.
- The model can capture the specific interests of a user, and can recommend niche items that very few other users are interested in.

DISADVANTAGES

- Since the feature representation of the items are hand-engineered to some extent, this
 technique requires a lot of domain knowledge. Therefore, the model can only be as
 good as the hand-engineered features.
- The model can only make recommendations based on existing interests of the user.
- In other words, the model has limited ability to expand on the users' existing interests

11.CONCLUSION

In this project, Content-Based Filtering and Collaborative Filtering of recommendations

have been compared. Additionally, an aggregation plus recommender system has been devised.

Content-Based Filtering recommends the results based on matching the personal preferences of the user with the given document whereas collaborative filtering recommends based on the preferences of fellow users. On evaluating both of these methods, it was concluded that a hybrid system of both of these overcomes the limitations of both of them and increases the efficiency of ranking. Problems of cold start, sparse database, scalability, and lack of

trend recommendation have been eliminated. The proposal is to design a Job Recommender system that prioritizes quality over quantity. While there are websites and job listing portals already recommending jobs to job seekers based on their profiles, this research on aggregate quality recommendations has been achieved by crawling selectively, overcoming the limitations. A fully functioning user interface was developed to combine everything together to give the user a seamless experience.

12.FUTURE SCOPE

Future works in the case of Personalized Job Recommendation Systems are the utilization of the user-preferred location to get job recommendations based on jobs in organizations established in nearby areas. This can be done by extracting the latitudes and longitudes of the user-preferred location and computing the euclidean distances between the latitudes and longitudes of the organization location.

This filters out other jobs that fall far from the user-preferred location and gives a more accurate job recommender

As part of the future work, we plan to usefeatures of similar candidates and jobs

insequence information. As of now,recommendation using similar candidates an jobs forms part of non-machine learning basedrecommendations and the initial result seempromising. Finally, it would be interesting to extend our methodology to other recommendersystems

13.APPENDIX

Source Code

home.html

```
<link rel="stylesheet" href="style.css">
        <!-- <li>k rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-
        <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
        <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-</pre>
32x32.png">
        <!-- bootstrap css cdn -->
        <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/4.7.0/css/font-awesome.css">
        <link rel="stylesheet" href="css/style.css">
        <link rel="preconnect" href="https://fonts.gstatic.com">
        <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"</pre>
rel="stylesheet">
        link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"
rel="stylesheet">
<div class="image">
   <style>
       body {
          background-image: url('img16.jpg');
          background-repeat: no-repeat;
          background-attachment: fixed;
          background-size: cover;
        </style>
        <script>
  window.watsonAssistantChatOptions = {
    integrationID: "7bb0dbd6-2b28-4c7f-9e76-a9347dc3d1cc", // The ID of this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "10e6c64e-74a9-4d0e-a73b-9bbaa6d8424f", // The ID of your service
   onLoad: function(instance) { instance.render(); }
 setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion | 'latest') +
 /WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
  });
</script>
</div>
```

```
<body>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#"><img src="iv.png" height="150px"</pre>
width="150px">
            <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
    <!-- Login form -->
   <div class="login text-center mt-5">
        <h2>Apply Now</h2>
        <form action="/apply" method="post" class="mt-3">
            <!-- <input type="text" placeholder="fullname" id="fullname"> </br>< -->
            <input type="text" name="username" placeholder="Enter Your Username"</pre>
 id="username" required></br></br>
            <input type="email" name="email" placeholder="Enter Your email" id="email"</pre>
required></br></br>
            <input type="text" name="qualification" placeholder="Enter Your</pre>
Qualification" id="qualification" required></br>
      <input type="text" name="skills" placeholder="Enter Your skills" id="skills"</pre>
required></br></br>
              <select name ="s">
<option value ="PYTHON"> Python</option>
<option value ="ML"> ML</option>
<option value ="AI"> AI</option>
</select>
            </br></br>
        <button type="submit" id="button" class="btn btn-primary"> Submit</button>
        </form>
   </div>
 <div class="note mt-3 text-center">
    <h2> click here to go to dashboard <a href="dashboard.html">Dashboard! </a> </h2>
    </div>
</body>
```

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>JOBPORTAL | LOGIN</title>
    <link rel="stylesheet" href="style.css">
        <!-- favicon -->
        <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico"
type="image/x-icon"> -->
        <!-- <li>k rel="icon" href="/assets/img/favicon.ico"
type="image/x-icon"> -->
        <link rel="icon" type="image/png" sizes="16x16"</pre>
href="/assets/img/favicon-32x32.png">
        <!-- bootstrap css cdn -->
        <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min
.css" integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.css">
        <!-- css stylesheet -->
        <link rel="stylesheet"</pre>
href="{{url for('static',filename='css/style.css') }}">
        <!-- font styles cdn -->
        <link rel="preconnect" href="https://fonts.gstatic.com">
href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"
rel="stylesheet">
        link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=s
wap" rel="stylesheet">
</head>
<style>
    body {
      background-image: url('img12.jpg');
      background-repeat: no-repeat;
      background-attachment: fixed;
      background-size: cover;
    </style>
```

```
</style>
<script>
 window.watsonAssistantChatOptions = {
    integrationID: "7bb0dbd6-2b28-4c7f-9e76-a9347dc3d1cc", // The ID of
this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "10e6c64e-74a9-4d0e-a73b-9bbaa6d8424f", // The ID
of your service instance.
    onLoad: function(instance) { instance.render(); }
 };
 setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-
chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion | 'latest') +
/WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
 });
</script>
<body>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#"><img src="iv.png"</pre>
height="150px" width="150px">
            <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -
          </a>
    </div>
      <!-- navbar ends -->
    <!-- Login form -->
    <div class="login text-center mt-5">
        <h2> Login Form </h2>
        <form action="/login" method="post">
            <input type="text" name="username" placeholder="Enter Your</pre>
Username" id="username" required></br></br>
      <input type="password" name="password" placeholder="Enter Your</pre>
Password" id="password" required></br></pr>
            </br>
            </br>
```

register.html

```
<!DOCTYPE html>
<html lang="en">
    <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>JOBPORTAL | LOGIN</title>
    <link rel="stylesheet" href="style.css">
        <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-
        <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
        <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-</pre>
32x32.png">
        <!-- bootstrap css cdn -->
        <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/4.7.0/css/font-awesome.css">
        <link rel="stylesheet" href="{{url_for('static',filename='css/style.css') }}">
        <link rel="preconnect" href="https://fonts.gstatic.com">
        <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"</pre>
rel="stylesheet">
```

```
link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"
rel="stylesheet">
    body {
      background-image: url('img11.jpg');
      background-repeat: no-repeat;
      background-attachment: fixed;
      background-size: cover;
    </style>
</style>
<script>
  window.watsonAssistantChatOptions = {
    integrationID: "7bb0dbd6-2b28-4c7f-9e76-a9347dc3d1cc", // The ID of this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "10e6c64e-74a9-4d0e-a73b-9bbaa6d8424f", // The ID of your service
    onLoad: function(instance) { instance.render(); }
  setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
 /WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
  });
</script>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#"><img src="iv.png" height="150px"</pre>
width="150px">
            <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
    </div>
    <!-- Login form -->
    <div class="login text-center mt-5">
        <h2> Register Form </h2>
        <form action="/register" method="post">
            <!-- <input type="text" placeholder="fullname" id="fullname"> </br>> -->
            <input type="text" name="username" placeholder="Enter Your Username"</pre>
 id="username" required></br>
      <input type="email" name="email" placeholder="Enter Your Email ID" id="email"</pre>
required></br>
```

yourdetails.html

```
<!DOCTYPE html>
<html lang="en">
    <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>JOBPORTAL | HOME</title>
    <link rel="stylesheet" href="style.css">
    <meta charset="UTF-8">
        <!-- <li>k rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-
        <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
        <link rel="icon" type="/image/png" sizes="16x16" href="/assets/img/favicon-</pre>
32x32.png">
        <!-- bootstrap css cdn -->
        <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/4.7.0/css/font-awesome.css">
        <link rel="stylesheet" href="css/style.css">
        <link rel="preconnect" href="https://fonts.gstatic.com">
        <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"</pre>
rel="stylesheet">
```

```
link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"
rel="stylesheet">
<style>
 body {
    background-image: url('img14.jpg');
    background-repeat: no-repeat;
    background-attachment: fixed;
    background-size: cover;
  </style>
</style>
<script>
  window.watsonAssistantChatOptions = {
    integrationID: "7bb0dbd6-2b28-4c7f-9e76-a9347dc3d1cc", // The ID of this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "10e6c64e-74a9-4d0e-a73b-9bbaa6d8424f", // The ID of your service
    onLoad: function(instance) { instance.render(); }
  setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
 /WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
  });
</script>
        <!-- bootstrap navbar -->
        <nav class="navbar sticky-top navbar-expand-lg navbar-light">
            <div class="container-fluid">
              <a class="main-logo-img mt-3" href="#"><img src="iv.png" height="150px"</pre>
width="150px">
                <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
              <button class="navbar-toggler" type="button" data-bs-toggle="collapse"</pre>
data-bs-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
                <span class="navbar-toggler-icon"></span>
              </button>
              <div class="row donate-sponsor">
                <a type="button" class="btn btn-success mr-1" id="donate"</pre>
href="login 1.html">LOGOUT</a>
                <a type="button" class="btn btn-warning mr-1" id="sponsor"</pre>
href="register 1.html">REGISTER</a>
```

```
<a type="button" class="btn btn-primary mr-1" id="sponsor"</pre>
href="myjobs_1.html">MY JOBS</a>
          </div>
         </div>
      <!-- what we focus on -->
      <section class="our-focus">
         <div class="container">
          <h1 class="text-center mt-3">Your Details</h1>
          <div class="border">
          </br></br></br>
             <h3>userid:</h3>
            <h3>username:</h3>
            <h3>Email ID:</h3>
            <h3>qualification:</h3>
             <\td>
             <h3>skills:</h3>
            <h3>JOB Applied:</h3>
            </section>
```

myjobs.html

```
<html>
```

about.html

```
<!DOCTYPE html>
<html lang="en">
    <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>Customer Care Registry</title>
    <link rel="stylesheet" href="style.css">
    <meta charset="UTF-8">
        <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-
        <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
        <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-</pre>
32x32.png">
        <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/4.7.0/css/font-awesome.css">
```

```
<link rel="stylesheet" href="{{url_for('static',filename='css/style.css') }}">
        <link rel="preconnect" href="https://fonts.gstatic.com">
        <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"</pre>
rel="stylesheet">
        k
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"
rel="stylesheet">
    <style>
        body {
          background-image: url('img5.jpg');
          background-repeat: no-repeat;
          background-attachment: fixed;
          background-size: cover;
  <script>
    window.watsonAssistantChatOptions = {
      integrationID: "7bb0dbd6-2b28-4c7f-9e76-a9347dc3d1cc", // The ID of this
      region: "au-syd", // The region your integration is hosted in.
      serviceInstanceID: "10e6c64e-74a9-4d0e-a73b-9bbaa6d8424f", // The ID of your
service instance.
      onLoad: function(instance) { instance.render(); }
    };
    setTimeout(function(){
      const t=document.createElement('script');
      t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
 /WatsonAssistantChatEntry.js";
      document.head.appendChild(t);
    });
  </script>
        <!-- bootstrap navbar -->
        <nav class="navbar sticky-top navbar-expand-lg navbar-dark">
            <div class="container-fluid">
              <a class="main-logo-img mt-3" href="#"><img src="iv.png" height="150px"</pre>
width="150px">
                <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
              </a>
              <div class="row donate-sponsor">
                <a type="button" class="btn btn-success mr-1" id="donate"</pre>
href="login_1.html">LOGIN</a>
                <a type="button" class="btn btn-warning mr-1" id="sponsor"</pre>
href="register_1.html">REGISTER</a>
                <a type="button" class="btn btn-primary mr-1" id="sponsor"</pre>
href="contactus 1.html">CONTACT US</a>
```

```
</div>
           </div>
       <!-- what we focus on -->
        <section class="our-focus">
           <div class="container">
             <h2 class="text-center mt-3">ABOUT US</h2>
             <div class="row ml-3 mt-3">
               <div class="col-lg-3 mr-5" id="focus-first">
                 <div class="card" style="width: 19rem;">
                   <!-- <img src="assets/img/home kids.jpg" class="card-img-top"
                   <div class="card-body">
                     <h5 class="card-title">Mission</h5>
                     Career Link assists job seekers and employers
to achieve employment goals. The agency works with community partners to respond to
emerging needs and opportunities with creativity and professionalism. This trait makes it
eeasier for job sekeers to decide on specific career.
                     </div>
                 </div>
               </div>
               <div class="col-lg-3 mr-5" id="focus-second">
                 <div class="card" style="width: 20rem;">
                   <!-- <img src="assets/img/friendship day.JPG" class="card-img-top"
                   <div class="card-body">
                     <h5 class="card-title">Vision</h5>
                     I plan to achieve this career vision through
one-on-one learning situations (teaching and coaching); creating and publishing
empowering and uplifting web content (career college success wellness); and developing
and leading inspiring workshops. It defines what success and excellence look like to you.
               <div class="col-lg-3 ml-5" id="focus-third">
                 <div class="card" style="width: 20rem;">
                   <!-- <img src="assets/img/health camp.jpg" class="card-img-top"
                   <div class="card-body">
                     <h5 class="card-title">Objective</h5>
                     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.
                    </div>
                </div>
              </div>
            </div>
          </div>
         </section>
         <!-- focus section ends -->
       <!-- footer starts -->
         <!-- Site footer -->
         <footer class="site-footer">
          <div class="container mt-5">
            <div class="row">
              <div class="col-sm-12 col-md-6">
                <h3>JobPortal</h3>
                A job portal helps both the job seekers and
recruiters finding the right organization for the employees. In the case of job seekers,
according to their educational qualification, experience and their preferences, the job
portal shows the list of companies to the job seeker.
              </div>
              <div class="col-xs-6 col-md-3">
                <h4>Get in Touch</h4>
                href="mailto:test@gmail.com">jobrecommender774@gmail.com</a>
                  <a href="">+91 9876543210</a>
                </div>
            </div>
           <hr>>
            </div>
          </div>
     </footer>
```

about.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>Customer Care Registry</title>
    <link rel="stylesheet" href="style.css">
    <meta charset="UTF-8">
        <!-- favicon -->
        <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico"
type="image/x-icon"> -->
        <!-- <li>rel="icon" href="/assets/img/favicon.ico"
type="image/x-icon"> -->
        <link rel="icon" type="image/png" sizes="16x16"</pre>
href="/assets/img/favicon-32x32.png">
        <!-- bootstrap css cdn -->
        <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min
.css" integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.css">
     <!-- css stylesheet -->
```

```
<link rel="stylesheet"</pre>
href="{{url_for('static',filename='css/style.css') }}">
        <!-- font styles cdn -->
        <link rel="preconnect" href="https://fonts.gstatic.com">
href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"
rel="stylesheet">
        link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=s
wap" rel="stylesheet">
</head>
<body>
    <style>
        body {
          background-image: url('img5.jpg');
          background-repeat: no-repeat;
          background-attachment: fixed;
          background-size: cover;
        </style>
 <script>
  window.watsonAssistantChatOptions = {
    integrationID: "7bb0dbd6-2b28-4c7f-9e76-a9347dc3d1cc", // The ID of
this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "10e6c64e-74a9-4d0e-a73b-9bbaa6d8424f", // The ID
of your service instance.
    onLoad: function(instance) { instance.render(); }
  };
  setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-
chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion | 'latest') +
 /WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
  });
</script>
        <!-- bootstrap navbar -->
        <nav class="navbar sticky-top navbar-expand-lg navbar-dark">
```

```
<div class="container-fluid">
              <a class="main-logo-img mt-3" href="#"><img src="iv.png"</pre>
height="150px" width="150px">
                <!-- <a class="navbar-brand"
href="index.html">JobPortal</a> -->
              </a>
              <div class="row donate-sponsor">
                <a type="button" class="btn btn-success mr-1" id="donate"</pre>
href="login.html">LOGIN</a>
                <a type="button" class="btn btn-warning mr-1" id="sponsor"</pre>
href="register.html">REGISTER</a>
                <a type="button" class="btn btn-primary mr-1" id="sponsor"</pre>
href="contactus.html">CONTACT US</a>
              </div>
            </div>
          </nav>
        <!-- what we focus on -->
        <section class="our-focus">
            <div class="container">
              <h2 class="text-center mt-3">ABOUT US</h2>
              <div class="row ml-3 mt-3">
                <div class="col-lg-3 mr-5" id="focus-first">
                  <div class="card" style="width: 19rem;">
                    <!-- <img src="assets/img/home kids.jpg" class="card-
img-top" alt="..."> -->
                    <div class="card-body">
                      <h5 class="card-title">Mission</h5>
                      Career Link assists job seekers
and employers to achieve employment goals. The agency works with community
partners to respond to emerging needs and opportunities with creativity
and professionalism. This trait makes it eeasier for job sekeers to decide
on specific career.
                      </div>
                  </div>
                </div>
```

```
<div class="col-lg-3 mr-5" id="focus-second">
                 <div class="card" style="width: 20rem;">
                   <!-- <img src="assets/img/friendship day.JPG"
class="card-img-top" alt="..."> -->
                   <div class="card-body">
                     <h5 class="card-title">Vision</h5>
                     I plan to achieve this career
vision through one-on-one learning situations (teaching and coaching);
creating and publishing empowering and uplifting web content (career
college success wellness); and developing and leading inspiring
workshops.It defines what success and excellence look like to you. 
                   </div>
                 </div>
               </div>
               <div class="col-lg-3 ml-5" id="focus-third">
                 <div class="card" style="width: 20rem;">
                   <!-- <img src="assets/img/health camp.jpg"
class="card-img-top" alt="..."> -->
                   <div class="card-body">
                     <h5 class="card-title">Objective</h5>
                     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.
                     </div>
                 </div>
               </div>
             </div>
           </div>
         </section>
         <!-- focus section ends -->
        <!-- footer starts -->
         <!-- Site footer -->
         <footer class="site-footer">
           <div class="container mt-5">
             <div class="row">
               <div class="col-sm-12 col-md-6">
```

```
<h3>JobPortal</h3>
                A job portal helps both the job
seekers and recruiters finding the right organization for the employees.
In the case of job seekers, according to their educational qualification,
experience and their preferences, the job portal shows the list of
companies to the job seeker.
              </div>
              <div class="col-xs-6 col-md-3">
                <h4>Get in Touch</h4>
                <a
href="mailto:test@gmail.com">jobrecommender774@gmail.com</a>
                 <a href="">+91 9876543210</a>
              </div>
            </div>
          <hr>>
            </div>
          </div>
     </footer>
         </body>
</html>
```

logout.html

GitHub Link

<u>IBM-EPBL/IBM-Project-39700-1660490245</u>

Project Demo Link

https://youtu.be/8PjyLN4HupU