



**SKILL /JOB RECOMMENDER APPLICATION  
IBM PROJECT REPORT  
TEAM ID (PNT2022TMID46516)**

Submitted by

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In partial fulfilled for the award of the  
degree of

**BACHELOR OF ENGINEERING IN  
COMPUTER SCIENCE & ENGINEERING**

**ARASU ENGINEERING COLLEGE ,KUMBAKONAM  
ANNA UNIVERSITY: CHENNAI 600025  
2022**

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 PROJECT OVERVIEW:**

In the last years, job recommender systems have become popular since they successfully reduce information overload by generating personalized job suggestions. Although in the literature exists a variety of techniques and strategies used as part of job recommender systems, most of them fail to recommending job vacancies that fit properly to the job seekers profiles. Nowadays, job search is a task commonly done on the Internet using job search engine sites like LinkedIn , Indeed , and others. Commonly, a job seeker has two ways to search a job using these sites.

### **1.2 PURPOSE**

The Skill/Job Recommender application is a web based project. The purpose of this project is 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.

## **CHAPTER 2**

### **LITERATURE SURVEY**

#### **LITERATURE SURVEY 1:**

**NAME OF THE PAPER :** Job Recommendation based on Job Seeker Skills.

**NAME OF THE AUTHOR :** Jorge Valverde-Rebaza ,Ricardo Puma ,Paul Bustios,Nathalia C. Silva.

**JOURNAL PUBLISHED :** First Workshop on Narrative Extraction From Text co-located with 40th European Conference on Information Retrieval.

**PUBLISHED MONTH :** March

**PUBLISHED YEAR :** 2018

**OBJECTIVE OF THE PROJECT :** 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

#### **LITERATURE SURVEY 2:**

**NAME OF THE PAPER :** A survey of job recommender systems.

**NAME OF THE AUTHOR :** Shaha Alotaibi.

**JOURNAL PUBLISHED :** International Journal of Physical Sciences

**PUBLISHED MONTH :** July

**PUBLISHED YEAR :** 2012

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

**TECHNOLOGY USED** : Boolean search methods

### **LITERATURE SURVEY 3:**

**NAME OF THE PAPER** : A Research of Job Recommendation System Based on Collaborative Filtering.

**NAME OF THE AUTHOR** : Cheng Yang, Yingya Zhang, Zhixiang Niu. **JOURNAL PUBLISHED** : 2014 Seventh International Symposium on Computational Intelligence and Design.

**PUBLISHED MONTH** : December

**PUBLISHED YEAR** : 2014

**OBJECTIVE OF THE PROJECT** : 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.

**TECHNOLOGY USED** : Collaborative filtering algorithm.

### **LITERATURE SURVEY 4:**

**NAME OF THE PAPER** : Job Recommendation through Progression of Job Selection.

**NAME OF THE AUTHOR** : Amber Nigam, Aakash Roy, Hartaran Singh, Harsimran Waila.

**JOURNAL PUBLISHED** : 2019 IEEE 6th International Conference on Cloud Computing and Intelligence Systems(CCIS).

**PUBLISHED MONTH** : April

**PUBLISHED YEAR** : 2020

**OBJECTIVE OF THE PROJECT** : It uses the candidates' job preference over time to incorporate the dynamics associated with highly volatile job market. The best results have been achieved through Bidirectional Long Short Term Memory Networks (Bi-LSTM) with Attention for recommending jobs through machine learning.

**TECHNOLOGY USED** :Filter-based technique.

## **2.1 EXISTING PROBLEM:**

There had been attempts to develop a recommendation system by several researchers. One such implementation was done by Rafter et al. They had devised a hybrid Recsys CASPER for Job finding search engine. They had implemented an automated collaborative filtering module and personalized case retrieval module in their job recommendation system. ACF module utilized user behavior information such as read time and activity on the page during his time on the system to profile the user. Similarity measure such as the Jaccard index and other clustering algorithms was used for similar grouping user against target user. Their other module PCR finds the similarity between the user's query and jobs in the system. The module computes similarity with a target user's query and jobs from the job case base using different similarity measures.

## 2.2 REFERENCES:

1. LinkedIn
2. Indeed
3. Naukri
4. Glassdoor
5. Hirect

## 2.3 PROBLEM STATEMENT DEFINITION:

A problem statement is a concise description of the problem or issues a project seeks to address. The problem statement identifies the current state, the desired future state and any gaps between the two. A problem statement is an important communication tool that can help ensure everyone working on a project knows what the problem they need to address is and why the project is important.

### Customer Problem Statements:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Unemployed	Find a job	It takes a long time	I can't find a right platform	Sad and frustrated
PS-2	Recruiter	Hire a skilled candidate	I can't find a skilled candidate	The platform doesn't provide any skilled applicants	Irritated and Unsatisfied
PS-3	Unemployed	Find a job	I can't find a job which suits my skills	I don't have connections with large companies and well skilled people	Disappointing
PS-4	Job Seeker	Find a job	It takes a long time	I can't find a platform with user friendly features	Hopeless

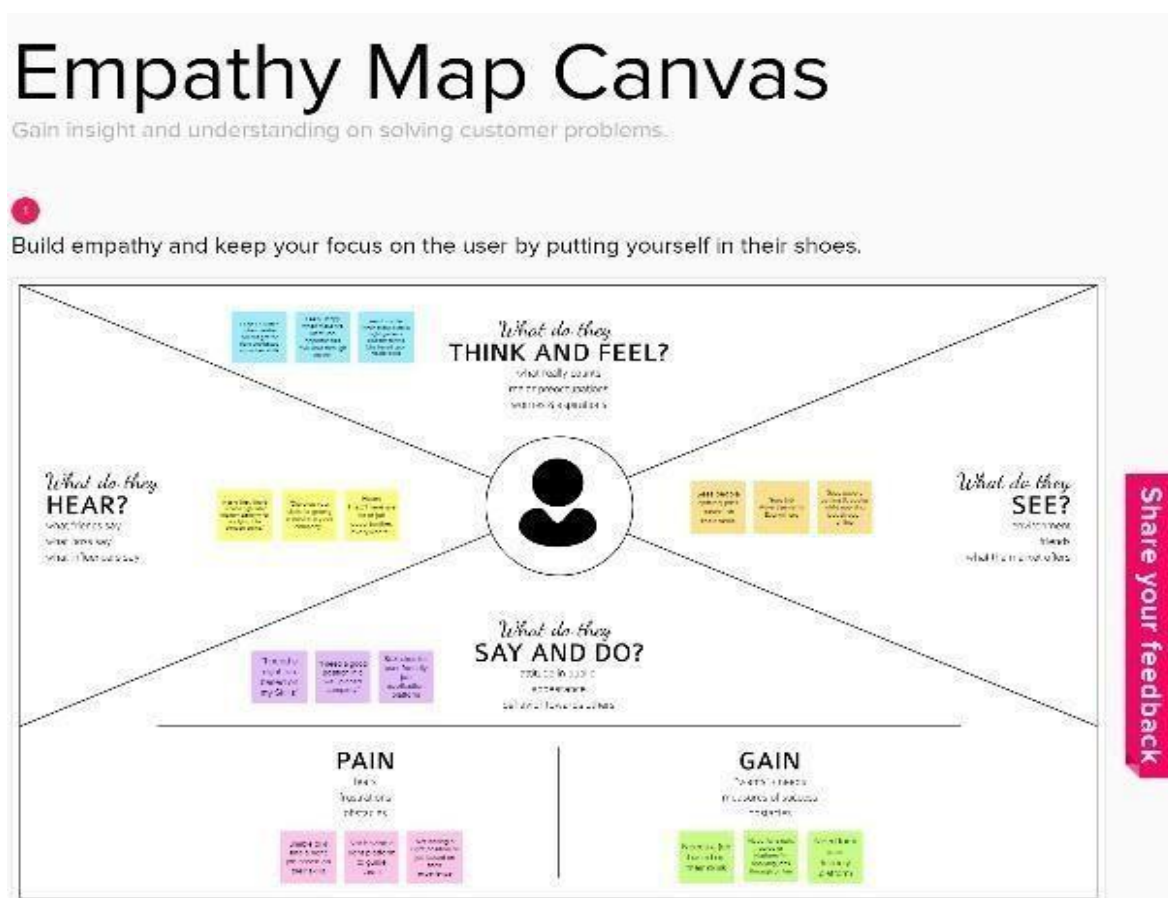


## CHAPTER 3

### IDEATION & PROPOSED SOLUTION

#### 3.1 EMPATHY MAP CANVAS:

An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers. Much like a user persona, an empathy map can represent a group of users, such as a customer segment. The empathy map was originally created by Dave Gray and has gained much popularity within the agile community.



### **3.2 IDEATION & BRAINSTORMING:**

Ideation and the practise of brainstorming, a particular method for coming up with fresh ideas, are frequently closely related. The main distinction between ideation and brainstorming is that whereas brainstorming is nearly often done in groups, ideation is typically seen as being more of a solitary endeavour. A group of people are frequently gathered for a brainstorming session to generate either fresh, general ideas or solutions to specific problems or circumstances. On instance, a large firm that has discovered it is the target of a significant lawsuit might wish to consult with its top executives to come up with ideas for how to publicly respond to the case being filed. In a brainstorming session, participants are encouraged to freely share any ideas that may come to mind. According to the theory, by coming up with a lot of ideas, the brainstorming group is more likely to find a workable solution to the problem they are trying to solve. With the creation of various brainstorming software tools, such Brightidea and Idea wake, the distinction between ideation and brainstorming has gotten a little bit more hazy. These software applications are made to inspire staff members to come up with fresh suggestions for enhancing business operations and, eventually, bottom-line profitability. The applications frequently mix the ideation and brainstorming processes in that they can be used by individual employees, but businesses can replicate brainstorming sessions by having multiple employees use the software to produce fresh ideas for a particular problem.



## 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



### 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

The Job seekers needs a efficient job recommender system so that the job seekers get jobs based on their skills



### 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

### TIP



You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

### Ajai Inith

Web Scraping through out the internet for data extraction	Categorizing all the collected data under various job sectors	Content based filtering based upon the user skills
Data preprocessing based on the job seekers profile	Recommending top jobs which were in current trend	Filtering companies based on the users review

### Goutham

Assessing organization locations through job recommender application	Notifying job seekers by mail or sms based on their job preferences	Generating resumes using job recommender application
Job seekers can add their friends and organization people in their connection list	Users can create groups among your friends to discuss about job opportunities and sharing ideas on latest technologies	Job seekers are able to switch their profile private and public

### Braian gibson

Spam messages are detected and notified to job seekers	Job seekers can identify large and small organizations by different verification marks	Assessing permissions like detecting location, camera and storage are updated
Tutorial for guiding new job seekers about how to use the job recommender application	Job seekers can able to view people who view their profile	Quizes are available based on user skills to improve their skills

### Sakthivel

Suggesting best positions based on their job sector field	Supervised techniques to process data extracted from the job seekers	Contacts who were using job recommender application will be notified to user
Able to interact with organization people through chat	Articles based on latest technologies can be posted in job recommender application	Users reply from organization after applying for a job post can be notified

3

### Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes

## SECURITY

- Supervised techniques to prevent data extracted from the job seekers
- Spam messages are detected and notified to job seekers
- Job seekers are able to watch their profile private and public
- Job seekers can able to view people who view their profile
- Accounting permissions for allowing business owners and change are updated

#### TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

## DATA EFFICIENCY

- Web Scraping through out the internet for data extraction
- Categorizing all the collected data under various job sectors
- Content based filtering based upon the users skills
- Data preprocessing based on the job seekers profile
- Accessing organization locations through job or career site applications
- Job seekers can verify large and small organizations by different verification marks

## COMMUNICATION

- Feedback who were using with recommendation application will be notified to user
- Also it more groups among organizations provide about job opportunities and salary data on their intranet
- Job seekers can add their friends and organization people in their connection list
- Able to interact with organization people through chat

## FEEDBACK

- Filtering companies based on the users review
- User reply how organization after applying for a job just can be decided
- Generating resources using job recommender application

4

**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.

🕒 20 minutes



### 3.3 PROPOSED SOLUTION:

#### Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S. No	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"> <li>Job seekers need an efficient job recommender system so that the job seekers get jobs based on their skills.</li> </ul>
2.	Idea / Solution description	<ul style="list-style-type: none"> <li>Content Based Filtering based on the user skills.</li> <li>Filtering Companies Based On User's review</li> <li>Quizzes based on user's skills.</li> </ul>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>Generates resume for job seekers.</li> <li>Spam Messages are detected and notified for users.</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>Free Access of all features to every job seekers.</li> <li>Notifies the status of Job seekers.</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>Advertising about the product.</li> <li>Articles about Latest Technologies and job updates are notified.</li> </ul>
6.	Scalability of the Solution	<ul style="list-style-type: none"> <li>Scalable in Improving the Skills of job seekers through quizzes.</li> <li>Scalability in Searching Jobs for every registered users.</li> <li>Scalability in Finding a user-friendly environment.</li> </ul>



### 3.4 PROBLEM SOLUTION FIT:

Problem-Solution Fit - this occurs when you have evidence that customers care about certain jobs, pains, and gains. At this stage you've proved the existence of a problem and have designed a value proposition that addresses your customers' jobs, pains and gains. Unfortunately you still do not have clear evidence that your customer really care enough about your value proposition enough to buy it.

Problem-Solution fit canvas 2.0		Purpose / Vision	
Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Who is your customer? I.e. working parents of 0-5 y.o. kids  1. Persons who are seeking jobs. 2. Recruiters who select candidates.	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> What constraints prevent your customers from taking action or limit their choices of solutions? I.e. spending power, budget, no cash, network connection, available devices.  1. Concern about misuse of user data. 2. Lack of knowledge about the product. 3. Time Consumption. 4. Worries about strange connections. 5. Potential scam.	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? I.e. pen and paper is an alternative to digital notetaking  Pros: 1. Users uploading data to their profile. 2. Marketing about company facilities and infrastructure. Cons: 1. User upload false data in their profile. 2. Occurrence of Scams and fraud activities.
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one, explore different sides.  1. Create a user friendly job recommender application 2. Content based filtering based on user skills. 3. Techniques to preserve user data. 4. Improve the skills of job seekers.	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> What is the real reason that this problem exists? What is the back story behind the need to do this job? I.e. customers have to do it because of the change in regulations.  1. Some Job recommender platforms are untrusted 2. Some platforms ask payments for accessing their application. 3. Users upload fake data. 4. Users fail to improve their skills they lack. 5. Some companies fail to send acknowledgements on time after applying for jobs.	<b>7. BEHAVIOUR</b> <span>BE</span> What does your customer do to address the problem and get the job done? I.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (I.e. Greenpeace)  1. User gets sad after knowing that they have applied for fraudulent jobs. 2. User feels unhappy to see some websites asking payments for accessing some features. 3. Cheating during recruitment process. 4. Recruiters gets irritated to see people applying for jobs with inadequate skills.
Identify strong TR & EM	<b>3. TRIGGERS</b> <span>TR</span> What triggers customers to act? I.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news. 1. Job alerts 2. Quiz alerts 3. Job acknowledgements from recruiters after applying for jobs.	<b>10. YOUR SOLUTION</b> <span>SL</span> If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.  To develop an end-to-end web application which has lot of job openings. Through job search API jobs will be recommended based on user skills. At the same time job seekers can improve their knowledge and skills. In addition to this a chat will be guiding 24*7 for finding right jobs based on user skills.	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>8.1 ONLINE</b> What kind of actions do customers take online? Extract online channels from #7 1. Apply for jobs. 2. Taking quiz assessments for improving their skills  <b>8.2 OFFLINE</b> What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development. 1. Finalizing paperwork. 2. Final level of recruitment process. 3. Checking out companies infrastructure and locations.
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> How do customers feel when they face a problem or a job and afterwards? I.e. lost, insecure > confident, in control - use it in your communication strategy & design. Emotion Before: Sad when there is no user friendly job recommender application. Emotion After: Happy to see when there is a user friendly platform for applying jobs and improve user skills.		



Problem-Solution fit canvas is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 license  
 Created by Daria Nepriakhina / Amaltama.com





## **CHAPTER 4**

### **REQUIREMENT ANALYSIS**

What is Requirement Analysis ?:

It is the process of determining user expectations for a system under consideration. These should be quantifiable and detailed.

Requirement Analysis:

- > Serves as a foundation for test plans and project plan
- > Serves as an agreement between developer and customer
- > Process to make stated and unstated requirements clear
- > Process to validate requirement for completeness, ambiguity and feasibility.

#### **4.1 FUNCTIONAL REQUIREMENT:**

Functional requirements specify what a system should be able to do through computations, technical details, data manipulation and processing, and other specialised functions. Use cases, which are used to represent behavioural requirements, explain all the instances in which the system makes use of the functional requirements. Non-functional requirements, commonly referred to as "quality requirements," which place restrictions on the design or execution, support functional requirements (such as performance requirements, security, or reliability). Non-functional requirements often take the form "system shall be,"

while functional needs are typically articulated in the form "system must do." While non-functional needs are defined in the system architecture, the plan for accomplishing functional requirements is detailed in the system design. Functional requirements, as used in requirements engineering, outline specified outcomes of a system. Functional requirements are product features or functions that developers must implement to enable users to accomplish their tasks. So, it's important to make them clear both for the development team and the stakeholders. Generally, functional requirements describe system behaviour under specific conditions. For example: The system sends an approval request after the user enters personal information. A search feature allows a user to hunt among various invoices if they want to credit an issued invoice. The system sends a confirmation email when a new user account is created.

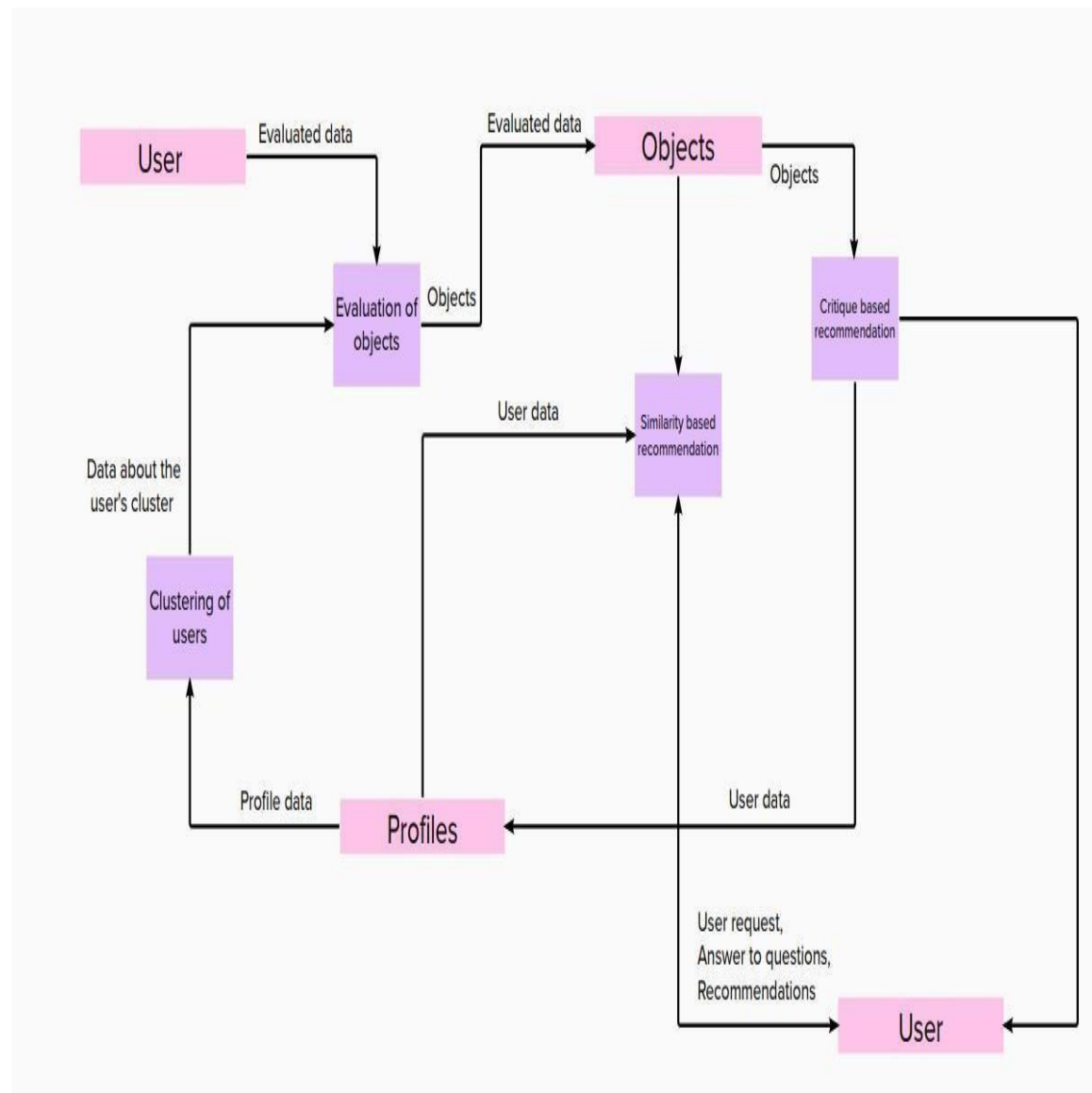
#### **4.2 NON-FUNCTIONAL REQUIREMENT:**

In general, non-functional requirements outline what a system is supposed to be rather than what it should be able to perform. Functional requirements are typically expressed as "system shall do," an individual action or component of the system, maybe explicitly in terms of a mathematical function, or as a black box description of an input, output, process, and control functional model, also known as an IPO Model. Non-functional requirements, on the other hand, have the form of "system shall be," which refers to a general characteristic of the system as a whole or of a particular aspect rather than a specific function. The overall characteristics of the system frequently determine whether a development project is a success or a failure. Non-functional requirements are frequently referred to as a product's "quality traits" in error.

## CHAPTER 5

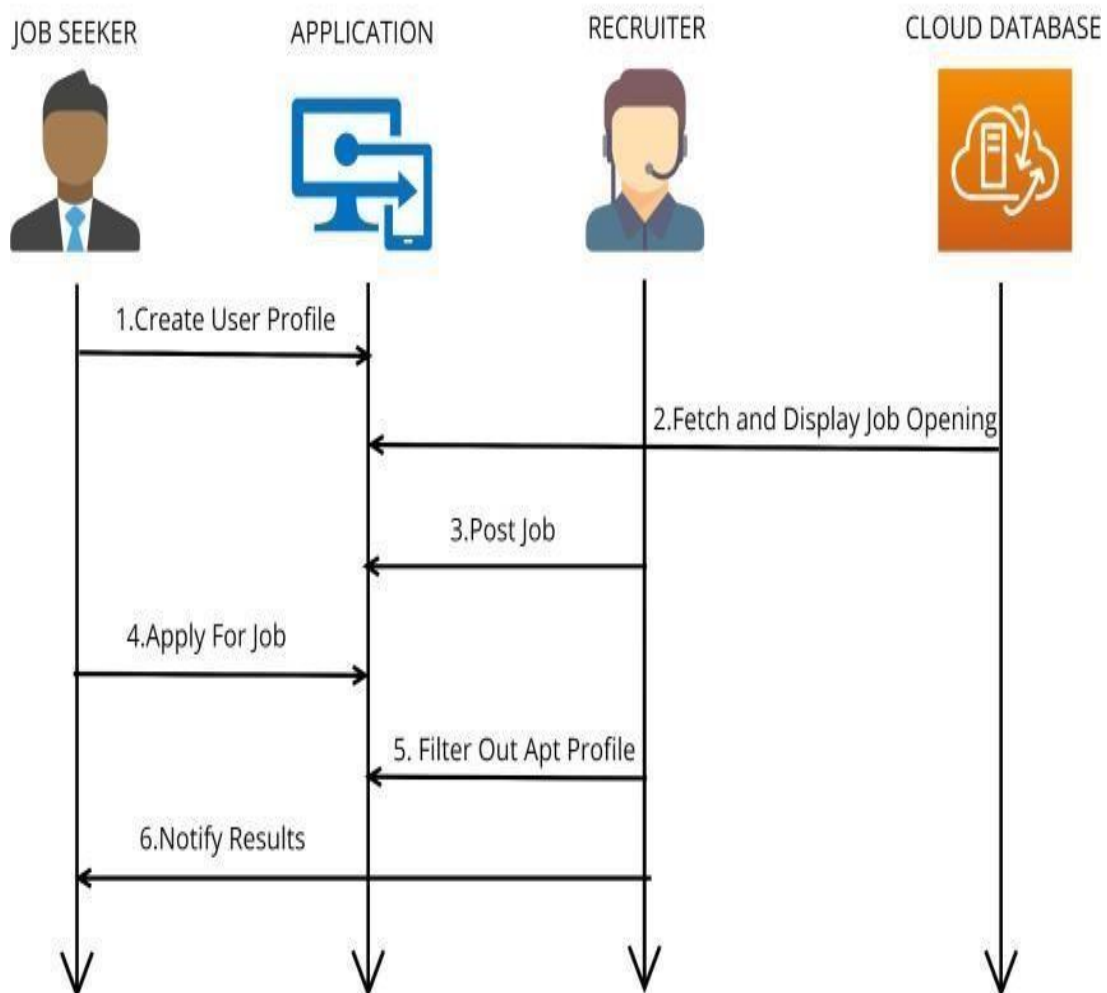
### PROJECT DESIGN

#### 5.1 DATA FLOW DIAGRAM:

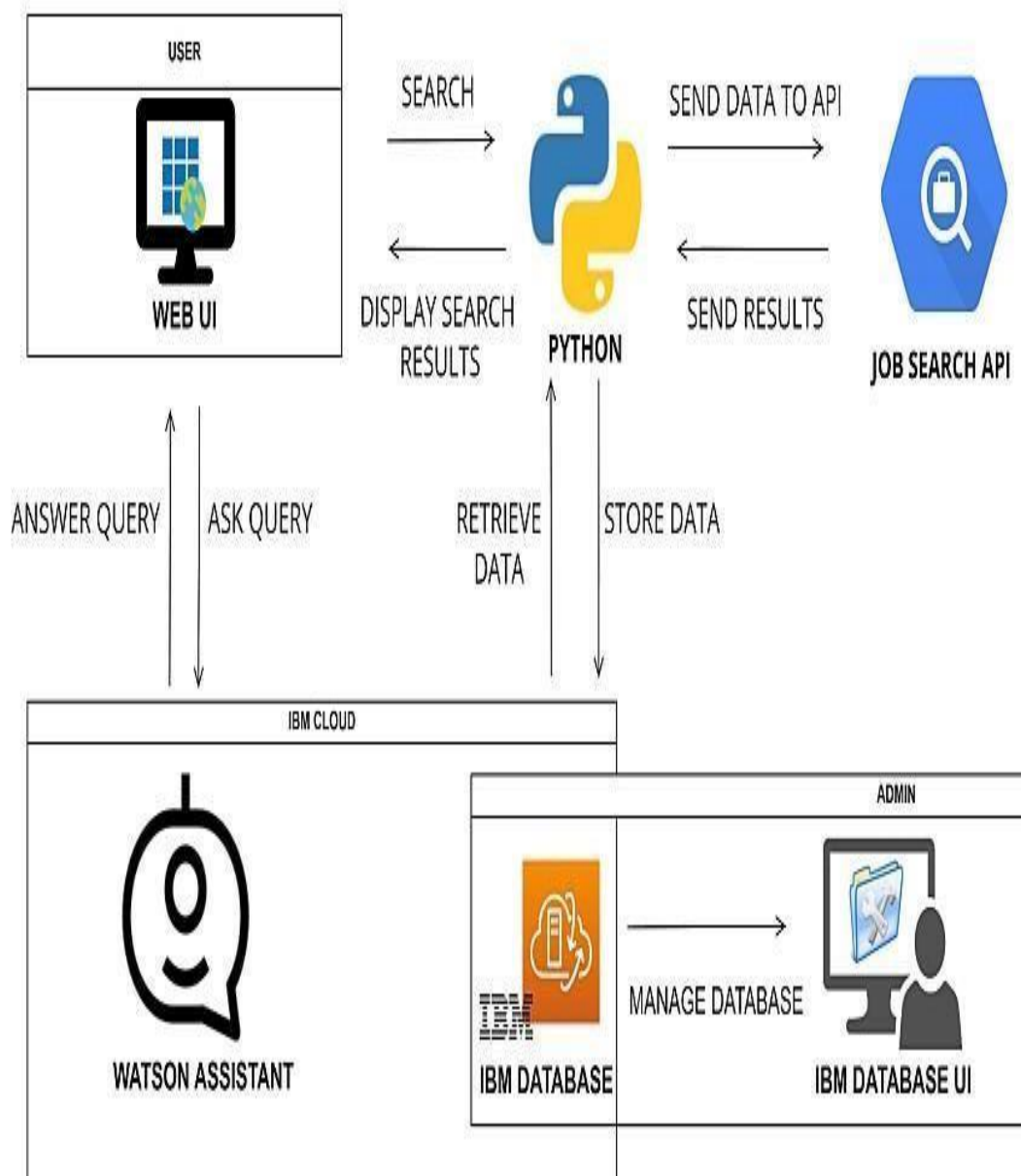


## 5.2 SOLUTION & TECHNICAL ARCHITECTURE:

### SOLUTION ARCHITECTURE



## TECHNICAL ARCHITECTURE



**Table 1: Components and Technologies:**

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application	HTML, CSS, JavaScript
2.	Search	Search for jobs using Content-based filtering	Python
3.	Chat	Chat with IBM Watson Assistant	IBM Watson Assistant
4.	User Application	The user applies for the desired company	Python Flask
5.	Cloud Database	Database Service on Cloud	IBM DATABASE
6.	Job Search API	Job Search API is used for finding relevant results	Google Job Search API
7.	Infrastructure	Application Deployment on Local System/Cloud Local Server	Local, Cloud Foundry, Kubernetes

**Table 2: Application Characteristics:**

S.NO	Characteristics	Description	Technology
1.	Open source framework is used	Python flask framework is used	Python Flask
2.	Security Implementations	Mandatory access control, preventive security controls and supervised techniques are used	SHA-256, Encryption techniques, IAM controls, OWASP, Machine learning
3.	Scalable Architecture	Three-tier architecture	Presentation tier-HTML, CSS, Javascript Application tier-Python Data tier-IBM DATABASE
4.	Availability	Use of Load balancing to distribute network traffics across servers	IBM Load balancer
5.	Performance	No. of requests per second, use of cache, use of CDN's	IBM Content delivery network

**5.3 USER STORIES:**

User Type	Functional Requirement (Epic)	User Story Number	User Story/Task	Acceptance criteria	Priority	Release
Customer	Registration	USN-1	As a user, I can register for the application by entering my email, and 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 a confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Microsoft account	I can register & access the dashboard with Microsoft Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register & access the dashboard with Gmail Login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering my email & password	I can access the dashboard	High	Sprint-1
	Search	USN-6	As a user, I can search for the desired companies	Companies related to the search terms are listed	High	Sprint-2

	Apply	USN-7	As a user, I can apply for a company	Application is submitted to the company	High	Sprint-2
	Review	USN-8	As a user, I can review and comment my opinions about the company	The review is listed on the company's profile	Medium	Sprint-2
Admin	Forward	USN-9	As an admin, I must forward the applications to the respective companies	The application is received by the company	High	Sprint-1
	Send Confirmation	USN -10	A confirmation mail is sent from the respected company	Confirmation is received by the user	High	Sprint-2
	Manage Review	USN-11	As an admin, I must make the reviews appear on the company's profile	Reviews appear on the company's page	Low	Sprint-2

# **CHAPTER 6**

## **PROJECT PLANNING & SCHEDULING**

‘Project Planning and Scheduling’, though separate, are two sides of the same coin in project management. Fundamentally, ‘Project planning’ is all about choosing and designing effective policies and methodologies to attain project objectives. While ‘Project scheduling’ is a procedure of assigning tasks to get them completed by allocating appropriate resources within an estimated budget and time-frame. The basis of project planning is the entire project. Unlikely, project scheduling focuses only on the project-related tasks, the project start/end dates and project dependencies.

### **Project Planning:**

The project planning phase refers to:

- Developing a project to make it ready for investment
- Determines the jobs/tasks required to attain project objectives

### **6.1 SPRINT PLANNING & ESTIMATION:**

Sprint planning is an event in scrum that kicks off the sprint. The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team. In scrum, the sprint is a set period of time where all the work is done. However, before you can leap into action you have to set up the sprint.



**Sprint**

**Functional**

**Requirement (Epic)**

**User Story**

**Number**

**User Story / Task**

**Story Points Priority**

**Team Members**

Sprint-1

Create IBM Watson

Assistant Service

USN-1

As a user, I can see a Watson Assistant.

8

High

All Member

Sprint-1

Chatbot Skills

Creation

USN-2

As a user, I will see the Chatbot having  
banking-related skills

7

Medium

All Member

Sprint-1

Creating Saving

Account Action

USN-3

As a user, I can converse with the chatbot  
regarding saving account-related queries  
and Action.

5

High

All Member

Sprint-2

Creating Current

Account Action

USN-4

As a user, I can converse with the chatbot  
regarding current account-related queries  
and Action.

8

Medium

All Member

Sprint-2

Creating Loan

Account Action

USN-5

As a user, I can converse with the chatbot regarding loan account-related queries and

Action.

12

High

All MemberSprint-3

Creating General

Query Action

USN-6

As a user, I can converse with the chatbot regarding general queries and Action.

9

High

All Member

Sprint-3

Creating Net Banking

Action

USN-7

As a user, I can converse with the chatbot regarding net banking-related queries and Action.

6

Medium

All Member

Sprint-3

Creating Assistant &

Integrate With Flask

Web Page Build

Python Code

USN-8

As a user, I can see a flask web page for banking chatbot.

5

High

All Member

Sprint-4

Creating Assistant &

Integrate With Flask

Web Page Build

Python Code

USN-9

As a user, I can web pages integrated with a chatbot.

5

High

All Member

Sprint-4

Run The Application

USN-10

As a user, I can communicate with the chatbot 24\*7 and easy to access.

15

Medium

All Member

## 6.2 SPRINT DELIVERY SCHEDULE:

**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

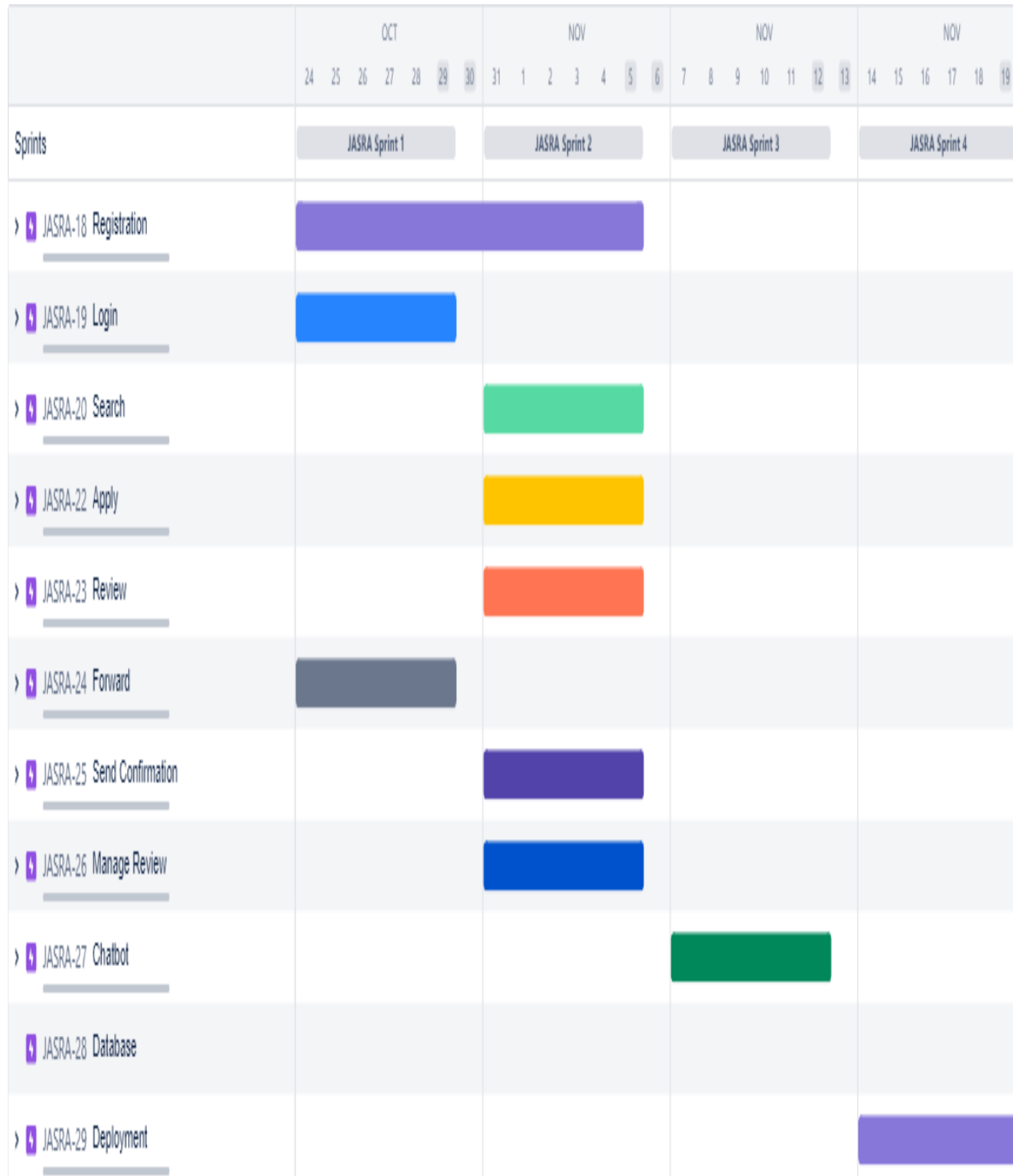
**Velocity:**

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)

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

## 6.3 REPORTS FROM JIRA:

Jira's value proposition heavily relies on its reporting capabilities. By delivering critical insights in real time, reporting elevates the value of your Jira deployment and empowers your team to take informed decisions that improve output and performance. It is crucial to evaluate each project's status in order to accomplish objectives and control workloads. Jira reports can aid teams in quickly identifying and resolving performance, bandwidth, and workflow obstacles, enabling them to stay on top of both short-term and long-term projects. It's crucial to note that Jira provides a variety of tools and reports to assist you in getting a clear picture of your team's progress, each with unique advantages, restrictions, and applications.



# CHAPTER 7

## CODING & SOLUTIONING

### 7.1 FEATURE 1:

#### register.html

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Register</title>
8   <link rel="stylesheet" href="../../static/css/register.css">
9   <script src="https://kit.fontawesome.com/d0b7883e6.js" crossorigin="anonymous"></script>
10  <link href="https://fonts.googleapis.com/css2?family=Nunito:wght@900&display=swap" rel="stylesheet">
11  <link href="https://fonts.googleapis.com/css2?family=Caveat:wght@900&display=swap" rel="stylesheet">
12  <link href="https://fonts.googleapis.com/css2?family=Klee:wght@900&display=swap" rel="stylesheet">
13  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Gumm+LibreEffect:neon">
14  <script>
15    window.watsonAssistantChatOptions = {
16      integrationID: "326eaf57-00c1-4160-92c5-7364cc2b36a2", // The ID of this integration.
17      region: "au-syd", // The region your integration is hosted in.
18      serviceInstanceID: "7b7ab0d0-8e70-4940-a46e-182d96c1b179", // The ID of your service instance.
19      onLoad: function(instance) { instance.render(); }
20    };
21    setTimeout(function(){
22      const t=document.createElement('script');
23      t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";
24      document.head.appendChild(t);
25    });
26  </script>
27 </head>
28 <body>
29
30   <form method="post">
31     
32     <a href="#" class="back"><i class="fa-solid fa-circle-arrow-left"></i></a>
33     <h1>Register</h1>
34     <label><i class="fa-solid fa-user"></i><input type="text" placeholder="Enter your name" name="name" required/></label>
35     <input type="text" placeholder="Enter your name" name="name" required/>
36     <label><i class="fa-solid fa-user-plus"></i><input type="text" placeholder="User name" name="username" required/></label>
37     <input type="text" placeholder="Enter your user name" name="username" required/>
38     <label><i class="fa-solid fa-envelope"></i><input type="text" placeholder="Email" name="email" required/></label>
39     <input type="email" placeholder="Enter your Email address" name="email" required/>
40     <label><i class="fa-solid fa-lock"></i><input type="password" placeholder="Password" name="password" required/></label>
41     <input type="password" placeholder="Enter your password" name="password" required/>
42     <button type="submit" class="btn btn-primary">Sign Up</button>
43     <a href="#" class="login" style="display: inline-block; margin-left: 10px;">Already have an account?</a>
44   </form>
45 </body>
46 </html>

```

**login.html**

```

3 <!DOCTYPE html>
4 <html lang="en">
5 <head>
6   <meta charset="UTF-8">
7   <meta http-equiv="X-UA-Compatible" content="IE=edge">
8   <meta name="viewport" content="width=device-width, initial-scale=1.0">
9   <title>Login Page</title>
10  <link rel="stylesheet" href="/static/css/login.css">
11  <script src="https://kit.fontawesome.com/d6b7882e6.js" crossorigin="anonymous"></script>
12  <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700&display=swap" rel="stylesheet">
13  <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700&display=swap" rel="stylesheet">
14  <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700&display=swap" rel="stylesheet">
15  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Oswald&display=swap">
16  <script>
17    window.watsonAssistantChatOptions = {
18      integrationID: "306e6f57-00c1-4160-92c5-73d4cc2b36a2", // The ID of this integration.
19      region: "au-syd", // The region your integration is hosted in.
20      serviceInstanceID: "b07a8c0d-9e7b-4940-a46e-182b96c1b179", // The ID of your service instance.
21      onLoad: function(instance) { instance.render(); }
22    };
23    setTimeout(function(){
24      const t=document.createElement('script');
25      t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions.clientVersion || "latest") + "/WatsonAssistantChatEntry.js";
26      document.head.appendChild(t);
27    });
28  </script>
29 </head>
30 <body>
31   <form method="post" >
32
33     
34     <a href="#" class="back"><i class="fa-solid fa-circle-arrow-left"></i></a>
35     <h1>Login</h1>
36     {% if error %}
37     <div class="alert alert-danger alertmsg">
38       {{error}}<a style="font-size:17px;" href="#">&#128533;</a>
39     </div>
40     {% endif %}
41     <label>User name</label>
42     <input type="text" placeholder="Enter your user name" name="username" required>
43     <label>Password</label>
44     <input type="password" placeholder="Enter your password" name="password" required>
45
46     <button type="submit">Login</button>
47     <a href="/forgot" class="a1">Forgot password?</a>
48     <a href="/register" class="a2">Don't have an account?Register?</a>
49
50   </form>
51 </body>
52 </html>
53
54

```

## 7.2 FEATURE 2:

**index.html**

```

1 <!--(HTML head)-->
2 <html lang="en">
3
4 <head>
5
6   <meta charset="UTF-8">
7   <meta http-equiv="X-UA-Compatible" content="IE=edge">
8   <meta name="viewport" content="width=device-width, initial-scale=1.0">
9   <title>Document</title>
10
11   <link href="https://cdn.jsdelivr.net/npm/bootstrap@3.2.2/dist/css/bootstrap.min.css" rel="stylesheet"
12     integrity="sha384-Imb83r8E6i9eW6sLrUkAGT77644RC6fE6J86219mJm38u867781895tpe9304" crossorigin="anonymous">
13   <script src="https://cdn.jsdelivr.net/npm/bootstrap@3.2.2/dist/js/bootstrap.bundle.min.js"
14     integrity="sha384-8K6E2544o1Y75Axl9ab3xkzP86Xhd41KC7bBew19G4j1eXt8IvK1j6eL8748" crossorigin="anonymous"></script>
15   <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.0/dist/umd/popper.min.js"
16     integrity="sha384-8k6E2544o1Y75Axl9ab3xkzP86Xhd41KC7bBew19G4j1eXt8IvK1j6eL8748" crossorigin="anonymous"></script>
17   <script src="https://cdn.jsdelivr.net/npm/bootstrap@3.2.2/dist/js/bootstrap.min.js"
18     integrity="sha384-8K6E2544o1Y75Axl9ab3xkzP86Xhd41KC7bBew19G4j1eXt8IvK1j6eL8748" crossorigin="anonymous"></script>
19
20   <script src="https://kit.fontawesome.com/d0b7893e6.js" crossorigin="anonymous"></script>
21   <link rel="stylesheet" href="https://static/css/index.css">
22   <link href="https://fonts.googleapis.com/css?family=Roboto:400,700&subset=latin" rel="stylesheet">
23   <link href="https://fonts.googleapis.com/css?family=Roboto:400,700&subset=latin" rel="stylesheet">
24   <link href="https://fonts.googleapis.com/css?family=Roboto:400,700&subset=latin" rel="stylesheet">
25
26
27   <script>
28     window.watsonAssistantChatOptions = {
29       integrationID: "326e5f1-86c1-4168-81c3-734cc3b36a2", // The ID of this integration.
30       region: "us-south", // The region your integration is hosted in.
31       serviceInstanceID: "b0a6c0d-b6f8-4948-91a6-18289c1b170", // The ID of your service instance.
32       onLoad: function(instance) { instance.render(); }
33     };
34     setTimeout(function(){
35       const t=document.createElement('script');
36       t.src="https://web-chat.global/assistant/watson.appdomain.cloud/versions/" + window.watsonAssistantChatOptions.clientVersion || 'latest' + "/watsonAssistantChatEntry.js";
37       document.head.appendChild(t);
38     });
39   </script>
40
41 </head>
42
43 <body>
44
45
46   <div class="header">
47
48
49     <div class="brand" href="#">
50       
51     </div>
52
53     <div class="nav-link" aria-current="page" href="#">Home</div>
54
55     <div class="nav-link" href="#">Job Feed</div>
56
57     <div class="nav-link" href="#">Details</div>
58
59     <div class="nav-link" href="#">About</div>
60
61     <div class="nav-link" href="#">Contact</div>
62
63     <div class="nav-link" id="login" href="#">LOGIN</div>
64   </div>
65
66
67   <!-- IF succ 33

```





```

121 </div class="main-content row">
122
123 <div class="count col-md-3">
124
125 <h3>2025</h3>
126
127 <div id="counter">
128 <!-- counts -->
129 </div>
130 </div>
131
132 <div class="count col-md-3">
133
134 <h3>COMPANY</h3>
135
136 <div id="counter">
137 <!-- counts -->
138 </div>
139 </div>
140
141 <div class="count col-md-3">
142
143 <h3>MEMBERS</h3>
144
145 <div id="counter">
146 <!-- counts -->
147 </div>
148 </div>
149
150 <div class="count col-md-3">
151
152 <h3>RESUME</h3>
153
154 <div id="counter">
155 <!-- counts -->
156 </div>
157 </div>
158 </div>
159
160 <div class="row">
161 <div class="col-12 contact">
162 
163 <p>Follow us:</p>
164 <a href="#"><div class="fa-brands fa-twitter"></div></a>
165 <a href="#"><div class="fa-brands fa-github"></div></a>
166 <a href="#"><div class="fa-brands fa-linkedin"></div></a>
167 <a href="#"><div class="fa-solid fa-envelope"></div></a>
168 <a href="#"><div class="fa-brands fa-telegram"></div></a>
169 </div>
170 </div>
171 <div class="row 8">
172 <div class="col-4 4">
173 <h4>About us</h4>
174 <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Accusandae dignissimos repellat qui quasi, et inventore sapiente. Consequatur dolores esse impedit assumenda dignissimos expedita sequi, culpa et sapiente quisquam tenetur nuncquam!</p>
175
176 </div>
177
178 <div class="col-4 4">
179 <h4>Trending Jobs</h4>
180 <ul class="list">
181 <li><div class="Developer"></div>
182 <div class="Developer"></div>
183 <div class="Designer"></div>
184 <div class="Developer"></div>
185 <div class="Developer"></div>
186 </ul>

```

```

178 </div class="col-4">
179 <div>Freelancing Jobs</div>
180 <div class="list">
181 <div>Developer</div>
182 <div>SIS Developer</div>
183 <div>Designer</div>
184 <div>Developer</div>
185 <div>SIS Developer</div>
186 </div>
187 </div>
188 <div class="col-4">
189 <div>Contact us</div>
190 <div class="fe-solid fe-envelope"></div> <a href="mailto:olitejobs2@gmail.com">p</a>
191 <div class="fe-solid fe-phone"></div> 12345680 </div>
192 </div>
193 </div>
194
195
196 <script>
197 let counts = setInterval(updated);
198 let upto = 0;
199 function updated() {
200   var count = document.getElementById("counter1");
201   count.innerHTML = ++upto;
202
203
204   var count = document.getElementById("counter2");
205   count.innerHTML = ++upto;
206
207   var count = document.getElementById("counter3");
208   count.innerHTML = ++upto;
209
210   var count = document.getElementById("counter4");
211   count.innerHTML = ++upto;
212   if (upto === 3000) {
213     clearInterval(counts);
214   }
215 }
216
217 </script>
218
219
220 </body>
221
222
223
224 </html>

```

**jobfeed.html**

```

1 <!DOCTYPE html>
2 <html lang="en">
3   <link href="//netdna.bootstrapcdn.com/font-awesome/3.2.1/css/font-awesome.css" rel="stylesheet">
4   <head>
5     <meta charset="UTF-8">
6     <meta http-equiv="X-UA-Compatible" content="IE=edge">
7     <meta name="viewport" content="width=device-width, initial-scale=1.0">
8     <title>Joblist</title>
9     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css" rel="stylesheet"
10       integrity="sha384-bm06ZC6Rujkc0hHhWiBU1g9h38pHbjkNu3sgWJD0mmt4abprW348PDE38+sXkar6k3cp"
11       crossorigin="anonymous">
12     <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.min.js"
13       integrity="sha384-bm06ZC6Rujkc0hHhWiBU1g9h38pHbjkNu3sgWJD0mmt4abprW348PDE38+sXkar6k3cp"
14       crossorigin="anonymous"></script>
15     <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.6/dist/umd/popper.min.js"
16       integrity="sha384-bm06ZC6Rujkc0hHhWiBU1g9h38pHbjkNu3sgWJD0mmt4abprW348PDE38+sXkar6k3cp"
17       crossorigin="anonymous"></script>
18     <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js"
19       integrity="sha384-bm06ZC6Rujkc0hHhWiBU1g9h38pHbjkNu3sgWJD0mmt4abprW348PDE38+sXkar6k3cp"
20       crossorigin="anonymous"></script>
21     <script src="https://kit.fontawesome.com/6676836.js" crossorigin="anonymous"></script>
22     <link rel="stylesheet" href="static/css/joblist.css">
23   </head>
24   <script>
25     window.watsonAssistantChatOptions = {
26       integrationID: "336a9f31-86c1-4168-91c5-734cc2bba2", // The ID of this integration.
27       region: "us-sg", // The region your integration is hosted in.
28       serviceInstanceID: "b0b4bdc-bef9-4048-a04e-322b9c1a179", // The ID of your service instance.
29       onLoad: function(instance) { instance.render(); }
30     };
31     setImmediate(function() {
32       const t=document.createElement('script');
33       t.src="https://web-chat.global/assistant/watson.appmin.cloud/versions/" + window.watsonAssistantChatOptions.clientVersion || "latest" + "/watsonAssistantChatEntry.js";
34       document.head.appendChild(t);
35     });
36   </script>
37
38   </head>
39   <body>
40     <div class="header">
41
42       <div class="brand" href="#">
43         
44       </div>
45
46       <div class="nav-link" aria-current="page" href="/Home/">
47
48       <div class="nav-link" href="/jobfeed/">Job Feed </div>
49
50       <div class="nav-link" href="/login/">Details </div>
51
52       <div class="nav-link" href="">About </div>
53
54       <div class="nav-link" href="">Contact </div>
55
56       <div class="nav-link" id="log" href="/login/">Logout </div>
57     </div>
58
59
60     <div class="container">
61       <div class="row mt-4">
62
63         <div class="card" style="width: 300px">
64           
65           <div class="card-body">
66             <div class="card-title">SOFTWARE DEVELOPER</div>
67             <div class="card-text">2500 /hr</div>

```

```

69         </p>
70         Location : Chennai </p>
71         Experience : Freshers </p>
72         Qualification : Any Degree
73         </p>
74
75         <a href="#new" class="btn btn-warning" View Details </a>
76     </div>
77 </div>
78
79 <div class="card c1" style="width: 180px">
80     
81     <div class="card-body">
82         <h4 class="card-title">TEST ENGINEER </h4>
83         <h4 class="card-text">MONTREE </h4>
84
85         <p>
86             Location : Bangalore </p>
87             Experience : Freshers </p>
88             Qualification : Any Graduate
89             </p>
90             <a href="#montree" class="btn btn-warning" View Details </a>
91         </div>
92     </div>
93
94 <div class="card c1" style="width: 180px">
95     
96     <div class="card-body">
97         <h4 class="card-title">ANALYST </h4>
98         <h4 class="card-text">VENTISA </h4>
99
100         <p>
101             Location : Across India </p>
102             Experience : Freshers </p>
103             Qualification : Any Graduate
104             </p>
105             <a href="#ventisa" class="btn btn-warning" View Details </a>
106         </div>
107     </div>
108 </div>
109 </div>
110
111 <div class="container">
112     <div class="row m-5">
113
114         <div class="card c1" style="width: 180px">
115             
116             <div class="card-body">
117                 <h4 class="card-title">CUSTOMER SUPPORT </h4>
118                 <h4 class="card-text">MONTREE </h4>
119
120                 <p>
121                     Location : Bangalore </p>
122                     Experience : 1-3 years </p>
123                     Qualification : Bachelor Degree
124                     </p>
125                     <a href="#montree" class="btn btn-warning" View Details </a>
126                 </div>
127             </div>
128
129             <div class="card" style="width: 180px">
130                 
131                 <div class="card-body">

```

```

134         <p>
135             Location : Hyderabad </p>
136             Experience : 8-1 years</p>
137             Qualification : B.Tech
138         </p>
139         <a href="#hydrage" class="btn btn-warning">View Details </a>
140     </div>
141 </div>
142
143 <div class="card col style="width: 300px;">
144     
145     <div class="card-body">
146         <h class="card-title">JUNIOR SOFTWARE ENGINEER </h></div>
147         <h class="card-text">PARALLEL WIRELESS </h>
148     </div>
149
150     <p>
151         Location : Bangalore</p>
152         Experience : Freshers</p>
153         Qualification : B.E/B.Tech
154     </p>
155     <a href="#paralle" class="btn btn-warning">View Details </a>
156 </div>
157 </div>
158 </div>
159
160 <div class="container">
161     <div class="row w-5">
162
163         <div class="card col style="width: 300px;">
164             
165             <div class="card-body">
166                 <h class="card-title">SOFTWARE ENGINEER </h></div>
167                 <h class="card-text">I.G </h>
168             </div>
169
170             <p>
171                 Location : Bangalore</p>
172                 Experience : Freshers</p>
173                 Qualification : B.E/B.Tech/M.E/M.Tech
174             </p>
175             <a href="#ig" class="btn btn-warning">View Details </a>
176         </div>
177 </div>
178
179 <div class="card col style="width: 300px;">
180     
181     <div class="card-body">
182         <h class="card-title">JUNIOR DEVELOPER </h></div>
183         <h class="card-text">BHINCE </h>
184     </div>
185
186     <p>
187         Location : New Delhi</p>
188         Experience : Freshers</p>
189         Qualification : Bachelor degree
190     </p>
191     <a href="#bhince" class="btn btn-warning">View Details </a>
192 </div>
193 </div>
194
195 <div class="card col style="width: 300px;">

```

```

213
214 <div class="container bottom">
215   <div class="row mt-5">
216
217     <div class="card c1" style="width: 33%;">
218       
219       <div class="card-body">
220         <div class="card-title">SALES ACCOUNT MANAGER</div>
221         <div class="card-text">9</div>
222
223         <p>
224           Location : India</p>
225           Experience : 0-3 years</p>
226           Qualification : Bachelor Degree
227         </p>
228         <a href="#" class="btn btn-warning">View Details</a>
229       </div>
230     </div>
231
232     <div class="card" style="width: 33%;">
233       
234       <div class="card-body">
235         <div class="card-title">BUSINESS ANALYST</div>
236         <div class="card-text">VISIONNET</div>
237
238         <p>
239           Location : Bangalore</p>
240           Experience : FRESHERS</p>
241           Qualification : 10th/12th/D.I
242         </p>
243         <a href="#" class="btn btn-warning">View Details</a>
244       </div>
245     </div>
246
247     <div class="card c1" style="width: 33%;">
248       
249       <div class="card-body">
250         <div class="card-title">ASSOCIATE GRADUATE</div>
251         <div class="card-text">NTT</div>
252
253         <p>
254           Location : Chennai</p>
255           Experience : Freshers</p>
256           Qualification : Diploma/Bachelor Degree
257         </p>
258         <a href="#" class="btn btn-warning">View Details</a>
259       </div>
260     </div>

```

```

250         < class="card-title" ASSOCIATE GRADUATE /></div>
251         < class="card-text" NT />
252
253         <p>
254             Location : Chennai,IN
255             Experience : Freshers,IN
256             Qualification : Diploma/Bachelor Degree
257         </p>
258         < a href="#" class="btn btn-warning" View Details />
259     </div>
260
261 </div>
262
263 </div>
264
265 <button class="btn btn-warning" onclick="topFunction()" id="myBtn" title="Go to top">
266
267 </button>
268
269 <script>
270     let mybutton=
271     document.getElementById("myBtn");
272     window.onscroll=function()
273     {scrollFunction()};
274     function scrollFunction()
275     {if(document.body.scrollTop||
276     document.documentElement.scrollTop)
277     {
278         mybutton.style.display="block";
279
280     }else{
281         mybutton.style.display="none";
282     }
283     }
284
285     function topFunction(){
286         document.body.scrollTop=0;
287         document.documentElement.scrollTop=0;
288     }
289 </script>
290
291
292
293
294
295
296
297 </body>
298 </html>

```



## CHAPTER 8

### TESTING

#### 8.1 TEST CASES:

5	Test case ID	Feature Type	Component	Test Scenario	Pre-Requisite	Steps To Execute
6	LoginPage_TC_001	Functional	Home Page	Verify user is able to see the Login/Signup popup when user clicked on My account button		1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Signup popup displayed or not
7	LoginPage_TC_002	UI	Home Page	Verify the UI elements in Login/Signup popup		1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Signup popup with below UI elements: a.email text box b.password text box c.Login button d.New customer? Create account link e.Last password? Recovery password link

**8.2 USER ACCEPTANCE TESTING:****1. Purpose of Document**

The purpose of this document is to briefly explain the test coverage and open issues of the [ProductName] project at the time of the release to User Acceptance Testing (UAT).

**2. Defect Analysis**

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

### 3. Test Case Analysis

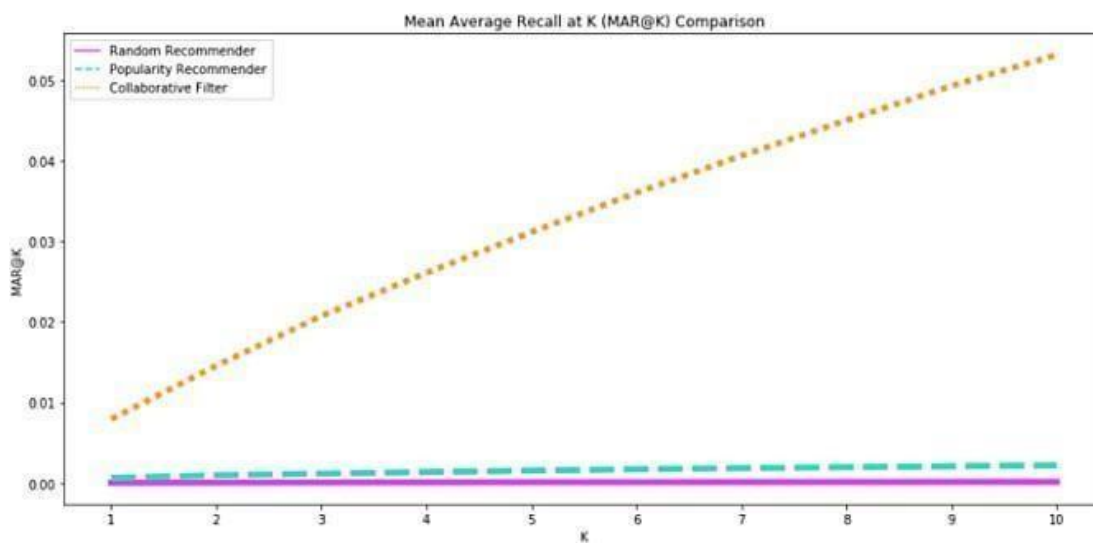
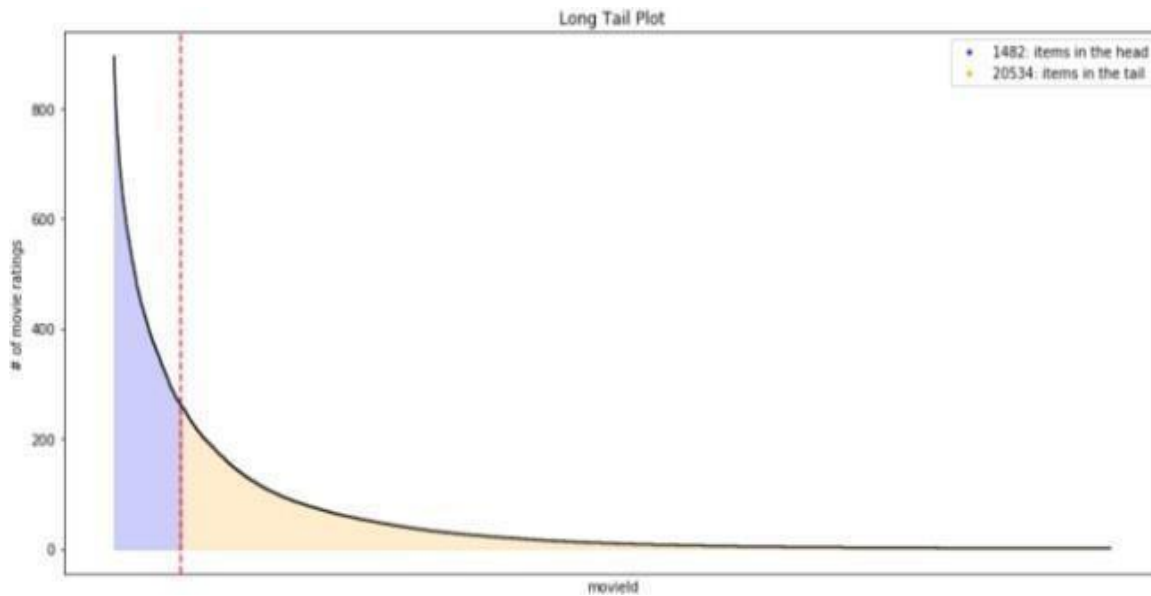
This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2

## CHAPTER 9

## RESULTS

### 9.1 PERFORMANCE METRICS:



## **CHAPTER 10**

### **ADVANTAGES & DISADVANTAGES**

#### **ADVANTAGES:**

- Skill/Job Recommender application is user-friendly
- Able to apply and post job offers at anytime anywhere
- Industries recruiting can advertise their company branches and facilities
- Feedbacks and queries are taken into concern and performs immediate action
- Able to apply jobs through chatbot
- Able to apply jobs based on user preferred skills

#### **DISADVANTAGES:**

- Needs an active internet connection
- Concern about misuse of user data
- Lack of skills may lead to difficulties in the recommender system
- Time Consumption
- Server traffic
- Cannot apply everyjobs through chatbot

## **CHAPTER 11**

### **CONCLUSION**

Skill/Job Recommender is a web-enabled project. This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity. The user is mainly more concerned about the validity of the data, whatever he is entering. There are checks on every stages of any new creation, data entry or updation so that the user cannot enter the invalid data, which can create problems at later date. Sometimes the user finds in the later stages of using project that he needs to update some of the information that he entered earlier. There are options for him by which he can update the records. Moreover there is restriction for his that he cannot change the primary data field. This keeps the validity of the data to longer extent. User is provided the option of monitoring the records he entered earlier. He can see the desired records with the variety of options provided by him. From every part of the project the user is provided with the links through framing so that he can go from one option of the project to other as per the requirement. This is bound to be simple and very friendly as per the user is concerned. That is, we can say that the project is user friendly which is one of the primary concerns of any good project. Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in a single database. Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time than manual system.

## **CHAPTER 12**

### **FUTURE SCOPE**

- This System being web-based and an undertaking of Cyber Security Division, needs to be thoroughly tested to find out any security gaps.
- A console for the data center may be made available to allow the personnel to monitor on the sites which were cleared for hosting during a particular period.
- Moreover, it is just a beginning; further the system may be utilized in various othertypes of auditing operation viz. Network auditing or similar process/workflow based applications...
- The future is and will remain unknown to us,but fact is that,till there is a issue of unemployment in the world of job market, the job portals will exist and will grow in proportionate with demand .
- Finding a job opportunity per your choice and qualification through a job portal is relatively easier.
- Many placement agencies are bringing their services online
- Eventually, as the site traffic grows and you build a good reputation you can move to charging employers.
- The job boards have to keep up with the shift in consumer base and market demand.
- Recruiters and job seekers are experiencing an entirely automated process of searching and connecting.

## CHAPTER 13

## APPENDIX

## SOURCE CODE:

```

3 <!DOCTYPE html>
4 <html lang="en">
5 <head>
6   <meta charset="UTF-8">
7   <meta http-equiv="X-UA-Compatible" content="IE=edge">
8   <meta name="viewport" content="width=device-width, initial-scale=1.0">
9   <title>Login Page</title>
10  <link rel="stylesheet" href="/static/css/login.css">
11  <script src="https://kit.fontawesome.com/d0b780836e.js" crossorigin="anonymous"></script>
12  <link href="https://fonts.googleapis.com/css2?family=Kavay:wght@900&display=swap" rel="stylesheet">
13  <link href="https://fonts.googleapis.com/css2?family=Kavay:wght@900&display=swap" rel="stylesheet">
14  <link href="https://fonts.googleapis.com/css2?family=Kavay:wght@900&display=swap" rel="stylesheet">
15  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Communiti&effect=none">
16 </script>
17 <script>
18   window.watsonAssistantChatOptions = {
19     integrationId: "30eef57-80c1-4160-92c5-73d4cc2b36a2", // The ID of this integration.
20     region: "au-syd", // The region your integration is hosted in.
21     serviceInstanceId: "8b7a8c8d-8ef0-4940-a46e-182096c1b179", // The ID of your service instance.
22     onLoad: function(instance) { instance.render(); }
23   };
24   setTimeout(function() {
25     const t=document.createElement('script');
26     t.src="https://web-chat.global/assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";
27     document.head.appendChild(t);
28   });
29 </script>
30 </head>
31 <body>
32   <form method="post" >
33     
34     <a href="#" class="back"><i class="fa-solid fa-circle-arrow-left"></i></a>
35     <div>
36       <div class="alert alert-danger alertmsg">
37         <div>
38           <div style="font-size:17px;">
39             <div>
40               <div>
41                 <div>
42                   <input type="text" placeholder="Enter your user name" name="username" required>
43                   <input type="password" placeholder="Enter your password" name="password" required>
44                   <button type="submit">Login</button>
45                   <a href="#" class="al">Forget password?</a>
46                   <a href="#" class="al">Don't have an account?Register</a>
47                 </div>
48               </div>
49             </div>
50           </div>
51         </div>
52       </div>
53     </form>
54 </body>
55 </html>

```

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Register</title>
8   <link rel="stylesheet" href="/static/css/register.css">
9   <script src="https://kit.fontawesome.com/d0b780836e.js" crossorigin="anonymous"></script>
10  <link href="https://fonts.googleapis.com/css2?family=Kavay:wght@900&display=swap" rel="stylesheet">
11  <link href="https://fonts.googleapis.com/css2?family=Kavay:wght@900&display=swap" rel="stylesheet">
12  <link href="https://fonts.googleapis.com/css2?family=Kavay:wght@900&display=swap" rel="stylesheet">
13  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Communiti&effect=none">
14 </script>
15 <script>
16   window.watsonAssistantChatOptions = {
17     integrationId: "30eef57-80c1-4160-92c5-73d4cc2b36a2", // The ID of this integration.
18     region: "au-syd", // The region your integration is hosted in.
19     serviceInstanceId: "8b7a8c8d-8ef0-4940-a46e-182096c1b179", // The ID of your service instance.
20     onLoad: function(instance) { instance.render(); }
21   };
22   setTimeout(function() {
23     const t=document.createElement('script');
24     t.src="https://web-chat.global/assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions.clientVersion || 'latest') + "/WatsonAssistantChatEntry.js";
25     document.head.appendChild(t);
26   });
27 </script>
28 </head>
29 <body>
30   <form method="post">
31     
32     <a href="#" class="back"><i class="fa-solid fa-circle-arrow-left"></i></a>
33     <div>
34       <div class="alert alert-danger alertmsg">
35         <div>
36           <div style="font-size:17px;">
37             <div>
38               <div>
39                 <div>
40                   <input type="text" placeholder="Enter your user name" name="name" required>
41                   <input type="text" placeholder="Enter your user name" name="username" required>
42                   <input type="password" placeholder="Enter your password" name="password" required>
43                   <input type="email" placeholder="Enter your email address" name="email" required>
44                   <input type="password" placeholder="Enter your password" name="password" required>
45                   <button type="submit">Sign Up</button>
46                   <a href="#" class="al">Already have an account?</a>
47                 </div>
48               </div>
49             </div>
50           </div>
51         </div>
52       </div>
53     </form>
54 </body>
55 </html>

```



47

```

121 <div class="maincount row">
122
123 <div class="count col-md-3">
124
125 <h3>2015</h3>
126
127 <div id="counter">
128 <!-- counts -->
129 </div>
130 </div>
131
132 <div class="count col-md-3">
133
134 <h3>2016</h3>
135
136 <div id="counter">
137 <!-- counts -->
138 </div>
139 </div>
140
141 <div class="count col-md-3">
142
143 <h3>2017</h3>
144
145 <div id="counter">
146 <!-- counts -->
147 </div>
148 </div>
149
150 <div class="count col-md-3">
151
152 <h3>2018</h3>
153
154 <div id="counter">
155 <!-- counts -->
156 </div>
157 </div>
158 </div>
159
160 <div class="row">
161 <div class="col-12 contact">
162 
163 <p>Follow us:</p>
164 <a href=""><i class="fa-brands fa-twitter"></i></a>
165 <a href=""><i class="fa-brands fa-github"></i></a>
166 <a href=""><i class="fa-brands fa-linkedin"></i></a>
167 <a href=""><i class="fa-solid fa-envelope"></i></a>
168 <a href=""><i class="fa-brands fa-instagram"></i></a>
169 </div>
170 </div>
171 <div class="row">
172 <div class="col-4">
173 <h4>About us</h4>
174 <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Accusamus dignissimos repellat qui quasi,
175 et inventore sapiente. Consequatur dolorum esse ipeitit assumenda dignissimos expedita sapit, culpa
176 ut sapiente quiquam tenetur nuncquam</p>
177 </div>
178 <div class="col-4">
179 <h4>Tranding Jobs</h4>
180 <ol class="list">
181 <li>Developer</li>
182 <li>1105 Developer</li>
183 <li>Designer</li>
184 <li>Developer</li>
185 <li>1105 Developer</li>
186 </ol>
187 </div>
188 </div>

```

```

179 <div class="col-4">
180 <h4>Tranding Jobs</h4>
181 <ol class="list">
182 <li>Developer</li>
183 <li>1105 Developer</li>
184 <li>Designer</li>
185 <li>Developer</li>
186 <li>1105 Developer</li>
187 </ol>
188 </div>
189 <div class="col-4">
190 <h4>Contact us</h4>
191 <p><i class="fa-solid fa-envelope"></i> nitegjob1@gmail.com</p>
192 <p><i class="fa-solid fa-phone"></i> 11245687</p>
193 </div>
194 </div>
195
196 <script>
197 let counts = setInterval(update);
198 let upto = 5;
199 function update() {
200   var count = document.getElementById("counter1");
201   count.innerHTML += upto;
202
203   var count = document.getElementById("counter2");
204   count.innerHTML += upto;
205
206   var count = document.getElementById("counter3");
207   count.innerHTML += upto;
208
209   var count = document.getElementById("counter4");
210   count.innerHTML += upto;
211   if (upto == 1000) {
212     clearInterval(count);
213   }
214 }
215 </script>
216
217 </body>
218
219 </html>

```

TEAM ID:PNT2022TMID46516

**GITHUB & PROJECT DEMO LINK:**

**GITHUB LINK:**

<https://github.com/IBM-EPBL/IBM-Project-34413-1660235505>

**PROJECT DEMO LINK:**

<https://drive.google.com/file/d/1hXh1apgMVsrqYSGjc01Hai0FvMy4n4e/view?usp=drivesdk>