

IBM – NALAIYA THIRAN PROJECT

SKILL AND JOB RECOMMENDER APPLICATION

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CHAPTER 1

INTRODUCTION

1.1PROJECT OVERVIEW

To develop an end-to-end web application capable of displaying the current job openings based on the user skillset. The skillset of the user is identified via counselling test .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 chat bot and can get the recommendations based on their skills.

1.2PURPOSE

To develop an end to end web application capable of displaying the current job openings based on the skillset of the users. The users and their information are stored in the Data base .An alert is sent when there is an opening based on the user skillset.

CHAPTER 2

LITERATURE SURVAY

2.1 EXISTING PROBLEM

In this Existing System, when an gets his/her salary he/she can add that into daily expense manager. Then after adding his/her salary details user can expense manager stores all the details. If the user wants all the detail of credit and debit he/she can get it through the Expense Tracker. Notification Manager also reminds about credit and debit details after the salary is updated

2.2 REFERENCES

1. Shaha T Al-Otaibi and Mourad Ykhlef. “A survey of job recommender systems”. In: International Journal of the Physical Sciences 7.29 (2012), pp. 5127–5142. issn: 19921950. doi: 10.5897/IJPS12. 482.
2. N Deniz, A Noyan, and O G Ertosun. “Linking Person-job Fit to Job Stress: The Mediating Effect of Perceived Person-organization Fit”. In: Procedia - Social and Behavioral Sciences 207 (2015), pp. 369– 376.
3. M Diaby, E Viennet, and T Launay. “Toward the next generation of recruitment tools: An online social network-based job recommender system”. In: Proc. of the 2013 IEEE/ACM Int. Conf. on Advances in Social Networks Analysis and Mining, ASONAM 2013 (2013), pp. 821–828. doi: 10. 1145/2492517.2500266
4. M Diaby and E Viennet. “Taxonomy-based job recommender systems on Facebook and LinkedIn profiles”. In: Proc. of Int. Conf. on Research Challenges in Information Science (2014), pp. 1–6. issn: 21511357. doi: 10.1109/RCIS.2014.6861048.
5. M Kusner et al. “From word embeddings to document distances”. In: Proc. of the 32nd Int. Conf. on Machine Learning, ICML’15. 2015, pp. 957–966.
6. T Mikolov et al. “Efficient estimation of word representations in vector space”. In: arXiv preprint arXiv:1301.3781 (2013).
7. G Salton and C Buckley. “Term-weighting approaches in automatic text retrieval”. In: Information Processing and Management 24.5 (1988), pp. 513–523. issn: 0306-4573. doi: [https://doi.org/10. 1016/0306- 4573\(88\)90021- 0](https://doi.org/10.1016/0306-4573(88)90021-0). url: [http://www.sciencedirect.com/science/article/pii/ 0306457388900210](http://www.sciencedirect.com/science/article/pii/0306457388900210).

2.3 PROBLEM STATEMENT DEFINITION

The recommendation system is because of information overload, and we can call it an information filter system. It greatly influences what we interact with the world: shopping (Amazon, Best Buy), music(Spotify), video(Youtube, Netflix), etc. To build a recommendation system providing recommendations to millions of users with millions of items, the first thing is, define the problem.

1. What is the problem with recommendation system?

Lack of data analytics capability.

2. What social issue does the recommendation system cause?

Recommender systems can encroach on individual users' autonomy.

3. Why are recommender systems difficult?

Building and managing recommender systems today requires specialized expertise in analytics, applied machine learning, software engineering, and systems operations.

4. What are the dangers with recommendation systems?

The personal information collected by recommenders raises the risk of unwanted exposure of that information.

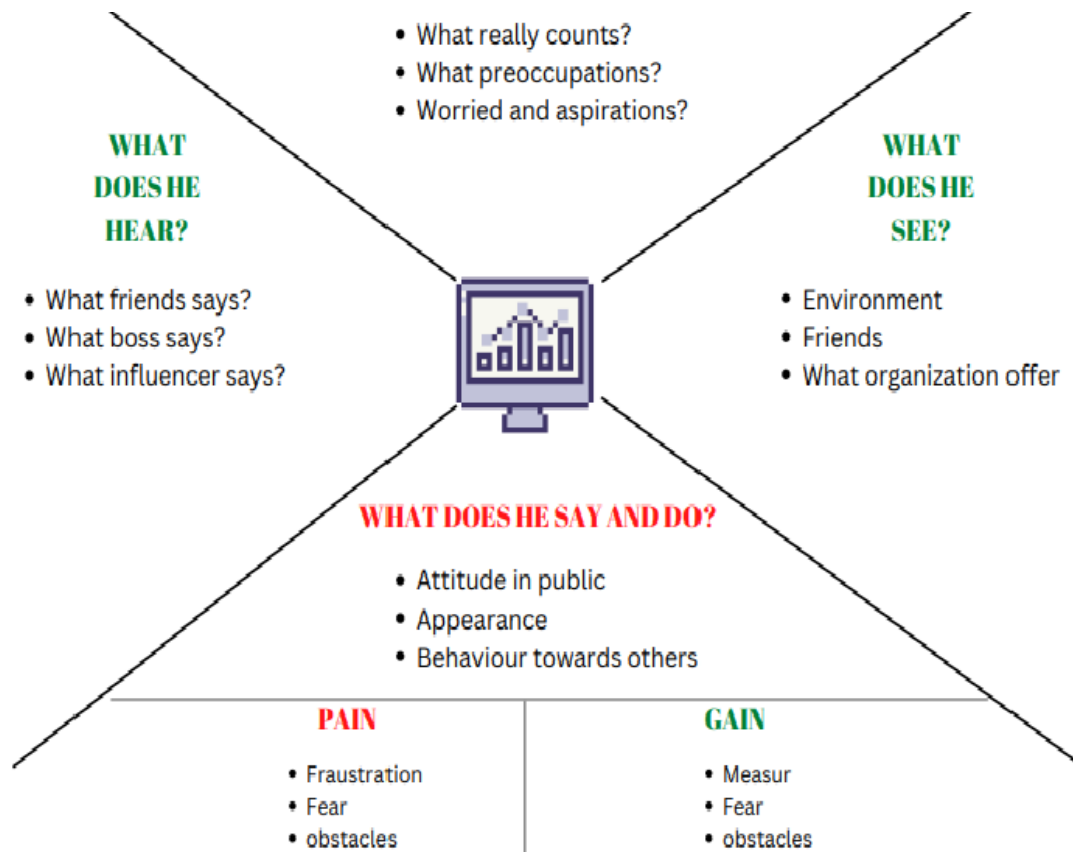
5. Are recommender systems good?

Recommender systems are a useful alternative to search algorithms.


CHAPTER 3

IDEATION&PROPOSED SOLUTION

3.1 EMPATHYMAP CANVAS



3.2 IDEATION&BRAINSTORMING



Brainstorm & idea prioritization

Executing a brainstorm isn't unique, holding a productive brainstorm is. Great brainstorming sessions are ones that set the stage for fresh and generative thinking through simple guidelines and an open and collaborative environment. Use this when you're just kicking off a new project and want to hit the ground running with big ideas that will move your team forward.

15 minutes to prepare
 30-45 minutes to elaborate
 3-8 people recommended

Before you elaborate

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

15 minutes

Name gathering
 Before you start participating in the session and want to write, have someone introduce or you each choose.

Get the goal
 Think about the problem you're looking to solving in the brainstorming session.

Learn how to use the facilitation tools
 Use the Facilitation Experiences to set a happy and productive session.

Open the article >

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.

15 minutes

problem

How might we... (start problem statement here?)

Rules of brainstorming

To not an smooth and productive session

1. Stay on topic.
2. Offer judgment.
3. Go for volume.
4. Encourage wild ideas.
5. Listen to others.
6. If possible, be visual.

Brainstorm

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

15 minutes

Substansi Kasus	Barat-Selatan	Kampungkampung	Siswa
1. 100% 2. 100% 3. 100% 4. 100%	1. 100% 2. 100% 3. 100% 4. 100%	1. 100% 2. 100% 3. 100% 4. 100%	1. 100% 2. 100% 3. 100% 4. 100%

Brainstorm as a group

Have everyone share their ideas into the "group sharing space" within the template and have the team identify and through them. As a team, sort and group them by thematic topics or connections. Discuss and answer any questions. Did you encourage "Yes, and..." and build on the ideas of other people along the way?

15 minutes

15

The session for 15 minutes is a good idea. It's a good idea to have a 15-minute session.

3.3 PROPOSED SOLUTION

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

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	In order to Enhance the Opportunities and challenges to provide job. To Protect great volume of digital data To Satisfy the on the basis of the need and requirement of satisfaction.
2	Idea / Solution description	To Reduce the Risk Assessment & Threat Analysis in the platform. Creating Prototype Solution so that user can access Easily
3	Novelty / Uniqueness	On-demand self service which help the user to gain knowledge regarding on specified job Mobile end point security that allows Organization to protect all the devices on their network and prevent unauthorized access.
4	Social Impact / Customer Satisfaction	Frequently updating about requirements and Full filling the needs. User will get a Responsive speed Regarding the job they have searched. User friendly Layout and approach design.
5	Business Model (Revenue Model)	Commericilizing about platforms in Social media, entertainment application so that user will have knowledge about our platforms how effective it is. Generating Revenue through the advertisement that display on the platform.
6	Scalability of the Solution	Hyper scaling capabilities that includes the ability to provide and add more resource s to the platforms.

	Define	Understand	Analyze	Solve	Evaluate								
1. PROBLEM STATEMENT	<p>What problem do you address for your customers?</p> <p>There must be more than one, explore different sides</p> <ul style="list-style-type: none"> Create a platform to facilitate job searching A platform to make it simpler to identify people with the necessary skills Make the job-filtering process simpler Profile with safe personal data 	<p>Time-consuming</p> <table border="1"> <tr> <td>Cultivate commercial relationship</td> <td>Intense competition</td> </tr> </table>	Cultivate commercial relationship	Intense competition									
Cultivate commercial relationship	Intense competition												
2. JOBS-TO-BE-DONE / PROBLEMS		J&P											
3. TRIGGERS		TR											
<p>What triggers customers to act? i.e., seeing their neighbors studying alone parks, looking about a more efficient solution online news.</p> <ul style="list-style-type: none"> Job Alerts 													
4. EMOTIONS: BEFORE / AFTER		EM											
<p>How do customers feel when they face a problem or a job and afterwards?</p> <table border="1"> <thead> <tr> <th>Emotions-Before</th> <th>Emotions-After</th> </tr> </thead> <tbody> <tr> <td>Lack of knowledge about job vacancy</td> <td>User receive updates on job vacancies</td> </tr> <tr> <td>No proper platform to showcase skillset</td> <td>Exhibit skillset in profile</td> </tr> <tr> <td>More paperwork during recruitment</td> <td>Easy recruitment process</td> </tr> </tbody> </table>	Emotions-Before	Emotions-After	Lack of knowledge about job vacancy	User receive updates on job vacancies	No proper platform to showcase skillset	Exhibit skillset in profile	More paperwork during recruitment	Easy recruitment process					
Emotions-Before	Emotions-After												
Lack of knowledge about job vacancy	User receive updates on job vacancies												
No proper platform to showcase skillset	Exhibit skillset in profile												
More paperwork during recruitment	Easy recruitment process												
5. PROBLEM ROOT CAUSE		RC											
<p>What is the real reason that this problem exists?</p> <p>What is the last step before the need to solve job?</p> <p>i.e., customers have to do it because of the change in regulations.</p> <ul style="list-style-type: none"> Jobs that are listed on unreliable platforms maybe fraudulent Companies fail to disclose their true infrastructure Some job portals want payment in advance of the job starting. Users post false credentials Users pretend to have expertise in a skillset they lack 													
6. BEHAVIOUR		BE											
<p>What does your customer do to address the problem and get the job done?</p> <p>(i.e., directly related) Find the right side panel insider, calculate wage and benefits, internally associated. Customers spend time on elaborating work (i.e. Groupwork)</p> <ul style="list-style-type: none"> When Users apply for fraudulent jobs, they get unhappy due to wasted time Users were not satisfied when platforms allowed users to post jobs that were not real Cheating during online recruitment process When candidates with inadequate qualification supply for a position, employers become irritated. 													
7. YOUR SOLUTION		SL											
<p>If you're working on an existing business, who does your current solution best. Win the service, and check how useful the early.</p> <p>To develop an end-to-end web application which in default have a lot of current job openings through job search APIs 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 chat bot will be available for 24*7 which can help users in finding the right job.</p>													
8. CHANNELS OF BEHAVIOUR		CH											
<p>8.1 ONLINE</p> <p>What kind of actions do customers take online? Extract online channels from IT</p> <ul style="list-style-type: none"> Apply for jobs Review job applications Attend initial level assessment <p>8.2 OFFLINE</p> <p>What kind of actions do customers take offline? Extract offline channels from IT and use them for customer development.</p> <ul style="list-style-type: none"> Final level interview Checkout location and infrastructure of company Finalize paperwork 													

CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENT

These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the nonfunctional requirements.

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Utilizing a Form for Registration signing up with Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Chat Bot	A chat bot will be available on the website to address user concerns and issues about job applications, job searches, and much more.
FR-4	User Login	Log in using the Register credentials
FR-5	User Search	Job exploration using suggested skills and job filters
FR-6	User Profile	The login credentials are used to update the user profile
FR-7	User Acceptance	Confirmation of the Job.

4.2 NON – FUNCTIONAL REQUIREMENTS

These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioral requirements.

Following are the non-functional requirements of the proposed solution

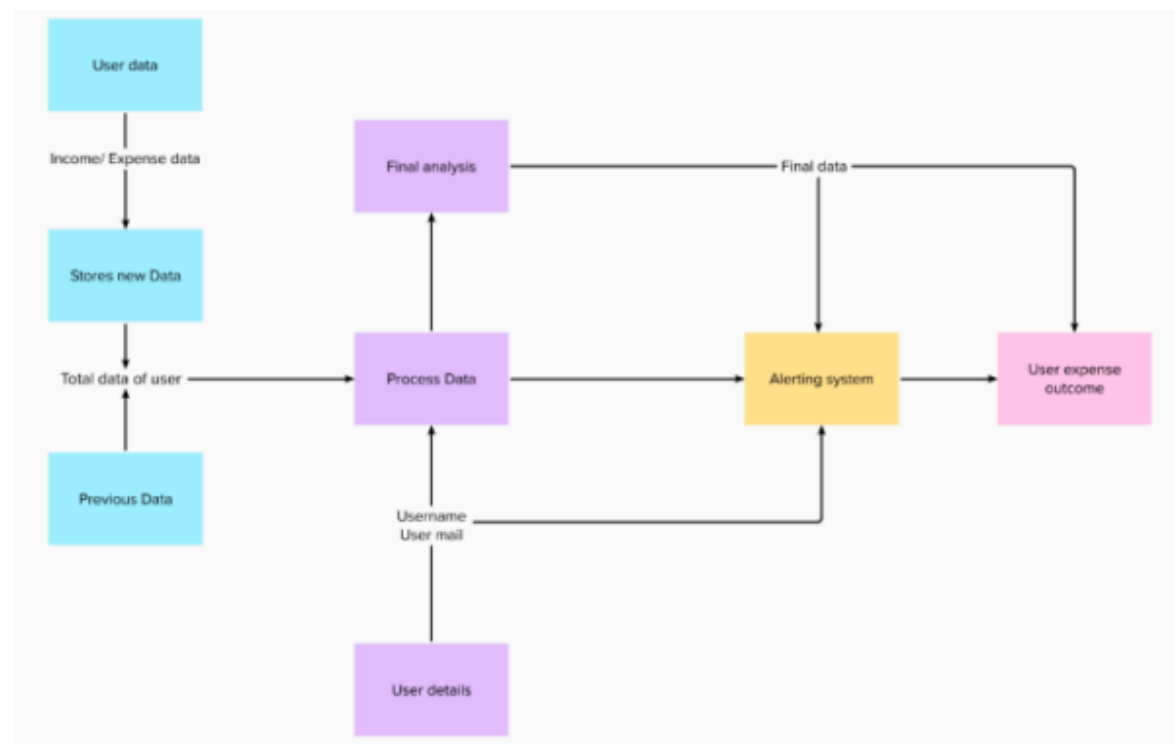
FR No	Non-Functional Requirement	Description
NFR-1	Usability	Job searchers can log in and search for jobs based on their skill sets using this programme.
NFR-2	Security	This application has separate logins for job recruiters and job seekers, making it secure
NFR-3	Reliability	You can use this application for free and without having to pay anything because it is open source. All job seekers will have unlimited access to the massive employment postings.
NFR-4	Performance	This application responds more quickly and completes tasks in a shorter amount of time
NFR-5	Availability	This programme advises skills for specific job vacancies and offers jobs.
NFR-6	Scalability	The Response time of the application is quite faster compared to any other application

CHAPTER 5

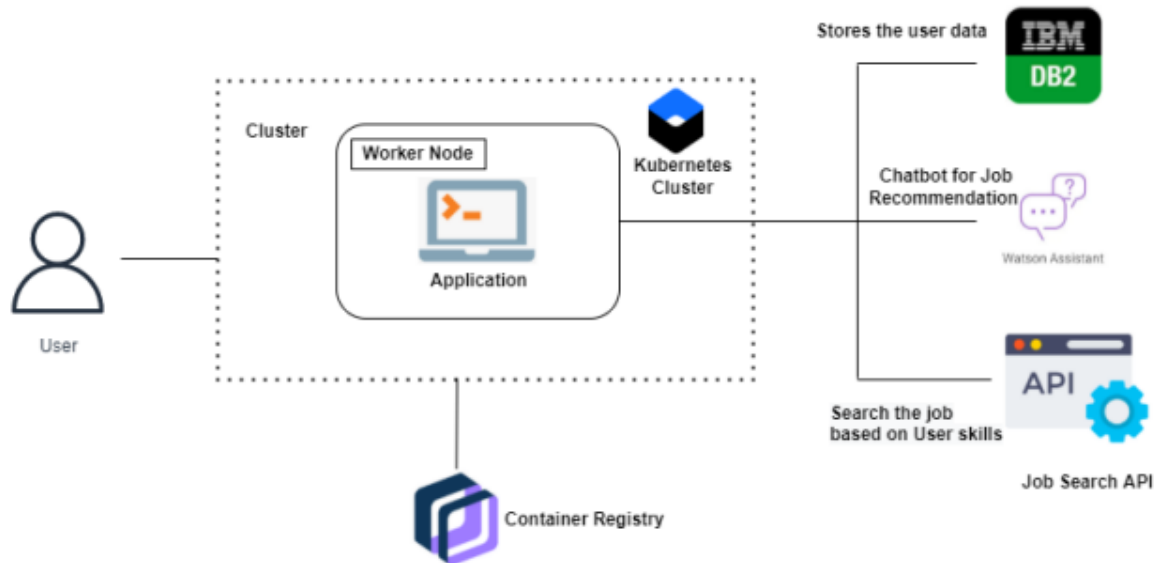
PROJECT DESIGN

5.1 DATAFLOW 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 centers and leaves the system, what changes the information, and where data is stored.



5.2 SOLUTION&TECHNICAL ARCHITECTURE



5.3 USER STORIES

Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Release
Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Sprint-1
Confirmation	USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Sprint-2
Personalized	USN-3	As a user, I can register for the application through Facebook	2	Low	Sprint-3
Storage	USN-4	As a user, I can register for the application through Gmail	2	Medium	Sprint-1
Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Sprint-1
Dashboard	USN-6	As a user, I access my detail, manage my skill and job recommendation report from the app etc..	2	High	Sprint-4

CHAPTER6

6.1 SPRINT PLANNING&ESTIMATION

Milestones	Title	Description
Ideation Phase	Literature Survey and Information Gathering	Gathering Information by referring the technical papers, research publications etc.
	Prepare Empathy Map	To capture user pain and gains Prepare List of Problem Statement
	Ideation	Prioritise a top 3 ideas based on feasibility and Importance
Project Design Phase-I	Proposed Solution	Solution include novelty ,feasibility, business model, Social impact and scalability of solution
	Problem Solution Fit	Solution fit document
	Solution Architecture	Solution Architecture
Project Design Phase-II	Customer Journey	To Understand User Interactions and experiences with application
	Functional Requirement	Prepare functional Requirement
	Data flow Diagrams	Data flow diagram
	Technology Architecture	Technology Architecture diagram
Project Planning Phase	Prepare Milestone & Activity list	Prepare the milestone & activity list of the project
Project Development Phase	Project Development Delivery of sprint 1,2,3 &4	Develop and submit the developed code by testing it

6.2 SPRINT DELIVERY SCHEDULE

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Mohamed Nizarudeen R
Sprint-2	Confirmation	USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Jeyasuriya S
Sprint-3	Personalized	USN-3	As a user, I can register for the application through Facebook	2		Ajaykumar A
Sprint-1	Storage	USN-4	As a user, I can register for the application through Gmail	2		Suriyaprakash C
Sprint-1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Akashbarathi S
Sprint-4	Dashboard	USN-6	As a user, I access my detail, manage my expense, add budget, expense report from the app etc..	2	High	Mohamed Nizarudeen R

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	18	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	15	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	19	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)

$$AV = \text{Sprint duration} / \text{Velocity} = 20 / 10 = 2$$

$$AV = 1.8$$

6.3 REPORTS FROM JIRA

		SEP	OCT	NOV
Sprints				
⚡ SRA-1 Creating the login and registration page				
⚡ SRA-2 Home page for skill/job recommendation app				
⚡ SRA-3 Creating database connectivity for login and...				
⚡ SRA-4 Building Ui for skill/job recommendation appl...				
⚡ SRA-5 Sendgrid integration with python code				
⚡ SRA-6 Building watson chat bot assistant				
⚡ SRA-7 Containerizing the app				
⚡ SRA-8 Upload images through IBM cloud				

7. CODING & SOLUTIONING

7.1 Feature1

Login.html

```
<!DOCTYPE html>

<head>

<title>Login </title>

<link rel="stylesheet" type="text/css" href="style.css">

    </head>

<body>

<script>

    window.watsonAssistantChatOptions = {

        integrationID: "8593260d-13be-46ff-9c2e-2d4d6d5d3fc7", // The ID
of this integration.

        region: "au-syd", // The region your integration is hosted in.

        serviceInstanceID: "7ec80934-ab42-4de7-a883-0f1d140078a4", //
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>

<div class="box">



    <h1>Login Here</h1>

    <form name="myform" action="" method="" >

        <p>Username</p>

        <input type="text" id="uname" placeholder="Enter Username "
required="">

        <p>Password</p>

        <input type="password" id="upswd" placeholder="Enter
Password" required="">

        <button onclick="fun()">LOGIN</button>

        <br><br>

        <a href="register.html">Register for new account ?</a>

    </form>

</div>

<script type="text/javascript">

    function fun()


```

```

var username=document.getElementById("uname").value;
var pword=document.getElementById("upswd").value;
if (username=="nizarudeen" && pword=="nizar@2001") {
    document.write("WELCOME " +username);
    document.write("<br><br>" );
    var button = document.createElement("button");
button.innerHTML = "TAKE COUNSELLING TEST";
// 2. Append somewhere
var body = document.getElementsByTagName("body")[0];
body.appendChild(button);
// 3. Add event handler
button.addEventListener ("click", function() {
    window.open("index.html");
});
    }
    else{
        alert("ENTER THE RIGHT CREDENTIALS!");
    }
}
</script>
</body>

```


</html>



Login Here

Username

Password

LOGIN

[Register for new account ?](#)



Register.html

```
<!DOCTYPE html>

<head>

<title>Register Form Design</title>

  <link rel="stylesheet" type="text/css" href="style.css">

<body>

<script>

  window.watsonAssistantChatOptions = {

    integrationID: "8593260d-13be-46ff-9c2e-2d4d6d5d3fc7", // The ID
of this integration.

    region: "au-syd", // The region your integration is hosted in.

    serviceInstanceID: "7ec80934-ab42-4de7-a883-0f1d140078a4", //
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>

<div class="box">



<h1>Register </h1>

<form name="myform2" action="register.php" method="POST">

    <p>Username</p>

    <input type="text" name="uname1" placeholder="Enter
Username" required="">

    <p>Email</p>

    <input type="Email" name="email" placeholder="Enter email
id" required="">

    <p>Password</p>

    <input type="password" name="upswd1" placeholder="Enter
Password" required="">

    <p>Retype Password</p>

    <input type="password" name="upswd2" placeholder="Re-Enter
Password" required="">

    <button onclick="fun()"> REGISTER </button>

    <br><br>

    <a href="login.html">existing user, login !?</a>

</form>

```

```
</div>

<script type="text/javascript">

    function fun(){

        alert("ACCOUNT CREATED SUCCESSFULLY!!!");

        window.open("login.html");


    }

</script>

</body>

</head>

</html>
```



Register

Username
Enter Username

Email
Enter email id

Password
Enter Password

Retype Password
Re-Enter Password

REGISTER

existing user, login !?



Style.html

```
body{  
    margin: 0;  
    padding: 0;  
    background: url(back.jpg)no-repeat center center fixed;  
    -webkit-background-size: cover;  
    -moz-background-size: cover;  
    -o-background-size: cover;  
    font-family: sans-serif;  
}  
  
.box{  
    background: #DFC3E9;  
    color: red;  
    top: 50%;  
    left: 30%;  
    position: absolute;  
    transform: translate(-50%,-50%);  
    box-sizing: border-box;  
    padding: 70px 30px;  
    border-radius: 15px;  
}
```

```
.user{  
    width: 100px;  
    height: 100px;  
    position: absolute;  
    top: -50px;  
    left: calc(50% - 50px);  
    border-radius: 15px;  
}
```

```
h1{  
    margin: 0;  
    padding: 0 0 20px;  
    text-align: center;  
    font-size: 22px;  
    color: black;  
}
```

```
p{  
    color: #f49126;  
    margin: 0;  
    padding: 0;  
    font-weight: bold;  
}
```

```
input{
    width: 100%;
    margin-bottom: 10px;
}

input[type="text"], input[type="password"],input[type="email"]{
    border: none;
    border-bottom: 1px solid #fff;
    background: transparent;
    outline: none;
    height: 40px;
    color: #673ab7;
    font-size: 16px;
}

input[type="submit"]{
    border: none;
    outline: none;
    height: 40px;
    background: #2196f3;
    color: #fff;
    font-size: 18px;
    border-radius: 20px;
```

```
}  
input[type="submit"]:hover{  
    cursor: pointer;  
    background: #0097a7;  
}  
a{  
    text-decoration: none;  
    font-size: 16px;  
    line-height: 20px;  
    color: #069818;  
}  
a:hover{  
    color: red;  
}
```


7.2 Feature1

Index.html

```
<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initial-
scale=1">

        <title>hi</title>

        <script
src="https://cdn.jsdelivr.net/npm/chart.js"></script>

</head>

<body>

<script>

window.watsonAssistantChatOptions = {

    integrationID: "8593260d-13be-46ff-9c2e-2d4d6d5d3fc7", // The ID
of this integration.

    region: "au-syd", // The region your integration is hosted in.

    serviceInstanceID: "7ec80934-ab42-4de7-a883-0f1d140078a4", //
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>

<center><h1>COUNSELLING TEST</h1></center>

<div>

    <label >1)HOW GOOD ARE YOU IN CLIENT
RELATIONSHIP?</label><br>

    <input type="range" id="sm1" name="vol" min="0" max="33.3"
value="0"><br><br>

    <label >2)HOW GOOD ARE YOU IN
PRESENTATION?</label><br>

    <input type="range" id="sm2" name="vol" min="0" max="33.3"
value="0"><br><br>

    <label >3)HOW GOOD ARE YOU IN ACHIEVING
GOALS?</label><br>

    <input type="range" id="sm3" name="vol" min="0" max="33.3"
value="0"><br><br>

```

<label >4)HOW GOOD ARE YOU IN COLLABORATING WITH OTHERS?</label>

<input type="range" id="it1" name="vol" min="0" max="33.3" value="0">

<label >5)LEVEL OF YOUR PROBLEM SOLVING SKILLS?</label>

<input type="range" id="it2" name="vol" min="0" max="33.3" value="0">

<label >6)HOW MUCH DO YOU KNOW ABOUT COMPUTER LITERACY?</label>

<input type="range" id="it3" name="vol" min="0" max="33.3" value="0">

<label>7)ABILITY TO GRASP NEW LANGUAGE </label>

<input type="range" id="tran1" name="vol" min="0" max="33.3" value="0">

<label>8)KNOWLEDGE IN SPELLING & GRAMMAR</label>

<input type="range" id="tran2" name="vol" min="0" max="33.3" value="0">

<label>9)LANGUAGE FLUENCY LEVEL </label>

<input type="range" id="tran3" name="vol" min="0" max="33.3" value="0">

<label>10)LEVEL OF YOUR KNOWLEDGE IN SOFTWARE DEVELOPMENT LIFECYCLE</label>


```
<input type="range" id="dev1" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>11)LEVEL OF YOUR WORK IN FAST PACED
ENVIRONMENT</label><br>
```

```
<input type="range" id="dev2" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>12)LEVEL OF DOCUMENTATION READING</label><br>
```

```
<input type="range" id="dev3" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>13)LEVEL OF CREATIVITY</label><br>
```

```
<input type="range" id="cre1" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>14)FAMILARITY WITH DESING SOFTWARES</label><br>
```

```
<input type="range" id="cre2" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>15)CREATIVIYTY LEVEL</label><br>
```

```
<input type="range" id="cre3" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
</div>
```

```
<button id="sub" onclick="myFunction()">
```

SUBMIT

```
</button>
```

```
<canvas id="myChart" ></canvas>
```

```
<style type="text/css">
```

```
button {
```

```
    margin-top: 2%;
```

```
    line-height: 60px;
```

```
    font-weight: bold;
```

```
    padding: 0 40px;
```

```
    background: salmon;
```

```
    border: none;
```

```
    margin-left: 50%;
```

```
}
```

```
button:hover {
```

```
    background: lightsalmon;
```

```
}
```

```
</style>
```

```
<script type="text/javascript">
```

```
function myFunction() {
```

```
    var a = document.getElementById('sm1').value;
```

```
    var b = document.getElementById('sm2').value;
```

```
    var c = document.getElementById('sm3').value;
```

```
var d = document.getElementById('it1').value;
var e = document.getElementById('it2').value;
var f = document.getElementById('it3').value;
var g = document.getElementById('tran1').value;
var h = document.getElementById('tran2').value;
var i = document.getElementById('tran3').value;
var j = document.getElementById('dev1').value;
var k = document.getElementById('dev2').value;
var l = document.getElementById('dev3').value;
var m = document.getElementById('cre1').value;
var n = document.getElementById('cre2').value;
var o = document.getElementById('cre3').value;
var sm =parseInt(a)+parseInt(b)+parseInt(c);
var ite =parseInt(d)+parseInt(e)+parseInt(f);
var trns =parseInt(g)+parseInt(h)+parseInt(i);
var deve =parseInt(j)+parseInt(k)+parseInt(l);
var des =parseInt(m)+parseInt(n)+parseInt(o);
var grp=[sm,ite,trns,deve,des];
const ctx = document.getElementById('myChart');
const myChart = new Chart(ctx, {
  type: 'bar',
```

```

data: {
  labels: ['Sales&Marketing', 'IT&Engineering', 'Translation',
'Development', 'Designing'],
  datasets: [{
    label: 'RESULTS',
    data: grp,
    backgroundColor: [
      'rgba(255, 99, 132, 0.2)',
      'rgba(54, 162, 235, 0.2)',
      'rgba(255, 206, 86, 0.2)',
      'rgba(75, 192, 192, 0.2)',
      'rgba(153, 102, 255, 0.2)',
      'rgba(255, 159, 64, 0.2)'
    ],
    borderColor: [
      'rgba(255, 99, 132, 1)',
      'rgba(54, 162, 235, 1)',
      'rgba(255, 206, 86, 1)',
      'rgba(75, 192, 192, 1)',
      'rgba(153, 102, 255, 1)',
      'rgba(255, 159, 64, 1)'
    ]
  }]
}

```

```

        ],
        borderWidth: 1
    }]
},
options: {
    scales: {
        y: {
            beginAtZero: true
        }
    }
}
});

var button = document.createElement("button");
button.innerHTML = "GET JOB RECOMMENDATION";
// 2. Append somewhere
var body = document.getElementsByTagName("body")[0];
body.appendChild(button);
// 3. Add event handler
button.addEventListener ("click", function() {
    if (sm>ite && sm>trns && sm>deve && sm>des)
{

```



```

        window.open("https://www.naukri.com/sales-jobs");
    }
    else if (ite>sm && ite>trns && ite>deve && ite>des)
    {
        window.open("https://www.naukri.com/it-jobs");
    }
    else if (trns>sm && trns>ite && trns>deve && trns>des)
    {
        window.open("https://www.naukri.com/translation-jobs");
    }
    else if (deve>sm && deve>ite && deve>trns && deve>des)
    {
        window.open("https://www.naukri.com/development-jobs");
    }
    else if (des>sm && des>ite && des>trns && des>deve)
    {
        window.open("https://www.naukri.com/designing-jobs");
    }
});
var button = document.createElement("button");
button.innerHTML = "LOG OUT";

```

// 2. Append somewhere

```
var body = document.getElementsByTagName("body")[0];
```

```
body.appendChild(button);
```

// 3. Add event handler

```
button.addEventListener ("click", function() {
```

```
    window.open("login.html");
```

```
});
```

```
}
```

```
</script>
```

```
</body>
```

```
</html>
```

COUNSELLING TEST


- 1)HOW GOOD ARE YOU IN CLIENT RELATIONSHIP?
- 2)HOW GOOD ARE YOU IN PRESENTATION?
- 3)HOW GOOD ARE YOU IN ACHIEVING GOALS?
- 4)HOW GOOD ARE YOU IN COLLABORATING WITH OTHERS?
- 5)LEVEL OF YOUR PROBLEM SOLVING SKILLS?
- 6)HOW MUCH DO YOU KNOW ABOUT COMPUTER LITERACY?
- 7)ABILITY TO GRASP NEW LANGUAGE
- 8)KNOWLEDGE IN SPELLING & GRAMMAR
- 9)LANGUAGE FLUENCY LEVEL
- 10)LEVEL OF YOUR KNOWLEDGE IN SOFTWARE DEVELOPMENT LIFECYCLE
- 11)LEVEL OF YOUR WORK IN FAST PACED ENVIRONMENT
- 12)LEVEL OF DOCUMENTATION READING
- 13)LEVEL OF CREATIVITY
- 14)FAMILIARITY WITH DESING SOFTWARES
- 15)CREATIVITY LEVEL

SUBMIT

Hi! I'm a virtual assistant.
How can I help you
today?



8 . TESTING



Register

Username
Enter Username


Email
Enter email id

Password
Enter Password

Retype Password
Re-Enter Password

REGISTER

existing user, login !?



Login Here

Username
Enter Username

Password
Enter Password

LOGIN

Register for new account ?



COUNSELLING TEST

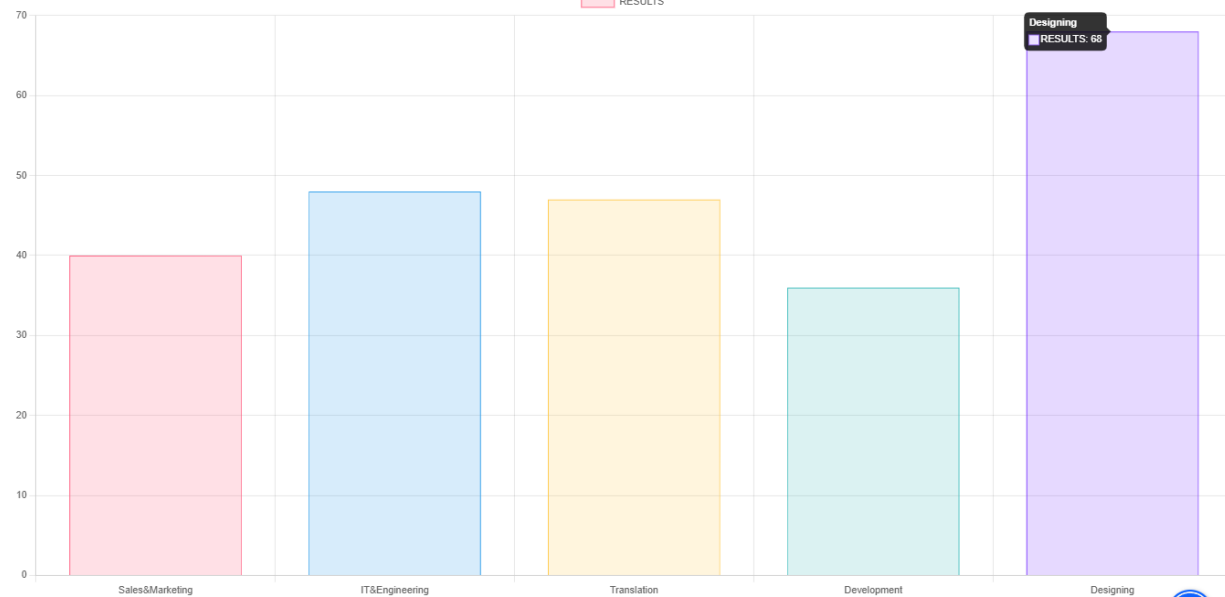
- 1) HOW GOOD ARE YOU IN CLIENT RELATIONSHIP?
- 2) HOW GOOD ARE YOU IN PRESENTATION?
- 3) HOW GOOD ARE YOU IN ACHIEVING GOALS?
- 4) HOW GOOD ARE YOU IN COLLABORATING WITH OTHERS?
- 5) LEVEL OF YOUR PROBLEM SOLVING SKILLS?
- 6) HOW MUCH DO YOU KNOW ABOUT COMPUTER LITERACY?
- 7) ABILITY TO GRASP NEW LANGUAGE
- 8) KNOWLEDGE IN SPELLING & GRAMMAR
- 9) LANGUAGE FLUENCY LEVEL
- 10) LEVEL OF YOUR KNOWLEDGE IN SOFTWARE DEVELOPMENT LIFECYCLE
- 11) LEVEL OF YOUR WORK IN FAST PACED ENVIRONMENT
- 12) LEVEL OF DOCUMENTATION READING
- 13) LEVEL OF CREATIVITY
- 14) FAMILIARITY WITH DESING SOFTWARES
- 15) CREATIVITY LEVEL

SUBMIT

Hi! I'm a virtual assistant.
How can I help you today?

SUBMIT

RESULTS



GET JOB RECOMMENDATION

9 . RESULT

9.1 PERFORMANCE METRIC

Cloud performance testing lets you test various performance metrics, such as system throughput and latency. Typically, each test checks different aspects of performance, including:

Stress testing—checks the reliability, stability, and responsiveness of your cloud resources when put under an extremely high load.

Load testing—checks if the system performs well when multiple users try to use the system simultaneously.

Browser testing—determines browser-system compatibility.

Latency testing—measures the time needed to move data messages from one point in the network to another.

Targeted infrastructure testing—checks for system issues. The process isolates each application component or layer and checks their ability to deliver required performance.

Failover testing—checks whether a system is capable of calling additional resources during heavy traffic or usage peaks. This test can help prevent interruptions that negate user experience.

Capacity testing—can help you identify and benchmark the maximum traffic or load amount that your cloud system can handle efficiently.

Soak testing—measures system performance during long periods of heavy traffic. You typically run this test to ensure optimal behavior in production environments.

10. ADVANTAGES & DISADVANTAGES

Advantages:

- Counseling test for skill identification
- Skill based job recommendations
- Multiple system login
- Free to use
- Frequent notification of job alerts

Disadvantages:

- Storage limitations
- Repeating of Counseling test is not allowed
- Login credentials are mandatory

11. COUNCULSION

Our review has resulted in an explanatory account of how the design and delivery of workforce development interventions work to improve the skills and care standards of support workers within older people's health and social care services. In developing this account we have drawn on a range of evidence, including from different public service contexts, namely policing and teaching. We have generated eight CMO configurations that are explanatory statements reflecting the complexity of workforce development in this setting. An embedded stakeholder engagement strategy was used to ensure the interpretive depth and the policy and practice relevance of the emerging findings.

In this chapter we reflect on the review in relation to our stated aims, including a typology of the workforce development interventions we identified in the literature a summary of the mechanisms through which interventions work and the contexts that might mediate through an explanatory framework that synthesises the CMO configurations implications for practice (design and delivery of interventions) and recommendations for future research.

12. FUTURE SCOPE

Future proof your CV by learning about the most in demand skills of the future, and the online courses you can take to train up for the jobs of the future.

The world of work is in a constant state of flux. The skills needed to be successful in today's workforce differ substantially from those of the past. By the same logic, future occupations will also require completely new skills. New roles will come into being, some of which we don't yet have names for, as other functions become obsolete.

The next decade is predicted to be a time of particularly intense change ,as jobs are transformed by the Fourth Industrial Revolution. This will apply to current jobs as well as those yet to come into being.

The WEF predicts that 42% of the core skills required to perform existing jobs will change in the next couple of years. Changes are occurring at an exponential rate the founder and executive chair of the WEF.

Also known as Industry 4.0, the defining trait of the Fourth Industrial Revolution is connectivity, with data and information being shared across platforms and media. Boundaries will be blurred between the physical, digital and even biological spheres.

While many of the positive and negative effects will be in the hands of policymakers, those looking to improve their future employability would do well to identify and acquire the most desirable skills in the workplaces of the future. We are likely to see skills gaps emerging, which will create high demand for qualified workers.

13. APPENDIX

SOURCE CODE

Login.

```
<!DOCTYPE html>

<head>

<title>Login </title>

<link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<script>

    window.watsonAssistantChatOptions = {

        integrationID: "8593260d-13be-46ff-9c2e-2d4d6d5d3fc7", // The ID
of this integration.

        region: "au-syd", // The region your integration is hosted in.

        serviceInstanceID: "7ec80934-ab42-4de7-a883-0f1d140078a4", //
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>

<div class="box">



    <h1>Login Here</h1>

    <form name="myform" action="" method="" >

        <p>Username</p>

        <input type="text" id="uname" placeholder="Enter Username "
required="">

        <p>Password</p>

        <input type="password" id="upswd" placeholder="Enter
Password" required="">

        <button onclick="fun()">LOGIN</button>

        <br><br>

        <a href="register.html">Register for new account ?</a>

    </form>

</div>

<script type="text/javascript">

    function fun()

```

```

var username=document.getElementById("uname").value;
var pword=document.getElementById("upswd").value;
if (username=="nizarudeen" && pword=="nizar@2001") {
    document.write("WELCOME " +username);
    document.write("<br><br>" );
    var button = document.createElement("button");
button.innerHTML = "TAKE COUNSELLING TEST";
// 2. Append somewhere
var body = document.getElementsByTagName("body")[0];
body.appendChild(button);
// 3. Add event handler
button.addEventListener ("click", function() {
    window.open("index.html");
});
    }
    else{
        alert("ENTER THE RIGHT CREDENTIALS!");
    }
}
</script>
</body> </html>

```

Index

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta charset="utf-8">
```

```
<meta name="viewport" content="width=device-width, initial-  
scale=1">
```

```
    <title>hi</title>
```

```
    <script  
src="https://cdn.jsdelivr.net/npm/chart.js"></script>
```

```
</head>
```

```
<body>
```

```
<script>
```

```
    window.watsonAssistantChatOptions = {  
        integrationID: "8593260d-13be-46ff-9c2e-2d4d6d5d3fc7", // The ID  
of this integration.  
        region: "au-syd", // The region your integration is hosted in.  
        serviceInstanceID: "7ec80934-ab42-4de7-a883-0f1d140078a4", //  
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>

<center><h1>COUNSELLING TEST</h1></center>

<div>

    <label >1)HOW GOOD ARE YOU IN CLIENT
    RELATIONSHIP?</label><br>

    <input type="range" id="sm1" name="vol" min="0" max="33.3"
    value="0"><br><br>

    <label >2)HOW GOOD ARE YOU IN
    PRESENTATION?</label><br>

    <input type="range" id="sm2" name="vol" min="0" max="33.3"
    value="0"><br><br>

    <label >3)HOW GOOD ARE YOU IN ACHIEVING
    GOALS?</label><br>

    <input type="range" id="sm3" name="vol" min="0" max="33.3"
    value="0"><br><br>

```

<label >4)HOW GOOD ARE YOU IN COLLABORATING WITH OTHERS?</label>

<input type="range" id="it1" name="vol" min="0" max="33.3" value="0">

<label >5)LEVEL OF YOUR PROBLEM SOLVING SKILLS?</label>

<input type="range" id="it2" name="vol" min="0" max="33.3" value="0">

<label >6)HOW MUCH DO YOU KNOW ABOUT COMPUTER LITERACY?</label>

<input type="range" id="it3" name="vol" min="0" max="33.3" value="0">

<label>7)ABILITY TO GRASP NEW LANGUAGE </label>

<input type="range" id="tran1" name="vol" min="0" max="33.3" value="0">

<label>8)KNOWLEDGE IN SPELLING & GRAMMAR</label>

<input type="range" id="tran2" name="vol" min="0" max="33.3" value="0">

<label>9)LANGUAGE FLUENCY LEVEL </label>

<input type="range" id="tran3" name="vol" min="0" max="33.3" value="0">

<label>10)LEVEL OF YOUR KNOWLEDGE IN SOFTWARE DEVELOPMENT LIFECYCLE</label>


```
<input type="range" id="dev1" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>11)LEVEL OF YOUR WORK IN FAST PACED
ENVIRONMENT</label><br>
```

```
<input type="range" id="dev2" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>12)LEVEL OF DOCUMENTATION READING</label><br>
```

```
<input type="range" id="dev3" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>13)LEVEL OF CREATIVITY</label><br>
```

```
<input type="range" id="cre1" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>14)FAMILARITY WITH DESING SOFTWARES</label><br>
```

```
<input type="range" id="cre2" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
<label>15)CREATIVIYTY LEVEL</label><br>
```

```
<input type="range" id="cre3" name="vol" min="0" max="33.3"
value="0"><br><br>
```

```
</div>
```

```
<button id="sub" onclick="myFunction()">
```

SUBMIT

```
</button>
```

```
<canvas id="myChart" ></canvas>
```

```
<style type="text/css">
```

```
button {
```

```
    margin-top: 2%;
```

```
    line-height: 60px;
```

```
    font-weight: bold;
```

```
    padding: 0 40px;
```

```
    background: salmon;
```

```
    border: none;
```

```
    margin-left: 50%;
```

```
}
```

```
button:hover {
```

```
    background: lightsalmon;
```

```
}
```

```
</style>
```

```
<script type="text/javascript">
```

```
function myFunction() {
```

```
    var a = document.getElementById('sm1').value;
```

```
    var b = document.getElementById('sm2').value;
```

```
    var c = document.getElementById('sm3').value;
```



```
var d = document.getElementById('it1').value;
var e = document.getElementById('it2').value;
var f = document.getElementById('it3').value;
var g = document.getElementById('tran1').value;
var h = document.getElementById('tran2').value;
var i = document.getElementById('tran3').value;
var j = document.getElementById('dev1').value;
var k = document.getElementById('dev2').value;
var l = document.getElementById('dev3').value;
var m = document.getElementById('cre1').value;
var n = document.getElementById('cre2').value;
var o = document.getElementById('cre3').value;
var sm =parseInt(a)+parseInt(b)+parseInt(c);
var ite =parseInt(d)+parseInt(e)+parseInt(f);
var trns =parseInt(g)+parseInt(h)+parseInt(i);
var deve =parseInt(j)+parseInt(k)+parseInt(l);
var des =parseInt(m)+parseInt(n)+parseInt(o);
var grp=[sm,ite,trns,deve,des];
const ctx = document.getElementById('myChart');
const myChart = new Chart(ctx, {
  type: 'bar',
```

```

data: {
  labels: ['Sales&Marketing', 'IT&Engineering', 'Translation',
'Development', 'Designing'],
  datasets: [{
    label: 'RESULTS',
    data: grp,
    backgroundColor: [
      'rgba(255, 99, 132, 0.2)',
      'rgba(54, 162, 235, 0.2)',
      'rgba(255, 206, 86, 0.2)',
      'rgba(75, 192, 192, 0.2)',
      'rgba(153, 102, 255, 0.2)',
      'rgba(255, 159, 64, 0.2)'
    ],
    borderColor: [
      'rgba(255, 99, 132, 1)',
      'rgba(54, 162, 235, 1)',
      'rgba(255, 206, 86, 1)',
      'rgba(75, 192, 192, 1)',
      'rgba(153, 102, 255, 1)',
      'rgba(255, 159, 64, 1)'
    ]
  }]
}

```

```

        ],
        borderWidth: 1
    }]
},
options: {
    scales: {
        y: {
            beginAtZero: true
        }
    }
}
});

var button = document.createElement("button");
button.innerHTML = "GET JOB RECOMMENDATION";
// 2. Append somewhere
var body = document.getElementsByTagName("body")[0];
body.appendChild(button);
// 3. Add event handler
button.addEventListener ("click", function() {
    if (sm>ite && sm>trns && sm>deve && sm>des)
{

```

```

        window.open("https://www.naukri.com/sales-jobs");
    }
    else if (ite>sm && ite>trns && ite>deve && ite>des)
    {
        window.open("https://www.naukri.com/it-jobs");
    }
    else if (trns>sm && trns>ite && trns>deve && trns>des)
    {
        window.open("https://www.naukri.com/translation-jobs");
    }
    else if (deve>sm && deve>ite && deve>trns && deve>des)
    {
        window.open("https://www.naukri.com/development-jobs");
    }
    else if (des>sm && des>ite && des>trns && des>deve)
    {
        window.open("https://www.naukri.com/designing-jobs");
    }
});

var button = document.createElement("button");
button.innerHTML = "LOG OUT";

```

Github Link:

<https://github.com/IBM-EPBL/IBM-Project-46285-1660744516>

Demo Link:

<https://www.youtube.com/watch?v=J7SwkZaSJAk&feature=youtu.be>