

# **IBM – NALAIYA THIRAN PROJECT**

## **SMART FASHION RECOMMENDER APPLICATION**

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## **ABSTRACT**

An online comprehensive Customer Care Solution is to manage customer interaction and complaints with the Service Providers over phone or through and e-mail. The system should have capability to integrate with any Service Provider from any domain or industry like Banking, Telecom, Insurance, etc.

Customer Service also known as Client Service is the provision of service to customers its significance varies by product, industry and domain. In many cases customer service is more important if the purchase relates to a service as opposed to a product.

Customer Service may be provided by a Person or Sales & Service Representatives Customer Services is normally an integral part of a company's customer value proposition.

## TABLE OF CONTENT

CHAPTER	CONTENTS	PAGE NO
1	<b>INTRODUCTION</b> 1.1 PROJECT OVERVIEW 1.2 PURPOSE	05
2	<b>LITERATURE SURVEY</b> 2.1 EXISTING PROBLEM 2.2 REFERENCES 2.3 PROBLEM STATEMENT DEFINITION	06
3	<b>IDEATION &amp; PROPOSED SOLUTION</b> 3.1 EMPATHY MAP CANVAS 3.2 IDEATION & BRAINSTORMING 3.3 PROPOSED SOLUTION 3.4 PROBLEM SOLUTION FIT	10
4	<b>REQUIREMENT ANALYSIS</b> 4.1 FUNCTIONAL REQUIREMENT 4.2 NON-FUNCTIONAL REQUIREMENTS	16
5	<b>PROJECT DESIGN</b> 5.1 DATA FLOW DIAGRAMS 5.2 SOLUTION & TECHNICAL ARCHITECTURE 5.3 USER STORIES	18

<b>6</b>	<b>PROJECT PLANNING &amp; SCHEDULING</b> 6.1 SPRINT PLANNING & ESTIMATION 6.2 SPRINT DELIVERY SCHEDULE 6.3 REPORTS FROM JIRA	<b>24</b>
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<b>7</b>	<b>CODING &amp; SOLUTIONING</b> 7.1 FEATURE 1 7.2 FEATURE 2 7.3 DATABASE SCHEMA	<b>28</b>
<b>8</b>	<b>TESTING</b> 8.1 TEST CASES 8.2 USER ACCEPTANCE TESTING	<b>70</b>
<b>9</b>	<b>RESULTS</b> 9.1 PERFORMANCE METRICS	<b>71</b>
<b>10</b>	<b>ADVANTAGES &amp; DISADVANTAGES</b>	<b>73</b>
<b>11</b>	<b>CONCLUSION</b>	<b>74</b>

<b>12</b>	<b>FUTURE SCOPE</b>	<b>75</b>
<b>13</b>	<b>APPENDIX</b> SOURCE CODE GITHUB & PROJECT DEMO LINK	<b>76</b>

# **1. INTRODUCTION**

## **1.1 PROJECT OVERVIEW**

Customer service is the support you offer your customers — both before and after they buy and use your products or services — that helps them have an easy and enjoyable experience with you. Offering amazing customer service is important if you want to retain customers and grow your business. Today's customer service goes far beyond the traditional telephone support agent. It's available via email, web, text message, and social media. Many companies also provide self-service support, so customers can find their own answers at any time day or night. Customer support is more than just providing answers; it's an important part of the promise your brand makes to its customers.

## **1.2 PURPOSE**

Customer care plays a major role in the success of a business. It involves looking after customers to best ensure a delightful interaction and satisfaction with a business as well as its goods, services, and brand. Instead of just making a sale, good customer care ensures that customers are cared for, their needs are listened to, and they get help in finding the right solution. In many cases, customer care moves a step beyond basic customer service by building an emotional connection.

Good customer care means helping customers in an efficient manner that goes beyond their expectations. The success of a business and customer care are intertwined and this is one of the reasons why many businesses are focusing more on offering their customers with excellent services. Be sure you do all that you can to keep your customers informed, on the move, and happy. If your company is responsive, friendly and offers relevant information when needed by a consumer, you'll be in a position to build a reputation for good customer care. While customer care might seem obvious, it is an aspect that's easy to overlook as many businesses spend a lot of time and money on advertisements that look to attract new customers. Creating a successful brand is more than just offering a service or moving a product.

## **2. LITERATURE SURVEY**

### **2.1 EXISTING PROBLEM:**

Self-service platforms should be simple and intuitive to navigate across channels. Some features that confuse users include open-ended navigation, hierarchical menu structures, buried content, multiple tabs and lack of standardized document formats and inputs.

These features can also lead to frustration and customer drop-off, said Jonathan Collins, strategic advisor at Foretell Reality, a VR platform for professional communication. Missing, outdated or incorrect information can also annoy customers. Another disadvantage of self-service options is the lack of ongoing attention they get. Many business managers expect the platform to run on autopilot once launched, Collins said. Yet, like any site, CX teams should continually analyze customer interactions with the self-service platform to optimize and improve CX.

Additionally, content teams should regularly remove stale documents and FAQs to reduce clutter, as well as updating content tags based on search engine queries to improve search results. Machine learning can improve resolution times, and technologies such as voice, video and augmented reality could create more engaging customer experiences.

Some self-service options aren't flexible enough to meet changing customer and business needs. "Organizations that put platforms in place that can't be easily changed or updated are setting themselves up for failure since demands evolve constantly," said Dietmar Rietsch, CEO of Pimcore, a CX management software provider. Organizations could embrace a self-service system that relies on cloud and open source technology, iterates with customer data and provides accurate and relevant content. This system's flexibility can reduce time spent reworking other platforms to ensure they meet current needs.

Some self-service platforms send users through a portal path that asks for information the company already knows. "It is very frustrating for users to repeat information every time they access a portal or call a company's contact center," Buchanan said. Customers expect organizations to already know information they've provided, so forcing them to submit it again wastes theirs and agents' time. A customer should have a

login so the portal can present relevant data and options tailored to the user. This way, customers feel that the organization understands them and doesn't force them to repeatedly enter the same data.

## 2.2 REFERENCES:

- [1] Uddi Executive Overview: Enabling Service Oriented Architecture, 2004 Oct.
- [2] “Web Services Architecture”, <http://www.w3.org/TR/ws-arch/>. Date Accessed: 11/02/2004.
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- [4] Christensen E, Curbera F, Meredith G, Weerawarana S, Web Services Description Language (WSDL) 1.1, W3C Note, 2001
- [5] Ali A S, Rana O F, Ali R A, Walker D W, UDDIe: an extended registry for Web services, SAINT-w’03 Proceedings of the 2003 Symposium on Applications and the Internet Workshops, 2003 Jan, pp .85-89.
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- [7] Liu J, Gu N, Zong Y Ding Z, Zhang S, Zhang Q Service Registration and Discovery in a Domain-Oriented UDDI Registry Proceedings of the 2005 The Fifth International Conference on Computer and Information Technology (CIT’05),2005, pp .276-83.,
- [8] Jian W, Zhaohui W, Similarity-based Web Service Matchmaking Proceedings of the 2005 IEEE International Conference on Services Computing (SCC’05), 2005
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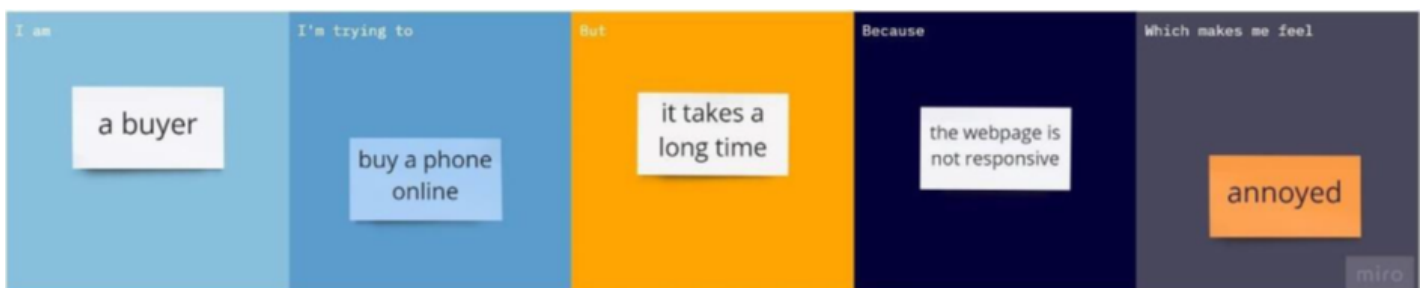


## 2.3 PROBLEM STATEMENT DEFINITION

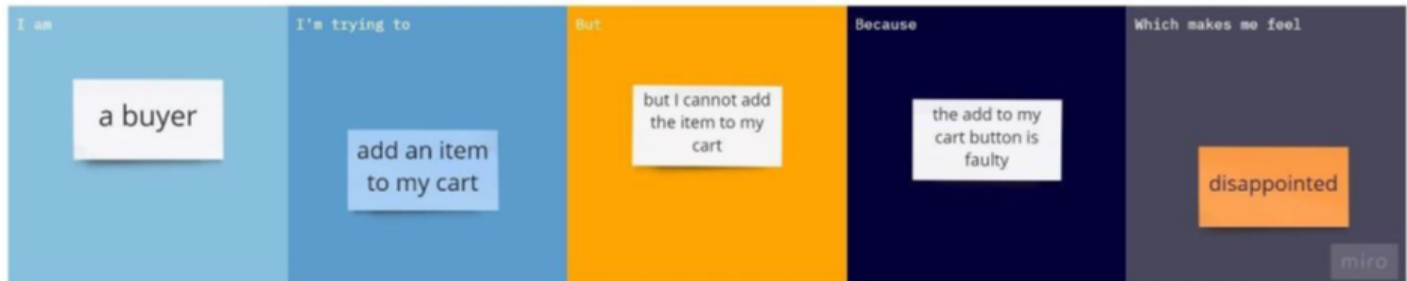
A customer problem statement outlines problems that your customers face. It helps you figure out how your product or service will solve this problem for them. The statement helps you understand the experience you want to offer your customers. It can also help you understand a new audience when creating a new product or service.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service. It's important to validate your customer's problems by running user research. This template is a way of crafting your problem statement, not analyzing your customer profile or needs.

PS 1



PS 2



### **3.IDEATION & PROPOSED SOLUTION**

This Application has been developed to help the customer in processing their complaints. The customers can raise the ticket with a detailed description of the issue. An Agent will be assigned to the Customer to solve the problem. Whenever the agent is assigned to a customer they will be notified with an email alert. Customers can view the status of the ticket till the service is provided.

In this project you will be working on two modules :

1. Admin and
2. User
3. Agent

#### **ADMIN:**

The main role and responsibility of the admin are to take care of the whole process. Starting from Admin login followed by the agent creation and assigning the customer's complaints. Finally, He will be able to track the work assigned to the agent and a notification will be sent to the customer.

#### **USER :**

They can register for an account. After the login, they can create the complaint with a description of the problem they are facing. Each user will be assigned with an agent. They can view the status of their complaint.

#### **AGENT:**

After the user successfully Registered their Admin has Quickly Response to the user.

#### **FEATURES OF CHATBOT :**

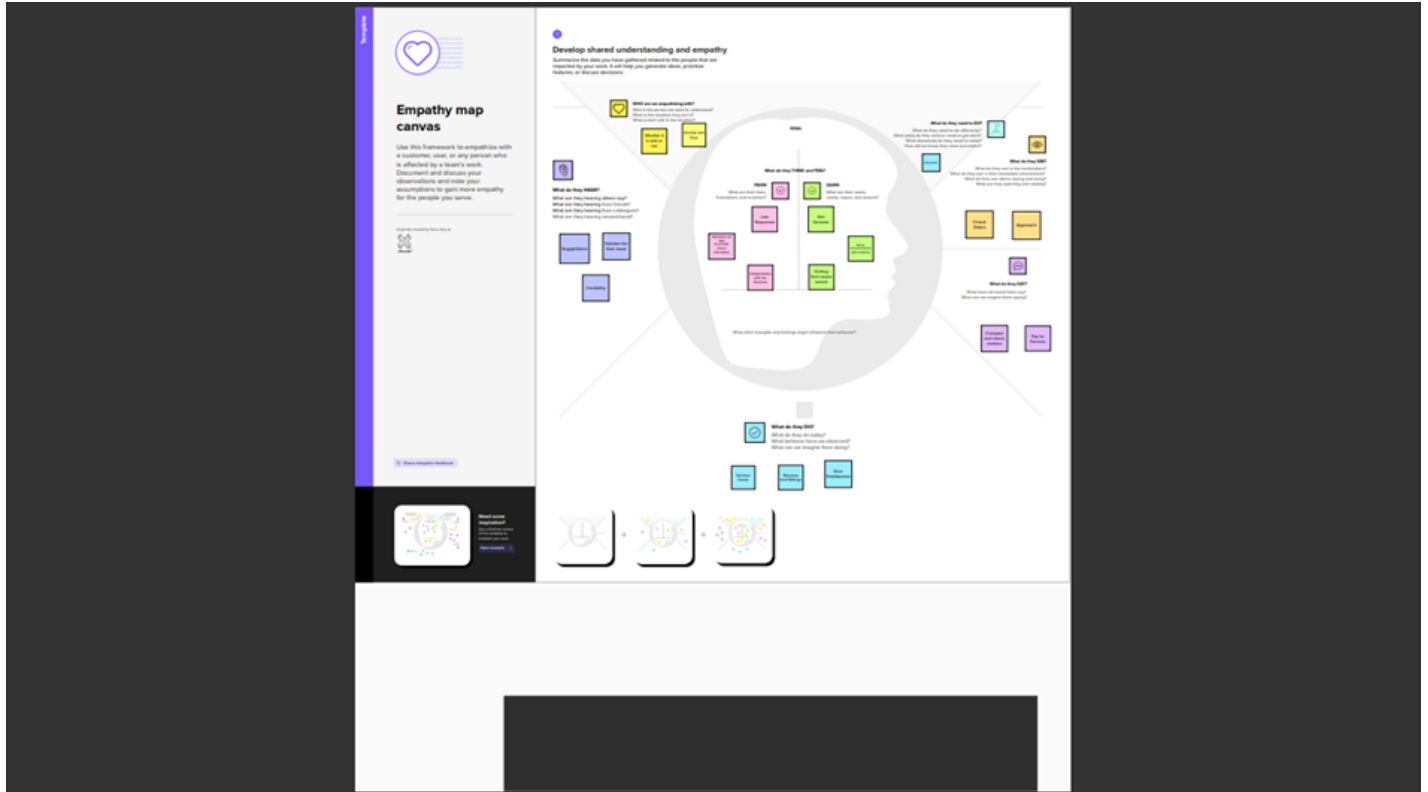
- You have a global, growing base of customers, who require multi-lingual support.
- Support is needed across multiple channels (e.g. website, in-app, social media, etc.).
- You're unable to have your support team present 24/7.
- You need to reduce your customer service costs and find more efficient ways to scale your customer support.
- Chatbots can also help in collecting customer feedback.

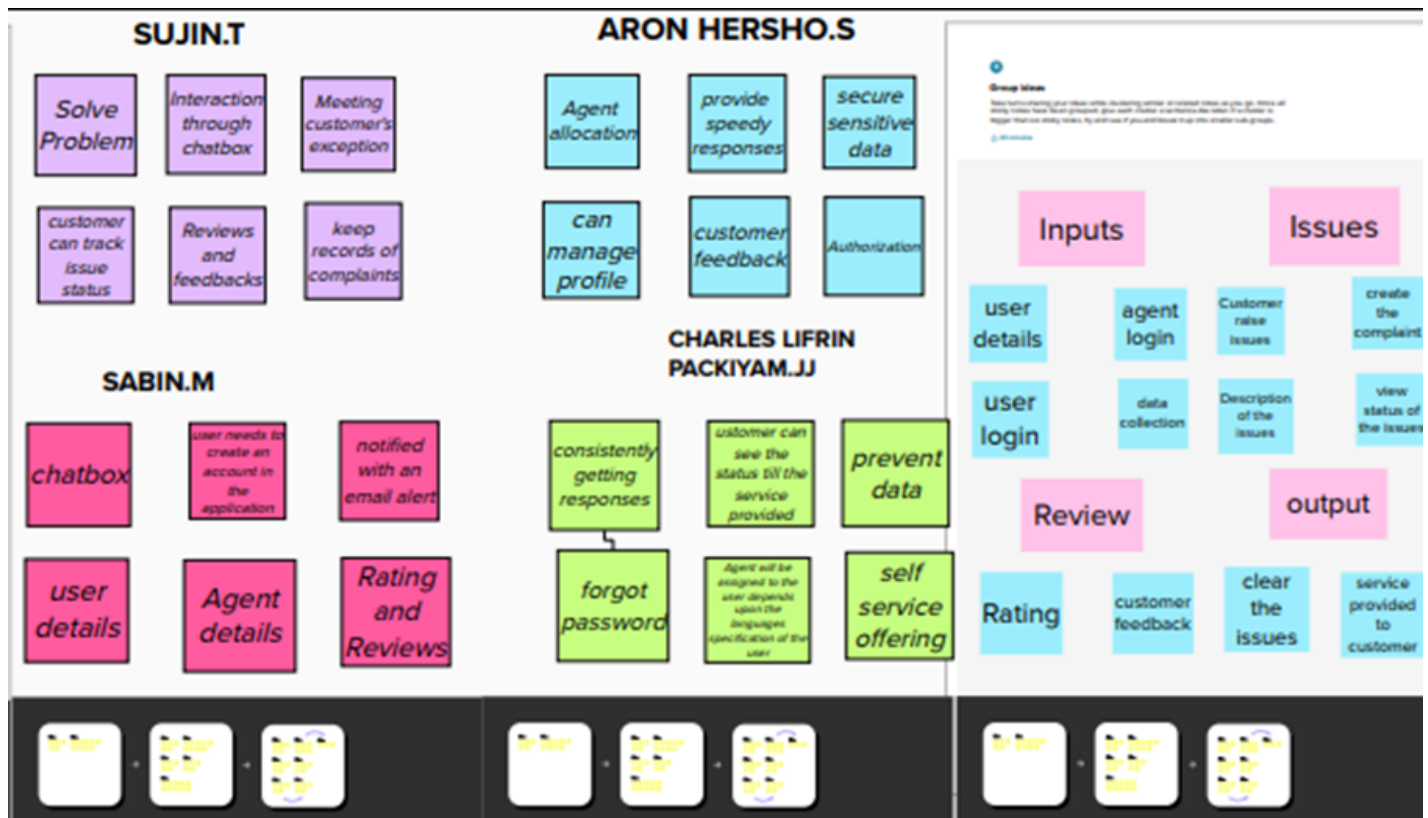
### **3.1 EMPATHY MAP CANVAS:**

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to help teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges. An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers.

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

A group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group. The mulling over of ideas by one or more individuals in an attempt to devise or find a solution to a problem.





### 3.3 PROPOSED SOLUTION:

#### CUSTOMER CARE REGISTRY

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

S.No.	Parameter	Description
•	Problem Statement (Problem to be solved)	To create an interface to land tickets to solve problems for the customers
•	Idea / Solution description	1.creating webpage for logging in.  2.creating dashboard for customer support and for raising tickets.  3.status bar is created to show the progress of completion.  4.Adding subproblems recommendations.
•	Novelty / Uniqueness	Creating pre-planned problems(options) to make the technical team to understand the problem easier.

•	Social Impact / Customer Satisfaction	Adding star-based review to know how much accurately the problem is solved .
•	Business Model (Revenue Model)	<p>1.Checking timely status of the problem.</p> <p>2. directing an email to the client regarding the ticket(opening and closing).</p> <p>3.Predicting the estimated time for solving the problem.</p>
•	Scalability of the Solution	As the prescribed app runs on cloud server,scaling is flexible based on our customer over time ,hence scalable. .



## 3.4 PROBLEM SOLUTION FIT

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)The customers who are not able to solve their queries. 2)The customers can solve their problems by raising the tickets.	<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)This application is supported by all the devices. 2)The solution we propose will have an alert via email feature	<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  1)By communicating properly with an agent. 2)By reading the guidelines properly.	Explore AS, differentiate
	<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)Customer can find the solution for the query that he/she are raised. 2)They can also solve the raised query by using chatbot.	<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)Not reading the guidelines properly. 2)some of the customers have lack of knowledge. 3)Lots of customers have not reads the guidelines properly.	<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)All the customers must read the guidelines properly to avoid the problem. 2)All the customer should find a proper solution for their queries.	
<b>3. TRIGGERS</b> <span>TR</span> What triggers customers to act? i.e. seeing their neighbor installing solar panels, leading about a more efficient solution in the news.  The customer must know how to solve the problem.	<b>10. YOUR SOLUTION</b> <span>S</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 ideally. 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 behavioral.  Our solution is to design a helpdesk that is helpful for customer to solve their queries that they have raised.	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>K1 ONLINE</b> What kind of actions do customers take online? Extract online channels from 7 and use them for customer development.  All the data that are provided by the customers are very safe in cloud storage.	Identify strong TR & EM	
<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.  The customer can get help from our agents we are assigned and they feel very satisfied with our services.	<b>K2 OFFLINE</b> What kind of actions do customers take offline? Extract offline channels from 7 and use them for customer development.  They can get better solutions for the queries they raised.	Identify strong TR & EM		

## 4.REQUIREMENT ANALYSIS

### 4.1 FUNCTIONAL REQUIREMENT:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through mobile number Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login via Google with User name and password Login through Login form.
FR-4	User query	Ask through SMS, Chabot, Email etc... Ask via Internet
FR-5	Admin Login	Login via Google with User name and password. Login through Login form.
FR-6	Admin Confirmation	Confirmation via Email Confirmation via OTP
FR-7	Query form	Share screenshot.

## CUSTOMER CARE REGISTRY

### Functional Requirements:

Following are the functional requirements of the proposed solution.



FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none"> <li>✓ Registration through Form</li> <li>✓ Registration through Gmail</li> <li>✓ Registration through LinkedIn</li> </ul>
FR-2	User Confirmation	<ul style="list-style-type: none"> <li>✓ Confirmation via Email</li> <li>✓ Confirmation via OTP</li> </ul>
FR-3	User Login	<ul style="list-style-type: none"> <li>✓ Login via Google with User name and password.</li> <li>✓ Login through Login form.</li> </ul>
FR-4	User query	<ul style="list-style-type: none"> <li>✓ Ask through SMS, Chabot, Email etc.....</li> <li>✓ Ask via Internet</li> </ul>
FR-5	Admin Login	<ul style="list-style-type: none"> <li>✓ Login via Google with User name and password.</li> <li>✓ Login through Login form.</li> </ul>
FR-6	Admin Confirmation	<ul style="list-style-type: none"> <li>✓ Confirmation via Email</li> <li>✓ Confirmation via OTP</li> <li>✓ Confirmation via Two-step verification</li> </ul>
FR-7	Query form	<ul style="list-style-type: none"> <li>✓ Share screenshot.</li> </ul>
FR-8	Database	<ul style="list-style-type: none"> <li>✓ Preserving the items.</li> </ul>
FR-9	Problem Solution	<ul style="list-style-type: none"> <li>✓ Replaced the damage one.</li> <li>✓ Fast delivery instead of slow delivery.</li> </ul>
FR-10	Product Quality	<ul style="list-style-type: none"> <li>✓ Good Quality.</li> <li>✓ No damage products.</li> </ul>
FR-11	Feedback	<ul style="list-style-type: none"> <li>✓ End-user feedback</li> </ul>

## 4.2 NON-FUNCTIONAL REQUIREMENTS:

### CUSTOMER CARE REGISTRY

#### Non-functional Requirements:

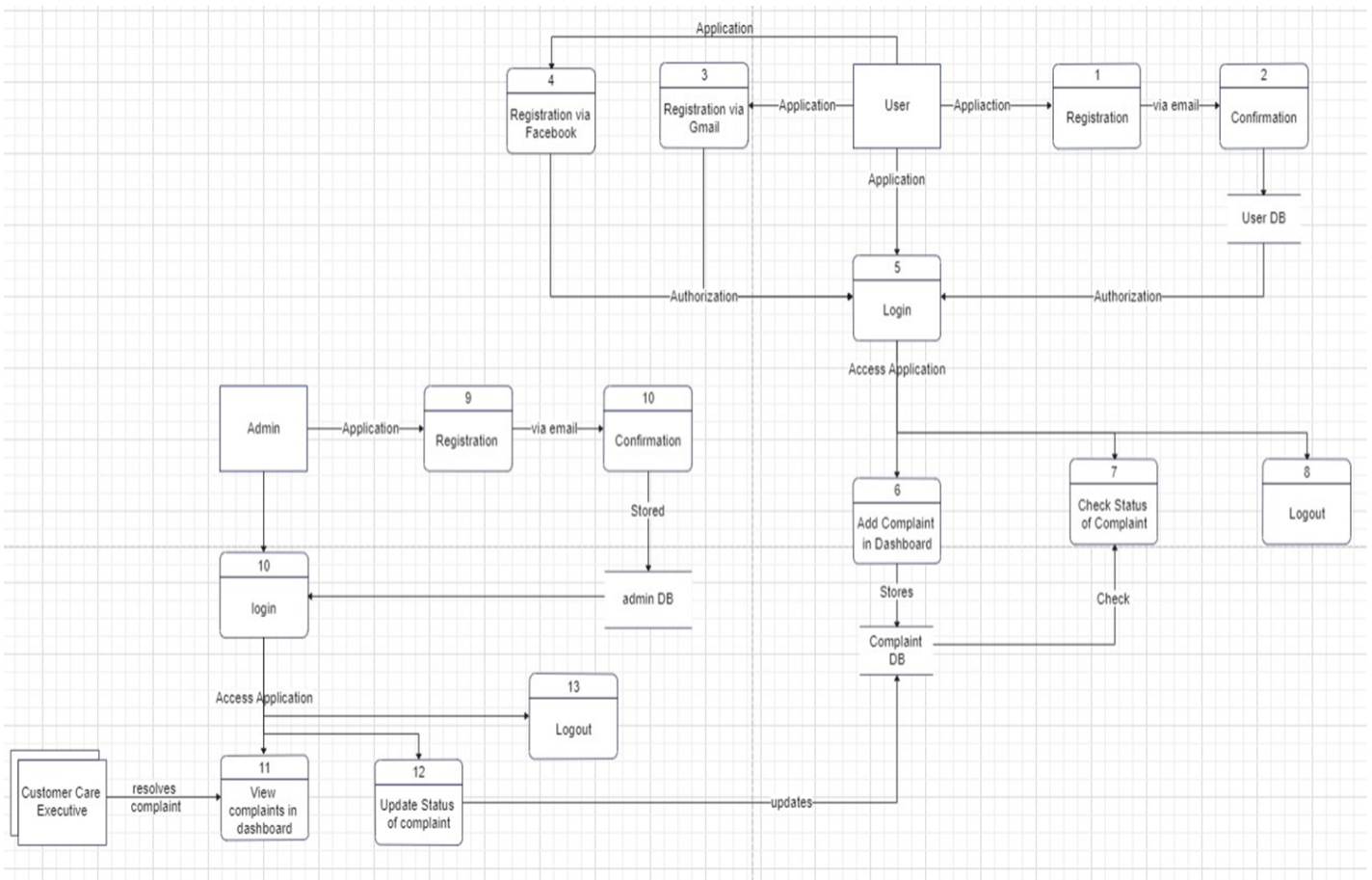
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	✓ To offer a solution for the issues. ✓ User friendly.
NFR-2	Security	✓ Before any Unknown <u>person trying</u> to login their account, the notification will be send either to their registered email id or to their registered mobile number. ✓ User information must be encrypted.
NFR-3	Reliability	✓ Making our web application more reliable.
NFR-4	Performance	✓ Simple and well optimized. ✓ Browser compatibility. ✓ Responsive and adaptable.
NFR-5	Availability	✓ User can interact with their respective agents 24/7 by following proper user agent guideline.
NFR-6	Scalability	✓ According to customer volume. ✓ <u>Increase user's</u> request ✓ Data storage will increase. ✓ Allotment will be increased.

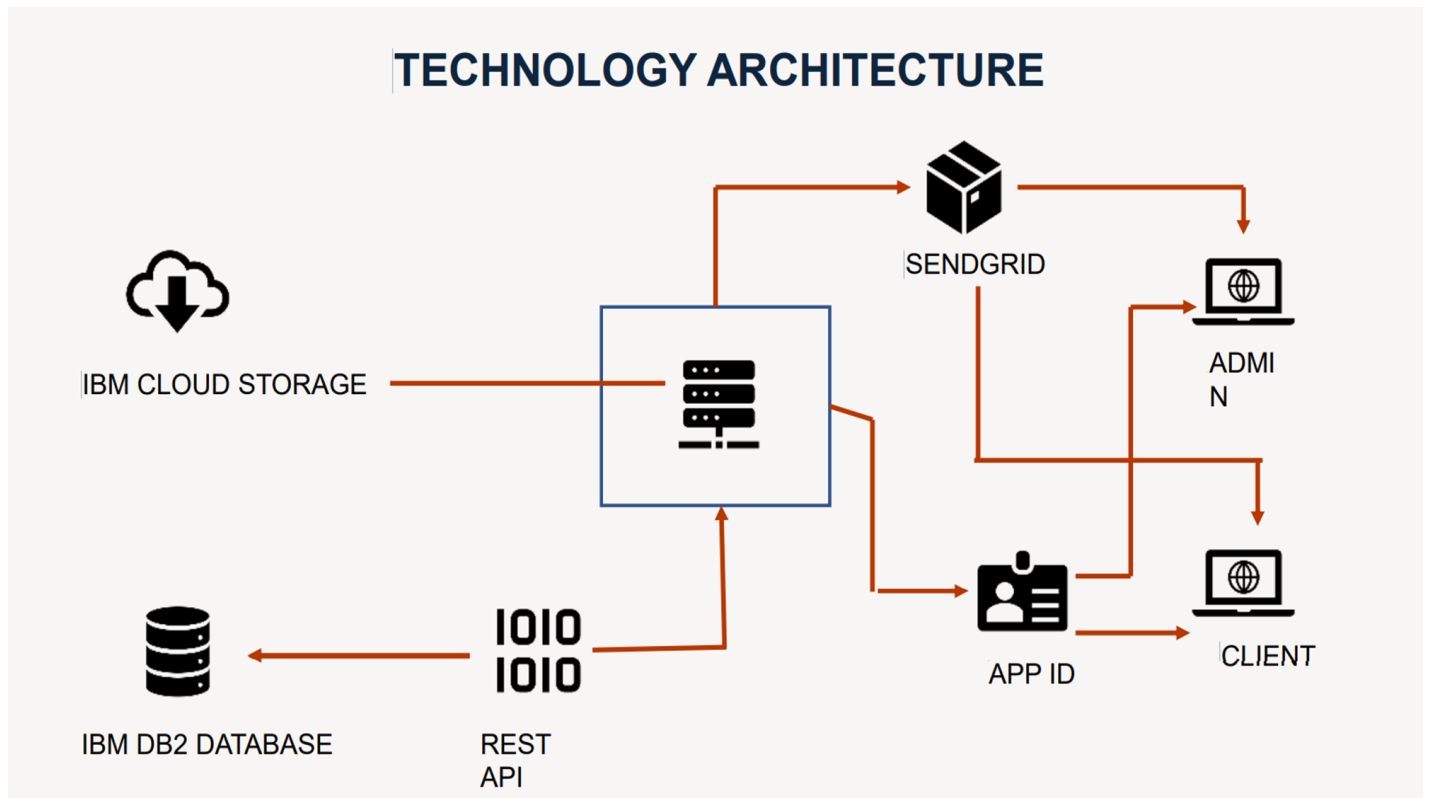
## 5.PROJECT DESIGN

### 5.1 DATA FLOW DIAGRAMS:

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



## 5.2 SOLUTION & TECHNICAL ARCHITECTURE:



### 5.3 USER STORIES :

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none"><li>✓ Registration through Form</li><li>✓ Registration through Gmail</li><li>✓ Registration through LinkedIn</li></ul>
FR-2	User Confirmation	<ul style="list-style-type: none"><li>✓ Confirmation via Email</li><li>✓ Confirmation via OTP</li></ul>
FR-3	User Login	<ul style="list-style-type: none"><li>✓ Login via Google with User name and password.</li><li>✓ Login through Login form.</li></ul>
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FR-11	Feedback	<ul style="list-style-type: none"><li>✓ End-user feedback</li></ul>

## 6.PROJECT PLANNING & SCHEDULE

### 6.1 SPRINT PLANNING & ESTIMATION:

#### TECHNOLOGY ARCHITECTURE

S.NO	COMPONENT	DESCRIPTION	TECHNOLOGY
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL etc
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

#### APPLICATION CHARACTERISTICS

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	python flask
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g., encryption, intrusion detection software, antivirus, firewalls
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	supports higher workloads without any fundamental changes to it.
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	High availability enables your IT infrastructure to continue functioning even when some of its components fail.



## 6.2 SPRINT DELIVERY SCHEDULE:

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	10	6 Days	24 Oct 2022	29 Oct 2022	10	29 Oct 2022
Sprint-2	6	6 Days	31 Oct 2022	05 Nov 2022	7	05 Nov 2022
Sprint-3	6	3 Days	07 Nov 2022	09 Nov 2022	6	09 Nov 2022
Sprint-4	5	3 Days	09 Nov 2022	12 Nov 2022	5	12 Nov 2022
Sprint-5	8	6 Days	13 Nov 2022	19 Nov 2022	8	19 Nov 2022

## 7.CODING & SOLUTIONING

### 7.1 FEATURE-1:

#### HOMEPAGE.HTML:

```
s > <> home.html
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>JOBPORTAL | HOME</title>
<meta charset="UTF-8">
<!-- favicon -->
<!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
<!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
<link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-32x32.png">
<!-- bootstrap css cdn -->
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="
<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome@4.7.0/css/font-awesome.css">
<!-- css stylesheet -->
<link rel="stylesheet" href="css/style.css">
<!-- font styles cdn -->
<link rel="preconnect" href="https://fonts.gstatic.com">
<link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap" rel="stylesheet">
<link href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap" rel="stylesheet">
<script>
  window.watsonAssistantChatOptions = {
    integrationID: "3818f373-f2a3-4901-81f4-72dedab88401", // The ID of this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "2218106a-fe5d-4c12-8f28-a5f5cffffbb6a", // 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.watsonAssistantChatOp
    document.head.appendChild(t);
  });
</script>
```

```

lates > <> home.html
</head>
<body>
  <!-- bootstrap navbar -->
  <nav class="navbar sticky-top navbar-expand-lg navbar-dark">
    <div class="container-fluid">
      <a class="main-logo-img mt-3" href="#">JobPortal</a> -->
      </a>

      <div class="row donate-sponsor">
        <a type="button" class="btn btn-success mr-1" id="donate" href="login">LOGIN</a>
        <a type="button" class="btn btn-warning mr-1" id="sponsor" href="register">REGISTER</a>
        <a type="button" class="btn btn-primary mr-1" id="sponsor" href="contact.html">CONTACT US</a>
      </div>
    </div>
  </nav>
  <!-- navbar ends -->

  <!-- what we focus on -->
  <section class="our-focus">
    <div class="container">
      <h2 class="text-center mt-3">Aboutus</h2>
      <div class="row ml-3 mt-3">
        <div class="col-lg-3 mr-5" id="focus-first">
          <div class="card" style="width: 19rem;">
            <!--  -->
            <div class="card-body">
              <h5 class="card-title">Mission</h5>
              <p class="card-text">SMARTBRIDGE is an edTech organization with a vision to bridge the gap between ac
              </p>
            </div>
          </div>

```

```

<div class="col-lg-3 mr-5" id="focus-second">
  <div class="card" style="width: 20rem;">
    <!-- 
    <div class="card-body">
      <h5 class="card-title">Vission</h5>
      <p class="card-text">Our main objective is to bridge the existing gaps between prevailing industry s
Our skill development programs are designed considering the present expectations in the industry. </p>
    </div>
  </div>
</div>
<div class="col-lg-3 ml-5" id="focus-third">
  <div class="card" style="width: 20rem;">
    <!-- 
    <div class="card-body">
      <h5 class="card-title">Objective</h5>
      <p class="card-text">Well directed career guidance programs for educational institutions
Appropriate certification courses that suit the industry need
Train the trainers; expanded awareness about the current industry standards
Liaise with corporates to offer niche internships
Establish technology development centers in colleges
Specialised incubation centers in collaboration with corporates</p>
    </div>
  </div>
</div>
</div>
</section>
<!-- focus section ends -->

<!-- footer starts -->
<!-- Site footer -->
<footer class="site-footer">

```

```

emplates > <> home.html
02 <!-- footer starts -->
03 <div class="site-footer">
04   <div class="container mt-5">
05     <div class="row">
06       <div class="col-sm-12 col-md-6">
07         <h2>Customer Care Registry</h2>
08         <p class="text-justify">This Application has been developed to help the customer in processing their co
09         The customers can raise the ticket with a detailed description of the issue.
10         An Agent will be assigned to the Customer to solve the problem.
11         Whenever the agent is assigned to the customer they will be notified with an email alert.
12         Customers can view the status of the ticket till the service is provided.
13       </div>
14     </div>
15     <div class="col-sm-6 col-md-3">
16       <h4>Get in Touch</h4>
17       <ul class="list-group">
18         <li><a href="mailto:test@gmail.com">customercare@gmail.com</a></li>
19         <li><a href="">+91 8977787657</a></li>
20       </ul>
21     </div>
22   </div>
23   <hr>
24 </div>
25 </div>
26 </div>
27 </div>
28 </div>
29 </div>
30 </div>
31 </div>
32 </div>
33 </div>
34 </div>

```

## REGISTER.HTML:

```
plates > <> register.html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>JOBPORTAL | LOGIN</title>
  <!-- favicon -->
  <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
  <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
  <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-32x32.png">
  <!-- bootstrap css cdn -->
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="s
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.css">
  <!-- css stylesheet -->
  <link rel="stylesheet" href="css/style.css">
  <!-- font styles cdn -->
  <link rel="preconnect" href="https://fonts.gstatic.com">
  <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap" rel="stylesheet">
  <link href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap" rel="stylesheet">
  <script>
    window.watsonAssistantChatOptions = {
      integrationID: "3818f373-f2a3-4901-81f4-72dedab88401", // The ID of this integration.
      region: "au-syd", // The region your integration is hosted in.
      serviceInstanceID: "2218106a-fe5d-4c12-8f28-a5f5cfffbb6a", // 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.watsonAssistantChat0
      document.head.appendChild(t);
```

```

ates > register.html
});
</script>
</head>
<body>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#">JobPortal</a> -->
        </a>
    </div>
    <!-- navbar ends -->
    <!-- Login form -->
    <div class="login text-center mt-5">
        <h2> Register Form </h2>
        <form action="/register" method="post">
            <div class="msg">{{ msg }}</div>
            <!-- <input type="text" placeholder="fullname" id="fullname"> </br></br> -->

            <input type="text" name="username" placeholder="Enter Your Username" id="username" required></br></br>
            <input type="email" name="email" placeholder="Enter Your Email ID" id="email" required></br></br>
            <input type="password" name="password" placeholder="Enter Your Password" id="password" required></br></br>

            </br>
            </br>
            <button type="submit" id="button" class="btn btn-primary"> Register </button>
        </form>
    </div>

    <div class="note mt-3 text-center"> <!--Register form -->
    <p> already have an account ? please login <a href="/login">login! </a> </p>

    </div>
</body>

```

## 7.2 FEATURE 2:

### LOGIN.HTML:

```
ates > <> login.html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>JOBPORTAL | LOGIN</title>
  <!-- favicon -->
  <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
  <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
  <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-32x32.png">
  <!-- bootstrap css cdn -->
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="s
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.css">
  <!-- css stylesheet -->
  <link rel="stylesheet" href="css/style.css">
  <!-- font styles cdn -->
  <link rel="preconnect" href="https://fonts.gstatic.com">
  <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap" rel="stylesheet">
  <link href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap" rel="stylesheet">
<script>
  window.watsonAssistantChatOptions = {
    integrationID: "3818f373-f2a3-4901-81f4-72dedab88401", // The ID of this integration.
    region: "au-syd", // The region your integration is hosted in.
    serviceInstanceID: "2218106a-fe5d-4c12-8f28-a5f5cfffbb6a", // 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.watsonAssistantChat0
    document.head.appendChild(t);
```

```

    });
</script>
</head>
<body>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#">JobPortal</a> -->
        </a>
    </div>
    <!-- navbar ends -->
    <!-- Login form -->
    <div class="login text-center mt-5">
        <h2> Login Form </h2>
        <form action="/login" method="post">
            <div class="msg">{{ msg }}</div>
            <input type="text" name="username" placeholder="Enter Your Username" id="username" required></br></br>
            <input type="password" name="password" placeholder="Enter Your Password" id="password" required></br></br>
            </br>
            <button type="submit" id="button" class="btn btn-primary"> Login </button>
        </form>
    </div>

    <div class="note mt-3 text-center"> <!--Register form -->
    <p> Don't have an account yet? Click here to <a href="register">register! </a> </p>
    </div>
</body>
</html>

```



## CHATBOT (SOURCE CODE) :

```
index.html > ...
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>Fashion Trends </title>
9 <link rel="stylesheet" href="https://sujincustomercare.s3.jp-tok.cloud-object-storage.appdomain.cloud/image.css">
10
11 </head>
12 <script>
13   window.watsonAssistantChatOptions = {
14     integrationID: "3818f373-f2a3-4901-81f4-72dedab88401", // The ID of this integration.
15     region: "au-syd", // The region your integration is hosted in.
16     serviceInstanceID: "2218106a-fe5d-4c12-8f28-a5f5cfffbb6a", // The ID of your service instance.
17     onLoad: function(instance) {
18       instance.render();
19     }
20   };
21   setTimeout(function() {
22     const t = document.createElement('script');
23     t.src = "https://web-chat.global.assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions.c
24     document.head.appendChild(t);
25   });
26 </script>
27
28 <body>
29   <h1> Customer Care Registry !!!</h1>
30   <div>
31     
37 </body>
```

## APPLY.HTML:

```
templates > apply.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>JOBPORTAL | APPLY</title>
8   <!-- favicon -->
9   <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
10  <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon"> -->
11  <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-32x32.png">
12  <!-- bootstrap css cdn -->
13  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="sha384-JcXb/q+wBqLLt2Pq0BpKai93H3PDMoIoIoN9zlBpN/HVp604PcAkeoB2D1QTb" crossorigin="anonymous">
14  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.css">
15  <!-- css stylesheet -->
16  <link rel="stylesheet" href="css/style.css">
17  <!-- font styles cdn -->
18  <link rel="preconnect" href="https://fonts.gstatic.com">
19  <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap" rel="stylesheet">
20  <link href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap" rel="stylesheet">
21  <script>
22    window.watsonAssistantChatOptions = {
23      integrationID: "3818f373-f2a3-4901-81f4-72dedab88401", // The ID of this integration.
24      region: "au-syd", // The region your integration is hosted in.
25      serviceInstanceID: "2218106a-fe5d-4c12-8f28-a5f5cfffbb6a", // The ID of your service instance.
26      onLoad: function(instance) {
27        instance.render();
28      }
29    };
30    setTimeout(function() {
31      const t = document.createElement('script');
32      t.src = "https://web-chat.global.assistant.watson.appdomain.cloud/versions/" + (window.watsonAssistantChatOptions ? window.watsonAssistantChatOptions.integrationID : undefined) + "/en-gb/default?source=webchat";
33      document.head.appendChild(t);
```

```
templates > apply.html
6 </head>
7 <body>
8   <!-- bootstrap navbar -->
9   <div class="logo mt-3 text-center">
10     <a class="main-logo-img mt-5" href="#"></a>
11     <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
12   </div>
13   <!-- navbar ends -->
14   <!-- Login form -->
15   <div class="login text-center mt-5">
16     <h2>We Will get back to you sooner</h2>
17     <div class="msg">{{ msg }}</div>
18     <form action="/apply" method="post" class="mt-3">
19       <!-- <input type="text" placeholder="fullname" id="fullname"> </br></br> -->
20       <input type="text" name="username" placeholder="Enter Your Username" id="username" required></br></br>
21       <input type="text" name="email" placeholder="Enter Your email" id="email" required></br></br>
22       <input type="text" name="qualification" placeholder="type your question here we will respond you quick" id="qualification"></br></br>
23       <input type="text" name="skills" placeholder="submit another query" id="skills"></br></br>
24       <input type="number" name="job" placeholder="give your number" id="job" required></br></br>
25     </form>
26     <button type="submit" id="button" class="btn btn-primary"> Submit</button>
27   </div>
28   <div class="note mt-3 text-center">
29     <p> click here to go to dashboard <a href="dashboard">Dashboard! </a> </p>
30   </div>
31 </body>
```

### 7.3 APP3.PY:

```
app3.py > ...
1  from flask import Flask,render_template,request,redirect,url_for,session
2  from flask_mysql import MySQL
3  import MySQLdb.cursors
4  import re
5
6  app = Flask(__name__)
7  app.secret_key = 'a'
8
9  app.config['MYSQL_HOST'] = 'localhost'
10 app.config['MYSQL_USER'] = 'root'
11 app.config['MYSQL_PASSWORD'] = ''
12 app.config['MYSQL_DB'] = 'jobportal'
13
14 mysql = MySQL(app)
15 @app.route('/')
16
17 def home():
18     return render_template('home.html')
19
20
21
22 @app.route('/register', methods=['GET', 'POST'])
23 def registet():
24     msg = ''
25     if request.method == 'POST' :
26         username = request.form['username']
27         email = request.form['email']
28         password = request.form['password']
29
30
31         cursor = mysql.connection.cursor()
32         cursor.execute('SELECT * FROM user WHERE username = % s', (username, ))
33         account = cursor.fetchone()
```

pp3.py > ...

```
if request.method == 'POST' :
    username = request.form['username']
    password = request.form['password']
    cursor = mysql.connection.cursor()
    cursor.execute('SELECT * FROM user WHERE username = % s AND password = % s', (username, password ),)
    account = cursor.fetchone()
    print (account)
    if account:
        session['loggedin'] = True
        session['id'] = account[0]
        userid= account[0]
        session['username'] = account[1]
        msg = 'Logged in successfully !'

        msg = 'Logged in successfully !'
        return render_template('dashboard.html', msg = msg)
    else:
        msg = 'Incorrect username / password !'
    return render_template('login.html', msg = msg)
```

```
@app.route('/logout')
```

```
def logout():
    session.pop('loggedin', None)
    session.pop('id', None)
    session.pop('username', None)
    return render_template('home.html')
```

```
@app.route('/display')
```

```
def display():
    print(session["username"],session['id'])
```

```
cursor = mysql.connection.cursor()
```

```
66
67 cursor = mysql.connection.cursor()
68 cursor.execute('SELECT * FROM job WHERE userid = % s', (session['id'], ))
69 account = cursor.fetchone()
70 print(account)
71 if account:
72
73     return render_template('apply.html', msg = msg)
```

```
74
75
76
77
78 cursor = mysql.connection.cursor()
79 cursor.execute('INSERT INTO job VALUES (% s, % s, % s, % s, % s, % s)', (session['id'],username, email,qualification))
80 mysql.connection.commit()
81 msg = 'Your query has been successfully sent to our team soon they will contact you !'
82 session['loggedin'] = True
83
84 #sendmail(TEXT,"sandeep@thesmartbridge.com")
85 #sendgridmail("sandeep@thesmartbridge.com",TEXT)
```

```
86
87
88
89 elif request.method == 'POST':
90     msg = 'Please fill out the form !'
91     return render_template('apply.html', msg = msg)
```

```
92
93 @app.route('/login',methods =['GET', 'POST'])
```

```
94 def login():
95     global userid
96     msg = ''
97
```

```

app3.py > ...
    if request.method == 'POST' :
        username = request.form['username']
        password = request.form['password']
        cursor = mysql.connection.cursor()
        cursor.execute('SELECT * FROM user WHERE username = % s AND password = % s', (username, password ),)
        account = cursor.fetchone()
        print (account)
        if account:
            session['loggedin'] = True
            session['id'] = account[0]
            userid= account[0]
            session['username'] = account[1]
            msg = 'Logged in successfully !'

            msg = 'Logged in successfully !'
            return render_template('dashboard.html', msg = msg)
        else:
            msg = 'Incorrect username / password !'
    return render_template('login.html', msg = msg)

@app.route('/logout')

def logout():
    session.pop('loggedin', None)
    session.pop('id', None)
    session.pop('username', None)
    return render_template('home.html')

@app.route('/display')
def display():
    print(session["username"],session['id'])

    cursor = mysql.connection.cursor()

```

```

app3.py > ...
125     return render_template('home.html')
126
127 @app.route('/display')
128 def display():
129     print(session["username"],session['id'])
130
131     cursor = mysql.connection.cursor()
132     cursor.execute('SELECT * FROM job WHERE userid = % s', (session['id'],))
133     account = cursor.fetchone()
134     print("accountdisplay",account)
135
136
137     return render_template('display.html',account = account)
138
139
140
141 if __name__ == '__main__':
142     app.run(host= '0.0.0.0',debug=True,port=8080)

```

## 8.TESTING

### 8.1 TEST CASES:



[LOGIN](#) [REGISTER](#) [CONTACT US](#)

#### Aboutus

##### Mission

SMARTBRIDGE is an edTech organization with a vision to bridge the gap between academia & industry. Our outcome-based experiential learning programs on emerging technologies (Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Robotics) are building skilled entry - level engineers, for the corporate world. .

##### Vission

Our main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduates while passing out of university. SmartBridge offers suitable skill deployment and training to the young talent before on boarding their first job. Our skill development programs are designed considering the present expectations in the industry.

##### Objective

Well directed career guidance programs for educational institutions  
Appropriate certification courses that suit the industry need  
Train the trainers; expanded awareness about the current industry standards  
Liaise with corporates to offer niche internships  
Establish technology development centers in colleges  
Specialised incubation centers in collaboration with corporates

#### Customer Care Registry

This Application has been developed to help the customer in processing their complaints. The customers can raise the ticket with a detailed description of the issue. An Agent will be assigned to the Customer to solve the problem. Whenever the agent is assigned to the customer they will be notified with an email alert. Customers can view the status of the ticket till the service is provided.

#### Get in Touch

- [customercare@gmail.com](mailto:customercare@gmail.com)
- [+91 8977787657](tel:+918977787657)

X Close

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



#### Login Form

{{ msg }}

Login

Don't have an account yet? Click here to [register!](#)


X Close

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



FileE:/Naalaiya%20Theeran/Customer-Care-Registry--main/customer-care-registry/templates/register.html

YouTubeMapsTranslate



## Register Form

{{ msg }}

Enter Your Username

Enter Your Email ID

Enter Your Password

Register

already have an account ? please login [login!](#)

Close

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


Watchlist -0.37%18:45

(no subject)Fashion 1ClassesIBMIBM-EPBLConnectE:Course | send\_email(23) Flask(23) The C |CUSTOME:JOBPORT:JOBPORT:+

FileE:/Naalaiya%20Theeran/Customer-Care-Registry--main/customer-care-registry/templates/display.html

GmailYouTubeMapsTranslate

{{ msg }}



LOGOUTREGISTERMY Questions

## Your details

userid: {{ account[0] }}

username: {{ account[1] }}

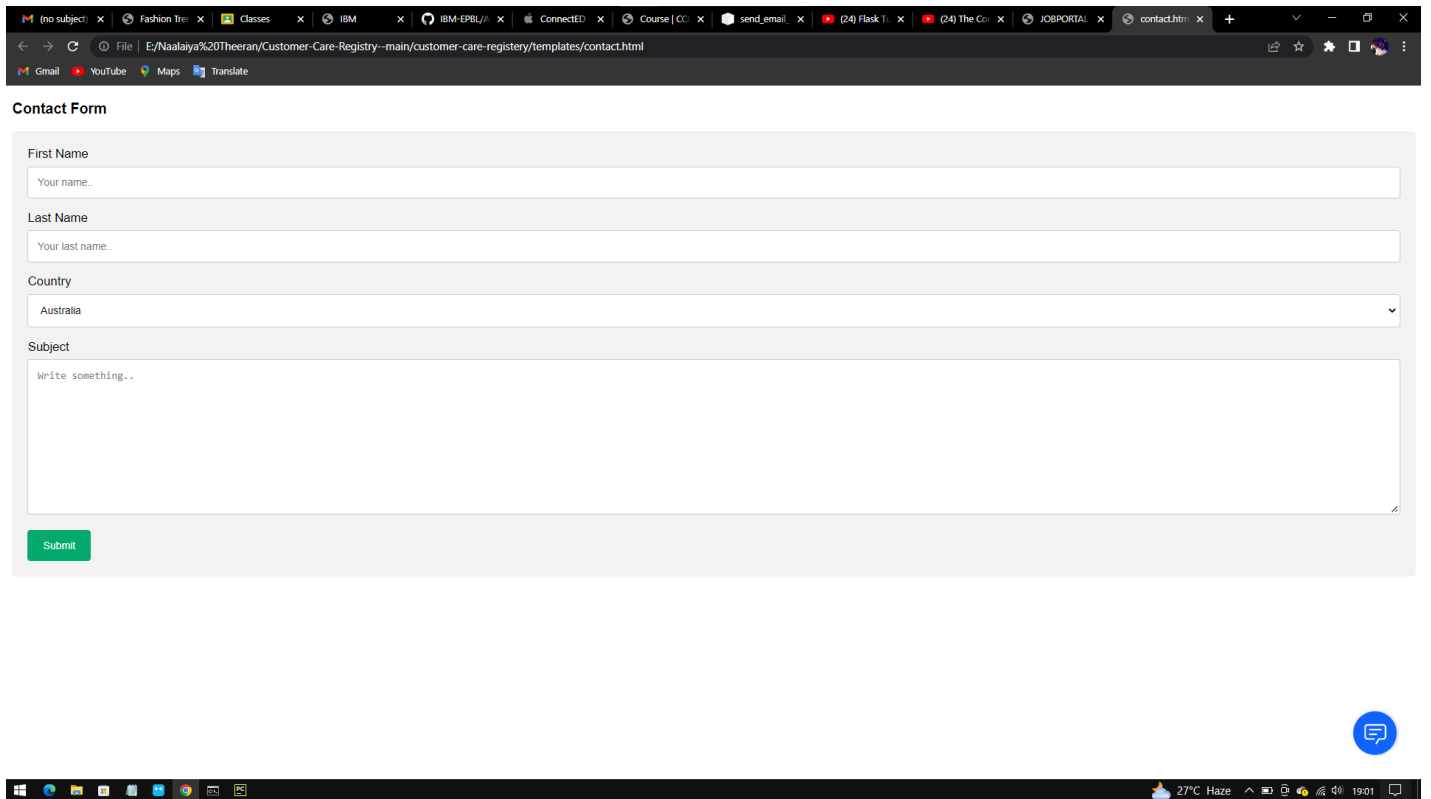
Email ID: {{ account[2] }}

query: {{ account[3] }}

Close

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

Watchlist -0.37%18:45





## 9.RESULTS

### 9.1 PERFORMANCE METRICS:

There are various metrics that can help you monitor and assess the performance of your cloud computing resources, including IOPS, filesystem performance, caching, and autoscaling.

**Input/Output Operations per Second (IOPS)** IOPS measures the read and write speed of your storage. It is based on variables like the configuration of the disk array, sequential or random data patterns, data block sizes, and the ratio of write and read processes. IOPS values serve as the performance benchmarks for storage devices, and impact the performance of the servers hosting the devices.

**File Storage Performance** There are two primary options for managing storage in the cloud: Running virtual machines and attaching block storage volumes to them - for example, Azure managed disks Using managed storage services, such as Azure Files or Azure NetApp Files Because these storage systems interact with applications, they significantly impact cloud performance. You should monitor metrics like latency, IOPS on storage volumes or services, and storage capacity vs. limits on the volume or service.

**Caching** The purpose of caching is to improve storage access performance. To achieve this, caching techniques temporarily store data using RAM pools within the compute nodes. This process is implemented before the data is read from or written to a storage device. The data can then be read directly from the disk—this is called cache memory. Cache memory provides quick access to frequently used files. Because the cache uses RAM, it has faster access rates than disk read operations. When the filesystem needs data, the cache will read it, preventing longer disk read operations. To ensure efficient disk performance, caching solutions orchestrate the process, optimizing performance as needed and freeing up central processing units (CPUs).

**Auto scaling** processes are responsible for either decreasing or increasing the provisioning of resources. There are two types of autoscaling: Vertical scaling—the process of scaling up, during which you add resources like CPU instances or RAM. You can scale up your network, storage, and compute capabilities. Vertical scaling typically translates into better performance. Horizontal scaling—the process of scaling out, during which you add more nodes. This means you increase the amount of servers in your current configuration. Each cloud vendor provides different scaling options and configurations. Before scaling, check with your vendor to determine costs and specifications for each type of system. Related content: read our guide to HPC performance

Cloud performance monitoring and testing tools help organizations gain visibility into their cloud environments, using specific metrics and techniques to assess performance. Efficient cloud performance is critical for maintaining business continuity and

ensuring all relevant parties gain access to cloud services. This is true for basic cloud usage of public clouds and complex hybrid cloud and multi-cloud architectures. Cloud performance metrics enable you to effectively monitor your cloud resources, to ensure all components communicate seamlessly. Typically, cloud performance metrics measure input/output operations per second (IOPS), filesystem performance, caching, and autoscaling. This article is part of our series of guides to HPC on Azure.

## **10. ADVANTAGES & DISADVANTAGES**

### **Advantages:**

#### **1.Customer loyalty**

Loyal customers have many benefits for businesses. 91% of customers say a positive customer service experience makes them more likely to make a further purchase (source: Salesforce Research). Also, investing in new customers is five times more expensive than retaining existing ones (source: Invesp). Creating loyal customers through good customer service can therefore provide businesses with lucrative long-term relationships.

#### **2.Increase profits**

These long-term customer relationships established through customer service can help businesses become more profitable. Businesses can grow revenues between 4% and 8% above their market when they priorities better customer service experiences (source: Bain & Company). Creating a better customer service experience than those offered by competitors can help businesses to standout in their market place, and in turn make more sales.

#### **3.Customer recommendations**

Providing good customer service can create satisfied customers, who are then more likely to recommend the business to others. 94% of customers will recommend a company whose service they rate as “very good” (source: Qualtrics XM Institute). This is useful, as 90% of customers are influenced by positive reviews when buying a product (source: Zendesk). Customers recommending a company through word of mouth or online reviews can improve the credibility of the business.

## **4. Increase conversion**

Good customer service can help businesses turn leads into sales. 78% of customers say they have backed out of a purchase due to a poor customer experience (source: Glance). It is therefore safe to assume that providing good customer service will help to increase customer confidence and in turn increase conversion.

## **Disadvantages**

### **1. Confusing navigation**

Self-service platforms should be simple and intuitive to navigate across channels. Some features that confuse users include open-ended navigation, hierarchical menu structures, buried content, multiple tabs and lack of standardized document formats and inputs. These features can also lead to frustration and customer drop-off, said Jonathan Collins, strategic advisor at Foretell Reality, a VR platform for professional communication. Missing, outdated or incorrect information can also annoy customers

### **2. Lack of attention**

Another disadvantage of self-service options is the lack of ongoing attention they get. Many business managers expect the platform to run on autopilot once launched, Collins said. Yet, like any site, CX teams should continually analyze customer interactions with the self-service platform to optimize and improve CX. Additionally, content teams should regularly remove stale documents and FAQs to reduce clutter, as well as updating content tags based on search engine queries to improve search results. Machine learning can improve resolution times, and technologies such as voice, video and augmented reality could create more engaging customer experiences

### **3. Inflexibility**

Some self-service options aren't flexible enough to meet changing customer and business needs. "Organizations that put platforms in place that can't be easily changed or updated are setting themselves up for failure since demands evolve constantly," said Dietmar Rietsch, CEO of Pimcore, a CX management software provider. Organizations could embrace a self-service system that relies on cloud and open source technology,

iterates with customer data and provides accurate and relevant content. This system's flexibility can reduce time spent reworking other platforms to ensure they meet current needs.

#### **4.Creates extra work**

Some self-service platforms send users through a portal path that asks for information the company already knows. "It is very frustrating for users to repeat information every time they access a portal or call a company's contact center," Buchanan said. Customers expect organizations to already know information they've provided, so forcing them to submit it again wastes theirs and agents' time. A customer should have a login so the portal can present relevant data and options tailored to the user. This way, customers feel that the organization understands them and doesn't force them to repeatedly enter the same data.

#### **5.Requires constant analysis and monitoring**

When designing self-service options, organizations must consider how to manage it. "Without enough personnel to examine and track the performance of the self-service solutions you've implemented, you will fail to meet customer expectations," said David Bitton, co-founder and chief marketing officer at Door Loop, a property management software. When Bitton's team started off, some of them thought self-service capabilities would run on autopilot. Over time, they realized they must monitor the platform consistently to ensure the service continually improves and optimizes CX. He also set up a dedicated team to ensure all support collateral is up to date and well-defined.

### **11.CONCLUSION**

Customer service is important to every business! Without customers, no business can survive. Customers will go where they are treated fairly and with respect, and even spend more money at such a business. All of us have bought something at a fast food restaurant or a retail store where the clerk barely said a word, took our money, shoved our purchase at us and never said anything resembling a thank-you. Such experiences don't inspire anyone to go there again. I think the hardest thing is to get all employees to share in this goal. Customer service employees probably understand that being polite and efficient is an important part of

their job. But, getting all the employees to consider their actions as directly impacting the success of the business is more than sticking up posters and having nice slogans. This takes effort and diligence all throughout the business. Spending time with individual employees, showing them by example how to deal with customers, creating an environment where everyone is treated like you want them to treat your customers, and repeating all this over and over will be required.

In conclusion, customer care, involves the use of basic ethics and any company who wants to have success and grow, needs to remember, that in order to do so, it must begin with establishing a code of ethics in regards to how each employee is to handle the dealing with customers. Customers are at the heart of the company and its growth or decline. Customer care involves, the treatment, care, loyalty, trust the employee should extend to the consumer, as well in life. This concept can be applied to so much more than just customer care. People need to treat others with respect and kindness, people should try to take others into consideration when making any decision. If more people were to practice this policy, chances are the world would be a better, more understanding place for all to exist. Summarize the problem or solution to make it 100% sure everything is clear for the customer. Adding additional questions or a personal touch to your email closing also goes a long way.

## **12.FUTURE SCOPE**

The shift from a primarily 'cost center' to primarily 'growth center' worldview. Customer service will shift to become a strategic partner of marketing, sales, and product development. CS will help with direction, project prioritization, and impact. A need for customer service leaders to take a highly strategic seat at the table. They'll need to argue for investment in talent, technology, and innovation. A shift in performance metrics. Forget # of resolved tickets. In the future, we'll measure performance based on # of customers saved from the precipice of churn.

A career in customer service will not be a last resort. Top graduates will priorities getting an education in strategic customer interaction. The job desc for a customer service director will focus more on leadership, innovation, and ability to drive company-wide improvement. Focus on ticket deflection will reduce because brands will view each customer interaction as an opportunity to learn, build a relationship, and grow profits. They deserve a well-trained, human touch.

## **13.GITHUB & PROJECT DEMO LINK**

### **13.1 GITHUB LINK :**

[https://github.com/IBM-EPBL/IBM-Project-49351-1660818145/tree/main/Assignment/Team%20Leader%20\(%20Sujin.T%20\)](https://github.com/IBM-EPBL/IBM-Project-49351-1660818145/tree/main/Assignment/Team%20Leader%20(%20Sujin.T%20))

### **13.2 PROJECT DEMO LINK :**

[https://drive.google.com/file/d/1mE8YXHcO\\_aqHSHKhaIEVqDqvh46C0xG2/view?usp=sharing](https://drive.google.com/file/d/1mE8YXHcO_aqHSHKhaIEVqDqvh46C0xG2/view?usp=sharing)

[https://drive.google.com/file/d/1T5O98pHmxW5HgoHIqK1COdV6YHHr\\_MAo/view?usp=sharing](https://drive.google.com/file/d/1T5O98pHmxW5HgoHIqK1COdV6YHHr_MAo/view?usp=sharing)