

# **CUSTOMER CARE REGISTRY**

A NAALAIYA THIRAN PROJECT REPORT

Submitted by

PRAVEENKUMAR M	(610519104078)
MUTHU NILA R	(610519104066)
RAVICHANDRAN S	(610519104081)
PARTHEBAN V	(610519104074)

**TEAM ID:** PNT2022TMID29826

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# **1.INTRODUCTION**

## **1.1 Project Overview**

- The Customer Service Desk is a web based project.
- 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 services is more important if the information relates to a service as opposed to a Customer.
- Customer Service may be provided by a Service Representatives Customer
- Service is normally an integral part of a company's customer value proposition.

## **1.2PURPOSE OF THE PROJECT**

- 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 services is more important if the information relates to a service as opposed to as Customer
- Customer Service may be provided by a Service Representatives Customer Service is normally an integral part of a company's customer value proposition

## **2.LITERATURE SURVEY**

### **2.1 Existing problem**

#### **1.Customer Service Max Retail.**

The basic purpose of the report is to interact with different people to find their awareness toward the Max retail products and services. Sales department of Max retails is divided in two parts one is general sale and the other is corporate. Max also do many promotional activities of to aware the customer. They do many kinds of events like road shows , organizing events at public places .department also provide many offers to customer like discount offers, membership card etc

#### **2.Customer Care.**

The existing system is a semi-automated at where the information is stored in the form of excel sheets in disk drives. The information sharing to the volunteers ,Group members ,etc. is through mailing feature only. The information storage and maintenance is more critical in the system. Tracking the member's activities and progress of the work is a tedious job here. This system cannot provide the information sharing by 24x7 days.

### **SOLUTION OF THESE PROBLEMS**

The development of this new system objective is to provide the solution to the problems of existing system. By using this new system, we can fully automate the entire process of the current system. The new system would like to make as web-enabled so that the information can be shared between the members at any time using the respective credentials. To track the status of an individual process, the status update can be centralized using the new system. Being a web-enabled system, the process can be accessed across the world over net.

### **3. online customer service system**

Achieving and maintaining a successful Help Desk operation can depend on a number of pre-requisites that need to be in place. These components have been identified from surveys covering a

wide range of help desk facilities .Set clear, realistic and quantifiable goals and objectives Understand your customer requirements and carefully plan the Help Desk structure. The main goal of problem management is in the detection of the underlying reasons for a particular incident and the resolution and prevention of future reoccurrence of that incident through problem elimination.

## **2.2 References**

- 1.<https://bbamantra.com/project/internship-customer-service-max-retail/>
- 2.<https://www.scribd.com/document/452190381/CUSTOMERCARE-PROJECT-REPORT>
- 3.[https://1000projects.org/online-customer-service-systemproject-source-code-in-asp-net-and-project-report.html#google\\_vignette](https://1000projects.org/online-customer-service-systemproject-source-code-in-asp-net-and-project-report.html#google_vignette)

## **2.2 Problem Statement Definition**

Customer care is a way of dealing with customers when they interact with your brand, products, or services to keep them happy and satisfied. Customer care goes beyond customer service and support because it focuses on building emotional connections between brands and customers.

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

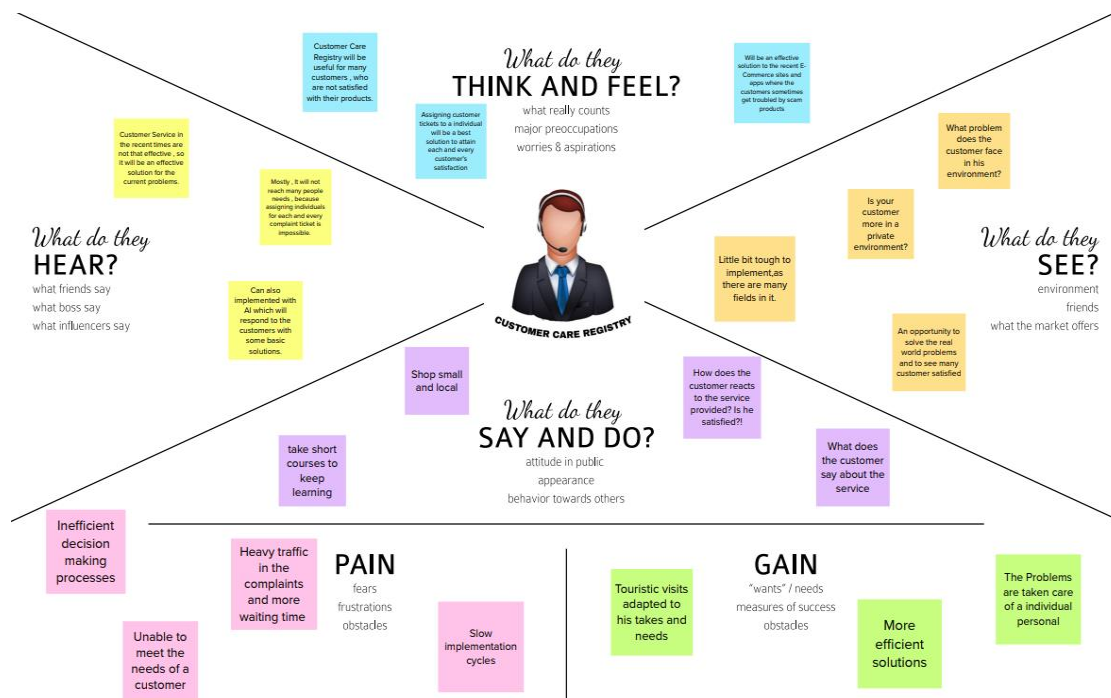
The main roles and responsibilities of the admin is to take care of the whole process. Starting from Admin login followed by the agent creation and assigning the customers complaints. Finally, he will be able to track the work assigned to the agent and notification will be sent to the customer. The main use of this project is to help the customer in processing their complaints. The customers can raise the ticket of their issues and the problem will be solved by the organization

### 3.IDEATION & PROPOSED SOLUTION

#### 3.1 Empathy Map Canvas

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

#### Customer Care Registry:



## **3.2 Ideation & Brainstorming**

### **1. Implement support ticket tagging automation using AI.**

The customer raises the problem in the websites. To get support ticket insights, you can manually analyze all your customer service channels and consolidate them under one roof. But it's frustratingly time-consuming and manual ticket tagging leaves room for human error and discrepancies. If you use multiple people on your team to tag tickets, it becomes ever harder to train agents to understand tickets and tag them in a uniform way. Using AI powered ticket tagging platform, we can track the topic and sentiment of every email, chat, review and survey in real-time. Our AI automatically tagged all qualitative text under different segments and sub segments, the 'rising topics' are then distributed every day to other department leads.

### **2. Implement a website-based Chabot system.**

Okay, we aren't bringing something totally innovative to the conversation here...but if you don't have a live chat with a degree of automation, you need to experiment with it. If you are on a website for the first and the third reason, a live chat would be a great aggregator in helping you solve your problems.

### **3. Create a knowledge base or a self-service hub.**

Creating a knowledge-based shows your customers you care and reduce support ticket volume. A knowledge base is a collection of resources about your product/services. Providing the right details at the right time is part of a great customer experience. Knowledge bases allow your customers to access the right information to solve their own problems and queries. For you, a knowledge base works particularly well because they reduce the effort your team puts in to those frequent queries. Analyze your support tickets to work out what those easy-to answer, repetitive questions are and write a short article to address the problem.

### 3.3 Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The main purpose of this application is to take care of the Customer's complaints on their product/ service. However, it also gives the retailers or service providers to improve their quality through the feedback and analysis of the questions asked.
2.	Idea / Solution description	Here, we built a Web application where the customers raise the complaint tickets. The admin assigns the tickets to individual workers. The admin checks for whether the tickets are solved or not. By this method, we ensure that each and every complaint ticket is taken care of.
3.	Novelty / Uniqueness	FAQ and a chatbot assistant are provided to resolve the common or frequently raised tickets.
4.	Social Impact / Customer Satisfaction	Customers of any product seeking problems on their product/ service.
5.	Business Model (Revenue Model)	The retailers will improve the quality of products/ service and clear explanation on their usage.



6.	Scalability of the Solution	This application can be used in any particular industry or common for all industries and connecting the respective industry specialists to resolve the complaint tickets. In the corporate world, a scalable company is one which provides efficient products by resolving customer complaints.
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### 3.4 Problem Solution fit

Define CS, fit into	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Who is your customer? The persons who need another person to clarify their queries about the product are my customer.	<b>6. CUSTOMER</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 The only constraint that limits the customer from taking action is the lack of knowledge on product/ service.	<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 Listen to the customer and show genuine empathy Assess the situation Ask for the customer's needs and preferences Offer a solution and give options whenever possible.	Explore AS,
	<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. Theory, there are three types of jobs-to-be done your customer is trying to get done - functional, emotional and consumption.	<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. customer have to do it because of the character Lack of real time engagement in many scenarios, customers need instant assistance and at times, live chat is not just enough. There is a need to view the problem or have a face-to-face conversation for getting the right solution.	<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. stay calm. treat the situation with humor, rather than getting angry. distract their attention, rather than getting confrontational. if other people are present, explain to them that the behavior is because of an illness and is not personal.	
on J&P, tap into BE, understand	<b>3. TRIGGERS</b> <span>TR</span> These interactions/triggers are pieces of information which users create through their everyday actions that indicate they are either a	<b>10. YOUR SOLUTION</b> <span>SL</span> A Chatbot and a ticket raising forum is created and implemented in the website where the user can ask any queries to the agent assigned to them about the product or service in which the agent can answer to the customer what they ask.	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>8.1 ONLINE</b> The customer can login to website and ask any related queries to that bot and agent, the bot/ agent can able to answer the queries. <b>8.2 OFFLINE</b> The customer can directly visit to the respected organization or show room and ask any related questions.	d Extract online & offline CH of BE
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> The customer feels very bad. Do not try to talk over the customer or argue with them. Let the customer have their say, even if you know that they are mistaken and don't have all the information, or you can anticipate what they are			

## 4.REQUIREMENT ANALYSIS

### 4.1 Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
2	User Confirmation	Confirmation via Email Confirmation via OTP
3	User login	Login via Google Login With Email id and Password
4	Admin Login	Login Via Google Login With Email id and Password
5	Query Form	Description of the issues contact information
6	E-mail	Login alertness
7	Feedback	Customer feedback

## 4.2 Non-functional Requirements:

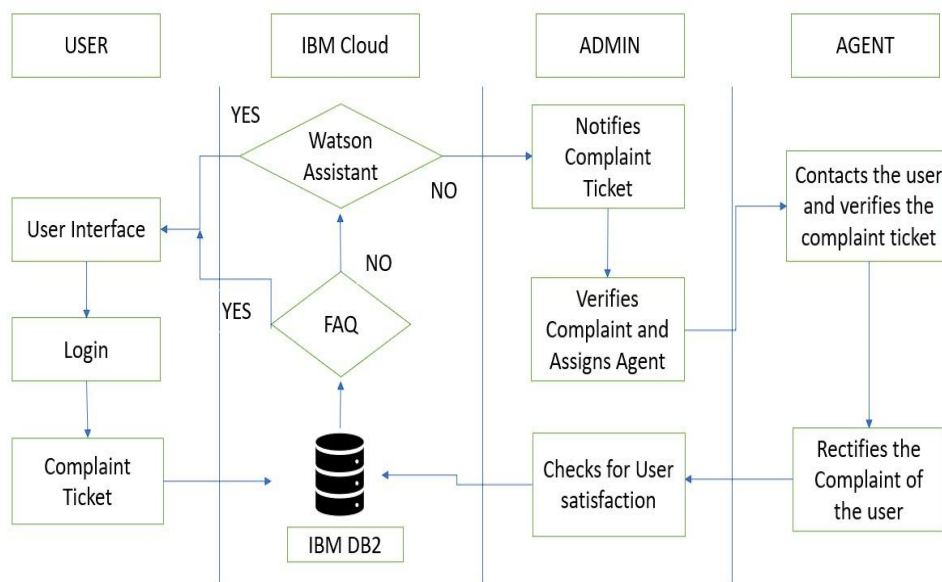
Following are the non-functional requirements of the proposed solution.

<b>FR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
1	Usability	To provide the solution to the problem
2	Security	Track of login authentication
3	Reliability	Tracking of decade status through email
4	Performance	Effective development of web application
5	Availability	24/7service
6	Scalability	Agents scalability as per the number of customers

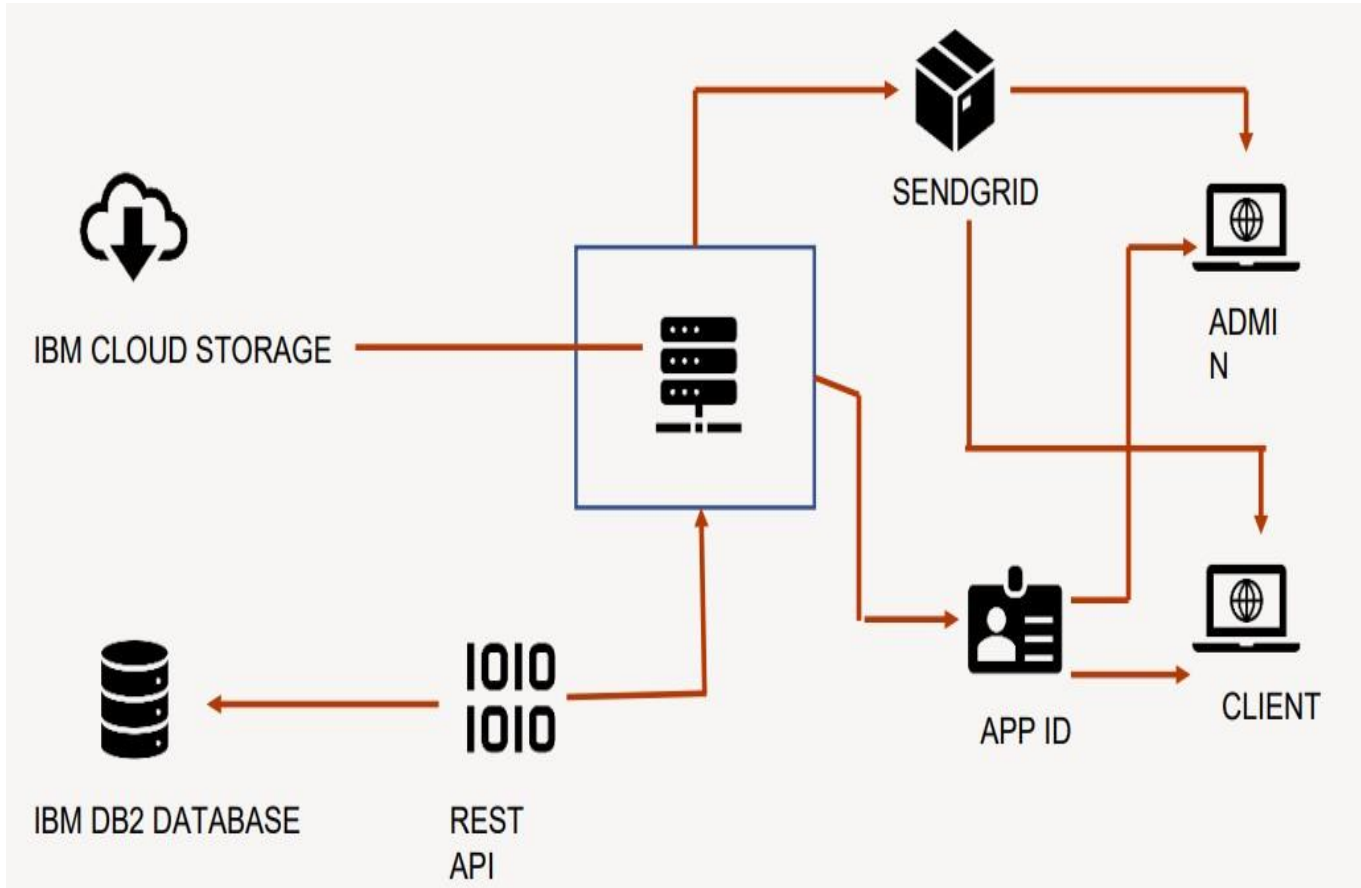
## 5. PROJECT DESIGN

### 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

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

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a customer, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
	login	USN-2	As a customer, I can login to the application by entering correct email and password.	I can access my account/dashboard.	High	Sprint-1
	Dashboard	USN-3	As a customer, I can see all the orders raised by me.	I get all the info needed in my dashboard.	Low	Sprint-2
	Order creation	USN-4	As a customer, I can place my order with the detailed description of my query	I can ask my query	Medium	Sprint-2
	Address Column	USN-5	As a customer, I can have conversations with the assigned agent and get my queries clarified	My queries are clarified.	High	Sprint-3
	Forgot password	USN-6	As a customer, I can reset my password by this option in case I forgot my old password.	I get access to my account again	Medium	Sprint-4
	Order details	USN-7	As a Customer, I can see the current stats of order.	I get a better understanding	Medium	Sprint-4
Agent (Web user)	Login	USN-1	As an agent I can login to the application by entering Correct email and password.	I can access my account / dashboard.	High	Sprint-3

	Dashboard	USN-2	As an agent, I can see the order details assigned to me by admin.	I can see the tickets to which I could answer.	High	Sprint-3
	Address column	USN-3	As an agent, I get to have conversations with the customer and clear his/her doubts	I can clarify the issues.	High	Sprint-3
	Forgot password	USN-4	As an agent I can reset my password by this option in case I forgot my old password.	I get access to my account again.	Medium	Sprint-4

#### DATA FLOW DIAGRAM & USER STORIES

Admin (Mobile user)	Login	USN-1	As a admin, I can login to the applications by entering Correct email and password	I can access my account/ dashboard	High	Sprint-1
	Dashboard	USN-2	As an admin I can see all the orders raised in the entire system and lot more	I can assign agents by seeing those order.	High	Sprint-1
	Agent creation	USN-3	As an admin I can create an agent for clarifying the customers queries	I can create agents.	High	Sprint-2

	Assignment agent	USN-4	As an admin I can assign an agent for each order created by	Enable agent to clarify the queries.	High	Sprint-1
			the customer.			

	Forgot password	USN-5	As an admin I can reset my password by this option in case I forgot my old password.	I get access to my account.	High	Sprint-1
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## 6.PROJECT PLANNING & SCHEDULING

### 6.1 Sprint Planning & Estimation

7 Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	User Panel	USN-1	The user will login into the website and go through the services available on the webpage.	20	High	Praveenkumar.M Muthu Nila.R
Sprint-2	Agent Panel	USN-2	The role of the agent is to check out the complaint tickets and to contact the user and solve the complaint they raise.	20	High	Partheban.V Ravichandran.S
Sprint-3	Admin Panel	USN-3	The role of the admin is to check out the database about the availability and have a track of all the things that the users are going to experience and manage the agent and complaint tickets.	20	high	Praveenkumar.M Muthu Nila.R
Sprint-4	Chat Bot	USN-4	The user can directly talk to Chatbot regarding the services. Get the recommendations based on information provided by the user.	20	High	Praveenkumar.M Ravichandran.S



Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-5	Final Delivery	USN-5	Container of applications using docker kubernetes and deployment the application. Create the documentation and final submit the application	20	High	Praveenkumar.M Muthu Nila.R Partheban.V

## Project Tracker, Velocity & Burndown Chart

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	3 Days	31 Oct 2022	02 Nov 2022	20	02 Nov 2022
Sprint-3	20	3 Days	02 Nov 2022	06 Nov 2022	20	06 Nov 2022
Sprint-4	20	6 Days	6 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-5	20	6 Days	13 Nov 2022	19 Nov 2022	20	19 Nov 2022

### Velocity:

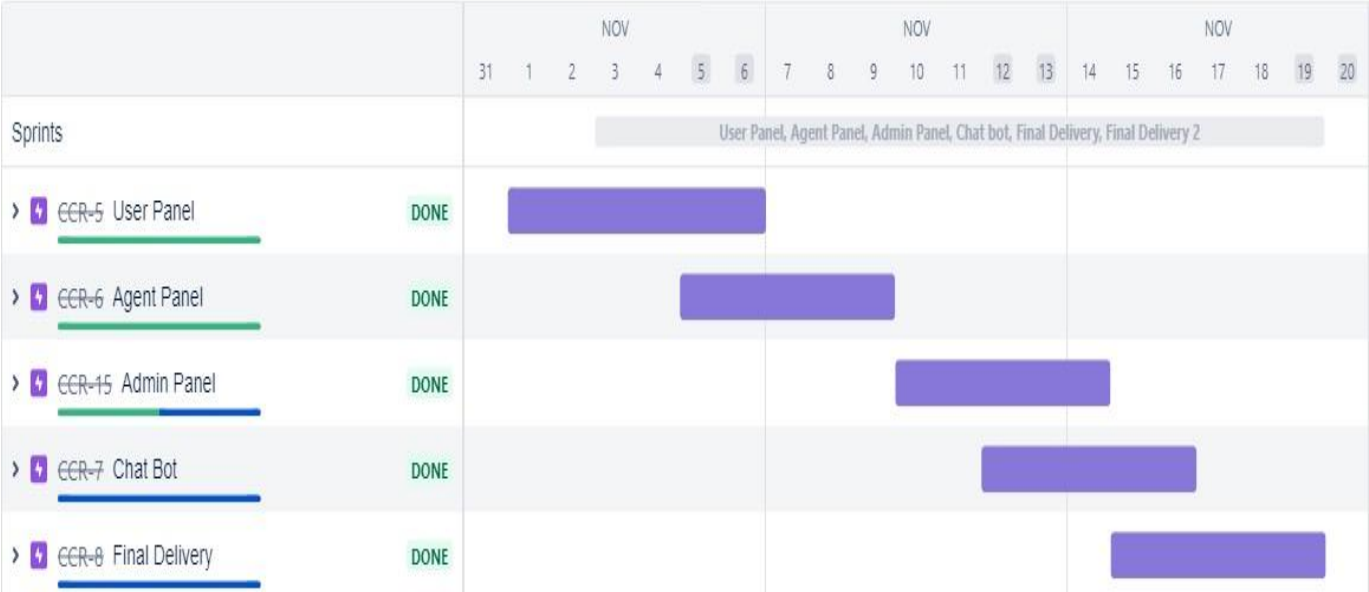
Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

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

### Burndown Chart:

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

## 6.2 Reports from JIRA



## 7.CODING & SOLUTIONING

### 7.1 Feature 1

College graduates with prior programming expertise or technical degrees are recruited and transitioned into professional positions with Alabama firms and organisations through the highly competitive CodingSolutions job accelerator and talent refinement programme at no cost to the graduates. We provide a pool of varied, well-trained, techs-savvy individuals that wants to launch and advance their career in Alabama.

The mission of veteran- and woman-owned CodingSolutions is to mobilise the next generation of IT talent and provide them the tools and resources they require to make your business successful. Innovative talent is necessary for innovative technologies. We wish to provide CodingSolutions prospects to assist you expand your Alabama team.

Our applicants are swiftly hired at the top of the list by growing businesses for lucrative, long-term positions.

### 7.2 Features

#### *7 main types of customer needs :*

- Empathy
- Fairness
- Control
- Alternatives
- Information
- Time

#### **1. Friendliness**

This is the most basic customer need that's associated with things like courtesy and politeness. Friendly agents are a top indicator of a good customer experience, according to the customers surveyed in our 2021 Trends Report.

## **2. Empathy**

Customers need to know the organization understands and appreciates their needs and circumstances. In fact, 49% surveyed in our [2021 Trends Report](#) said they want agents to be empathetic.

## **3. Fairness**

Customers must feel that they're getting adequate attention and fair and reasonable answers.

## **4. Control**

Customers want to feel like they have an influence on the outcome. You can empower your customers by *listening to their feedback and using it to improve*.

## **5. Alternatives**

*Customers want choice and flexibility from customer service; they want to know there is a range of options available to satisfy them.* In fact, high-performing companies are more likely to provide customers with a choice of customer service channels. 50% of high performers have adopted an omnichannel support strategy, compared to 18% of their lower-performing peers.

## **6. Information**

Customers want to know about products and services in a pertinent and time-sensitive manner; too much information and selling can be off-putting for them. A knowledge base is a great way to provide existing customers with the information they need, when they need it. And highperforming CX teams are more likely to offer a knowledge base, according to our research.

## **7. Time**

Customers' time is valuable, and organizations need to treat it as such. 73% of customers said resolving their issues quickly is the top component of a good customer experience. To deliver on that expectation, CX teams need customer service software that arms them with tools to respond to customers quickly and effectively.

## 7.3 Database Schema

A database schema defines how data is organized within a relational database; this is inclusive of logical constraints such as, table names, fields, data types, and the relationships between these entities. Schemas commonly use visual representations to communicate the architecture of the database, becoming the foundation for an organization's data management discipline. This process of database schema design is also known as data modeling.

These data models serve a variety of roles, such as database users, database administrators, and programmers. For example, it can help database administrators manage normalization processes to avoid data duplication. Alternatively, it can enable analysts to navigate these data structures to conduct reporting or other valuable business analyses. These diagrams act as valuable documentation within the database management system (DBMS), ensuring alignment across various stakeholders.

### Types of database schemas

- Database schema types Although the term "schema" is used in a wide variety of contexts, it most frequently refers to three distinct types of schema: conceptual database schemas, logical database schemas, and physical database schemas.
- Conceptual schemas provide a broad overview of the system's contents, organisational structure, and business rules. Typically, conceptual models are developed as a part of obtaining the initial project requirements.
- Comparatively speaking, logical database schemas are less abstract than conceptual schemas. Table names, field names, entity relationships, and integrity constraints—i.e.,

any regulations governing the database—are all well defined schema objects with information. They normally don't have any technical requirements, though.

- The technical details that the logical database schema lacks are provided by physical database schemas.

## 8.TESTING

### 8.1 Test cases

#### TEST CASES

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
LoginPage_TC_O01	Functional	Home Page	Verify user is able to see the Login/Signup popup when user clicked on My account button	1.Enter URL and click go 2.Scroll down 3.Verify login/Signup popup displayed or not	<a href="https://169.51.204.215:30100/">https://169.51.204.215:30100/</a>	Login/Signup popup should display	Working as expected	PASS	Successful	Y		ARUNACH GURURAJAN KAMALESU
LoginPage_TC_O02	UI	Home Page	Verify the UI elements in Login/Signup popup	1.Enter URL and click go 2.Click on Signup button for User 3.Verify login/Signup popup with below UI elements: a.id text box b.password text box c.Login button d.New customer? Create account link e.Last password? Recovery password link	<a href="https://169.51.204.215:30100/">https://169.51.204.215:30100/</a>	Application should show below UI elements: a.email text box b.password text box c.Login button with orange colour d.New customer? Create account link e.Last password? Recovery password link	Working as expected	PASS	Successful	Y		RAJKIRAN S S SRIGOVINDH
LoginPage_TC_O03	Functional	Home page	Verify user is able to log into application with Valid credentials	1.Enter URL( <a href="https://shopnizer.com/">https://shopnizer.com/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Valid ID in ID text box 4.Enter valid password in password text box 5.Click on login button	ID: 5342 password: Testing123	User should navigate to user account homepage	Working as expected	PASS	Successful	Y		VEDRA ARUNACH RAJKIRAN S S SRIGOVINDH

TEST CASES

3

LoginPage_TC_004	Functional	Login page	Verify user is able to log into application with Invalid credentials	1.Enter URL( <a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Invalid ID in ID text box 4.Enter valid password in password text box 5.Click on login button	ID: 5342 password: Testing123	Application should show 'Incorrect email or password' validation message.	Working as expected	PASS	Successful	Y		YASHWAN RAJKIRAN S S VENK
LoginPage_TC_005	Functional	Login page	Verify user is able to log into application with Invalid credentials	1.Enter URL( <a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Valid ID in ID text box 4.Enter Invalid password in password text box 5.Click on login button	ID: 5342 password: Testing12367868767876	Application should show 'Incorrect email or password' validation message.	Working as expected	PASS	Successful	Y		KAMALESUWARAN ARUN D
LoginPage_TC_006	Functional	Login page	Verify user is able to log into application with Invalid credentials	1.Enter URL( <a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Invalid ID in ID text box 4.Enter Invalid password in password text box 5.Click on login button	ID: 5342 password: Testing123	Application should show 'Incorrect email or password' validation message.	Working as expected	PASS	Successful	Y		VENK SRIGOVINDH

#### TEST CASES

4

LoginPage_TC_007	Functional	Login page	Verify User is able to log into application with Valid Credentials	1.Enter URL( <a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Invalid ID in ID text box 4.Enter Invalid password in password text box 5.Click on login button	ID: 5434 password: Testing123	Application should show 'correct email or password' validation message.	Working as expected	PASS	Successful	Y		GURURAJAN KAMALESUWARAN
LoginPage_TC_008	Functional	Login page for ADMIN	Verify User is able to log into application with Valid Credentials	1.Enter URL( <a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Valid ID in ID text box 4.Enter valid password in password text box 5.Click on login button	ID: 1111 password: 5678	Application should show 'correct email or password' validation message.	Working as expected	PASS	Successful	Y		RAJKIRAN S VENK
LoginPage_TC_009	UI	ADMIN PAGE	Verify all the Customer database is visible	1.Enter URL( <a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a> ) and click go 2.Click on My Account dropdown button 3.Enter Invalid ID in ID text box 4.Enter Invalid password in password text box 5.Click on login button	<a href="http://169.51.204.215:30106/">http://169.51.204.215:30106/</a>	Customer database is visible	Working as expected	PASS	Successful	Y		RAJKIRAN S S VENK

#### TEST CASES

5

LoginPage_TC_010	Functional	USER REGISTER	Verify Id sent to customer email address	1.Enter URL:http://169.51.204.21:530106/ and click go 1.Register the account by giving credentials 2. Click on button Submit	http://169.51.204.21:530106/	Email sent successfully	Working as expected	PASS	Successful	Y		ARUNAC RAJKIRAN S S
LoginPage_TC_011	Functional	AGENT REGISTER	Verify AGENT is able to log into application with Valid Credentials	1.Enter URL:http://169.51.204.21:530106/ and click go 2.Click on My Account dropdown button 3.Enter Invalid ID in ID text box 4.Enter Invalid password in password text box 5.Click on login button	ID-5342 password: Testing123	ID sent successfully	Application should show 'correct email or password' validation message.	PASS	Successful	Y		ASWIN SRIGOVINDH
LoginPage_TC_012	Functional	Login page for ADMIN	Verify User is able to log into application with Invalid Credentials	1.Enter URL:http://169.51.204.21:530106/ and click go 2.Click on My Account dropdown button 3.Enter Invalid ID in ID text box 4.Enter Invalid password in password text box 5.Click on login button	ID-1111 password: 5678	Application should show 'incorrect ID or password' validation message.	Working as expected	PASS	Successful	Y		YASHWAN RAJKIRAN S S
LoginPage_TC_013	UI	Home page for Agent	Verify user is able to see the agent home page when user finish on submitting Credentials	1. Enter URL:http://169.51.204.21:530106/ and click go 2.To the Agent Login page and submit Your Credentials	ID-1111 password: 5678	AGENT Home Page popup should display	Working as expected	PASS	Successful	Y		YASHWA SRIGOVINDH

TEST CASES

6



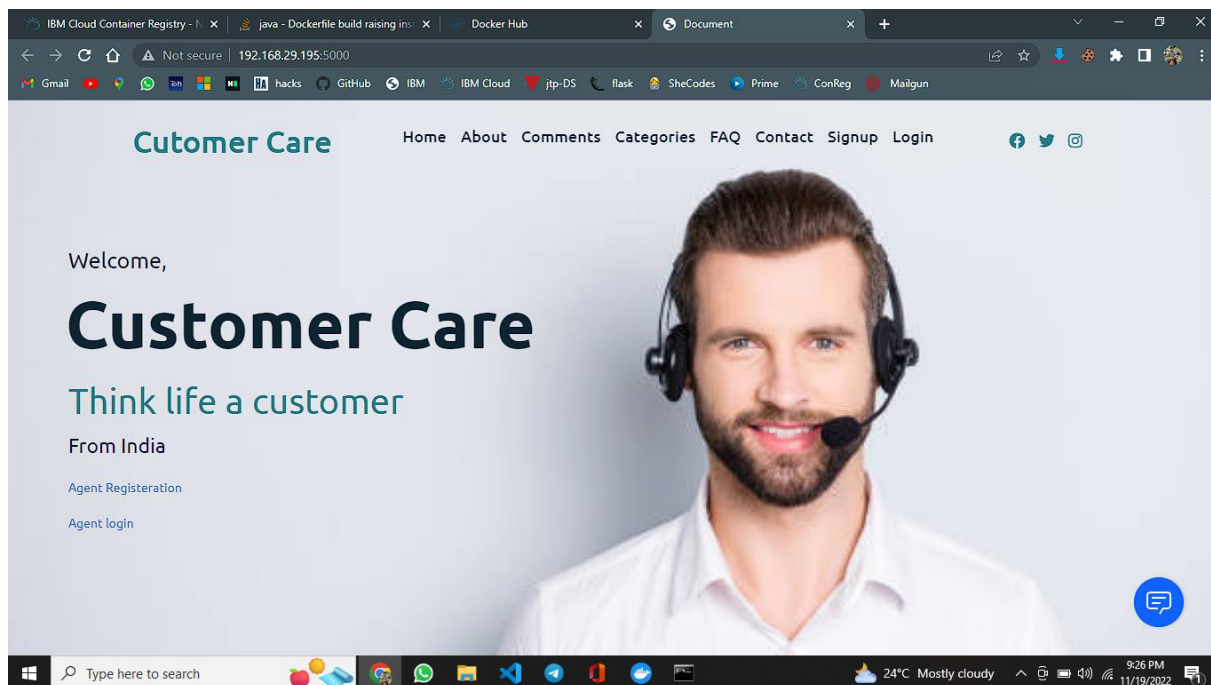
## 9.RESULTS

### What Are Performance Metrics

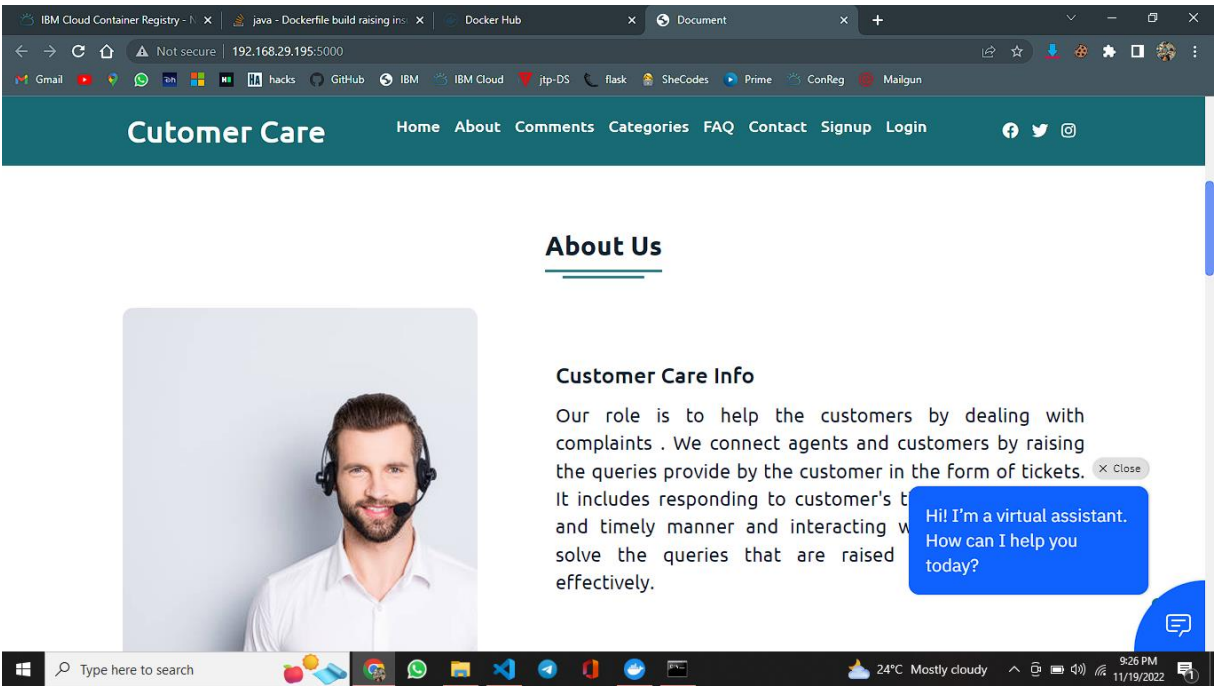
Performance metrics are data used to track processes within a business. This is achieved using activities, employee behavior, and productivity as key metrics. These metrics are then used by employers to evaluate performance. This is in relation to an established goal such as employee productivity or sales objective

### Output Screen

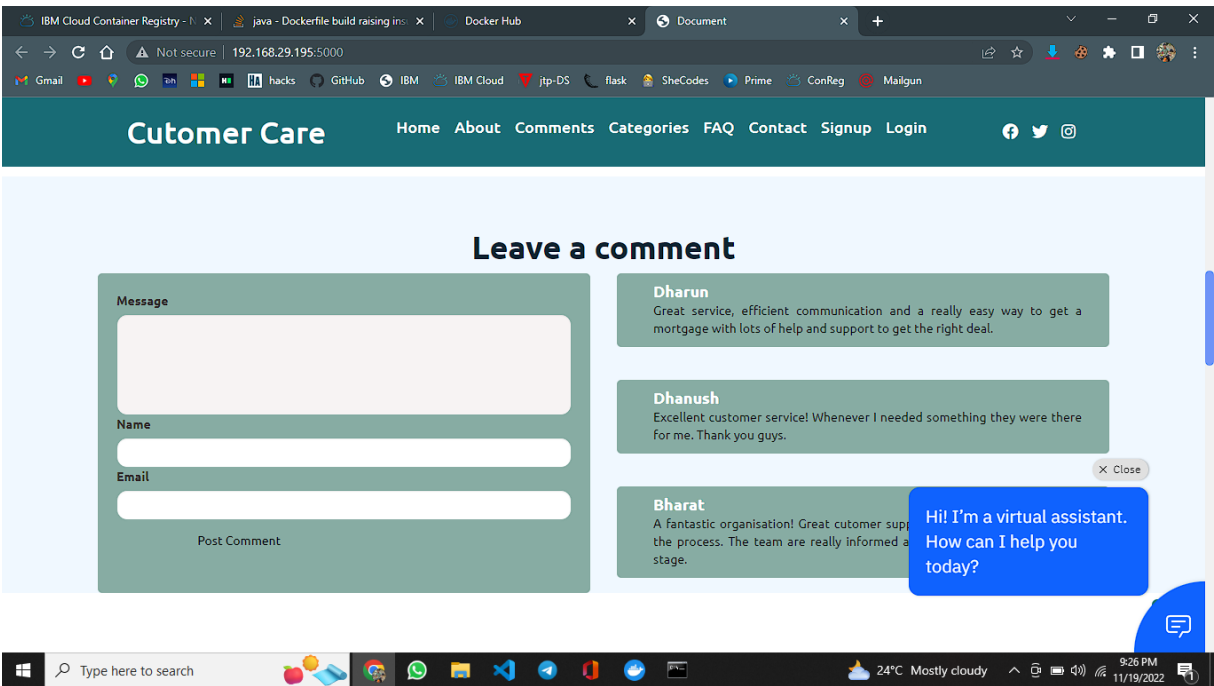
#### Home page



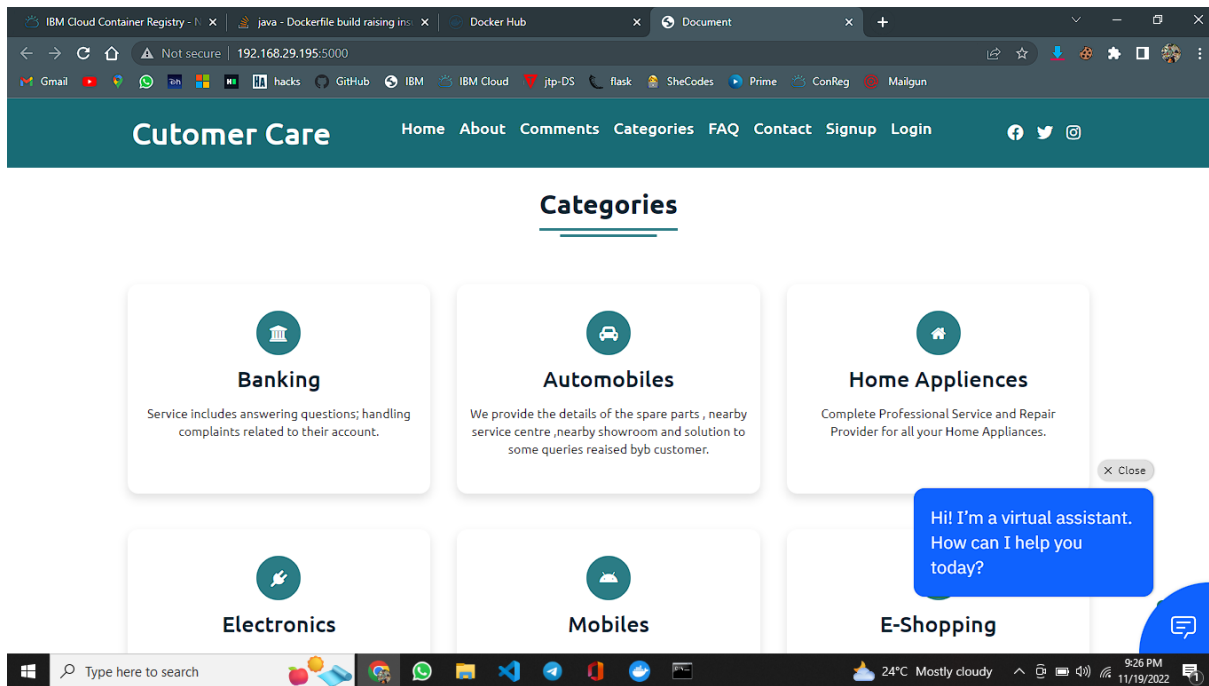
# About us



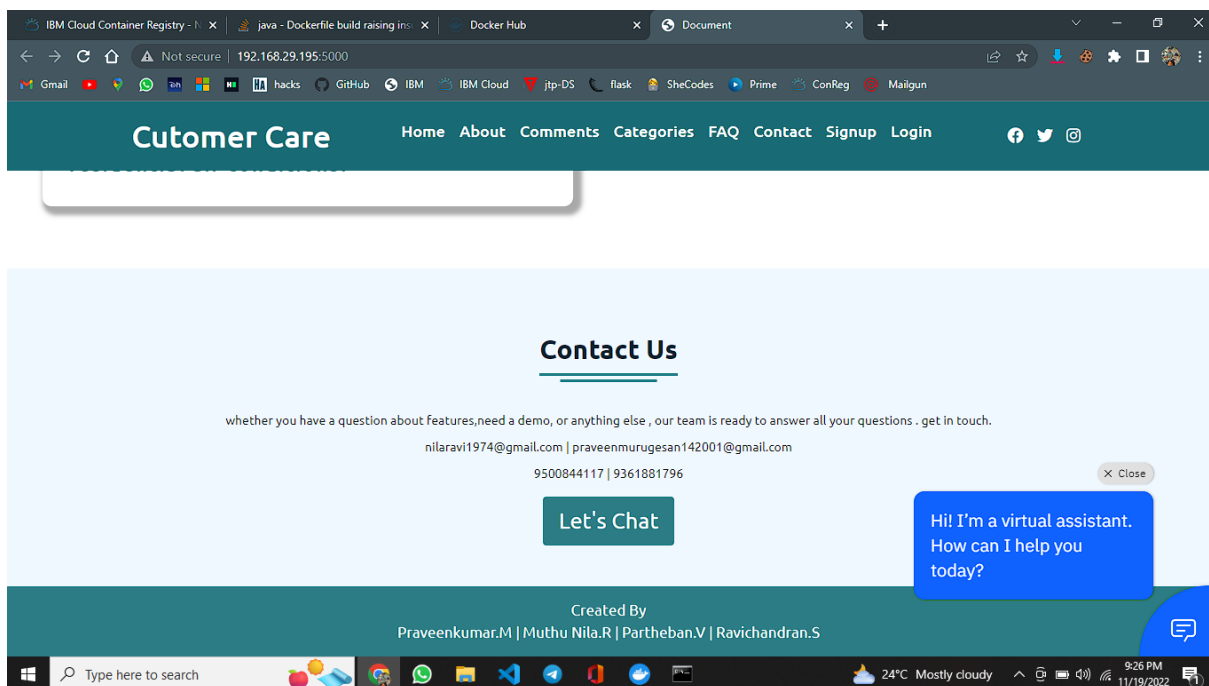
# Comment Section



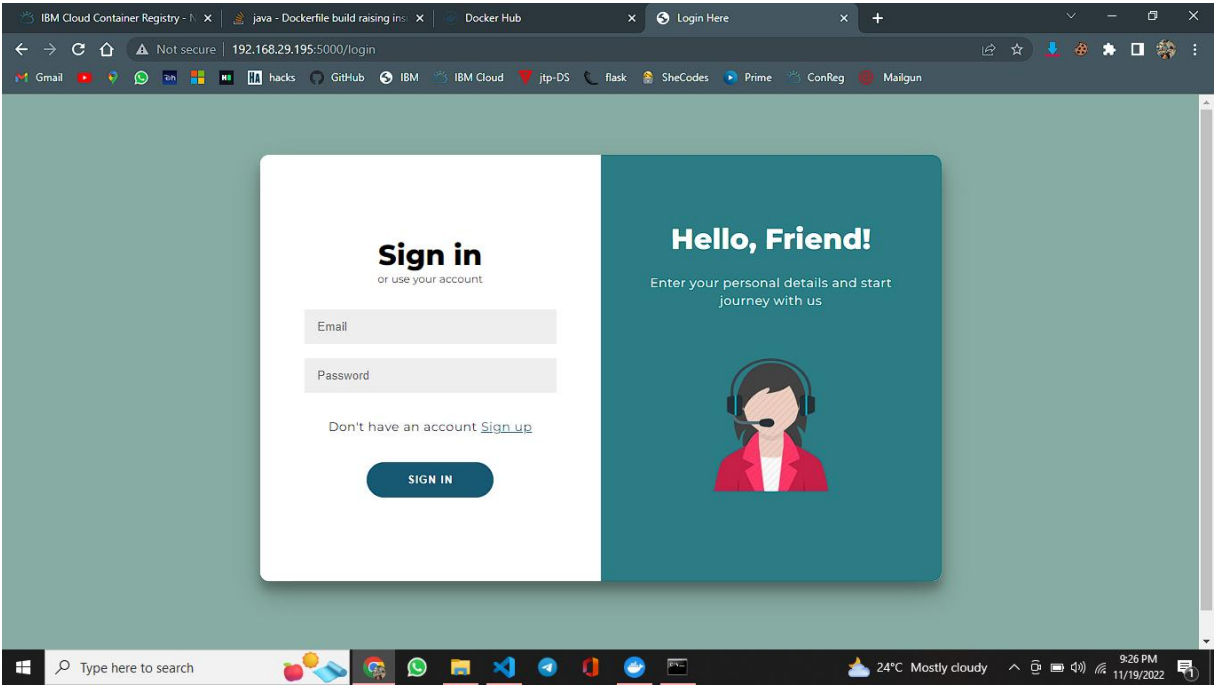
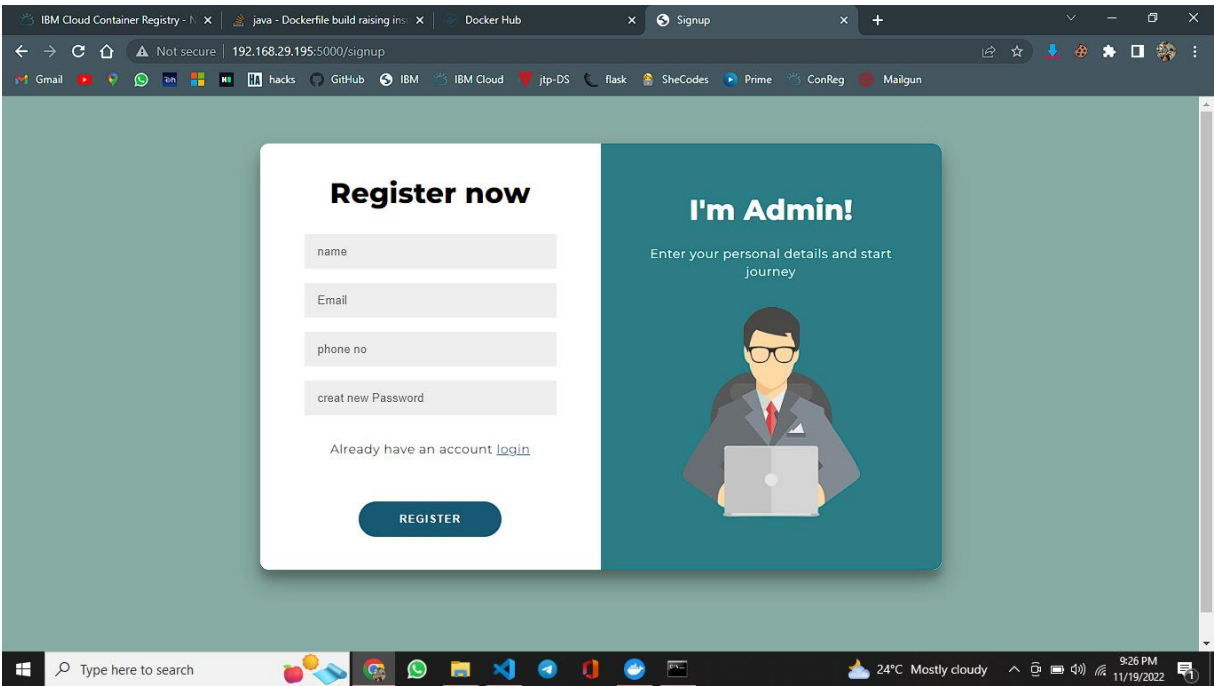
## Categories



## Contact us



# Admin page



# User Dashboard

IBM Cloud Container Registry - N

java - Dockerfile build raising ins

Docker Hub

Dashboard

Not secure | 192.168.29.195:5000/dashboard

GmailYouTubeWhatsAppTelegramMicrosoft EdgehacksGitHubIBMIBM Cloudjtp-DSflaskSheCodesPrimeConRegMailgun

USER

Dashboard

Post a Complaint

My complaints

Sign out

1505

Daily views

54

Customers

80

Sales

23

Low stocks item

Recent Complaints

CUSTOMER NAME	EMAIL	PHONE	DATE	TOPIC	DESCRIPTION	SERVICEAGENT	STATUS
srinighil	nighil23@gmail.com	6354785129	24-08-2022	mobile	software issue	kumar@78	Completed
sankar	sankarslm@gmail.com	8610862212	14-10-2001	computer service	computer	None	None
Sanjay	sanjay12@gmail.com	8247591063	27-10-2022	laptop	laptop battery is fault	nila@01	Completed

Type here to search24°C Mostly cloudy9:27 PM11/19/2022

# Complaint section

IBM Cloud Container Registry - N

java - Dockerfile build raising ins

Docker Hub

complaint

Not secure | 192.168.29.195:5000/complaint

GmailYouTubeWhatsAppTelegramMicrosoft EdgehacksGitHubIBMIBM Cloudjtp-DSflaskSheCodesPrimeConRegMailgun

Customer Name

Email

Phone Number

Date

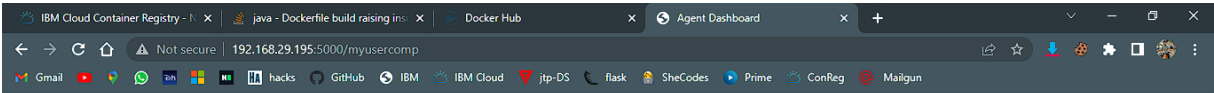
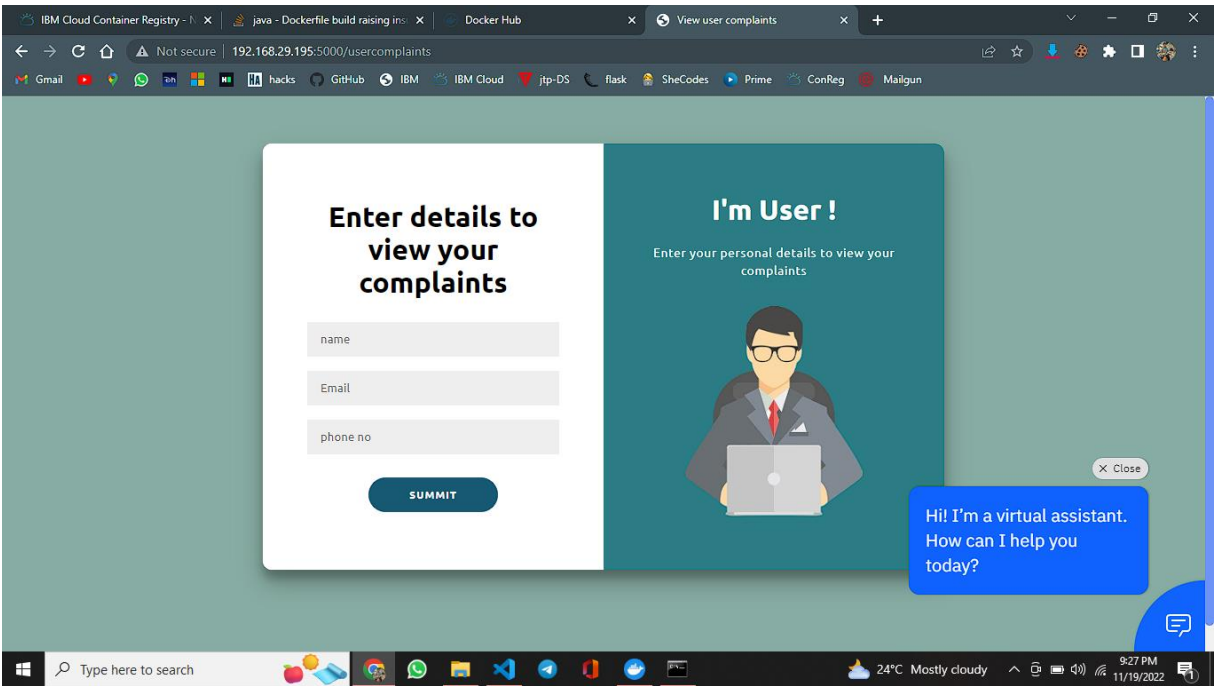
Topic

Please provide all the information about your issue you can.

SUBMIT

Type here to search24°C Mostly cloudy9:27 PM11/19/2022

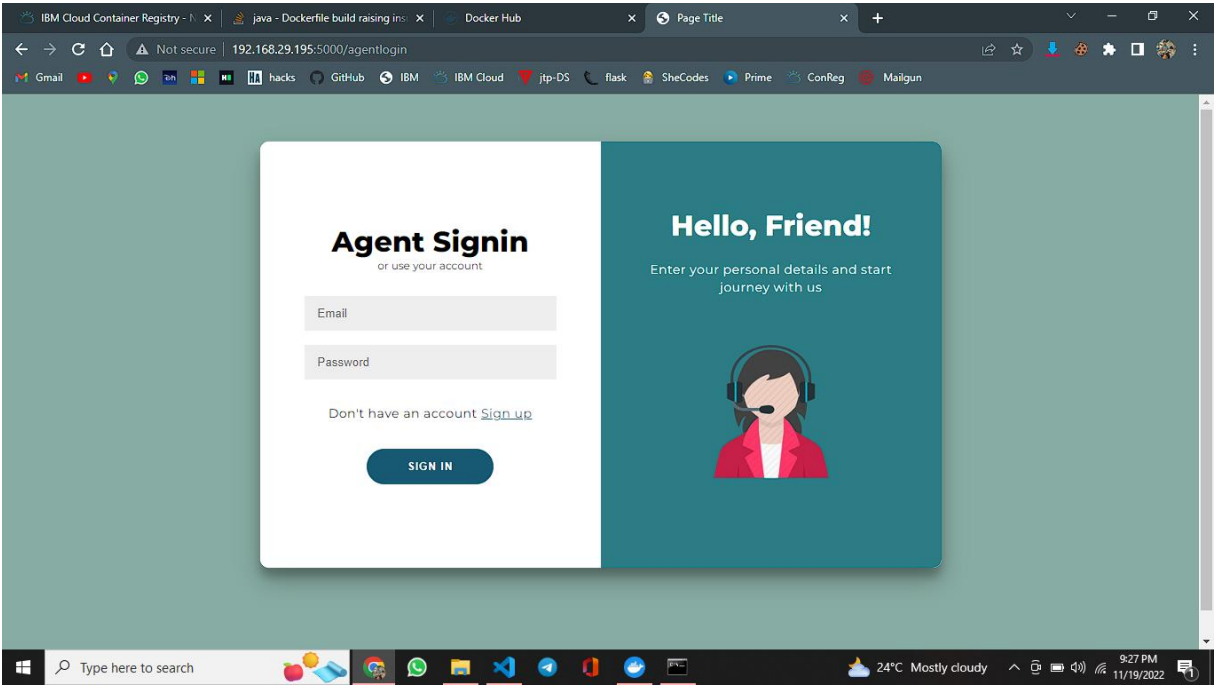
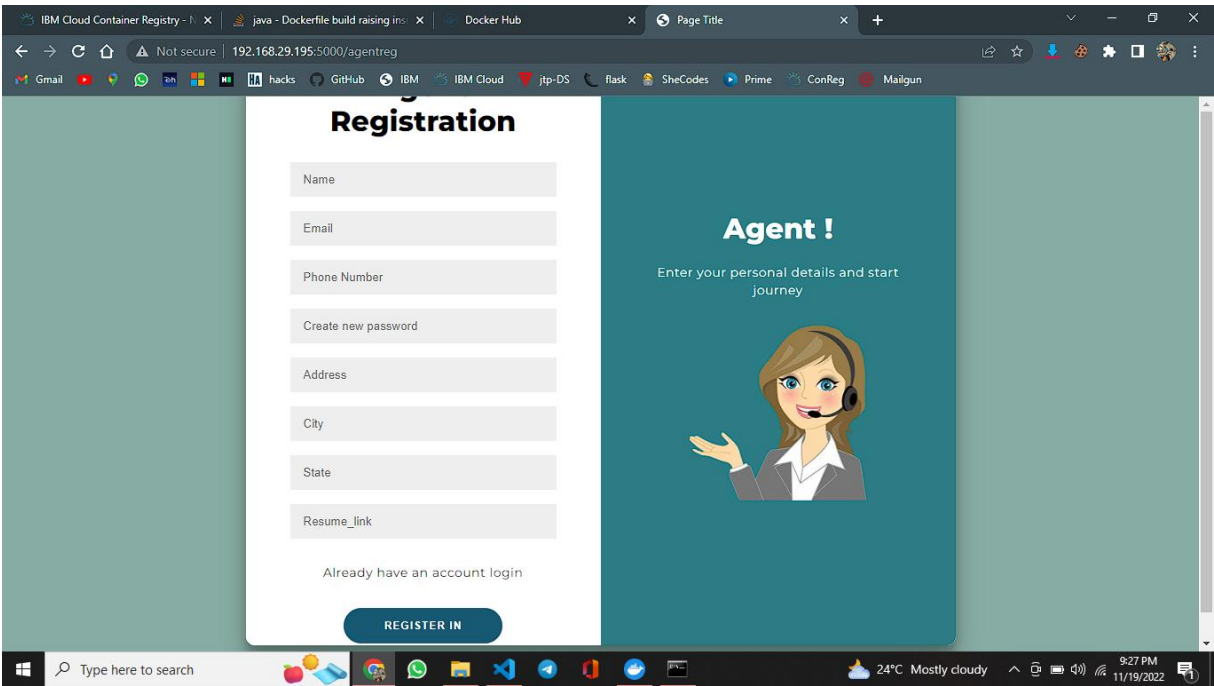
# User Complaints



## WELCOME TO USER'S COMPLAINTS

Complaint Database							
CUSTOMER_NAME	EMAIL	PHONE_NUMBER	DATE	TOPIC	DESCRIPTION	SERVICE_AGENT	STATUS
srinighil	nighil23@gmail.com	6354785129	24-08-2022	mobile	software issue	kumar@78	Completed

# Agent register



# Agent Database

IBM Cloud Container Registry - N x java - Dockerfile build raising inc x Docker Hub x Document x

Not secure | 192.168.29.195:5000/admin

Gmail WhatsApp VS Code hacks GitHub IBM IBM Cloud jtp-DS flask SheCodes Prime ConReg Mailgun

Cutomer CareHomeAboutCommentsCategoriesFAQContactLOGOUT

Agent Database

NAME	EMAIL	PHONE NUMBER	PASSWORD	ADDRESS	CITY	STATE	RESUME LINK	DELECT
Praveen	abc@gmail.com	7896541259	0909	wertyuio	shj	hjk	hjk	DELETE
Muthu Nila R	nilaravi1974@gmail.com	09500844117	2002	54,Thathiyampatty,Chettiyar Street,Kamalapuram (Po), kadaiyampatty(tk),salem	Salem	TamilNadu	nbgluijh	DELETE
prem kumar	prem42@gmail.com	231452637	nopassword	20 , Kichipalayam , T. Konagapadi(Po) ,	dharmapuri	Tamilnadu	qwer	DELETE
chandran	chandran@89	12334569870	chandran123	45	mysore	karnataka	rty	DELETE
Ravi	Ravi@67	9638527410	ravi123	23	mettur	KA	wer	DELETE
Kumar	kumar@78	8527410963	kumar123	34	k.r.thoppur	tamilnadu	ert	DELETE
muthu	muthu@90	4567891230	muthu123	56	omalur	kerala	tyu	DELETE
nila	nila@01	951753640	nila123	78	omalur	tamilnadu	yui	DELETE
parteban	partheban@70	7423698510	parthi123	70	sampali	karnataka	lop	DELETE

Type here to search

24°C Mostly cloudy 9:28 PM 11/19/2022

IBM Cloud Container Registry - N x java - Dockerfile build raising inc x Docker Hub x Document x

Not secure | 192.168.29.195:5000/admin

Gmail WhatsApp VS Code hacks GitHub IBM IBM Cloud jtp-DS flask SheCodes Prime ConReg Mailgun

Cutomer CareHomeAboutCommentsCategoriesFAQContactLOGOUT

Sanjay	sanjay12@gmail.com	8247591063	27-10-2022	laptop	laptop battery is fault	nila@01	Completed	DELETE
sankar	sankarslm@gmail.com	8610862212	14-10-2001	computer service	computer	None	None	DELETE
sankar	sankarslm@gmail.com	8610862212	14-10-2001	computer service	computer	None	None	DELETE

Agent Allocation

Complaint mail

Enter email

Agent Email

Agent mail

Submit

Created By  
Praveenkumar.M | Muthu Nila.R | Partheban.V | Ravichandran.S

Type here to search

24°C Mostly cloudy 9:28 PM 11/19/2022



## Sending email to client

IBM Cloud Container Registry - 1 x java - Dockerfile build raising ins x Docker Hub x Document x +

Not secure | 192.168.29.195:5000/viewmine

Gmail YouTube WhatsApp Bilibili Hackers GitHub IBM IBM Cloud jtp-DS flask SheCodes Prime ConReg Mailgun


CUSTOMER_NAME	EMAIL	PHONE_NUMBER	DATE	TOPIC	DESCRIPTION	STATUS	COMPLETED
Sanjay	sanjay12@gmail.com	8247591063	27-10-2022	laptop	laptop battery is fault	Completed	COMPLETE

### SENDING EMAIL TO CLIENT

SEND

### I'm AGENT

Contact Customer to resolve complaint ticket



Type here to search 24°C Mostly cloudy 9:29 PM 11/19/2022

IBM Cloud Container Registry - 1 x java - Dockerfile build raising ins x Docker Hub x Document x +

Not secure | 192.168.29.195:5000/admin

Gmail YouTube WhatsApp Bilibili Hackers GitHub IBM IBM Cloud jtp-DS flask SheCodes Prime ConReg Mailgun

## Cutomer Care

Home About Comments Categories FAQ Contact LOGOUT

Facebook Twitter Instagram

### Complaint Database

CUSTOMER_NAME	EMAIL	PHONE_NUMBER	DATE	TOPIC	DESCRIPTION	SERVICE_AGENT	STATUS	DELETE
srinighil	nighil23@gmail.com	6354785129	24-08-2022	mobile	software issue	kumar@78	Completed	DELETE
sankar	sankarslm@gmail.com	8610862212	14-10-2001	computer service	computer	None	None	DELETE
Sanjay	sanjay12@gmail.com	8247591063	27-10-2022	laptop	laptop battery is fault	nila@01	Completed	DELETE
sankar	sankarslm@gmail.com	8610862212	14-10-2001	computer service	computer	None	None	DELETE
sankar	sankarslm@gmail.com	8610862212	14-10-2001	computer service	computer	None	None	DELETE

### Agent Allocation

#### Complaint mail

Enter email

#### Agent Email

Type here to search 24°C Mostly cloudy 9:28 PM 11/19/2022

## **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 prioritise better customer service experiences (source: [Bain & Company](#)). Creating a better customer service experience than those offered by competitors can help businesses to stand out 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.

## **5. Improve public image**

Customer service can help businesses to improve the public perception of the brand, which can then provide protection if there is a slip up. 78% of customers will forgive a company for a mistake after receiving excellent service (source: Salesforce Research). Meanwhile, almost 90% of customers report trusting a company whose service they rate as “very good.” On the other hand, only 16% of those who give a “very poor” rating trust companies to the same degree (source: Qualtrics XM Institute). Creating positive customer experiences is vital in gaining customer trust and creating a strong public image.

## **Disadvantage**

- The Consumer Protection Act in India has numerous restrictions and drawbacks, which are listed in this article.
- Only services for which a particular payment has been made are covered under the consumer protection act. However, it does not protect medical professionals, or hospitals, and covers cases when this act does not apply to free medical care.
- This act does not apply to mandatory services, such as water supply, that are provided by state agencies.
- Only two clauses related to the supply of hazardous materials are covered by this act. Consumer redress is not given any power by the consumer protection act.
- The consumer protection act focuses on the supply of ineffective products, but there are no strict regulations for those who produce it.

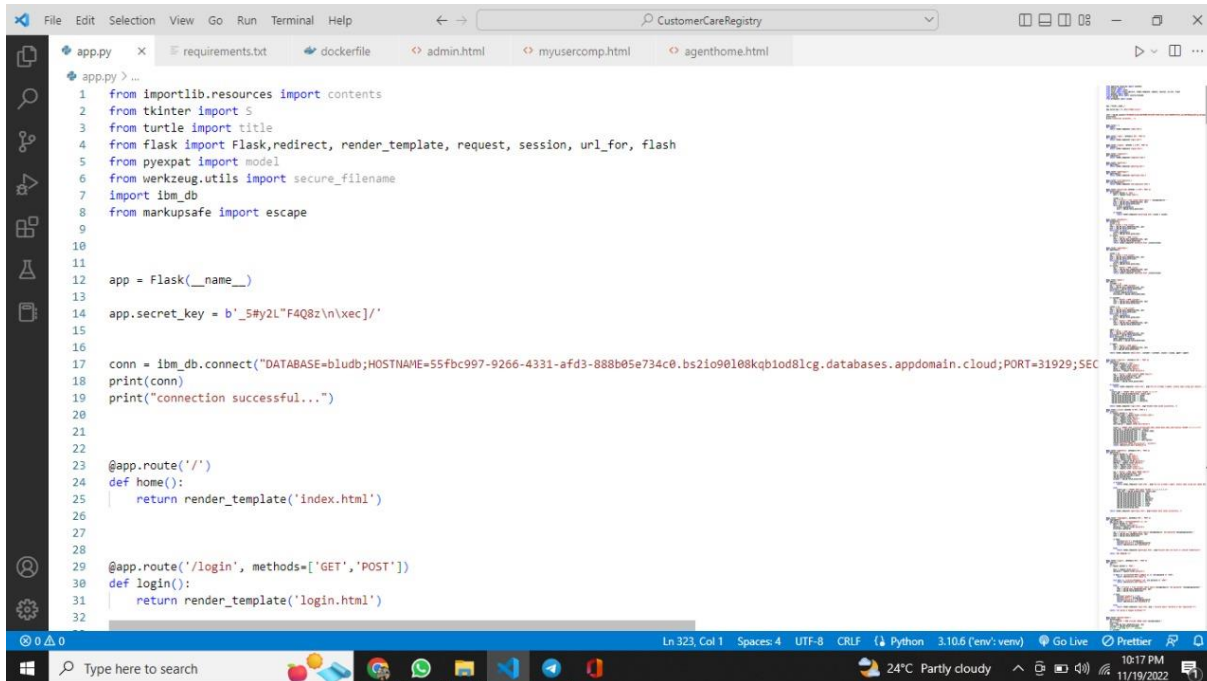
## **11.CONCLUSION**

It is a web-enabled project. With this project the details about the product will be given to the customers in detail with in a short span of time. Queries regarding the product or the services will also be clarified. It provides more knowledge about the various technologies.

## 12.FUTURE SCOPE

- Agents Will Have More Time Leveraging AI in the contact center increases the effectiveness of customer service departments by freeing up more time for frontline representatives.
- Social Messaging channels are ushering in a new generation of customers who expect more and expect it fast.
- It's not surprising, Social Messaging support combines full chat functionality with persistent identity and mobile notifications merging all of the best elements of the traditional digital care channels, purpose built for the mobile app

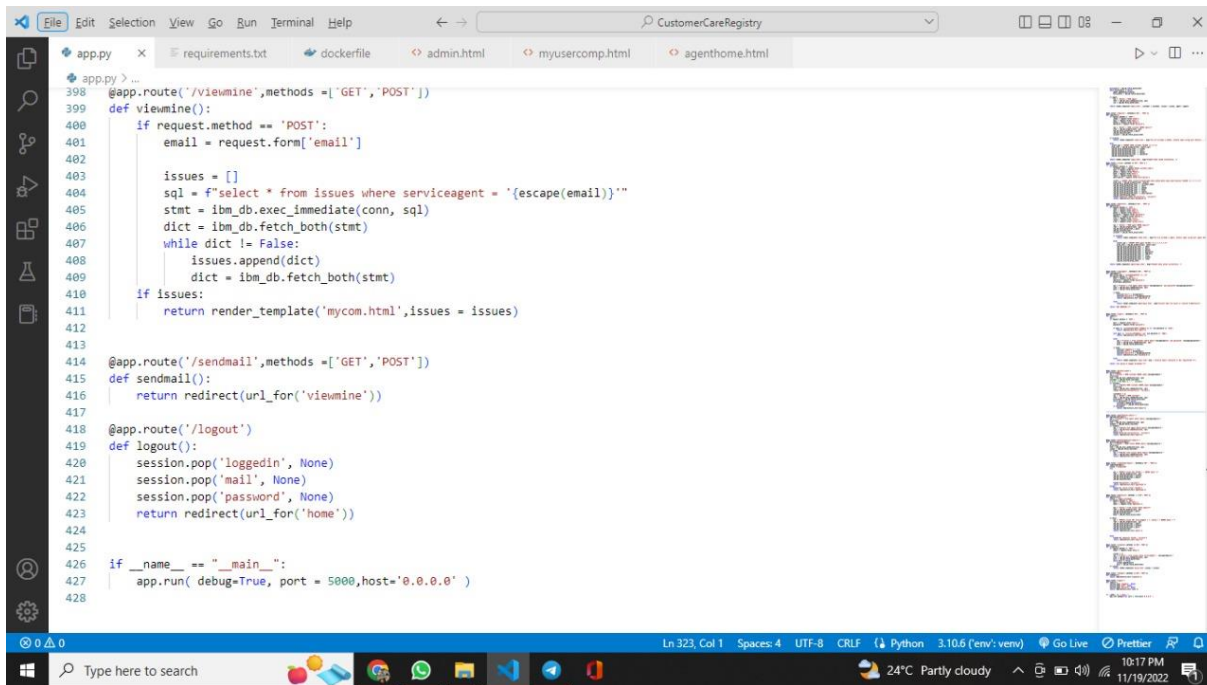
## Source Code



```
File Edit Selection View Go Run Terminal Help
CustomerCareRegistry

app.py requirements.txt dockerfile admin.html myusercomp.html agenthome.html

app.py > ...
1 from importlib.resources import contents
2 from tkinter import *
3 from turtle import title
4 from flask import Flask, redirect, render_template, request, session, url_for, flash
5 from pyexpat import model
6 from werkzeug.utils import secure_filename
7 import ibm_db
8 from markupsafe import escape
9
10
11
12 app = Flask(__name__)
13
14 app.secret_key = b'_5#y2L"F4Q8z\n\xec]/'
15
16
17 conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=55fbc997-9266-4331-afd3-888b05e734c0.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=31929;SEC
18 print(conn)
19 print("connection successful...")
20
21
22
23 @app.route('/')
24 def home():
25     return render_template('index.html')
26
27
28
29 @app.route('/login', methods=['GET', 'POST'])
30 def login():
31     return render_template('login.html')
32
```



```
File Edit Selection View Go Run Terminal Help
CustomerCareRegistry
app.py requirements.txt dockerfile admin.html myusercomp.html agenthome.html
app.py > ...
398 @app.route('/viewmine', methods=['GET', 'POST'])
399 def viewmine():
400     if request.method == 'POST':
401         email = request.form['email']
402
403         issues = []
404         sql = f"select * from issues where serviceagent = '{escape(email)}'"
405         stmt = ibm_db.exec_immediate(conn, sql)
406         dict = ibm_db.fetch_both(stmt)
407         while dict != False:
408             issues.append(dict)
409             dict = ibm_db.fetch_both(stmt)
410         if issues:
411             return render_template('mycom.html', issues = issues)
412
413
414 @app.route('/sendmail', methods=['GET', 'POST'])
415 def sendmail():
416     return redirect(url_for('viewmine'))
417
418 @app.route('/logout')
419 def logout():
420     session.pop('loggedin', None)
421     session.pop('mail', None)
422     session.pop('password', None)
423     return redirect(url_for('home'))
424
425
426 if __name__ == "__main__":
427     app.run(debug=True, port = 5000, host='0.0.0.0')
428
```

**GitHub :** <https://github.com/IBM-EPBL/IBM-Project-37332-1660304391>

**Project Demo link:** [https://youtu.be/uDg8hWS\\_5Do](https://youtu.be/uDg8hWS_5Do)

**Customer care registry:** <http://169.51.194.11:31792/>

