

A PROJECT REPORT

CONTENTS

1. INTRODUCTION

1. Project Overview
2. Purpose

2. LITERATURE SURVEY

1. Existing problem
2. References
3. Problem Statement Definition

3. IDEATION & PROPOSED SOLUTION

1. Empathy Map Canvas
2. Ideation & Brainstorming
3. Proposed Solution
4. Problem Solution fit

4. REQUIREMENT ANALYSIS

1. Functional requirement
2. Non-Functional requirements

5. PROJECT DESIGN

1. Data Flow Diagrams
2. Solution & Technical Architecture
3. User Stories

6. PROJECT PLANNING & SCHEDULING

1. Sprint Planning & Estimation
2. Sprint Delivery Schedule

3. Report form JIRA

7. CODING & SOLUTION (Explain the features added in the project along with code)

1. Feature 1
2. Feature 2
3. Database Schema (if Applicable)

8. TESTING

1. Test Cases
2. User Acceptance Testing

9. RESULTS

1. Performance Metrics

10. ADVANTAGES & DISADVANTAGES

11. CONCLUSION

12. APPENDIX

1. Source Code
2. GitHub & Project Demo Link

CUSTOMER CARE REGISTRY

Team ID	PNT2022TMID32111	
Project Name	Project – Customer Care Registry	
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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

1.2 Purpose

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

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 this 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.

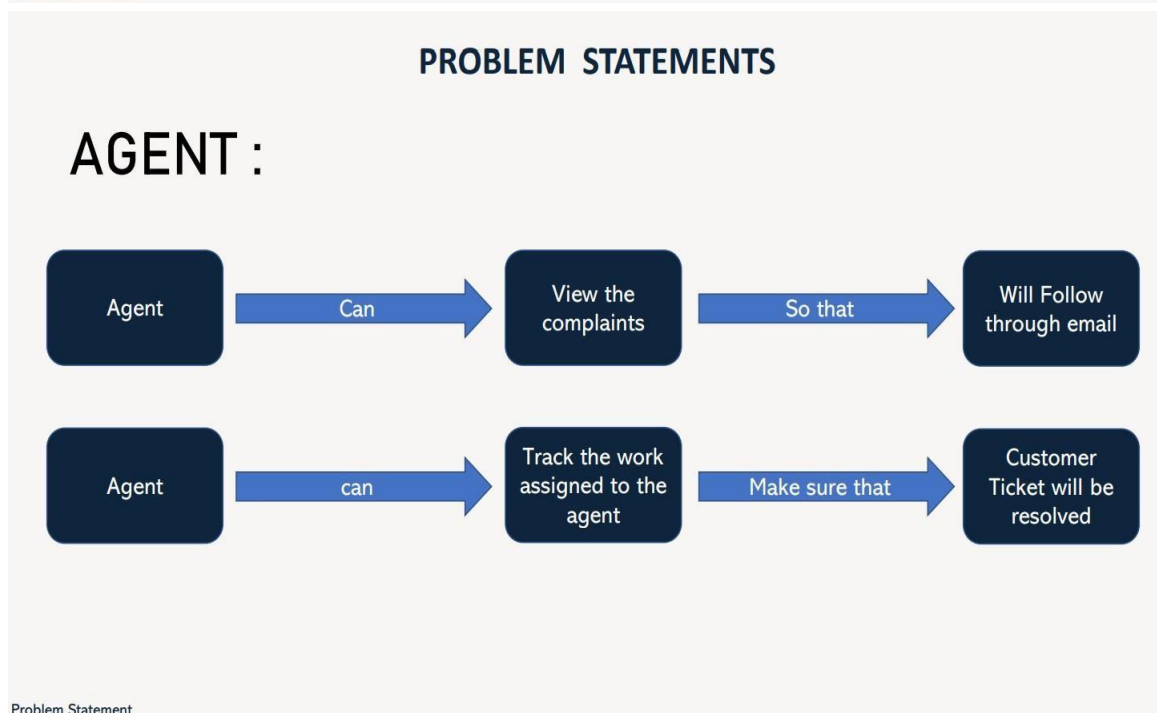
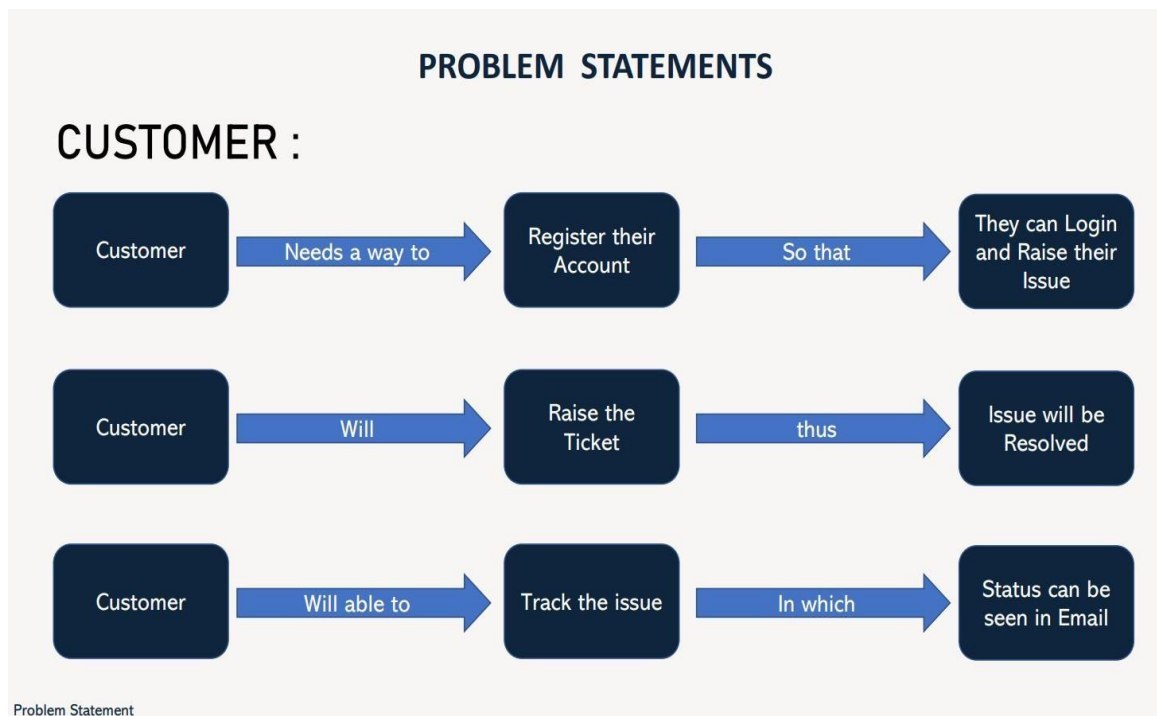
2.2 Reference

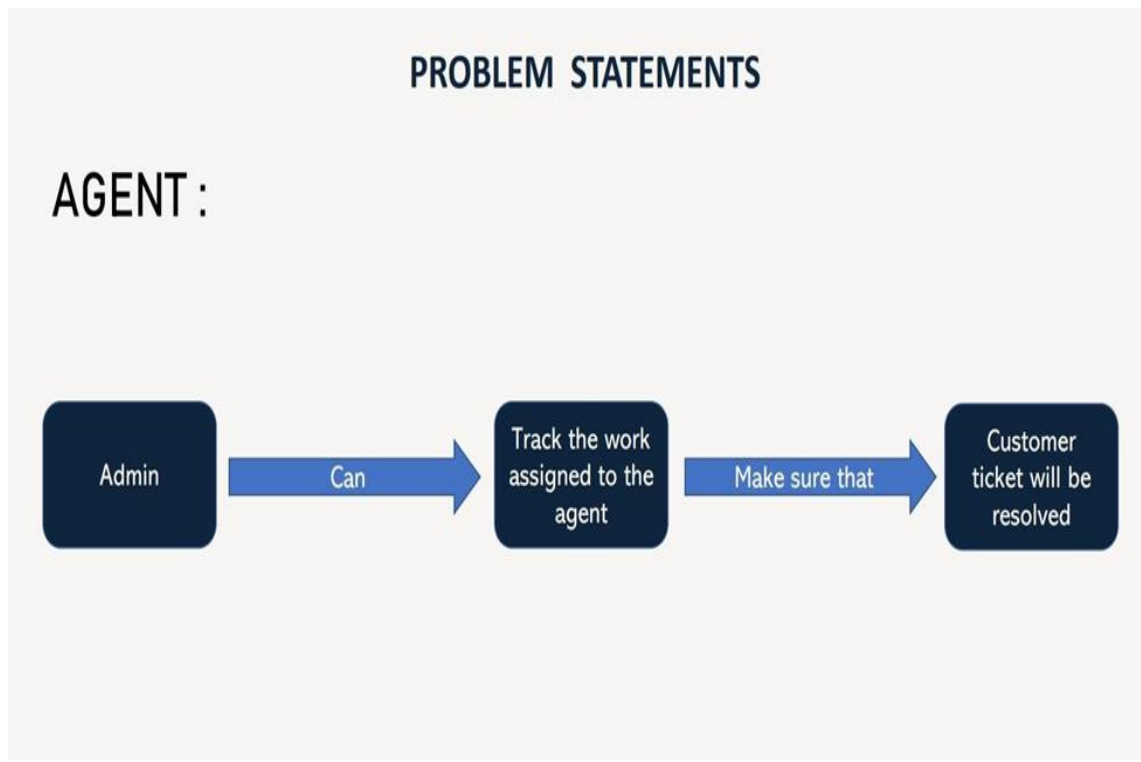
Help Desk
Live Chat box Support Problem

2.3 Problem Statement Definition

A problem statement is a concise description of the problem or issues a project seeks to address. The problem statement identifies the current state, the desired future state and any gaps between the two. A problem statement is an important communication tool that can help

ensure everyone working on a project knows what the problem they need to address is and why the project is important.





3. IDEATION & POPOSED SOLUTION

3.1 Empathy Map Canvas

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

Empathy Map Canvas

Gain insight and understanding on solving customer problems.



Build empathy and keep your focus on the user by putting yourself in their shoes.




3.2 Ideation & Brainstorming

Ideation and the practice of brainstorming, a particular method for coming up with fresh ideas, are frequently closely related. The main distinction between ideation and brainstorming is that whereas brainstorming is nearly often done in groups, ideation is typically seen as being more of a solitary endeavor. A group of people are frequently gathered for a brainstorming session to generate either fresh, general ideas or solutions to specific problems or circumstances. On instance, a large firm that has discovered it is the target of a significant lawsuit might wish to consult with its top executives to come up with ideas.

In a brainstorming session, participants are encouraged to freely share any ideas that may come to mind. According to the theory, by coming up with a lot of ideas, the brainstorming group is more likely to find a workable solution to the problem they are trying to solve.




With the creation of various brainstorming software tools, such as Bright idea and Idea wake, the distinction between ideation and brainstorming has gotten a little bit more hazy. These software applications are made to inspire staff members to come up with fresh suggestions for enhancing business operations and, eventually, bottom-line profitability. The applications frequently mix the ideation and brainstorming processes in that they can be used by individual employees, but businesses can replicate brainstorming sessions by having multiple employees use the software to produce fresh ideas for a particular problem.



Template





Brainstorm & idea prioritization


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



 10 minutes to prepare
 1 hour to collaborate
 2-8 people recommended


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


 **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.


 **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.


 **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.
[Open article](#) →


 **Define your problem statement**
What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.
 5 minutes


 **How might we**
How might we can solve the issue given by the customer?


 **Key rules of brainstorming**
To run an smooth and productive session


 Stay in topic.

 Encourage wild ideas.

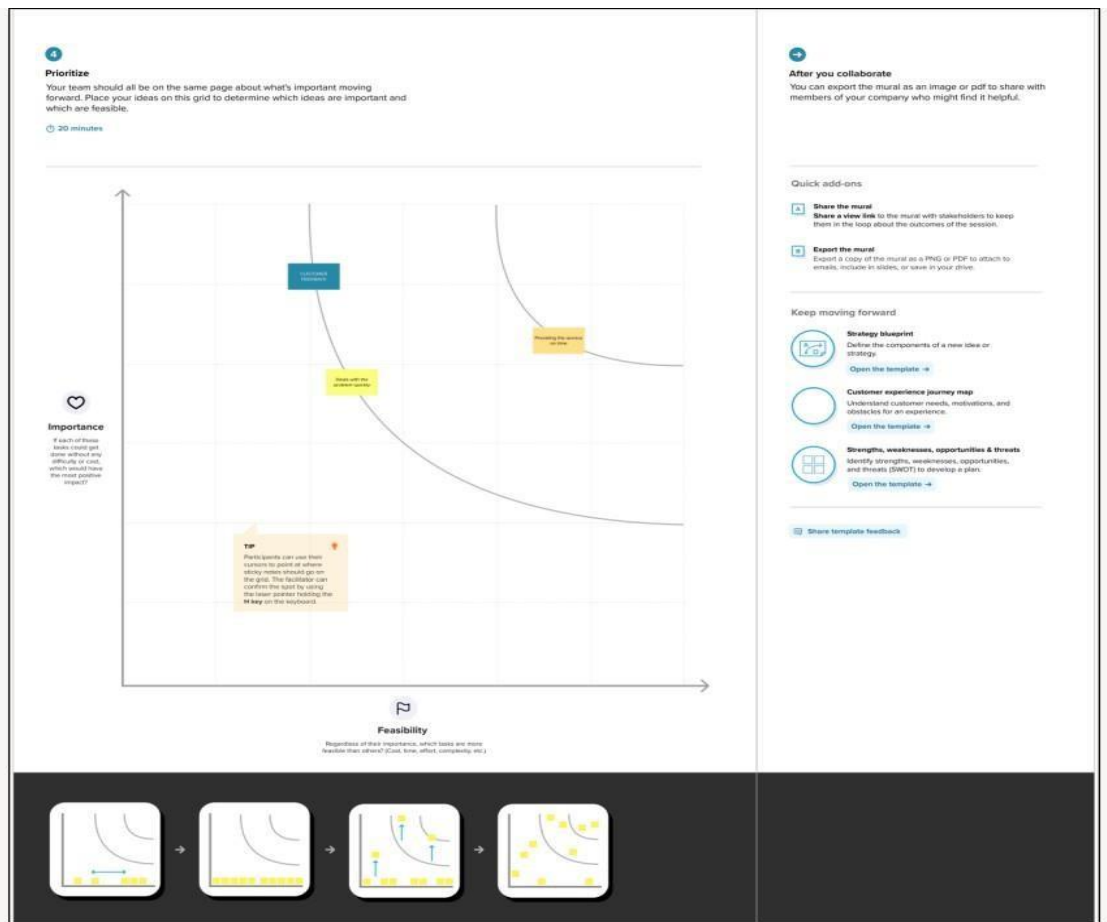
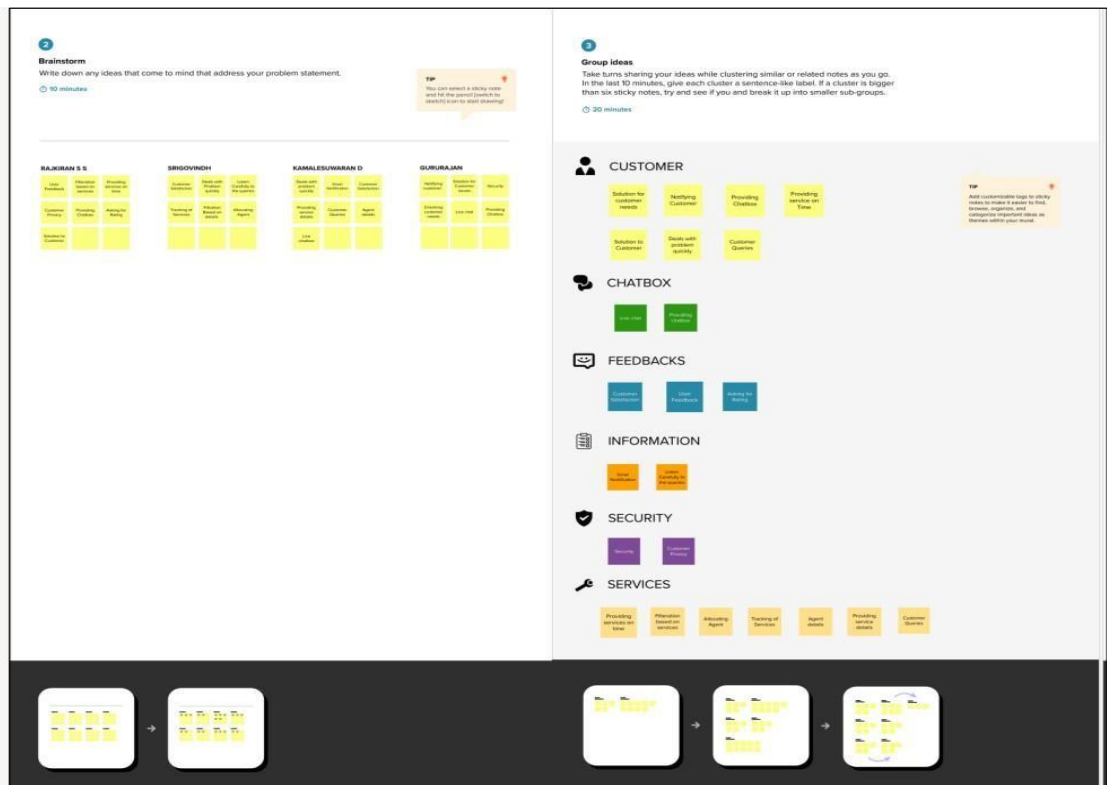
 Defer judgment.

 Listen to others.

 Go for volume.

 If possible, be visual.

[Share template feedback](#)



3.3 Proposed Solution

S.NO.	PARAMETER	DESCRIPTION
1	Problem Statement (Problem to be solved)	To solve customer issues using Cloud Application Development.
2	Idea / Solution description	Assigned Agent Routing, Automated Ticket Closure, Status Shown to the Customer, and Backup data in case offailures.
3	Social Impact / Customer Satisfaction	Customer Satisfaction, Customer can track their status and Easy agent communication.
4	Business Model (Revenue Model)	Partners are Third-party applications, agents, andcustomers. Activities held as Customer Service, System Maintenance. Key Resources support Engineers, Multi-channel. Customer

		Relationship have 24/7 Email Support, Knowledge-based channel. Cost Structure expresses Cloud Platform, Offices
5	Scalability of the Solution	The real goal of scaling customer service is providing an environment that will allow your customer service specialists to be as efficient as possible. An environment where they will be able to spend less time on grunt work and more time on actually resolving critical customer issues

3.4 Problem Solution Fit

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

Problem-Solution fit canvas 2.0

Define CS, fit into	1. CUSTOMER SEGMENT(S) CS Who is your customer? 1) Customers who are not able to solve their own complaints of what they are facing. 2) Customers who do not know the solution of their questions they get.	6. CUSTOMER CC What constraints prevent your customers from <u>taking action</u> or limit their choices of solutions? <u>low</u> spending power, budget, no cash, network connection, available devices. 1) This application will be supported by almost all the devices. 2) The solution we propose will have an alert via email feature, <u>if</u> expense exceeds the given limit. 3) This solution also provides insights in a graphical way.	5. AVAILABLE SOLUTIONS AS 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? <u>low</u> pen and paper is an alternative to digital notetaking. 1) By reading the guidelines properly. 2) Offer a solution and give options whenever possible. 3) Address to issue within the company. 4) By communicating properly.	Explore AS, Focus on AS, tap into BE, understand
	2. JOBS-TO-BE-DONE / PROBLEMS J&P Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides. 1) The application <u>allow</u> the customers to find the solution for their queries. 2) They <u>will</u> be able to categorize their expenses. 3) They will be also given option for the general <u>questions</u> . 4) They also get the free solution where we provide our agents.	9. PROBLEM ROOT CAUSE RC What is the real reason that this problem exists? What is the back story behind the need to do this job? <u>low</u> customers have to do it because of the change in regulations. 1) Lot of customers don't know the guidelines for their problems. 2) Some customers have lack of <u>knowledge</u> . 3) Not knowing the answer to a question. 4) Not reading the guidelines properly.	7. BEHAVIOUR BE What does your customer do to address the problem and get the job done? <u>low</u> 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) Make sure he/she reads the guidelines properly. 2) Make sure they find a proper solution <u>for</u> their queries.	
Identify strong TR & EM	3. TRIGGERS TR What triggers customers to act? <u>low</u> seeing their <u>neighbour</u> installing solar panels, reading about a more efficient solution in the news. 1) Customers can know to solve their solutions.	10. YOUR SOLUTION SL If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer <u>behaviour</u> . 1) To design a personal help desk using flask. 2) To provide insights on their queries in a graphical way.	8. CHANNELS OF BEHAVIOUR CH 8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7. 1) All their data are secured and being updated to cloud storage. 8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development. 1) Make sure they find the best solutions for their complaints.	Extract online & offline CH of BE
	4. EMOTIONS: BEFORE / AFTER EM How do customers feel when they face a problem or a job and afterwards? <u>low</u> lost, insecure > confident, in control - use it in your communication strategy & design. 1) Customers can get the from the help desk.			

4. REQUIREMENTS ANALYSIS

What is Requirement Analysis: It is the process of determining user expectations for a system under consideration.

These should be quantifiable and detailed. Requirement Analysis:

Serves as a foundation for test plans and project plan

Serves as an agreement between developer and customer

Process to make stated and unstated requirements clear

Process to validate requirement for completeness, ambiguity and feasibility.

4.1 Functional Requirements

Functional requirements specify what a system should be able to do through computations, technical details, data manipulation and processing, and other specialized functions. Use cases, which are used to represent behavioral requirements, explain all the instances in which the system makes use of the functional requirements. Non-functional requirements, commonly referred to as "quality requirements," which place restrictions on the design or execution, support functional requirements (such as performance requirements, security, or reliability). Non-functional requirements often take the form "system shall be," while functional needs are typically articulated in the form "system must do." While non-functional needs are defined in the system architecture, the plan for accomplishing functional requirements is detailed in the system design. Functional requirements, as used in requirements engineering, outline specified outcomes of a system.

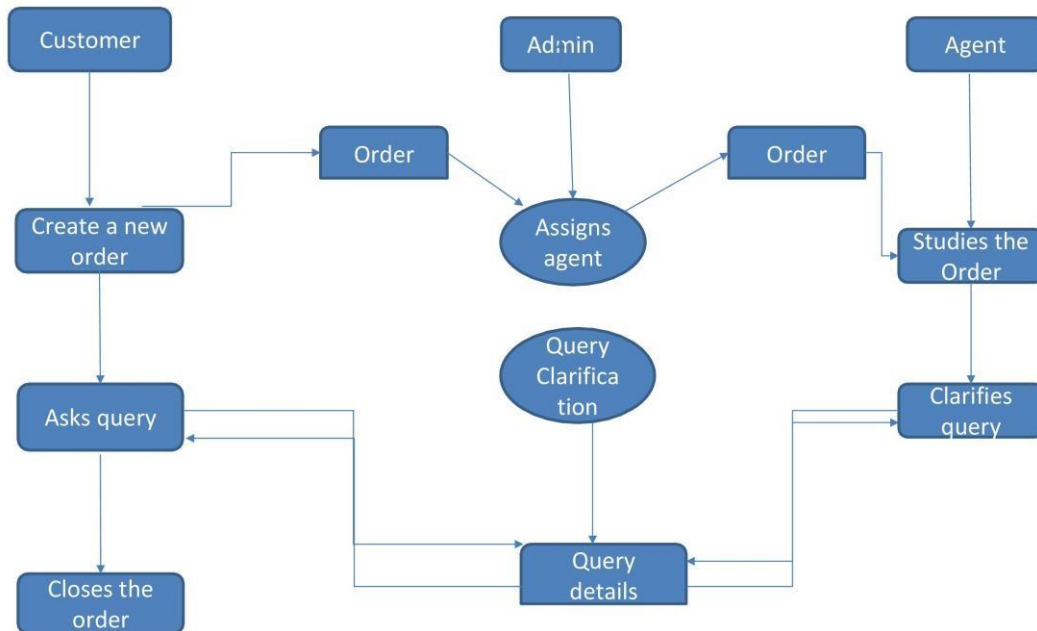
4.2 Non – Functional Requirements

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

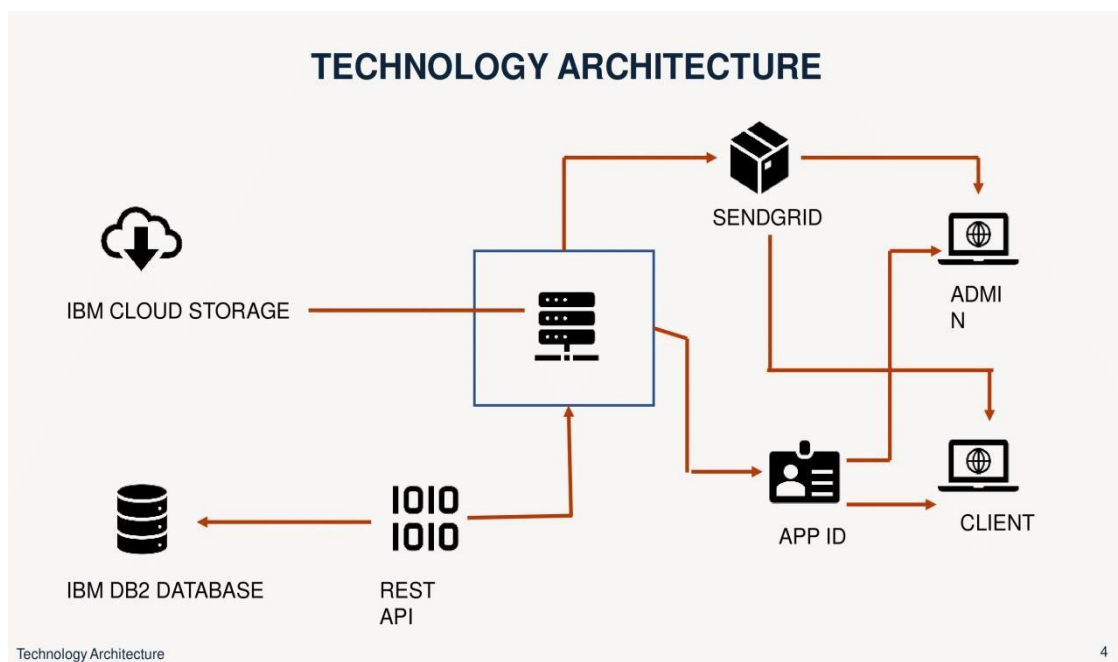
5. PROJECT DESIGN

5.1 Data Flow Diagrams

Data flow diagram for Customer care Registry



5.2 Solution & Technical Architecture



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.N o	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.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Performance technology, therefore, is a field of practice that uses various tools, processes, and ideas in a scientific, systematic manner to improve the desired outcomes of individuals and organizations.

5.3 User Stories

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 incase 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 abetter 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 dobuts	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

Admin (Mobile user)	Login	USN-1	As a admin, I can login to the appliaction 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 the customer.	Enable agent to clarify the queries.	High	Sprint-1
	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

6. PROJECT PLANNING & SCHEDULING

‘Project Planning and Scheduling’, though separate, are two sides of the same coin in project management. Fundamentally, ‘Project planning’ is all about choosing and designing effective policies and methodologies

to attain project objectives. While ‘Project scheduling’ is a procedure of assigning tasks to get them completed by allocating appropriate resources within an estimated budget and time-frame.

The basis of project planning is the entire project. Unlikely, project scheduling focuses only on the project-related tasks, the project start/end dates and project dependencies. Thus, a ‘project plan’ is a comprehensive document that contains the project aims, scope, costing, risks, and schedule. And a project schedule includes the estimated dates and sequential project tasks to be executed.

Project Planning

The project planning phase refers to:

Developing a project to make it ready for investment.

Determines the jobs/tasks required to attain project objectives.

6.1 Sprint Planning & Estimation

Sprint	User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Customer (Web User)	Registration	USN-1	As a customer, I can register for the application by entering my email, password, and confirming my password.]	2	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S.
Sprint-1		Login	USN-2	As a customer, I can login to the application by entering correct email and password	1	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-1		Dashboard	USN-3	As a customer, I can see all the tickets raised by me and lot more	3	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-2		Ticket creation	USN-4	As a customer, I can create a new ticket with the detailed description of my query	2	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-3		Address Column	USN-5	As a customer, I can have conversations with the assigned agent and get my queries clarified	3	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K,

Sprint	User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
							Vignesh S
Sprint-4		Forgot password	USN-6	As a customer, I can reset my password by this option in case I forgot my old password	2	Medium	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-4		Ticket details	USN-7	As a customer, I can see the current status of my tickets	2	Medium	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-3	Agent (Web user)	Login	USN-1	As an agent, I can login to the application by entering correct email and password	2	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-3		Dashboard	USN-2	As an agent, I can see all the tickets assigned to me by the admin	3	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-3		Address Column	USN-3	As an agent, I get to have conversations with the customer and clear his/her queries	3	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-4		Forgot password	USN-4	As an agent, I can reset my password by this option in case I forgot my old password	2	Medium	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-1	Admin (Web user)	Login	USN-1	As an admin, I can login to the application by entering correct email and password	1	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-1		Dashboard	USN-2	As an admin, I can see all the tickets	3	High	Surya Sk,

Sprint	User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
				raised in the entire system and lot more			Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-2		Agent creation	USN-3	As an admin, I can create an agent for clarifying the customer's queries	2	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-2		Assigning agent	USN-4	As an admin, I can assign an agent for each ticket created by the customer	3	High	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S
Sprint-4		Forgot password	USN-4	As an admin, I can reset my password by this option in case I forgot my old password	2	Medium	Surya Sk, Dheyaneshwaran S, Rajeshkanna K, Vignesh S

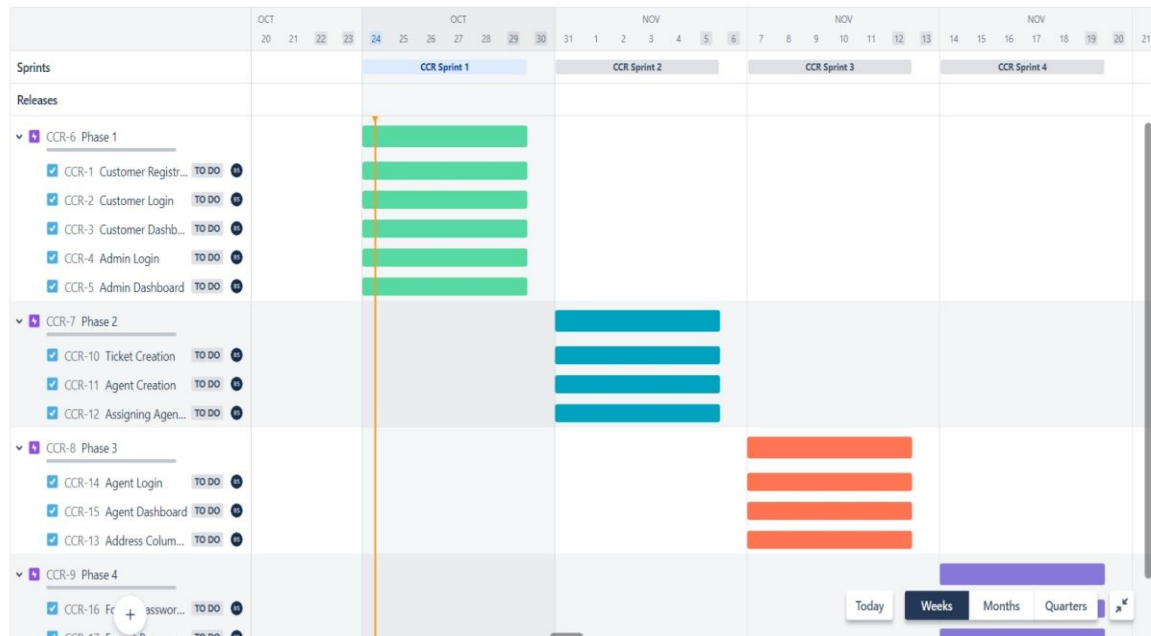
6.2 Sprint Delivery Schedule

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	7	6 Days	31 Oct 2022	05 Nov 2022	7	05 Nov 2022
Sprint-3	11	4 Days	06 Nov 2022	11 Nov 2022	11	09 Nov 2022
Sprint-4	8	4 Days	10 Nov 2022	15 Nov 2022	8	13 Nov 2022

6.3 Report from JIRA

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

It's crucial to note that Jira provides a variety of tools and reports to assist you in getting a clear picture of your team's progress, each with unique advantages, restrictions, and applications. Each team or organization should utilize the reports and resources that



7. CODING & SOLUTION

College graduates with prior programming expertise or technical degrees are recruited and transitioned into professional positions with Alabama firms and organizations through the highly competitive Coding Solutions job accelerator and talent refinement programmer 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 Coding Solutions is to mobilize 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.

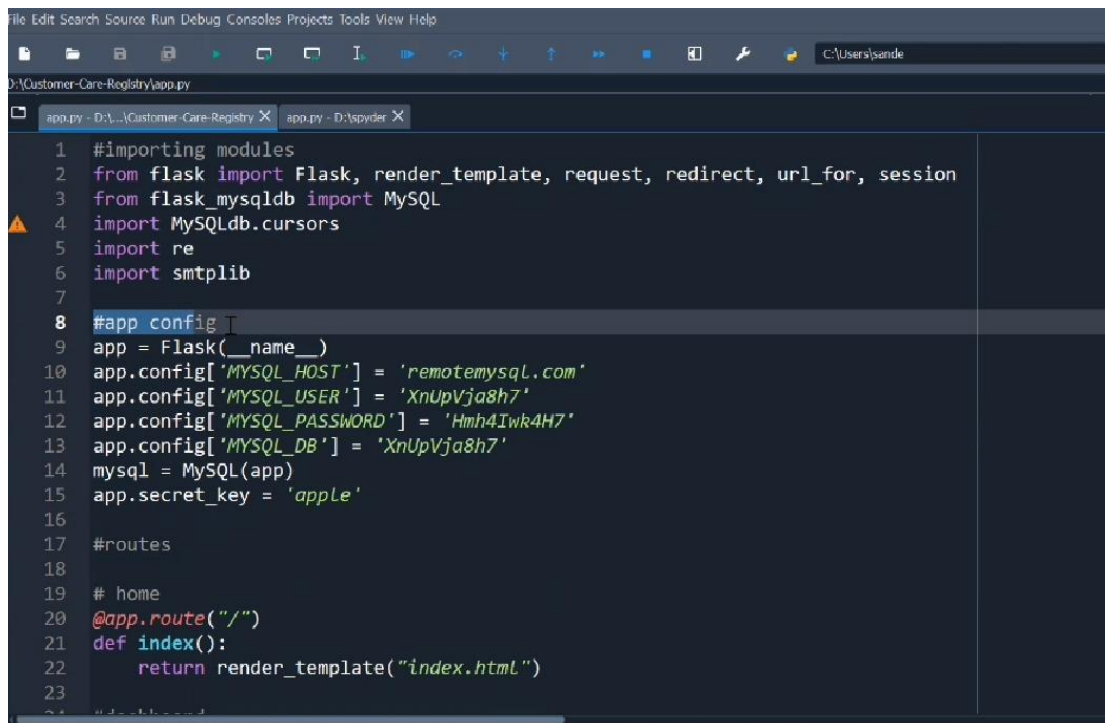
7.1 Database Schema

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.

HTML & PYTHON CODE

A screenshot of a Python code editor window. The window has a menu bar with 'File', 'Edit', 'Search', 'Source', 'Run', 'Debug', 'Consoles', 'Projects', 'Tools', 'View', and 'Help'. Below the menu bar is a toolbar with various icons. The main area shows a Python file named 'app.py' with the following code:

```
1 #importing modules
2 from flask import Flask, render_template, request, redirect, url_for, session
3 from flask_mysql import MySQL
4 import MySQLdb.cursors
5 import re
6 import smtplib
7
8 #app config
9 app = Flask(__name__)
10 app.config['MYSQL_HOST'] = 'remotemysql.com'
11 app.config['MYSQL_USER'] = 'XnUpVja8h7'
12 app.config['MYSQL_PASSWORD'] = 'Hmh4Iwk4H7'
13 app.config['MYSQL_DB'] = 'XnUpVja8h7'
14 mysql = MySQL(app)
15 app.secret_key = 'apple'
16
17 #routes
18
19 # home
20 @app.route("/")
21 def index():
22     return render_template("index.html")
23
24 # dashboard
```

```
D:\Customer-Care-Registry\app.py
app.py - D:\...Customer-Care-Registry X app.py - D:\spyder X
16
17 #routes
18
19 # home
20 @app.route("/")
21 def index():
22     return render_template("index.html")
23
24 #dashboard
25 @app.route("/home",methods=['GET','POST'])
26 def home():
27     if ('user' not in session.keys()) or (session['user'] == None):
28         return redirect(url_for('Login'))
29     else:
30         cursor = mysql.connection.cursor()
31         cursor.execute("SELECT * FROM User WHERE id = % s",[session['user']])
32         userdetails = cursor.fetchone()
33         if userdetails[4] == 2:
34             return render_template("home.html",user=userdetails)
35         if userdetails[4] == 5:
36             return render_template("home.html",user=userdetails)
37         elif userdetails[4] == 1:
38             cursor.execute("SELECT * FROM Tickets WHERE agent=%s",[session['user']])
39             tickets = cursor.fetchall()
```

```
D:\Customer-Care-Registry\app.py
app.py - D:\...Customer-Care-Registry X app.py - D:\spyder X
61         return render_template("home.html",user=userdetails,tickets=tickets)
62
63
64 # user account registration
65 @app.route("/register",methods=['GET',"POST"])
66 def register_account():
67     msg=''
68     if request.method == "POST":
69         username = request.form['username']
70         email = request.form['email']
71         password = request.form['password']
72         cursor = mysql.connection.cursor()
73         cursor.execute('SELECT * FROM User WHERE email = % s', (email, ))
74         userdetails = cursor.fetchone()
75         print(userdetails)
76         if userdetails:
77             msg = 'Account already exists !'
78         elif not re.match(r'^(.+)@(.+)\.(.+)$', email):
79             msg = 'Invalid email address !'
80         elif not re.match(r'[A-Za-z0-9]+', username):
81             msg = 'name must contain only characters and numbers !'
82         else:
83             cursor.execute("INSERT INTO User(username,email,password,role) VALUES(% s,% s,% s,% s)"
84                             mysql.connection.commit()
```



```
D:\Customer-Care-Registry\app.py
app.py - D:\...Customer-Care-Registry X app.py - D:\spyder X
92 # agent account registration
93 @app.route("/agent",methods=["GET","POST"])
94 def agent_register():
95     msg=''
96     if request.method == "POST":
97         username = request.form['username']
98         email = request.form['email']
99         password = request.form['password']
100         cursor = mysql.connection.cursor()
101         cursor.execute('SELECT * FROM User WHERE email = % s', (email, ))
102         userdetails = cursor.fetchone()
103         print(userdetails)
104         if userdetails:
105             msg = 'Account already exists !'
106         elif not re.match(r'^[a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-zA-Z]+$', email):
107             msg = 'Invalid email address !'
108         elif not re.match(r'[A-Za-z0-9]+', username):
109             msg = 'name must contain only characters and numbers !'
110         else:
111             cursor.execute("INSERT INTO User(username,email,password,role) VALUES(% s,% s,% s,% s)"
112                             ,(username,email,password,1))
113             mysql.connection.commit()
114             msg = 'You have successfully registered !'
115             mysql.connection.commit()
116             return redirect(url_for("index"))
```

```
D:\Customer-Care-Registry\app.py
app.py - D:\...Customer-Care-Registry X app.py - D:\spyder X
121 @app.route('/Login',methods=["GET","POST"])
122 def login():
123     msg=''
124     if request.method == "POST":
125         email = request.form['email']
126         password = request.form['password']
127         cursor = mysql.connection.cursor()
128         cursor.execute('SELECT * FROM User WHERE email = % s AND password = % s', (email, pa
129         userdetails = cursor.fetchone()
130         print (userdetails)
131         if userdetails:
132             session['Loggedin'] = True
133             session['user'] = userdetails[0]
134             session['username'] = userdetails[1]
135             msg = 'Logged in successfully !'
136             return redirect(url_for("home"))
137         else:
138             msg = 'Incorrect username / password !'
139             return render_template("Login.html",msg=msg)
140         return render_template('Login.html', msg = msg)
141
142 # ticket detail
143 @app.route("/ticket/<int:id>",methods=["GET","POST"])
144 def ticket_detail(id):
```

```
D:\Customer-Care-Registry\app.py
app.py - D:\...Customer-Care-Registry X app.py - D:\spyder X
136         return redirect(url_for("home"))
137     else:
138         msg = 'Incorrect username / password !'
139         return render_template("Login.html",msg=msg)
140     return render_template('Login.html', msg = msg)
141
142 # ticket detail
143 @app.route("/ticket/<int:id>",methods=["GET","POST"])
144 def ticket_detail(id):
145     cursor = mysql.connection.cursor()
146     cursor.execute("SELECT * FROM Tickets WHERE id = % s",[id])
147     ticket = cursor.fetchone()
148     cursor.execute("SELECT * FROM User WHERE id = % s",[session['user']])
149     user = cursor.fetchone()
150     cursor.execute("SELECT * FROM User WHERE role = 1")
151     all_users = cursor.fetchall()
152     if user is None:
153         return redirect(url_for("Login"))
154     if request.method == "POST":
155         agent = request.form['agent']
156         print(agent,id)
157         cursor.execute("SELECT username FROM User WHERE id= % s",(agent,))
158         agent_name = cursor.fetchone()
159         return redirect(url_for("index"))
```

```

178
179 # admin register
180 @app.route("/admin", methods=["GET", "POST"])
181 def admin_register():
182     if request.method == "POST":
183         username = request.form['username']
184         email = request.form['email']
185         password = request.form['password']
186         secret_key = request.form['secret']
187         if secret_key == "12345":
188             cursor = mysql.connection.cursor()
189             cursor.execute("INSERT INTO User(username,email,password,role) VALUES(% s,% s,% s,% s)")
190             mysql.connection.commit()
191             return redirect(url_for("Login"))
192         else:
193             return render_template("admin_register.html", msg="Invalid Secret")
194     return render_template("admin_register.html")
195
196 # promote agent
197 @app.route("/panel", methods=['GET', 'POST'])
198 def panel():
199     id = session['user']
200     if id is None:
201         return redirect("Login")

```

8. TESTING

8.1 Test cases

USER LOGIN PAGE :



→ CONCENTRICE

--- CORCENTRALLTRACE

8.2 User Acceptance Testing

UAT Execution & Report Submission

Purpose of Document

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

Defect Analysis

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

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	5	0	0	2	7
External	0	2	0	0	2
Fixed	12	11	35	45	103
Not Reproduced	0	5	0	0	5
Skipped	0	0	0	0	0
Totals	17	18	35	47	117

Test Case Analysis

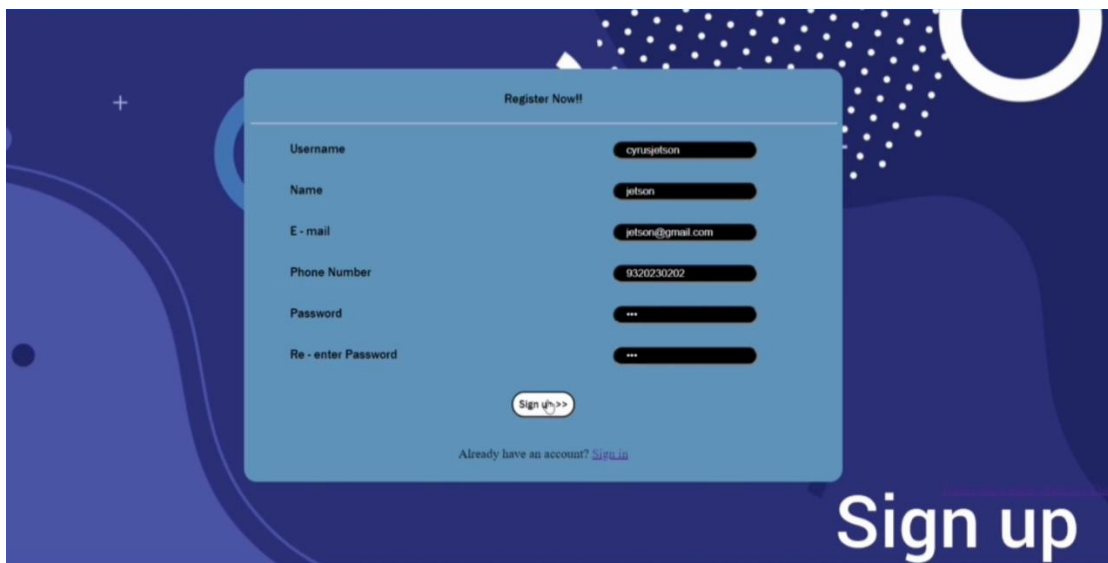
This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pas s
Client Application	72	0	0	72
Security	7	0	0	7
Exception Reporting	5	0	0	5
Final Report Output	4	0	0	4

9. RESULT

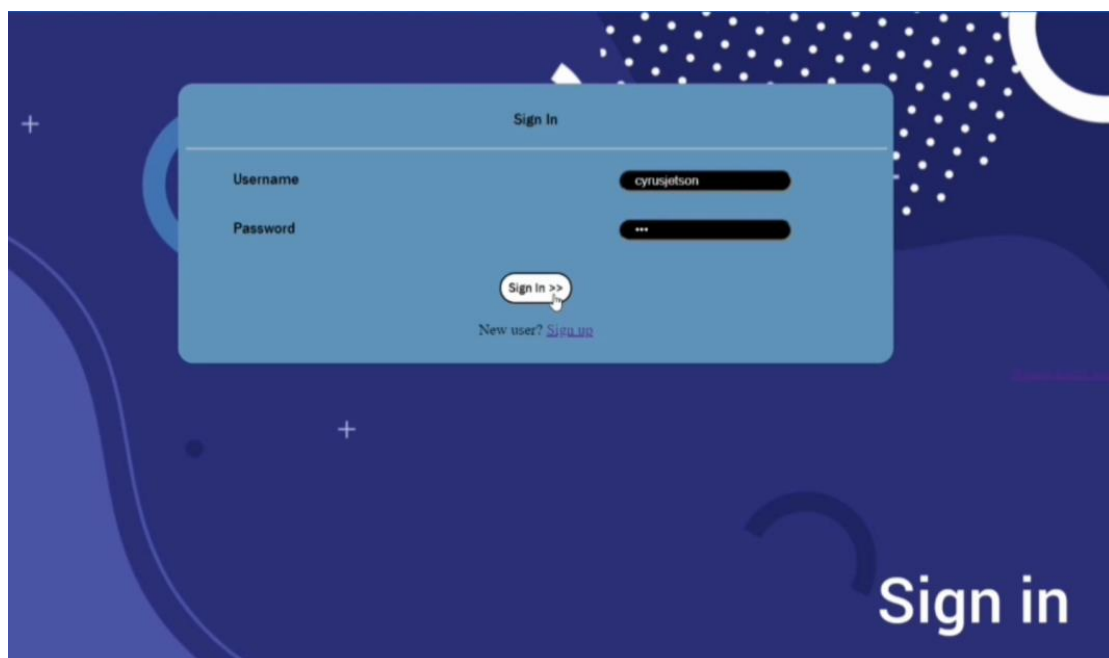
9.1 PERFORMANCE METRIC

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



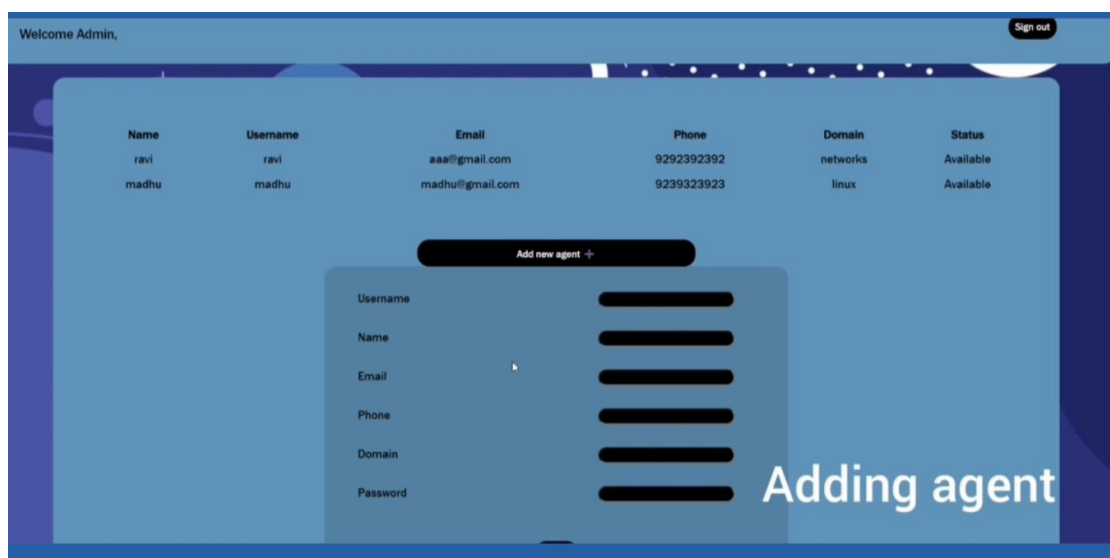
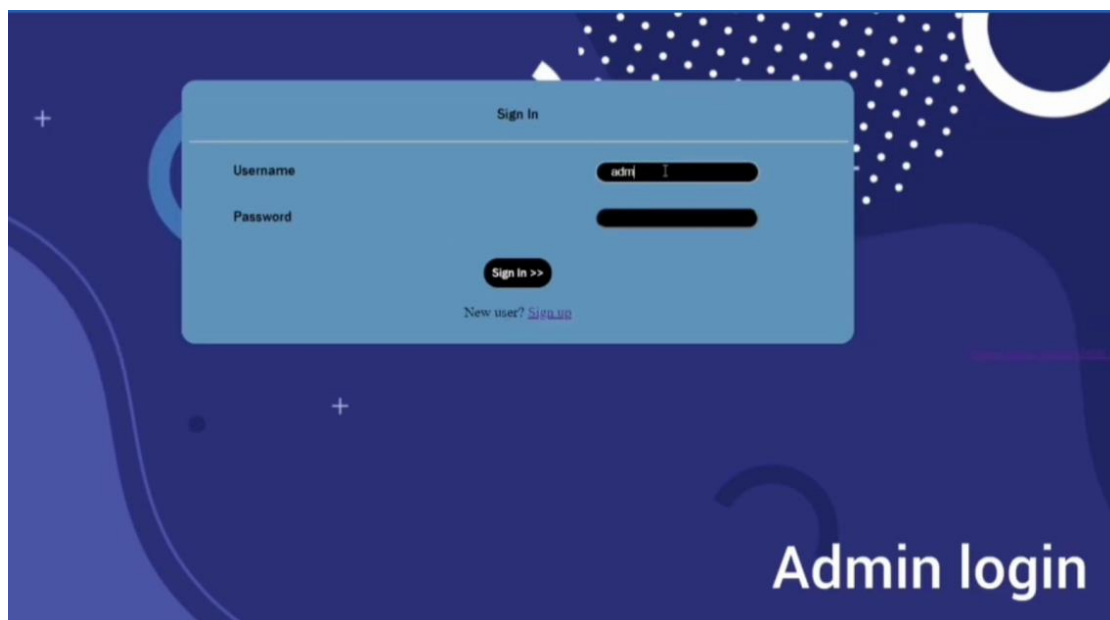
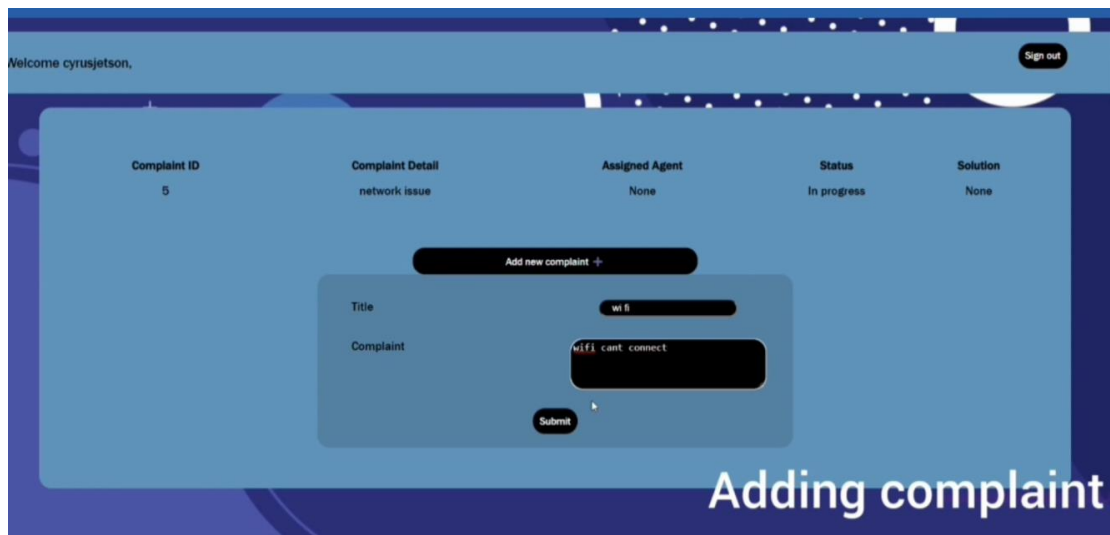
A registration form titled "Register Now!" is displayed on a dark blue background with abstract white shapes. The form is a light blue rectangle containing several input fields and a button. The fields are labeled "Username", "Name", "E - mail", "Phone Number", "Password", and "Re - enter Password". The "Username" field contains the text "cyrusjetson", "Name" contains "jetson", "E - mail" contains "jetson@gmail.com", and "Phone Number" contains "9320230202". The "Password" and "Re - enter Password" fields contain three dots. Below the fields is a button labeled "Sign up >>". At the bottom of the form, it says "Already have an account? [Sign in](#)". In the bottom right corner of the image, the text "Sign up" is written in large white font.

Register Now!	
Username	cyrusjetson
Name	jetson
E - mail	jetson@gmail.com
Phone Number	9320230202
Password	...
Re - enter Password	...
Sign up >>	
Already have an account? Sign in	



A sign-in form titled "Sign In" is displayed on the same dark blue background. The form is a light blue rectangle containing two input fields and a button. The fields are labeled "Username" and "Password". The "Username" field contains the text "cyrusjetson", and the "Password" field contains three dots. Below the fields is a button labeled "Sign in >>". At the bottom of the form, it says "New user? [Sign up](#)". In the bottom right corner of the image, the text "Sign in" is written in large white font.

Sign In	
Username	cyrusjetson
Password	...
Sign in >>	
New user? Sign up	



Welcome Admin, Sign out

Complaint ID	Username	Title	Complaint	Solution	Status
5	cyrusjetson	network issue	i cant login	None	Not Completed
6	cyrusjetson	wi fi	wifi cant connect	None	Not Completed

Assign an agent

Complaint ID:

Choose an agent:

Submit

Assigning agent

Sign In

Username:

Password:

Sign In >>

New user? [Sign up](#)

Agent login

Welcome ravi, Sign out

Complaint ID	Username	Title	Complaint	Solution	Status
5	cyrusjetson	network issue	i cant login	None	Not Completed

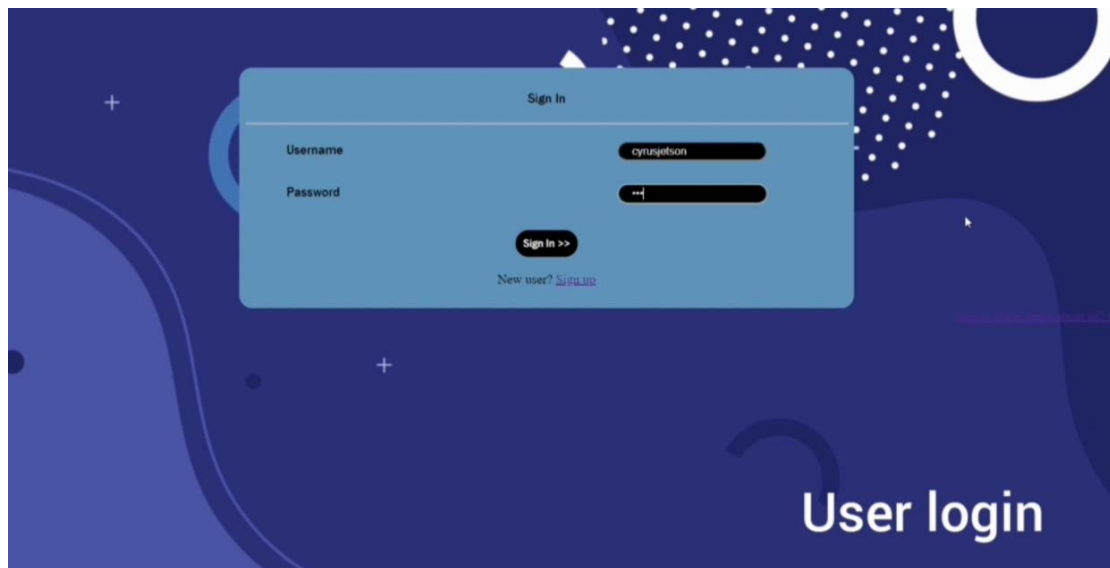
Solve an issue

Complaint ID:

Solution:

Submit

Solving issue



10. ADVANTAGES AND DISADVANTAGES

ADVANTAGES:

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: Invest). Creating loyal customers through good customer service can therefore provide businesses with lucrative long-term relationships.

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.

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.

Disadvantage :

The Consumer Protection Act in India has numerous restrictions and drawbacks 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 within 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. APPENDIX:

SOURCE CODE

The source code has been uploaded in GitHub. To refer the final source code click here to view ‘ [SOURCE CODE](#) ’

GITHUB & PROJECT DEMO LINK

The Git-Hub link : [Project Link](#)

The Demo link : [Demo Link](#)