

CUSTOMER CARE REGISTRY

IBM PROJECT REPORT

Submitted by

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CHAPTER -1

1.INTRODUCTION

1.1 PROJECT OVERVIEW

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 Customer they will be notified with an email alert. Customers can view the status of the ticket till the service is provided.

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.

1.2 PURPOSE

An online Customer Care Registry is a Solution to manage the customer interaction and complaints with the service provided over the e-mail by raising a ticket. The system should have the capability to integrate with the service provided from the domain to find the solution related to it like network issue, wi-fi, etc.

Customer service is also known as client service is the provision of service to customers. Its significance varies by product, domain and industry. In many services the customer service is more important if the information related to the service.

Customer service is normally an integral part of the company's customer value properties. It gives the information related to complaints which have been raised by the customers.

CHAPTER -2

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.

DISADVANTAGES

- a. Response time are long
- b. Not clear about the client needs
- c. Rude response from the agent
- d. Can't offer solution to the customer
- e. Lack of customer centricity

2.2 REFERENCES

SI.NO	TITLE	AUTHOR
1	Information System Research	Reza Mousavi, Monica Johar, Vijay S. Mookerjee
2	Online Helpdesk support system for handling complaints and service	Cadelina Cassandra, Sugiarto Hartono, Marisa Karsen
3	Intelligent decision making and planning for call centre	Owais Rashid, Ali Mustafa, Sharifullah Khan
4	Personalised digital customer service for consumer banking call centre using neural network	Kay Jan Wong, Lecia Lim
5	Information technology help desk survey	Nelson K.Y. Leung, Sim Kim Lau
6	Design of an intelligent web-based help desk system	David A. Thurman, Jeffrey S. Tracy
7	Ideal help desk/service deck in E-Government and service	Hatman Suryotrisongko, Meli Dyah Qoiru Mucharomah
8	Antecedent of customer satisfaction in mobile commerce	Azin Taha, David Hassan Jahed

2.3 PROBLEM STATEMENT

The customer should register their account. So that they can login and raise their issue as a complaint. The customers can raise the ticket with a detailed description of the issue. The admin will assign the agent to the customer complaint. 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 provided

Customer	needs a way to	Register their Account	so that	They can Login and Raise their Issue
Customer	will	Raise The Ticket	thus	Issue will be Resolved
Agent	can	View The complaints	so that	Will Follow Through Email
Customer	will able to	Track the issue	in which	Status can be seen in Email
Admin	can	Track the work assigned to the agent	make sure that	Customer Tickets will be resolved
Agent	will able to	See the notification on Email	by that	Agent can see assigned customer

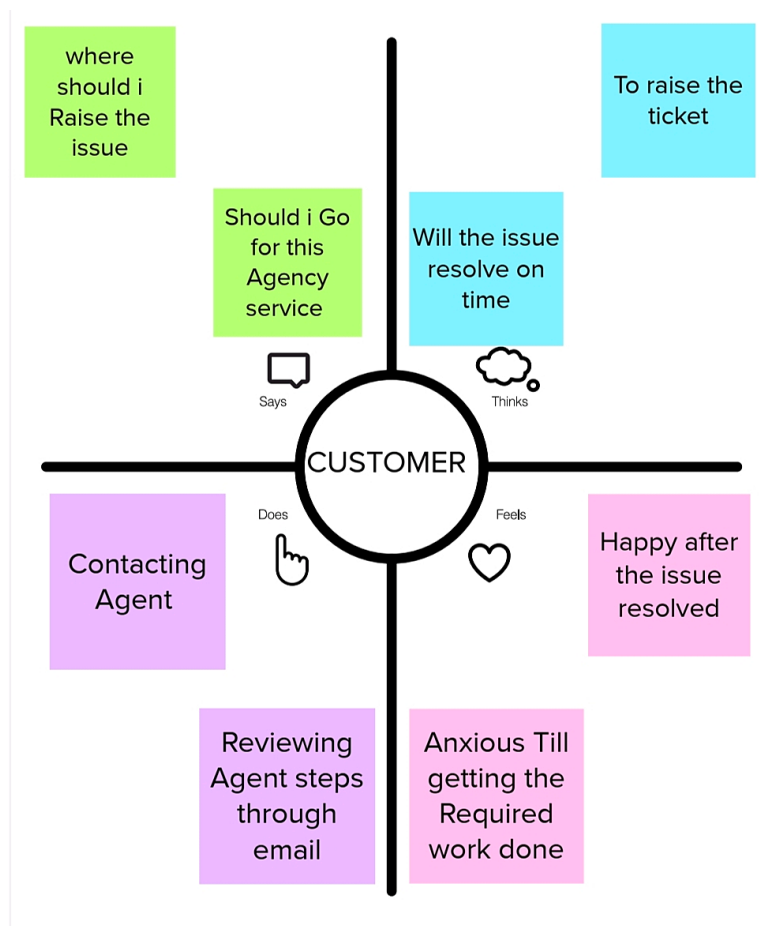
CHAPTER -3

3.IDEATION AND PROPOSED SOLUTION

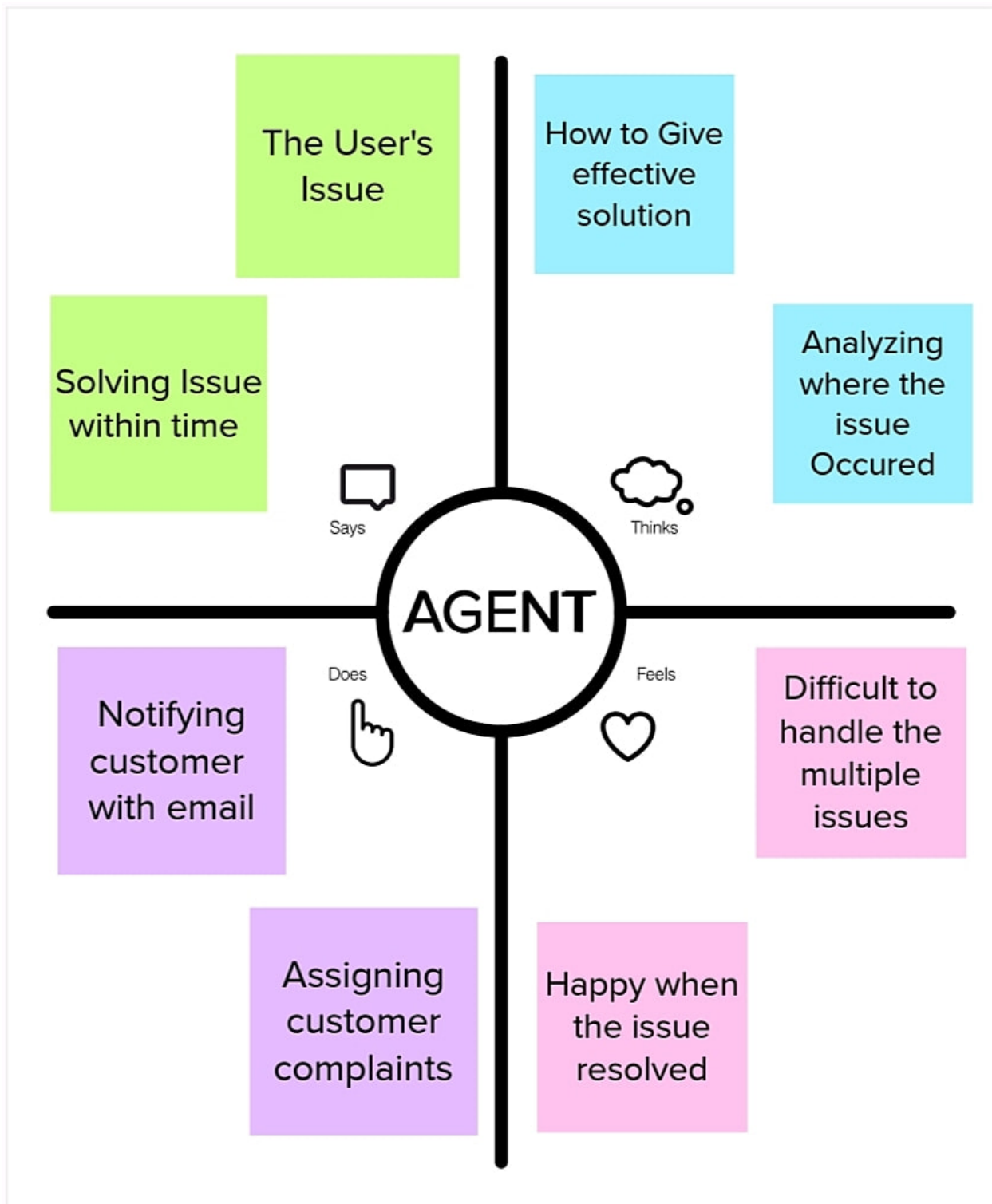
3.1 EMPATHY MAP CANAVAS

Empathy map helps to synthesize your team's collective knowledge about your users as a group, bringing you closer to a common understanding of who they are. We can use empathy mapping to refresh your team's understanding before an important decision, or to quickly synthesize the data directly after an observation session. It is best treated as an ongoing activity.

CUSTOMER EMPATHY MAP :



AGENT EMPATHY MAP :

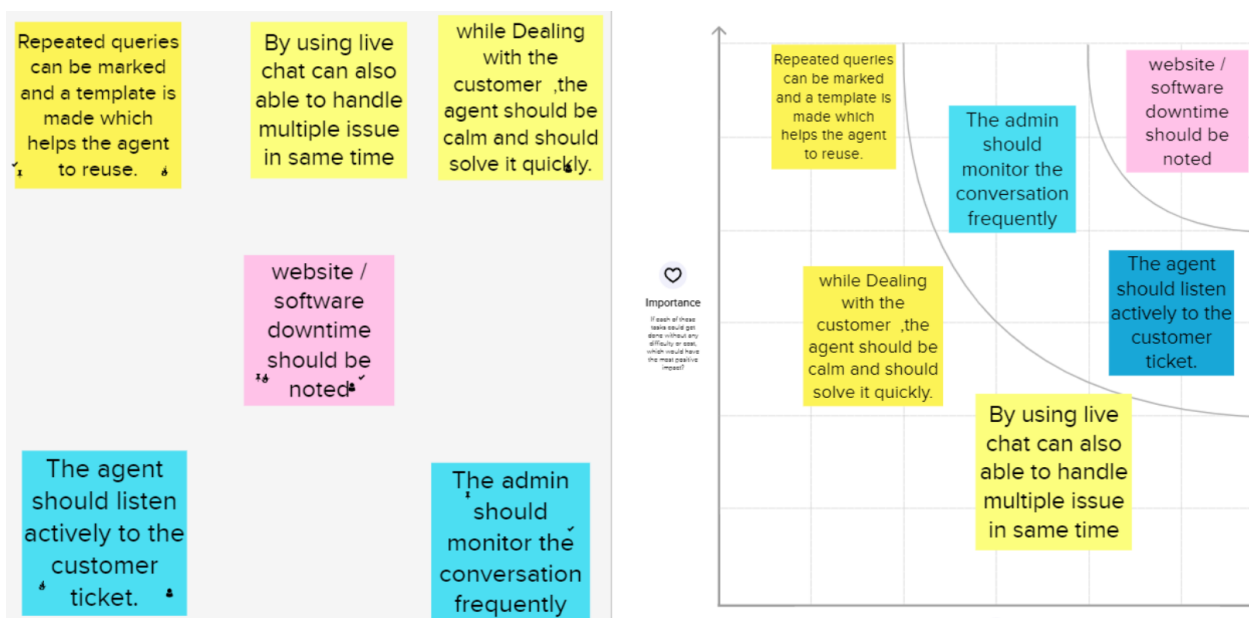


3.2 IDEATION & BRAINSTORMING

The application should be user friendly Customer can directly send the ticket to the agent if not viewed by the agent and if any backlog occurs then email should be sent immediately .Maximum call transfer should be avoided and Find the right tool to increase the customer satisfaction. The admin should monitor the Agent frequently.

The time taken by the agent to solve the complaint should be less and the solution for the ticket is not known by the agent then it can be shared to other agent .The feedback can be given by the customer if he wishes. The agent should listen actively to the customer ticket. Website / software downtime should be noted. If any crises occurs then it should be updated within 30 minutes.

It's not necessary that all customer should know English. So we can send a normal text message in their Native Language. Repeated queries can be marked and a template is made which helps the agent to reuse. The contact number of the agent should be given along with the mail. If the email is not understandable then a call can be done by a customer to the agent. Subscription can be added to the application where customer can solve their issue by themselves.



3.3 PROPOSED SOLUTION

a. Problem Statement (Problem to be solved)

The customer issues should be solved when they raise the ticket with a detailed description of the issue.

a. Idea / Solution description

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.

b. Novelty / Uniqueness

User 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.

c. Social Impact / Customer Satisfaction

Customer experience can be recognized through social media and their satisfaction can be measured using Polls in the social media.

d. Business Model (Revenue Model)

The financial benefit by using this model we can achieve the outcome within short span of time.

e. Scalability of the Solution

The solution is scalable and it will be provided By using Python, Flask, Docker and container registry.

3.4 PROBLEM SOLUTION FIT

a. CUSTOMER SEGMENT

Existing user or new user registered for raising issue.

a. JOBS-TO-BE-DONE/PROBLEMS

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.

b. TRIGGERS

From the existing customer's solved issue new customer can view the progress of the agent's work and Raise their own issue

c. EMOTIONS: BEFORE/AFTER

The Customer would feel full filled and happy once the issue is resolved by the agent.

d. AVAILABLE SOLUTIONS

The available solutions are helpdesk for ecommerce in developing countries by adopting cloud computing.

e. CUSTOMER CONSTRAINTS

The essential factor is to solve the issue within the time limit this is cloud app based application which gives us a user friendly interface to solve the issue.

CHAPTER -4

4.REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

User Registration:

- Registration through Form
- Registration through Mail

User Confirmation

- Confirmation via Email
- Confirmation via OTP

User Problem

- Issues are known through ticket
- Can contact directly to agent via email

Solution by agent

- Issue is solved by an email alert

Default solution

- Frequent problems are displayed by live chats

4.2 NON-FUNCTIONAL REQUIREMENTS

Usability

- a. Customer can solve their issues easily via ticket

Security

- b. It is secured because each process is verified using mail
- c. Reliability
- d. The site should be loaded within 10 sec

Performance

- a. Each user is assigned with individual agent.
- b. Access permission is given to specified person.

Availability

- a. Can be available for any time for User.

Scalability

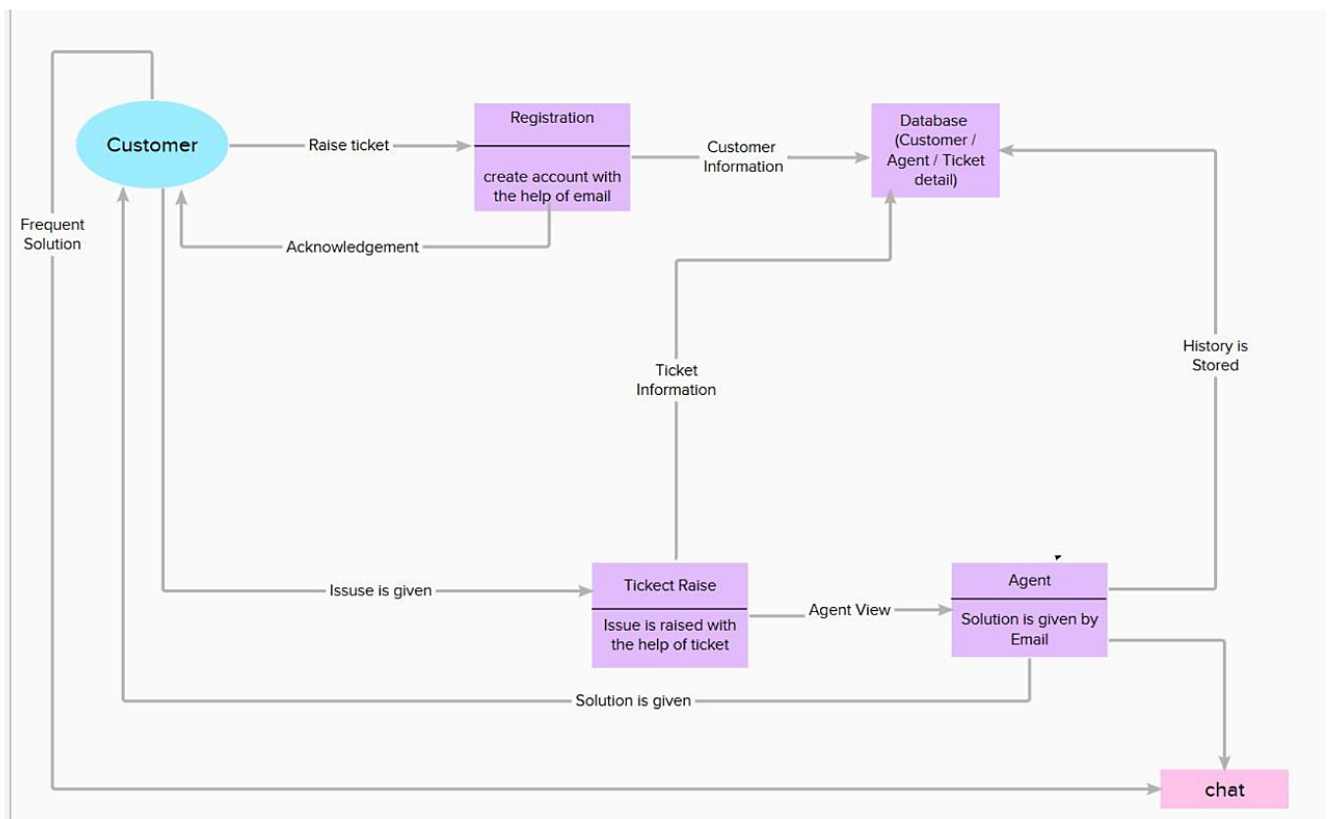
- b. It is scalable and provided by using Python, Flask, Docker and container registry.

CHAPTER -5

5. PROJECT DESIGN

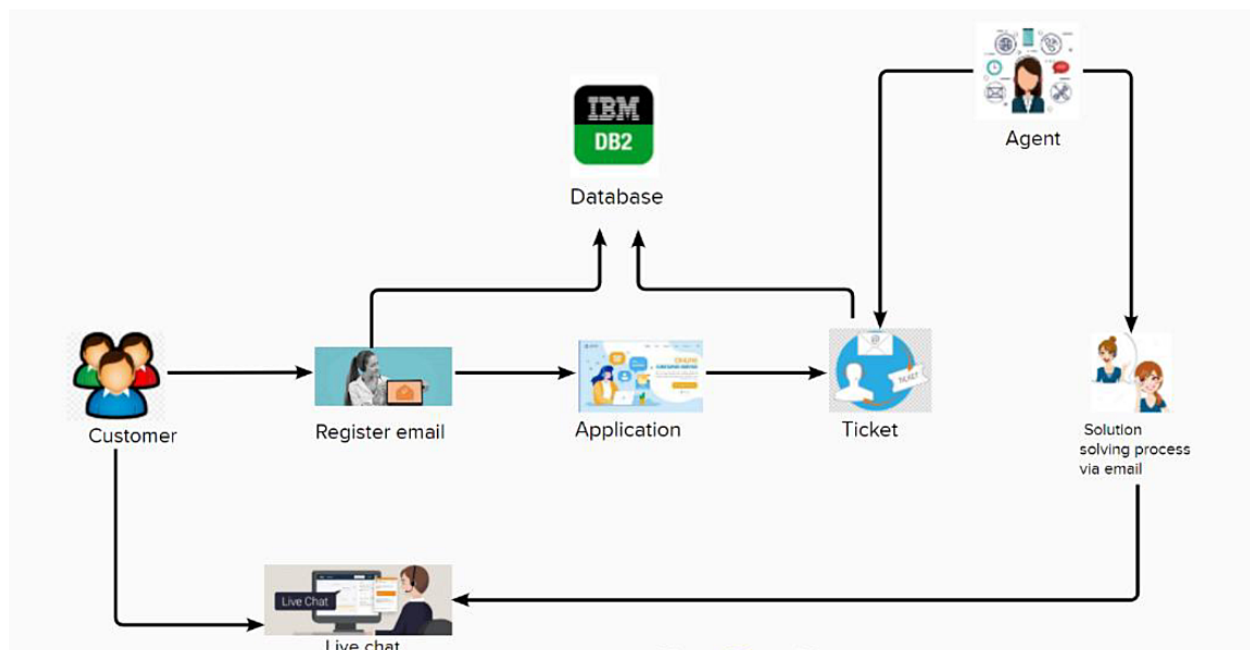
5.1 DATA FLOW DIAGRAMS

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows with in 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 AND TECHNICAL ARCHITECTURE

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.



CHAPTER -6

6.PROJECT PLANNING AND SCHEDULING

6.1 SPRINT PLANNING AND EXECUTION

By using JIRA software the planning and estimation is burnt down chart has been executed successfully

Projects / CustomerCareRegistry

Backlog

Q

S

S

SN

Epic

Insights

▼ CUS Sprint 1 24 Oct – 1 Nov (4 issues)

060 Complete sprint

CUS-3 As a user, I can register for the application through social media

REGISTRATION

2 IN PROGRESS

S

CUS-1 As a user, I can register for the application by entering my email, password, and confirming my password.

REGISTRATION

2 IN PROGRESS

S

CUS-2 As a user, I will receive confirmation email once I have registered for the application

REGISTRATION

1 IN PROGRESS

CUS-7 As a user, I can register for the application by entering my email, password, and confirming my password.

REGISTRATION

1 IN PROGRESS

SN

+ Create issue

▼ Backlog (2 issues)

000 Create sprint

CUS-5 As a user, I can log into the application by entering email & password

English (India)
English (India)

TO DO

S

CUS-6 As a user I will follow up with admin

To switch input methods, press Windows key + space.

Page No : 17

6.2 SPRINT DELIEVERY AND SCHEDULE

MILESTONE &ACTIVITY	DESCRIPTION	DATE
Literature survey and information geathering	Literature surveywas done by collecting information from various research and technicalpapers	03/09/ 2022
Prepare EmpathyMap	User’s pains and gain was captured to prepare empathy map and listof problem statement wasprepared	10/09/2022
Ideation	Various brainstorming ideas areorganized and based on the feasibility and importance top threeideas were prioritized	16/09/2022
Proposed Solution	Prepare the proposed document, which includesthenovelty, feasibility of idea, business model, social impact,scalability of solution, etc.	25/09/2022
Problem Solution Fit	Prepare problem– solution fitDocument.	05/10/2022
Solution Architecture	Prepare solution architectureDocument.	05/10/2022
Customer Journey	User interactions & experiences with the application (entry to exit) was understood and customer journey map was prepared	09/10/ 2022
Functional Requirement	Functional requirement document was prepred	14/10/2022
Data Flow Diagrams	Data flow diagrams was drawn and reviewed.	18/10/2022
Technology Architecture	Prepare th technology architecture diagram.	20/10 2022
Prepare Milestone & Activity List	Prepare the milestones & activity list of the project.	24/10/ 2022
Project Development - Delivery of Sprint-1, 2, 3 & 4	Develop & submit the developed code by testing it.	24/10/2022

6.3 REPORTS FROM JIRA

	SEP	
Sprints		
<div>▼ ⚡ CUS-8 Registration</div> <div><div>CUS-3 As a user, I c... IN PROGRESS SUJITHASA...</div><div>CUS-1 As a user, I can r... IN PROGRESS S.SNEKA</div><div>CUS-2 As a user, I w... IN PROGRESS VARUNAVE...</div><div>CUS-7 As a user, I ca... IN PROGRESS SOWMIYA N</div></div>		

CHAPTER -7

7.CODING ND SOLUTION

7.1 FEATURES



CHAPTER -8

8.TESTING

8.1 TEST CASE

The purpose of this test case is to briefly explain the test coverage and open issues of the [CUSTOMER CARE REGISTRY] project at the time of the release to the testing.

Outsource Shipping	3	0	0	3
Exception Reporting	8	0	0	8
Final Report Output	4	0	0	4
Version Control	2	0	0	2

8.2 USER ACCEPTENCE TESTING

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	3	1	2	17
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	40
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	13	12	25	78

CHAPTER -9

9.RESULTS

9.1 PERFORMANCE METRICS

Outsource Shipping	3	0	0	3
Exception Reporting	8	0	0	8
Final Report Output	4	0	0	4
Version Control	2	0	0	2

CHAPTER -10

10.ADVANTAGES AND DISADVANTAGES

ADVANTAGES

- a. It helps everyone in your team clearly understand their role within the service desk and what is expected of each other, and empowers them to execute it perfectly.
- b. It reduces the workload for the team and helps them focus on important tasks. The software presents them the exact information they need to resolve the queries exactly when they need it.
- c. If a customer has questions regarding their payment plan, the service desk agent can pull up all the information regarding the specific customer's plans.

DISADVANTAGES

- a. Modern service desk solutions offer a high degree of ITSM automation and other features that make the life of a help desk manager easy.
- b. It doesn't replace the manager or the help desk agents. All of them are essential components of a service desk that needs to work in sync to deliver quality IT assistance.
- c. And there's more to managing a registry than implementing a cutting-edge solution. The manager has to understand the goals of the organization as a whole, develop a plan for the help desk to support it, and convey this message to the team.

CHAPTER -11

11.CONCLUSION

- a. A registry improves the customer experience. The software can provide an omnichannel experience ensuring a consistent experience whether they contact through phone, email, or live chat. The help desk software can also improve the response time and provide timely updates further enhancing the customer experience.
- b. Customer care registry Agent can find out where the team is falling short and implement strategies based on the insights from the software. And they can use these metrics to showcase the Registry performance to the stakeholders.

CHAPTER -12

12.FUTURE SCOPE

1. As discussed above, a registry software can reduce the workload for your team. A registry delivers a smooth experience for your employees to be their most productive selves.
2. You can even incorporate gamification to improve your employee experience further and make their job more fun and exciting. For example, you can set up a leader board for the most queries resolved in a week or the highest FCR rates (First Call Resolution). Or you can set up different achievements and badges which your team can unlock.

CHAPTER -13

13.APPENDIX

SOURCE CODE LINK

<https://github.com/IBM-EPBL/IBM-Project-8393-1658917758/tree/main/Final%20Deliverables/Custom%20Care%20Registry>

GITHUB AND PROJECT DEMO LINK

GITHUB LINK

<https://github.com/IBM-EPBL/IBM-Project-8393-1658917758>

PROJECT DEMO LINK

<https://drive.google.com/file/d/1r28ajrDnc921kYBzqtm4dgXv4DoQjIKw/view>

PROJECT WEB LINK

<http://192.168.56.158:5000/>

