IBM NALAIYATHIRAN PROJECT REPORT

Domain : Retails and E-Commerce (R&E)

Title: Customer Care Registry

Submitted by

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1. INTRODUCTION

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 purchase relates to a service as opposed to a product. Customer Service may be provided by a Person or Sales & Service Representatives Customer Service is normally an integral part of a company's customer value proposition.

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. These are implemented with the help of software like Flask, Docker, SendGrid and IBM Watson.

1.2 PURPOSE

The purpose of making this project is to make a customer interaction and solve the problems from customer and provide a valuable service. It is an integral part of each and every companies.

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 REFERENCES

a) Real world smart chatbot for customer care using SaaS architecture - This paper deploys a chatbot from AWS cloud for customer care. This is done to provide human using LUIS and cognitive services.

b) Artificial intelligence replacing human customer service - This paper deploy the chatbots for customer service. it uses the AI to take decision making and provide Service.

c) Chatbot for customer service - In this paper the customer provides the asked info to the chatbot based on the data it provides the customer service.

d) An intelligent cloud-based customer relationship management system to determine flexible pricing for customer retention - This paper proposes the behavior of the customer by analyzing the history pattern and use it for promotion.

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 & PROPOSED SOLUTION

3.1 EMPATHY MAP CANVAS

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviors 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.

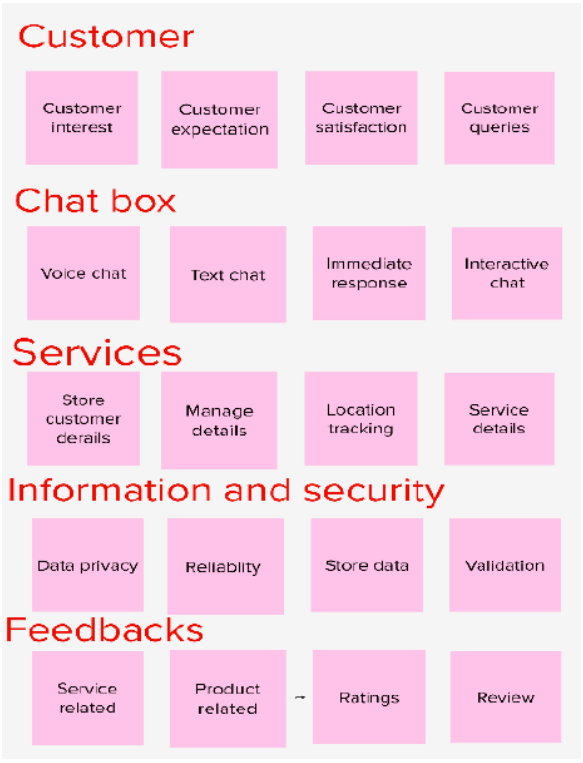
Fig 3.1: Empathy Map Canvas

3.2 IDEATION AND BRAINSTORMING

1. What problems are you trying to solve? Identify the problems?
2. How might can we solve the problem? Which is raised by the customer?

Brainstorming:

Group Ideas:



3.3 PROPOSED SOLUTION

Allotted Agent routing can be resolved by directly routing to a dedicated agent about the issue using the email. Automated Ticket closure by using sync of the cloud database. Status shown to the customer can display the tickets to the customer. The goal of the customer care service is to provide the platform that will allow the customer specialist to be efficient. And the solve the query with less time.

4. REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

FR NO	Functional Requirement	Sub Registry
1	User Registration	Registration through Form Registration through Gmail Registration through Google
2	User Confirmation	Confirmation via mail 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 login	Description of the issues contact information.
6	E-mail	Login status
7	Feed Back	Customer Feedback

4.2 NON-FUNCTIONAL REQUIREMENTS

FR NO	Functional Requirement	Sub Registry
1	Usability	To provide the solution to the problems
2	Security	Track of login authentication
3	Reliability	Tracking of decade status through email
4	Performance	Effective development of web application
5	Availability	24/7 Service
6	Scalability	Agents' scalability as per the number of customers

5. PROJECT DESIGN

5.1 DATA FLOW DIAGRAM

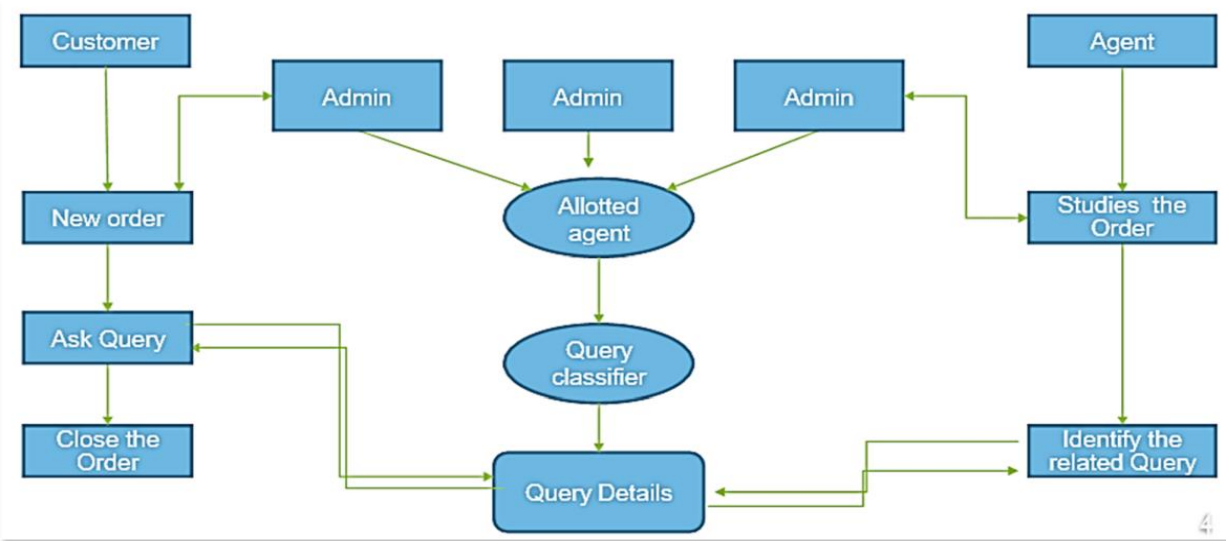


Fig 5.1: Data Flow Diagram

5.2 SOLUTION AND TECHNICAL ARCHITECTURE

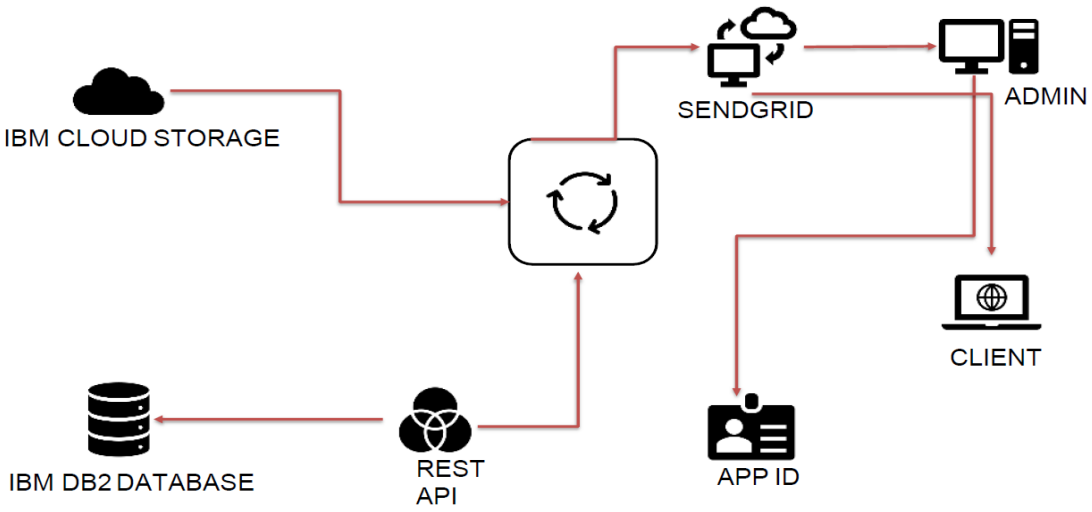


Fig 5.2: Solution and Technical Architecture

5.3 USER STORIES

1 User Interface - How user interacts with application e.g. WebUI, Mobile App, Chatbot etc. - HTML, CSS, JavaScript/AngularJs /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 WatsonSTT service

4 Application Logic-3 - Logic for a process in the application IBM Watson Assistant Database - Data Type, Configurations - MySQL etc.

5 Cloud Database - Database Service on Cloud - IBM DB2,IBM Cloud etc.

6 File Storage - File storage requirements - IBM Block Storage or Other Storage Service or Local Filesystem

6. PROJECT PLANNING & SCHEDULING

6.1 SPRINT PLANNING & ESTIMATION

SPRINT	FUNCTIONAL REQUIREMENT (EPIC)	USER STORY NUMBER	USER STORY/TASK	STORY POINTS	PRIORITY	TEAM MEMBERS
Sprint-1	User Panel	USN-1	The user website to display the service available in the customer service	20	High	➢ PRASANNAKUMAR.M ➢ PRAVEEN.S ➢ PRADEEP.S ➢ PRAGADEESH.S
Sprint-2	Admin panel	USN-2	To job of admin to regularly check the database and track all the things in the database	20	High	➢ PRASANNAKUMAR.M ➢ PRAVEEN.S ➢ PRAGADEESH.S
Sprint-3	Chat Bot	USN-3	The customer can easily talk with the chatbot to know to the service and telecommunications	20	High	➢ PRASANNAKUMAR.M ➢ PRAVEEN.S
Sprint-4	final delivery	USN-4	Container of applications using docker Kubernetes and deployment the application. Create the documentation and final submit the application	20	High	➢ PRASANNAKUMAR.M ➢ PRAVEEN.S ➢ PRADEEP.S

Fig 6.1: Sprint Planning & Estimation

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	20	6 Days	22 Oct 2022	27 Oct 2022		29 Oct 2022
Sprint-2	20	6 Days	1 Nov 2022	06 Nov 2022		05 Nov 2022
Sprint-3	20	6 Days	10 Nov 2022	14 Nov 2022		12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	12 Nov 2022		19 Nov 2022

Fig 6.2: Sprint Delivery Schedule

7. CODING & SOLUTIONING

7.1 FEATURE 1

Search Engine:

It is a tool used to provide the search option to the job seekers like based on the functional area and location. If the job seekers select any location it shows list of all available jobs on that place.

7.2 FEATURE 2

Job Calendar:

If the user selects any date in the job calendar then it displays list of jobs available on that particular date in the same page. This feature completely developed by implementing Ajax features

8. TESTING

8.1 TEST CASES

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Commnets	TC for Automation(Y/N)	BUG ID	Executed By
User_Page_TC_001	Functional	USER PAGE	Verify user is able to see the Show Complaint popup when user clicked on popup	1.Enter URL and click go 2.Scroll down 3.Verify login/Singup popup displayed or not	http://169.51.204.215:30106/	Show Complaint popup should display	Working as expected	PASS	Successfull			PRADEEP.S
User_Page_TC_002	UI	USER PAGE	Verify the User has No Complaint	Click on the Url and go to user page by giving Correct Credentials	http://169.51.204.215:30106/	No Complaint should shown	Working as expected	PASS	Successful			PRASANNAKUMAR.M
User_Page_TC_003	UI	USER PAGE	Verify User Total Complaint is Zero	Click on the Url and go to user page by giving Correct Credentials	http://169.51.204.215:30106/	Total Number of Complaint is Zero	Working as expected	PASS	Successful			PRAVEEN.S

Agent_Login_TC_014	UI	AGENT Login	Visible for text field for enter email id	1. Enter URL(http://169.51.204.215:30106/) and click go 2. To the User Login page and seen your textfields	http://169.51.204.215:30106/	Text Fields for Email in Agent Page	Working as expected	PASS	Successful			PRASANNAKUMAR.M
LoginPage_TC_015	UI	USER Login	Visible for text field for enter email id	1. Enter URL(http://169.51.204.215:30106/) and click go 2. To the User Login page and seen your textfields	http://169.51.204.215:30106/	Text Fields for Email in Agent Page	Working as expected	PASS	Successful			PRADEEP.S
Agent_Login_TC_016	Functional	AGENT Login	Visible for Password on Forgot Password	1. Enter URL(http://169.51.204.215:30106/) and click go 2. To the Agent Forgot Page after verification Password should Visible	http://169.51.204.215:30106/	Password should Visible	Working as expected	PASS	Successful			PRASANNAKUMAR.M

8.2 USER ACCEPTANCE TESTING

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Commnets	TC for Automation(Y/N)	BUG ID	Executed By
LoginPage_TC_OO1	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/Singup popup displayed or not	http://169.51.204.215:30106/	Login/Signup popup should display	Working as expected	PASS	Successfull	Y		PRASANNAKUMAR.M PRAVEEN.S
LoginPage_TC_OO2	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/Singup 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	http://169.51.204.215:30106/	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		PRASANNAKUMAR.M PRAVEEN.S
LoginPage_TC_OO3	Functional	Home page	Verify user is able to log into application with Valid credentials	1.Enter URL(https://shopenzer.com/) 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	Successul	Y		PRASANNAKUMAR.M PRAVEEN.S
LoginPage_TC_OO4	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(http://169.51.204.215:30106/) 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		PRADEEP.S PRAGADEESH.S
LoginPage_TC_OO5	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(http://169.51.204.215:30106/) 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: Testing123678686786876	Application should show 'Incorrect email or password ' validation message.	Working as expected	PASS	Successful	Y		PRADEEP.S
LoginPage_TC_OO6	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(http://169.51.204.215:30106/) 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		PRAVEEN.S

9. CONCLUSION

This project is designed to solve the customer queries and achieve customer satisfaction. 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.

10. FUTURE SCOPE

1. Replying from the customer questions at a time.

2. It is a turning point of the marketing.

3. It will make the great revolution.

11. APPENDIX

GitHub Repository Link:

https://github.com/IBM-EPBL/IBM-Project-21734-1659789595.git