

Customer Care Registry

Team ID: PNT2022TMID53488

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Project Report Format

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1 . INTRODUCTION

1.1 Project Overview

- Objective of the project was to Create a problem statement to understand your customer's point of view.
- The Customer Problem Statement template helps you focus on what matters to create experiences people will love.
- A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face.
- Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

1.2 Purpose

It is a forum to post Queries and complaints related to the products or the services provided by the Company to the Customers . Lack of facilities and responses is a problem for customers all over the world as they don't get to put forward their issues regarding the Product or the service they have received which is why this Interface is to be introduced . There is also a lack of help-desk staffs to notice who give instant solution to complaints and results for waiting a very long time for Solutions and Redressals.

2. LITERATURE SURVEY

2.1 Existing Problem

Developing a cloud application not only for solving customer complaints but also gives satisfaction to the customer to use the respective business product. This Application helps a customer to raise complaints for the issue they are facing in the products. The Customer needs to give the detailed description and the priority level of the issues that they are facing. After the complaint reviewed by the admin, then the agents assigned to the complaints raised by the customer. The respective customer of the complaints gets the email notification of the process. And additionally, they can able to see the status of the complaints

INTRODUCTION:

Customer is that the centre of attention of each business. The terrible existence of business depends on client satisfaction. Client expects high-quality services, even willing to pay a premium for higher service. From a client perspective, smart service quality ends up in semipermanent client relationships measured by re-patronage and cross sales, additionally client advocates the service to others. Services are essentially completely different from manufacturing; this distinction contributes to the accumulated complexness of service quality. Corporations so build all efforts to produce high-quality services to please customers. However, despite best efforts, associate occasional criticism is inevitable. However, an honest recovery will flip angry, discontent customers into loyal ones, again. The key to success lies in recognizing the importance of responding fairly and effectively to client

complaints. Complaints are usually a treasuring hoarded wealth of knowledge, resulting in constructive concepts for rising and upgrading services in the future. Researches show that solely many discontent customers really complain and provide the corporate a chance to correct itself. Others shift their loyalties. Hence, it becomes necessary to resolve complaints truthfully at the earliest, rather than taking a defensive approach. Structured client criticism management is one gospel for downside interference within the long run. This paper decides to develop one such customer care register model.

2.2 References

- M. Baye, Managerial Economics & Business Strategy McGraw-Hill Education, London, Abacus: The Undercover Economist, vol. 2013, pp. 12-23, 2017.
- J. Obliquity Kay, why our goals are best achieved indirectly, London: Profile Book, pp. 15-67, 2011.
- P. Keat and P.K. Young, Managerial Economics Global Edition, London: Pearson, pp. 23-46, 2014.
- Bai changhong and Liu Chi, "study on customer loyalty of service enterprises and its determinants [J]", nankai business review, no. 06, pp. 64-69, 2002.
- Chip R. Bell, The service edge: 101 companies that profit from customer care by Ron Zemke with Dick Schaaf, New York:New American Library, pp. 584, 1989.

2.3 Problem Statement Definition

The Application has been developed to help the customer in processing their complaints. The customers can raise the ticket with a detailed description of the issue. An Agent will be assigned to the Customer to solve the problem. Whenever the agent is assigned to a customer, they will be notified with an email alert. Customers can view the status of the ticket till the service is provided. 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. Customer can register for an account. After the login, they can create the complaint with description of the problem they are facing. Each user will be assigned with an agent. They can view the status of their complaint.

Issues:

Customer can specify the type of the issue that they are raising. It will be on products, software and other.

Priority:

Customer can specify the priority of the issue that they are raising based on the urgency. They can also specify in which aspect or area this issue affects.

Description:

Customer needs to give detailed description of the complaints that they are raising to give insight to the admin and agents to solve the issues. Notification: The email will notify the customer in all stages of the complaints until the issues are fixed.

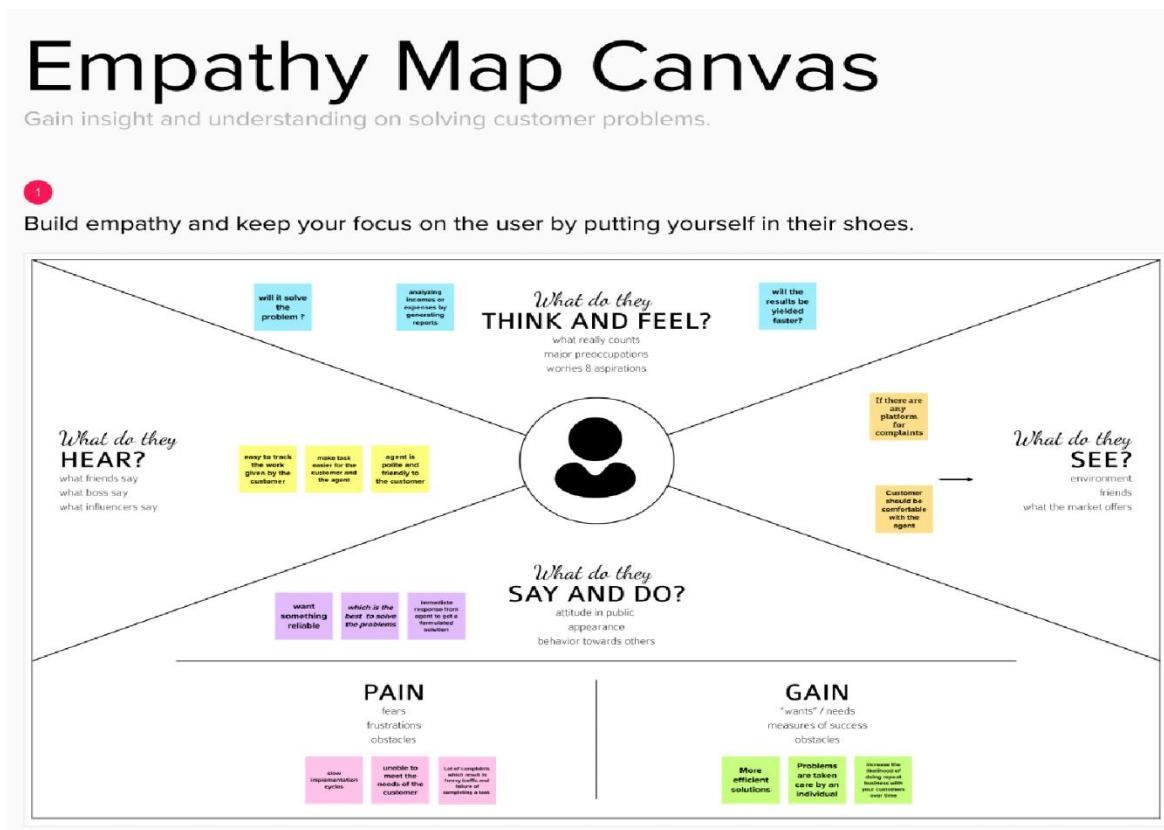
Status:

Besides email notification, this feature allows the user to see the status of the complaints to keep track. The admin can be able to keep track of all the complaints, status of the issues

3. IDEATION & PROPOSED SOLUTION

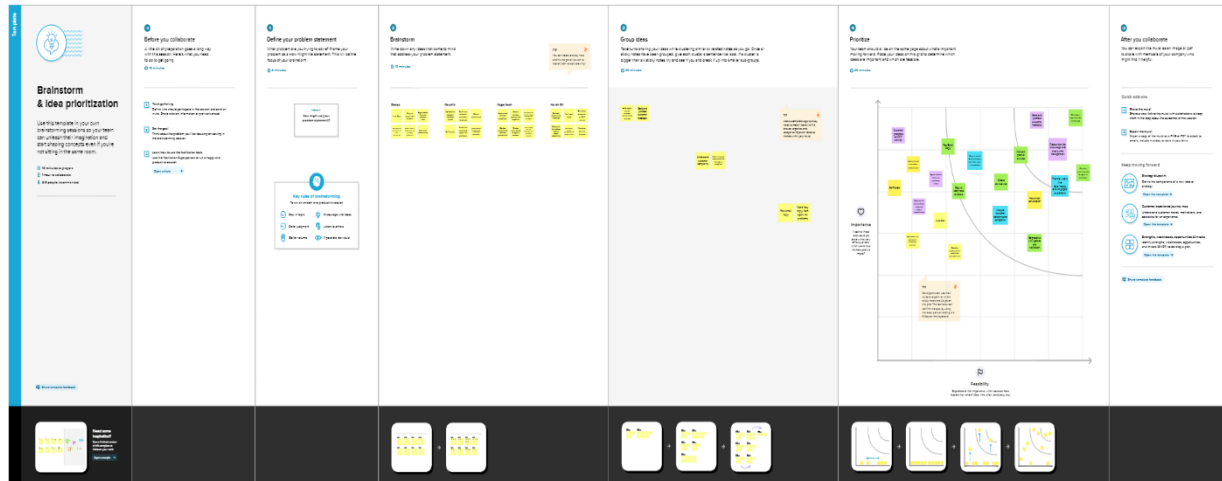
3.1 Empathy Map Canvas

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



3.2 Ideation & Brainstorming

BRAINSTORMING:



IDEATION:

1.Customer – Agent Communication:

Developing an application to solve customer's queries and issues regarding products or any other services which gains customer's trust and loyalty to the company. Besides existing feature like tracking the status of the tickets, the customer can easily communicate to the assigned agent on call or live chat. It gives clear insight into the issue to the agent, which helps to solve the issue quickly. This feature helps to acquire customer satisfaction.

2.Personalized User Interface:

This project is developed to give user friendly experience to the user, and it has an easy-to-understand interface so anyone can understand the issue raising process regardless of their age. This project providing various features to customize and personalize the interface based on their needs. And This

application analyses the issues raised by the respective customer and provide a graph for each category. These features make the application to be more preferable to the user.

3. Online Forums and Self Service:

Developing an application to provide service and solving issues raised by the customer, which gains customer satisfaction to the company. This application provides an inside online channels to interact with common people regarding the issues, online forums and FAQs which are available for offline. These features pave the way for the customer to gain more insights into the products which reduce the issues raising by customers.

3.3 Proposed Solution

1. Idea / Solution description

Developing a cloud application to help the customer in processing their complaints. In this application, the customer can raise an issue or a ticket with a detailed description, then the admin review and acknowledge the ticket by assigning an agent to the ticket. An email notification triggered to the customer and the customer can track the status of the resolving process. The customer and agent can communicate with each other by calls or live chat. This enables the agent to understand the issue and to solve the issue quickly. The customer can use channels or forums or FAQs to know more about the issues before raising a ticket.

2. NOVELTY/UNIQUENESS

Can get in touch with the agent even after the issue has been resolved.

3. Social Impact / Customer Satisfaction

Can help the customer to track each step of their issue.
By providing this service to the companies for better customer support

4. Business Model (Revenue Model)

To make a dent in the way businesses perceive their customers and their support experience by rolling out smart innovations. Generates revenue through a product/service.

5. Scalability of the Solution

- Providing support for all your products without having to maintain multiple helpdesks.
- Use a single dashboard to keep track of and respond to multiple mailboxes.
- Manage expectations of customers better to make sure no query goes unanswered.

3.4 Problem Solution fit

The Problem-Solution Fit means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem

<p>1. CUSTOMER SEGMENT(S) CS</p> <p>Who is your customer?</p> <p>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.</p>	<p>6. CUSTOMER CC</p> <p>What constraints prevent your customers from solving problems, or limit their choices of solutions? <u>low spending power, budget, no cash, network connection, available devices.</u></p> <p>1) This application will be supported by almost all the devices. 2) The solution we propose will have an alert via email feature, if expense exceed the given limit. 3) This solution also provides insights in a graphical way.</p>	<p>5. AVAILABLE SOLUTIONS AS</p> <p>Which solutions are available to the customers when they face the problem or need to get the job done? What have they used in the past? What pros & cons do these solutions have? <u>low cost and paper is an alternative to digital texting</u></p> <p>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</p>	Explore AS
<p>2. JOBS-TO-BE-DONE / PROBLEMS J&P</p> <p>Which jobs to be done (or problems) do you address for your customers? There could be more than one, explore different sides.</p> <p>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.</p>	<p>9. PROBLEM ROOT CAUSE RC</p> <p>What is the real reason that this problem exists? What is the back story behind the need to do this job? <u>customers have to do it because of the change in regulations.</u></p> <p>1) Lot of customers don't know the guidelines for their problems. 2) Some customers have of lack of <u>knowledge</u>. 3) Not knowing the answer to a question. 4) Not reading the guidelines properly</p>	<p>7. BEHAVIOUR BE</p> <p>What does your customer do to address the problem and get the job done? <u>directly related: find the right repair person, purchase usage and benefits; indirect: by associated customers spend time on volunteering work (i.e. Openhouse)</u></p> <p>1) Make sure he/she reads the guidelines properly. 2) Make sure they find a proper solution <u>for</u> their queries.</p>	Focus on J&P, tap into BE, understand
<p>3. TRIGGERS TR</p> <p>What triggers customers to act? <u>Low saving their <u>costs</u>, installing solar panels, reading about a more efficient solution in the news.</u></p> <p>1) Customers can know to solve their solutions.</p> <p>4. EMOTIONS: BEFORE / AFTER EM</p> <p>How do customers feel when they face a problem or a job and afterwards? <u>Low cost, increase confidence in control-use time your communication strategy & design.</u></p> <p>1) Customers can get the from the help desk.</p>	<p>10. YOUR SOLUTION SL</p> <p>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>.</p> <p>1) To design a personal help desk using flask. 2) To provide insights on their queries in a graphical way.</p>	<p>8. CHANNELS of BEHAVIOUR CH</p> <p>8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7</p> <p>1) All their data are secured and being updated to cloud storage</p> <p>8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</p> <p>1) Make sure they find the best solutions for their complaints.</p>	Extract online & offline CH of BE

4. REQUIREMENT ANALYSIS

4.1 Functional Requirement

Functional requirements may involve calculations, technical details, data manipulation and processing, and other specific functionality that define what a system is supposed to accomplish. Behavioral requirements describe all the cases where the system uses the functional requirements, these are captured in use cases.

Functional Requirements:

Following are the functional requirements of the proposed solution.

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

4.2 Non Functional Requirements

Nonfunctional Requirements (NFRs) define system attributes such as security, reliability, performance, maintainability, scalability, and usability. They serve as constraints or restrictions on the design of the system across the different backlogs

Non-functional Requirements:

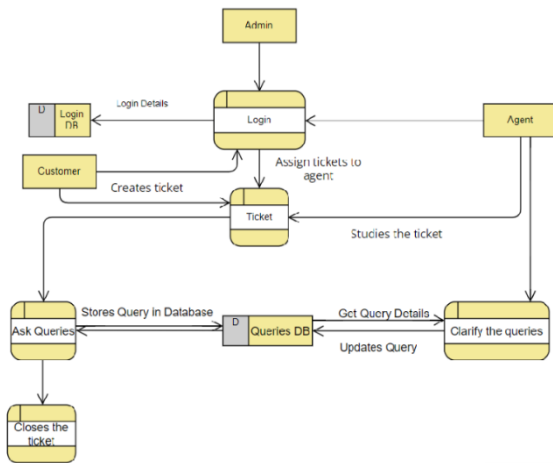
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
FR-1	Usability	Quality of user's experience when interacting with product or systems.
FR-2	Security	Keeps track of login authentication.
FR-3	Reliability	Tracking of decade status through email
FR-4	Performance	Effective development of Web Application
FR-5	Availability	24/7 service
FR-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

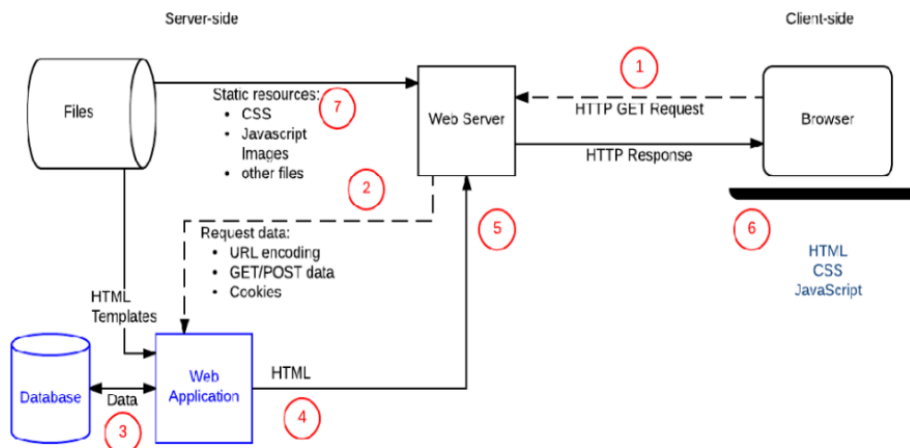


5.2 Solution and Technical Architecture

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Solution Architecture Diagram:



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	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
	Acknowledgement	USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
	Ticket creation	USN-3	As a user, I can create new tickets with descriptions of my query.	I can create a ticket and ask my query.	Medium	Sprint-2
	Forget password	USN-4	As a user, I can reset my password by this option in case I forgot my password.	I can change the password	Medium	Sprint-1
	Login	USN-5	As a user, I can login into the application by entering email & password	I can access my account	High	Sprint-1
	Dashboard	USN-6	As a user, I am able to see all the tickets raised by me.	I get all information in the dashboard	Low	Sprint-1
Agent	Login	USN-1	As an agent, I can login to the application by entering the email id and password.	I can access my account	High	Sprint-2
	Forget password	USN-2	As an agent, I can reset my password in case I forgot my password	I can change my password	High	Sprint-2
	Dashboard	USN-3	As an agent, I can able to see all the tickets raised by the customers	I can see all the tickets and clarify the queries	High	Sprint-2
Admin	Login	USN-1	As a admin, I can login to the application by entering email id and password	I can access my account	High	Sprint-3
	Agent creation	USN-2	As a admin, I can able to create agent for the customers to solve the queries	I can create agents	High	Sprint-3
	Forget password	USN-3	As a admin, I can reset my password by this option in case I forgot my password	I can change password	Medium	Sprint-3
	Assigning Agent	USN-4	As a admin, I can assign agents to the customers who raised the tickets.	I can assign agents to the customers	High	Sprint-3

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

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 gothrough the services available on the webpage	2	High	Nagsriresh V Harish SV CH Koushik Deepa Harish
Sprint-1	Admin Panel	USN-2	The role of the admin is to check out the database about the availability and have a trackof all the things that the users are going to service	2	High	Nagsriresh V Harish SV
Sprint-3	Chat Bot	USN-3	The user can directly talk to Chatbot regarding the services. Get the recommendations based on information provided by the user.	2	High	Deepa Harish CH Koushik
Sprint-4	Final Delivery	USN-4	Container of applications using docker kubernetes and deployment the application.Create the documentation and final submit the application	2	Medium	Nagsriresh V Harish SV CH Koushik Deepa Harish

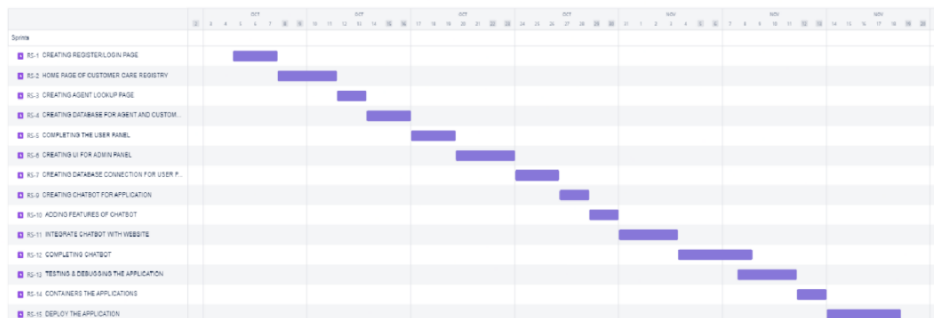
6.2 Sprint Delivery Schedule

Project Tracker, Velocity & Burndown Chart: (4 Marks)

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		29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022		05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022		12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022		19 Nov 2022

PROJECT PLANNING

BURNDOWN CHART



7. CODING & SOLUTIONING

7.1 Feature 1

User and Agent Sign-in to facilitate easier communication between the two parties

TEAM ID : PNT2022TMID53488 BATCH ID : B1-1M3E

Get your **Account Now!**

Get your **User Account!**

SIGN IN

SIGN UP

Get your **Agent Account!**

SIGN IN

SIGN UP

7.2 Feature 2

Ticketing system to design and manage documentation publishing process and managing all support requests , convert emails to tickets , automate ticket assignments and customize supports forms. Ticket insights to provide metrics such as response , SLA assignment and status



TOP TICKETING FEATURES

EMAIL BASED TICKET

Convert all incoming customer support emails into tickets and respond to them via email.

Create and respond to email tickets.



TICKETS & SOLVE PROBLEMS

TICKET INTERACTION

Customer portal software enables customers to track and send tickets through an easy-to-use interface. Technology

Organization-wide tickets

8. Testing

8.1 Test cases

Test case ID	Feature Type	Component	Test Scenario	Steps To Excute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(V/N)	BUG ID	Executed By
LoginPage_TC_O1	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		Login/Signup popup should display	Working as expected	PASS	Successful			Nagviresh V Harish SV
LoginPage_TC_O2	UI	Home Page	Verify the UI elements in Login/Signup popup	1. Enter URL and click go 2.Click on Signup button the User 3.Verify login/Signup popup with below UI elements: a.Email text box b.password text box c.Login button d.New customer? Create account link e.Last password? Recovery password link		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			Deepa Harish Koushik CH

LoginPage_TC_O3	Functional	Home page	Verify user is able to log into application with Valid credentials	1. Enter URL(https://shopcenter.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		User should navigate to user account homepage	Working as expected	PASS	Successful			Deepa Harish Harish SV
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Test Case (SPRINT 01)

LoginPage_TC_O04	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		Application should show 'Incorrect email or password' validation message	Working as expected	PASS	Successful			CH Koushik
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LoginPage_TC_O05	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		Application should show 'Incorrect email or password' validation message	Working as expected	PASS	Successful			Nagviresh V
LoginPage_TC_O06	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		Application should show 'Incorrect email or password' validation message	Working as expected	PASS	Successful			Harish SV

LoginPage_TC_007	Functional	Login page	Verify User is able to log into application with Valid Credentials	1.Enter URI (/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		Application should show 'correct email or password' validation message.	Working as expected	PASS	Successful				Nagankesh V Koushik CH
LoginPage_TC_008	Functional	Login page for ADMIN	Verify User is able to log into application with Valid Credentials	1.Enter URI (/http://169.51.204.21:530106) 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		Application should show 'correct email or password' validation message.	Working as expected	PASS	Successful				Deepa Harish

LoginPage_TC_009	UI	ADMIN PAGE	Verify all the Customer database is visible	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	Customer database is visible	Working as expected	PASS	Successful					Koushik CH
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Test Case (SPRINT 01)

LoginPage_TC_010	Functional	USER REGISTER	Verify Id sent to customer email address	1.Enter URI (/http://169.51.204.21:530106) and click go 1.Register the account by giving credentials 2. Click on button Submit	Email sent successfully	Working as expected	PASS	Successful					Harish SV
LoginPage_TC_011	Functional	AGENT REGISTER	Verify AGENT is able to log into application with Valid Credentials	1.Enter URI (/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	ID sent successfully	Application should show 'correct email or password' validation message.	PASS	Successful					Deepa Harish

LoginPage_TC_012	Functional	Login page for ADMIN	Verify User is able to log into application with Invalid Credentials	1.Enter URI (/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		Application should show 'incorrect ID or password' validation message.	Working as expected	PASS	Successful				Nagankesh V
LoginPage_TC_013	UI	Home page for Agent	Verify user is able to use the agent home page when user finish on submitting Credentials	1.Enter URI (/http://169.51.204.21:530106) and click go 2. To the Agent Login page and submit Your Credentials	AGENT Home Page popup should display	Working as expected	PASS	Successful					Koushik CH

LoginPage_TC_014	UI	Home page for USER	Verify user is able to see the User home page when user finish on submitting Credentials	1. Enter URL(http://169.51.204.215:30106/) and click go 2. To the User Login page and submit Your Credentials	USER Home Page popup should display	Working as expected	PASS	Successful			Nagrikesh V
LoginPage_TC_015	UI	Home page for ADMIN	Verify user is able to see the ADMIN home page when user finish on submitting Credentials	1. Enter URL(http://169.51.204.215:30106/) and click go 2. To the User Login page and submit Your Credentials	ADMIN Home Page popup should display	Working as expected	PASS	Successful			Deepa Harish
LoginPage_TC_016	Functional	AGENT PAGE	On delete Button the user Credentials will be deleted	1. Enter URL(http://169.51.204.215:30106/) and click go 2. To the Admin Page and delete on User Credentials	ADMIN Home Page popup should display	Working as expected	PASS	Successful			Harish SV

8.2 User Acceptance Testing

1. 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).

2. 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	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

9. Advantage and Disadvantage

Advantages:

1. Easier communication with colleagues and customers
2. Increase Sales and Conversions
3. Automatically route inquiries to the right specialist
4. Easily track and view support tickets

DISADVANTAGES:

1. Response is not guaranteed
2. People who have no access to internet cannot use this app
3. Prone to spamming

10. Conclusion

In conclusion, customer care, involves the use of basic ethics and any company who wants to have success and grow, needs to remember, that in order to do so, it must begin with establishing a code of ethics in regards to how each employee is to handle the dealing with customers. Customers are at the heart of the company and its growth or decline.

Developing a cloud application to help the customer in processing their complaints. In this application, the customer can raise an issue or a ticket with a detailed description, then the admin review and acknowledge the ticket by assigning an agent to the ticket. An email notification triggered to the customer and the customer can track the status of the resolving process. The customer and agent can communicate with each other by calls or live chat. This enables the agent to understand the issue and to solve the issue quickly. The customer can use channels or forums or FAQs to know more about the issues before raising a ticket.

11. Future Scope

Spam filtering can be avoided by asking user to sign-in to the app which will reduce spams and also send value packed content

Another solution is to keep an admin for places where people with no internet access can use this forum and also a helpline number to facilitate the process

12. Appendix

Github link :- <https://github.com/IBM-EPBL/IBM-Project-3248-1658508639>

Source code :-

App.py

```
from __future__ import print_function
from audioop import add
import datetime
from unicodedata import name
from sib_api_v3_sdk.rest import ApiException
from pprint import pprint
from flask import Flask, render_template, request, redirect, url_for, session, flash
from markupsafe import escape
from flask import *
import ibm_db
import datetime

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=764264db-9824-4b7c-82df-
40d1b13897c2.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=32536;SECURITY=SSL;SSLServerCe
rtificate=DigiCertGlobalRootCA.crt;UID=zjx00196;PWD=f8wBuCLcY3okJRdV",",")
print(conn)
print("connection successful...")

app = Flask(__name__)
app.secret_key = '123'

@app.route('/')
def home():
    message = "TEAM ID : PNT2022TMID53488" + " " + "BATCH ID : B1-1M3E "
    return render_template('index.html',mes=message)

@app.route('/home', methods=['POST', 'GET'])
def index():
    return render_template('index.html')

@app.route('/signinpage', methods=['POST', 'GET'])
def signinpage():
    return render_template('signinpage.html')

@app.route('/agentsignin', methods=['POST', 'GET'])
def agentsignin():

    return render_template('signinpageagent.html')

@app.route('/signuppage', methods=['POST', 'GET'])
def signuppage():
    return render_template('signuppage.html')

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

```
def agentRegister():
    return render_template('agentregister.html')
```

```
@app.route('/forgotpass', methods=['POST', 'GET'])
def forgotpass():
    return render_template('forgot.html')
```

```
@app.route('/newissue/<name>', methods=['POST', 'GET'])
def newissue(name):
    name = name
    return render_template('complaint.html',msg=name)
```

```
@app.route('/forgot', methods=['POST', 'GET'])
def forgot():
```

```
    try:
        global randomnumber
        ida = request.form['custid']
        print(ida)
        global id
        id = ida
        sql = "SELECT EMAIL,NAME FROM Customer WHERE id=?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, ida)
        ibm_db.execute(stmt)
        emailf = ibm_db.fetch_both(stmt)
        while emailf != False:
            e = emailf[0]
            n = emailf[1]
            break

        configuration = sib_api_v3_sdk.Configuration()
        configuration.api_key['api-key'] = "

        api_instance = sib_api_v3_sdk.TransactionalEmailsApi(
            sib_api_v3_sdk.ApiClient(configuration))
        subject = "Verification for Password"
        html_content = "<html><body><h1>Your verification Code is : <h2>" + \
            str(randomnumber)+"</h2> </h1> </body></html>"
        sender = {"name": "IBM CUSTOMER CARE REGISTRY",
            "email": "ibmdemo6@yahoo.com"}
        to = [{"email": e, "name": n}]
        reply_to = {"email": "ibmdemo6@yahoo.com", "name": "IBM"}
        headers = {"Some-Custom-Name": "unique-id-1234"}
        params = {"parameter": "My param value",
            "subject": "Email Verification"}
        send_smtp_email = sib_api_v3_sdk.SendSmtpEmail(
            to=to, reply_to=reply_to, headers=headers, html_content=html_content, params=params, sender=sender,
            subject=subject)

        api_response = api_instance.send_transac_email(send_smtp_email)

        pprint(api_response)
```



```

        message = "Email send to:"+e+" for password"
        flash(message, "success")

except ApiException as e:
    print("Exception when calling SMTPApi->send_transac_email: %s\n" % e)
    flash("Error in sending mail")
except:
    flash("Your didn't Signin with this account")
finally:
    return render_template('forgot.html')

@app.route('/agentforgot', methods=['POST', 'GET'])
def agentforgot():

    try:
        global randomnumber
        ida = request.form['custid']
        print(ida)
        global id
        id = ida
        sql = "SELECT EMAIL,NAME FROM AGENT WHERE id=?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, ida)
        ibm_db.execute(stmt)
        emailf = ibm_db.fetch_both(stmt)
        while emailf != False:
            e = emailf[0]
            n = emailf[1]
            break

        configuration = sib_api_v3_sdk.Configuration()
        configuration.api_key['api-key'] = "

```

Project link:

<http://172.17.0.2:5000/>