IBM-52004-1660988046

CUSTOMER CARE REGISTRY

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TEAM DETAILS:

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Department: COMPUTER SCIENCE & ENGINEERING

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1. INTRODUCTION

- **a.** Project Overview
- **b.** Purpose

2. LITERATURE SURVEY

- **a.** Existing problem
- **b.** References
- c. Problem Statement Definition

3. IDEATION & PROPOSED SOLUTION

- **a.** Empathy Map Canvas
- **b.** Ideation & Brainstorming
- c. Proposed Solution
- **d.** Problem Solution fit

4. REQUIREMENT ANALYSIS

- **a.** Functional requirement
- **b.** Non-Functional requirements

5. PROJECT DESIGN

- **a.** Data Flow Diagrams
- **b.** Solution & Technical Architecture
- **c.** User Stories

6. PROJECT PLANNING & SCHEDULING

- a. Sprint Planning & Estimation
- **b.** Sprint Delivery Schedule
- **c.** Reports from JIRA

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

- **a.** Feature 1
- **b.** Feature 2
- **c.** Database Schema (if Applicable)

8. TESTING

- **a.** Test Cases
- **b.** User Acceptance Testing

9. RESULTS

a. Performance Metrics

10. ADVANTAGES & DISADVANTAGES

- 11. CONCLUSION
- 12. FUTURE SCOPE
- 13. APPENDIX Source Code

GitHub & Project Demo Link

INTRODUCTION

1.1 Project Overview:

Customeí Complaint is impoítant infoímation íeflecting customeís sound and is a píimaíy measuíe of customeí dissatisfaction. An Effective and Efficient íesponse to these complaints is an essential index of oíganization's peífoímance. **1**°he píesented model foí the Customeí Caíe Registíy will have the ability to minimize customeís' dissatisfaction and on the otheí hand it can encouíage customeís to paíticipate in contíolling the quality of the seívice píovided. It also íeduces íecuííing complaints. It will Impíove standaíds of seívice to the community. Eventually, it íaises standaíds of administíative decision-making. In today's competitive enviíonment, píoduct and seívice innovations aíe íe-defining accepted levels of peífoímance.

1.2 Purpose:

While customeí seívice and suppoít teams inteíact with customeís on an as-needed basis -- using vaíious chat channels such as phone, website chat applications and social media messaging -- those moments of contact aíe cíitical to keeping an oíganization íunning successfully. If customeí seívice teams píovide a positive customeí expeíience and customeí suppoít teams successfully assist customeís with questions oí píoblems, then those customeís aíe likely to be happy and do business again with the oíganization. Satisfied customeís may also choose to leave positive íeviews oí tell fíiends and family about an oíganization with good customeí seívice and suppoít, which can bíing in moíe customeís to an oíganization.

LITERATURE SURVERY

2.1 Existing Problem:

1. Help Desk:

Help desk softwaíe is a tool that seíves a wide íange of customeí suppoít activities. You can oíganize messages, give assistance, and exchange infoímation with customeís at a single point of contact. The help desk uses tickets foí communication that's why it's also known as a ticketing system.

Advantages:

- Impíoves the secuíity of youí Il' netwoík.
- Impíoves the seívice desk as well as the píoducts and seívices offeíed by the oíganization.
- Helps you ensule that the selvice quality is as defined in the SLA.

Disadvantage:

- Focuses on impíoving customeí seívice efficiency oveí excellence.
- Dishevels flow of communication.
- Does not focus on building long teím customeí íelationships.

Fresh Desk:

Online cloud-based customeí seívice softwaíe píoviding helpdesk suppoít with all smaít

automations to get things done fasteí.

Advantage:

• Modeín and useí-fíiendly design.

• A featuíe-íich customeí seívice platfoím.

• Fíeshdesk maíketplace with many integíations (Salesfoíce, Slack, etc.).

• 1 he fíee plan available.

Disadvantage:

• Limited automation and íules (plus, haíd to configuíe).

• Pooí dashboaíd (Note: Fíeshdesk Analytics is in the beta veísion. 1 he cuííent

dashboaíd offeis fundamental featuies only).

• 1 he daík mode is native Sometimes it seems the suppoit team of Fieshdesk is not easily

íeachable.

2.2 References:

https://freshdesk.com/

https://www.helpdesk.com/

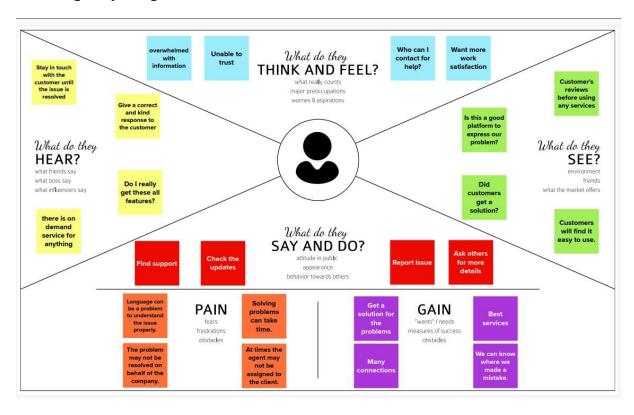
2.3 Problem Statement Definition:

A customer is a user who needs an intermediary agent to solve their problem while using online booking and e-commerce websites. So we developed customer care registration system to provide better services.

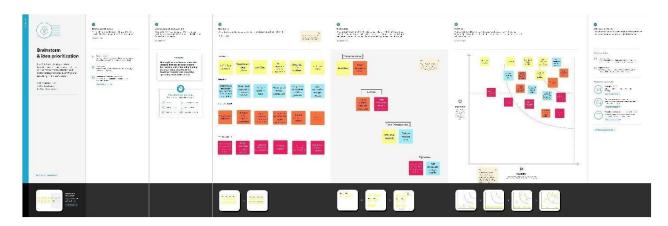
Who does the problem affect?	Frequent online users.
What are the boundaries of the problem?	IT sector, e-Commerce, Online Booking
	System.
What is the issue?	Stay in touch with the customer until the
	issue is resolved An Agent will be assigned
	to the Customer to solve the problem. Based
	on complaint type related authority take
	action and try to solve complaint as early as
	possible.
When does the issue occurs?	Not knowing answer to a questions, When
	the customer needs does not satisfied,
	Transferring customer calls, Not having
	right tools, Customer service workflows
	aren't aligned with customer journey.
Where is the issue occurring?	The issue occur in several department like
	IT sectors, e-Commerce etc.,
Why is it important that we fix the problem?	By solving this issue, Customer can get the
	solution for their raised complaints.

3.IDEATION & PROPOSED SOLUTION

3.1 Empathy Map:



3.2 Ideation & Brainstorming:

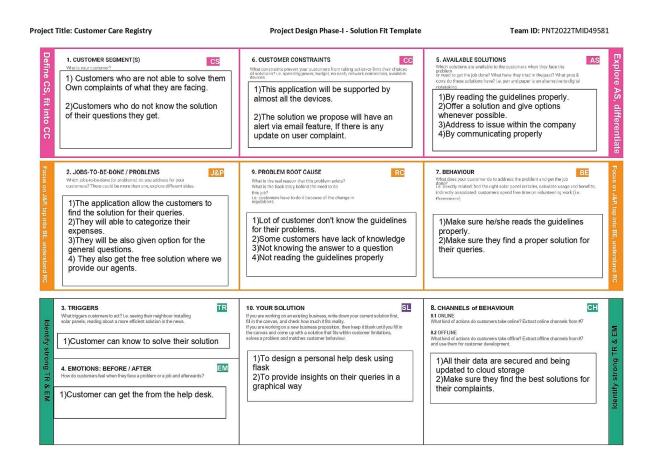


3.3 Proposed Solution:

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A customer is a user who needs an intermediary agent to solve their problem while using online booking and e-commerce websites.
2.	Idea / Solution description	When the user faces any problem during online transaction, online shopping, this application helps to find the solution to their problem at any time. When there is any update on user complaint, will be communicated to the user via email.
3.	Novelty / Uniqueness	The user can view their complaint status on the dashboard and an agent will be assigned to the Customer to solve the problem.
4.	Social Impact/ Customer Satisfaction	Can help the customer to track each step of their issue.

5.	Business Model(Revenue Model)	The details of the user's problem can be recorded in the database, which will help resolve their problem quickly.
6.	Scalability of the Solution	This application can maintain multiple users and assign a separate agent individually.

3.4 Problem Solution Fit:



4.REQUIREMENT ANALYSIS

4.1 Functional & Non-Functional requirements:

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
FR-2	User Confirmation	Confirmation via Email
FR-3	User Login	Login through Form
FR-4	Admin Login	Login with Email and password
FR-5	Users Complaint	Enter the complaints in the complaint form
FR-6	Assign Agent	Assign individual agents for everyuser
FR-7	Complaint status	Status of the complaint send via e-mail

Non-functional Requirements:

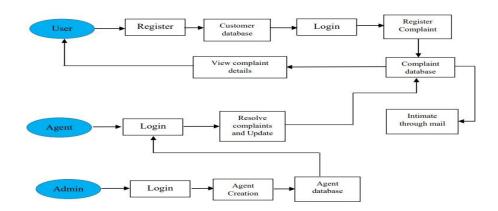
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User can easily interact with the website
NFR-2	Security	Theinformation given by the userwill be secure
NFR-3	Reliability	The system will allow the user to contact the agent ifthe userdidn't get the satisfied solution.
NFR-4	Performance	The user interface page will be loaded within fewseconds
NFR-5	Availability	New module deployment must not impact front pageand main page.
NFR-6	Scalability	Thewebsite traffic limitmust be scalable.

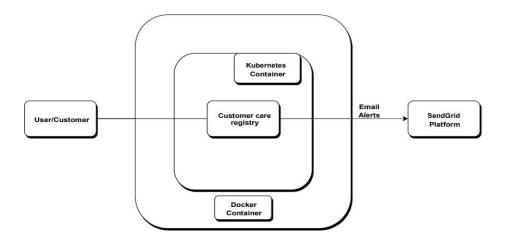
PROJECT DESIGN:

4.1 Data Flow Diagram:

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, andwhere data is stored.



4.2 Solution & Technical Architecture:



4.3 User Stories:

Use the below template to listall the user stories for the product.

User Type	Functional Requiremen t (Epic)	User Story Numbe r	User Story /Task	Acceptance criteria	Priorit y	Releas e
Customer (ClientUser)	Registration	USN-1	As a User, I will register for the application by enteringmy email, password, and confirming mypassword.	I will be redirected toEmail Verification	High	Sprint- 1
Customer(Automated User)	Registration	USN-2	As a User, I will Validate the CustomerCredentials once after the Email Verification.	I will receive confirmation Message from	High	Sprint- 2

				Administrato r		
Customer(Client User)	Login	USN-3	As a User, I will Login into the Portal using Login CredentialsProvided	I will be Redirected to the Portal Dashboard Page	Mediu m	Sprint-2
Customer (ClientUser)	Dashboard	USN-4	As a User, I will book for a ticket from available sections along theApplication and Submitthe Ticket to the Portal	I will be Issuedwith a Ticket Applied Message from thePortal.	High	Sprint-3
Customer (AdminUser)	Validation	USN-5	As a User, I will issue with a Suitable Agentto the Customer.	I will send a mailabout the agent issued tothe website.	High	Sprint- 2
Customer(Agen tUser)	Agent	USN-6	As a User, I will satisfyall the queries to the Customer for all the repetitive responses from the Customers.	I will communicat ewith a Query.	Mediu m	Sprint-
Customer(Serve rUser)	Feedback	USN-7	As a User, I will fill up the Feedback form provided to improve or service provided from the website.	I will accept theFeedback and issue with a message for queries	High	Sprint- 4
Customer(Websit e User)	Log out	USN-8	As a User, I will Log out of the website when my Queries are over or else will beginagain from the Beginning.	I will Estimate the User Response and React to end theProcess.	Low	Sprint- 1

PROJECT PLANNING & SCHEDULING:

4.4 Sprint Planning & Estimation:

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

Sprint	User Type	Functional Requiremen t(Epic)	User Story Numbe r	User Story/ Task	Story Point s	Priorit y	Team Members
Sprint-1	Custom er (WebUs er)	Registration	USN-1	As a customer, I can register for the application by entering myemail, password, andconfirming my password.	2	High	Manikam, Ananthakrishna n
Sprint-1		Login	USN-2	As a customer, I can loginto the application by entering correct email and password	1	High	Maharaja
Sprint-1		Dashboard	USN-3	As a customer, I can seeall the ticket s raised by me andlot more	3	High	Mariselvam
Sprint-2		Complaint raise	USN-4	As a customer, I can createa new complaint with the detailed description of my query	2	High	Mariselvam
Sprint-3		Address Column	USN-5	As a customer, I can have conversations with the assigned agent and get myqueries clarified	3	High	Manikam, Ananthakrishna n
Sprint-4		Forgot password	USN-6	As a customer, I can reset my password by this option in caseI forgotmy old password	2	Medium	Maharaja, Mariselvam
Sprint-4		Complaint details	USN-7	As a customer, I can see the current status of my complaint	2	Medium	Manikam, Ananthakrishna n

Sprin t	User Type	Functional Requiremen t(Epic)	User Story Numbe r	User Story/ Task	Story Point s	Priorit y	
Sprint-	Agent (Web user)	Login	USN-1	As an agent, I can login to the application by entering correct email and password	2	High	
Sprint-3		Dashboard	USN-2	As an agent, I can see all the complaints assigned to me by the admin	3	High	
Sprint- 3		Address Column	USN-3	As an agent,I get to have conversations with the customerand clear his/her queries	3	High	
Sprint- 4		Forgot password	USN-4	As an agent, I can reset my password by this option in caseIforgot my old password	2	Medium	
Sprint- 1	Admi n (Web user)	Login	USN-1	As an admin,I can login to the application by enteringcorrect email and password	1	High	
Sprint- 1		Dashboard	USN-2	As an admin, I can see all the complaints raised in the entire system and lot more	3	High	
Sprint- 2		Agent creation	USN-3	As an admin, I can createan agent for clarifying thecustomer's queries	2	High	
Sprint- 2		Assigning agent	USN-4	As an admin, I can assign an agent for each complaintcreated by the customer	3	High	

Sprint-		Forgot password	USN-4	As an admin, I can resetmy password by thisoption in case Iforgot my old password	2	Medium	
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Velocity:

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

Burndown Chart:

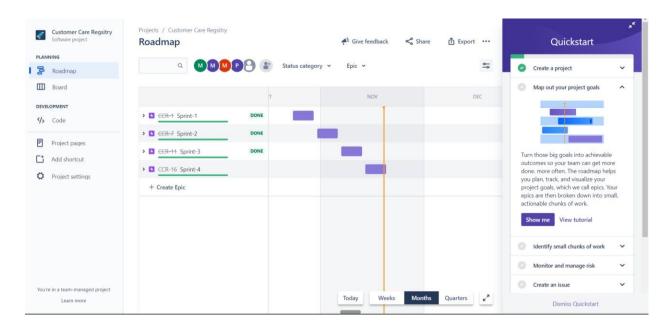
A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

4.5 Sprint Delivery Schedule:

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

Sprint	Total Story Points	Duratio n	Sprin t Start Date	Sprint End Date(Planned)	Story Points Completed (as on Planned End Date)	SI Ro I (A
Sprint -1	1 0	6 Days	24 Oct 2022	29 Oct 2022	1 0	29 2
Sprint -2	7	6 Days	31 Oct 2022	05 Nov 2022	7	05
Sprint -3	1 1	6 Days	07 Nov 2022	12 Nov 2022	1 1	12
Sprint -4	8	6 Days	14 Nov 2022	19 Nov 2022	8	19 2

4.6 Reports from JIRA:



CODING & SOLUTIONING:

5.1 Feature 1:

User register and login:

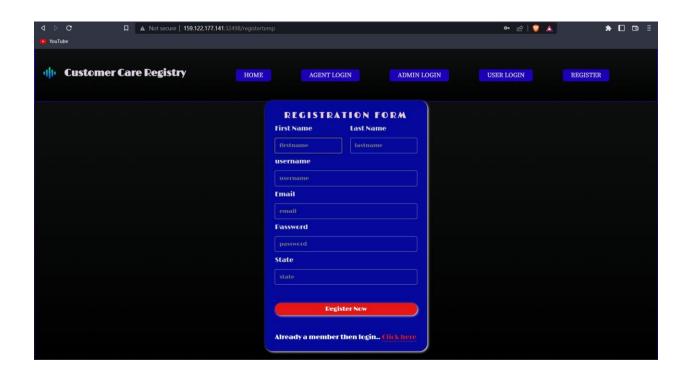
Useí íegisteí and login thíough this web application.

Source code:

register.html:

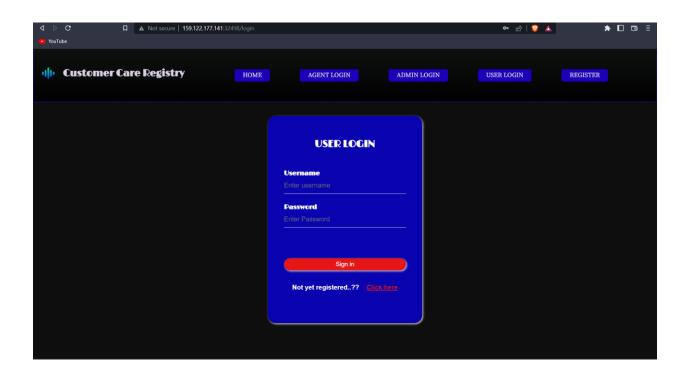
```
Registiation Foim
       </div>
      <foim action="/uploaddata" method="POS 1">
          <div class="foim wiap">
             <div class="input_gíp">
             <div class="input wíap">
                <label foí="fiístname">Fiíst Name</label>
                <input type="text" id="fiístname" name="fiístname">
             </div>
             <div class="input_wíap">
                <label foi="lastname">Last Name</label>
                <input type="text" id="lastname" name="lastname">
             </div>
           </div>
           <div class="input_wíap">
             <label foí="useíname">useíname</label>
             <input type="text" id="useíname" name="useíname">
           </div>
           <div class="input wíap">
             <label foí="email">Email</label>
             <input type="email" id="email" name="email">
           </div>
           <div class="input wíap">
             <label foí="passwoíd">Passwoíd</label>
             <input type="passwoid" id="passwoid" name="passwoid">
           </div>
           <div class="input_wíap">
             <label foi="addiess">Addiess</label>
             <input type="text" id="addíess" name="addíess">
           </div>
           <div class="input wíap">
             <input type="submit" value="Registeí Now" class="submit btn">
           </div>
         </div>
       </foim>
       <span class="aleít { (indicatoí) }">{ (a) }</span>
      <div class="links" style="maigin-top: 10px;">
         Alíeady a membeí then login.. <a</p>
híef="/login" style="text-decoíation: none; coloí: white; boídeí-bottom: 1px solid
white;boídeí-íadius: 0px;">Click heíe</a>
      </div>
    </div>
```

```
</div></body></html>
```



login.html:

```
<!DOCl'YPE html>
<html lang="en">
<head>
       <meta chaíset="U1'F-8">
       <title>useí login</title>
       k íel="shoítcut icon" type="image/jpg" híef="../static/img3.jpg">
       <link híef="../static/login.css" íel="stylesheet">
</head>
<body>
              <img síc= "{{uíl_foí('static',filename='img5.jpg')}}" alt="" class="hello"
width="100%" height="100%" style="filteí: bluí(2px);">
       <div class="contact-foim">
              <img síc="{{uíl_foí('static',filename='a1.jpg')}}" alt="" class="avataí">
              <h2> Useí login</h2>
              <foim action="/logindata" method="POSI">
                     Useíname<input placeholdeí="Enteí useíname" type="text"</p>
name="useíname">
```



5.2 Feature 2:

User lodge complaints and admin create agent.

In this application the useí lodge complaints and admin cíeate the agent.

Source Code:

Userlodgecomp.html:

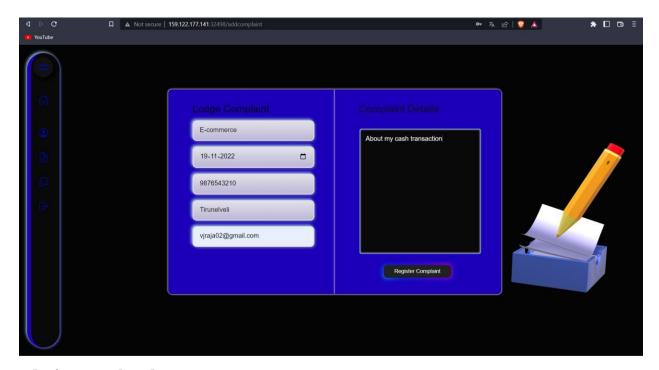
```
<!DOCTYPE html>
<html>
<head>
       <meta charset="utf-8">
       <title>lodgecomplaint</title>
       <meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1">
       k rel="stylesheet" type="text/css" href="css/montserrat-font.css">
       k rel="stylesheet" type="text/css" href="fonts/material-design-iconic-
font/css/material-design-iconic-font.min.css">
  k rel="stylesheet" href="/static/complaint.css"/>
</head>
<body class="form-v10">
  <link rel="stylesheet" href="/static/userd.css">
  <div class="navigation">
    <div class="toggle"></div>
     ul>
       <a href="/home">
        <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
         <span class="title">Dashboard</span>
        </a>
       <a href="/profile">
        <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
          <span class="title">Profile</span>
       </a>
       <a href="/addcomplaint">
        <span class="icon"><ion-icon name="document-text-outline"></ion-icon></span>
         <span class="title">Lodge Complaint</span>
        </a>
       <a href="/comphistory">
```

```
<span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
         <span class="title">Complaint History</span>
         </a>
        <a href="/logout">
         <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
          <span class="title">logout</span>
       </a>
     </div>
   <script type="module"
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
    <script nomodule src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
    <script>
     let navigation = document.querySelector('.navigation');let
     toggle = document.querySelector('.toggle');
     toggle.onclick = function(){
     navigation.classList.toggle('active')
     }
    </script>
     <div class="vj2">
     <img src="/static/img1.png" alt="">
    </div>
    <div class="vj1">
     <img src="/static/img2.png" alt="">
    </div>
       <div class="page-content">
                      <form class="form-detail" action="#" method="post" id="myform">
                              <div class="form-left">
                                     <h2 style="color: black;">Lodge Complaint</h2>
                                     <div class="form-row-3">
             <div class="form-row name">
```

```
<select name="selectcategory" required id="selectcategory">
                 <option class="option" value="selectcategory">Select Category</option>
                 <option class="option" value="E-commerce">E-commerce</option>
                 <option class="option" value="General">General
                 <option class="option" value="Other">Other</option>
               </select>
            </div>
            <div class="form-row name">
               <input type="date" name="dt" id="dt">
            </div>
               <div class="form-row name">
                 <input type="text" name="phone" class="phone" id="phone"
placeholder="Phone Number" required>
               </div>
               <div class="form-row name">
                 <select name="state" id="state">
                   <option value="state">District</option>
                   <option value="Tirunelveli">Tirunelveli</option>
                   <option value="Chennai">Chennai
                   <option value="Madurai">Madurai
                   <option value="Coimbatore">Coimbatore</option>
                   <option value="Other">Other</option>
                 </select>
               </div>
               <div class="form-row name">
                 <input type="text" name="email" id="email" class="input-text" required
pattern="[^@]+@[^@]+.[a-zA-Z]{2,6}" placeholder="email">
               </div>
```

```
</div>
                             </div>
                             <div class="form-right">
                                    <h2>Complaint Details</h2>
                                    <div class="wrapper">
                                           <textarea rows="15" cols="60" placeholder="Enter
the complaint details" name="complaint" required id="complaint"></textarea>
                                    </div>
      <span class="text"style="color: black;font-weight:bold;">{{a}}</span>
                                    <div class="form-row-last">
              <button class="button-85" role="button">Register Complaint
                                    </div>
                             </div>
                     </form>
              </div>
       </div>
</body>
```

</html>



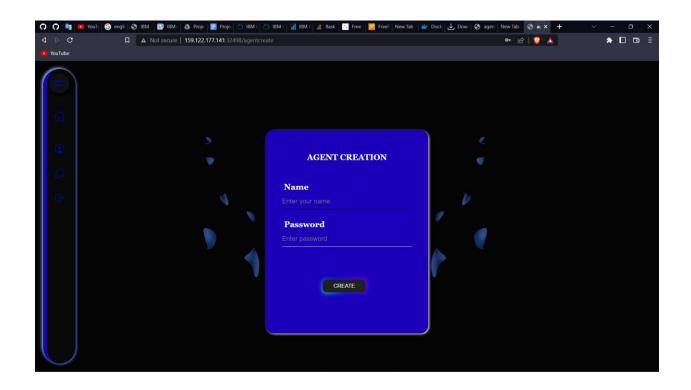
adminagent.html:

<!DOCTYPE html>

```
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>agent creation </title>
  k rel="stylesheet" href="/static/agentcreation.css">
  k rel="stylesheet" href="/static/userd.css">
  k rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.3/css/all.min.css"/>
</head>
<body>
  <div class="navigation">
    <div class="toggle"></div>
    ul>
     <a href="/adminpage">
      <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
        <span class="title">Dashboard</span>
```

```
</a>
     <a href="/agentcreate">
      <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
        <span class="title">Agent Creation</span>
     </a>
     <a href="/adcomplainthist">
      <span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
       <span class="title">Complaint History</span>
      </a>
     <a href="/loggout">
      <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
       <span class="title">logout</span>
     </a>
   </div>
   <script type="module"
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
    <script nomodule src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
    <script>
     let navigation = document.querySelector('.navigation');let
     toggle = document.querySelector('.toggle');
     toggle.onclick = function(){
     navigation.classList.toggle('active')
     }
    </script>
    <div class="vj">
     <img src="/static/img8.png" alt="">
    </div>
 <div class="wrapper">
  <div class="form">
    <h2> Agent Creation</h2>
```

```
<form action="/agentdata" method="POST">
      Name
     <div class="name">
     <input placeholder="Enter your name" type="text" name="username" required>
     </div>
     Password
     <div class="name">
     <input placeholder="Enter password" type="password" name="password" required>
     <span class="alert {{indicator}}">{{a}}</span>
      </div>
      <button class="button-85" role="button">CREATE</button>
   </form>
 </div>
 </div>
 </div>
</div>
</body>
</html>
```

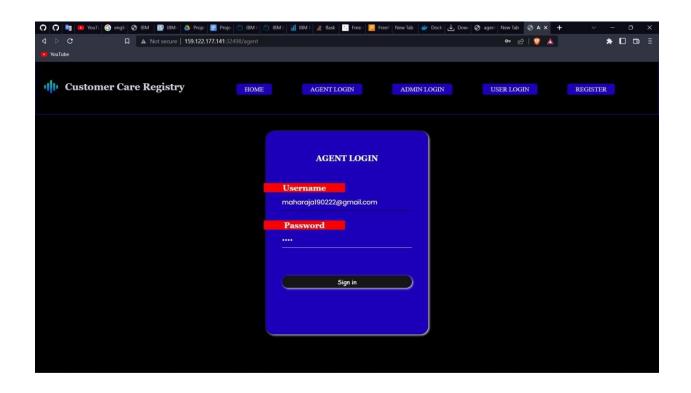


agent.html:

```
</head>
<body>
      <header>
           <div class="rj">
                 <div class="img">
                       <img src="/static/logo.png" alt="Global">
                       24px;">Customer Care Registry
                 </div>
                 <a href="/">Home</a>
                       <a href="/admin">Admin Login</a>
                       <a href="/login">User Login</a>
                       <a href="/registertemp">Register</a>
                       <a href="/agent">Agent Login</a>
                 </div>
            <div class="form">
                 <h2> Agent login</h2>
                 <form action="/agentdata" method="POST">
                       Username<input placeholder="Enter your name"
type="text" name='username'>
                       Password<input placeholder="Enter password"
type="password" name='password'>
                       <input type="submit" value="Sign in">
                 </form>
                 <!-- <div class="links">
                 click here for dashboard <a href="/adminpage"> Click here</a>
           </div>
                 {{a}}
           </div>-->
```

<link href="../static/agent.css" rel="stylesheet">

</header>
</body>
</html>



app.py:

 $from\ flask\ import\ Flask,\ render_template,\ request,\ redirect,\ url_for,\ session import\ ibm_db$

import re

from flask_mail import Mail, Message

app = Flask(_name_)
mail = Mail(app)

app.config['MAIL_SERVER']='smtp.gmail.com'

```
app.config['MAIL_PORT'] = 465
app.config['MAIL_USERNAME'] = 'customercare.in2022@gmail.com'
app.config['MAIL_PASSWORD'] = 'dutxqvejaxonmmew'
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)
app.secret_key='a'
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-
7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;Security=SSL;
SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=fqt70379;PWD=KdUUJ3RnMlMqAimg;",",")
@app.route('/')
def home():
  return render_template('/home.html')
@app.route('/registertemp',methods=["POST","GET"])
def registertemp():
  return render_template("register.html")
@app.route('/uploaddata',methods =['GET','POST'])
def register():
 msg = "
  if request.method == 'POST':
    firstname = request.form['firstname']
    lastname = request.form['lastname']
    username = request.form['username']
    email = request.form['email']
    password = request.form['password']
    address = request.form['address']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE username = ?')
    ibm_db.bind_param(stmt, 1, username)
```

```
ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)if
    account:
       msg = 'Account already exists!'
    elif not re.match(r'[^{\alpha}]+@[^{\alpha}]+\.[^{\alpha}]+', email):
       msg = 'Invalid email address!'
    elif not re.match(r'^[A-Za-z0-9 .-]*$', username):
       msg = 'name must contain only characters and numbers!'
    else:
       prep_stmt = ibm_db.prepare(conn,'INSERT INTO users(firstname, lastname, username,
email, password, address) VALUES(?, ?, ?, ?, ?, ?)')
       ibm_db.bind_param(prep_stmt, 1, firstname)
       ibm_db.bind_param(prep_stmt, 2, lastname)
       ibm_db.bind_param(prep_stmt, 3, username)
       ibm_db.bind_param(prep_stmt, 4, email)
       ibm db.bind param(prep stmt, 5, password)
       ibm_db.bind_param(prep_stmt, 6, address)
       ibm db.execute(prep stmt)
       msg = 'Dear % s You have successfully registered!'%(username)
       msg1 = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients =
[email])
       msg1.body = 'Hello'+ username +''',
             Account creation in customer care registry was successful.
             For raising Complaints, login with your username and password. Thank
             You)""
       mail.send(msg1)
    return render_template('register.html',a = msg,indicator="success")else:
    msg = 'Please fill the form!'
  return render_template('register.html',a = msg, indicator='failure')
@app.route('/login',methods=["POST","GET"])
def login():
```

```
return render_template("login.html")
@app.route('/logindata',methods=["POST","GET"])
def logindata():
  global userid
  msg = "
  if request.method == 'POST' and 'username' in request.form and 'password' in request.form:
    username = request.form['username']
    password = request.form['password']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE username = ? AND password =
?')
    ibm_db.bind_param(stmt,1,username)
    ibm_db.bind_param(stmt,2,password)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_tuple(stmt) if
    account:
       session['id'] = account[0]userid
       = account[0]
       session['username'] = account[1] return
       redirect(url_for('dashboard'))
    else:
       msg = 'Incorrect username / password !'
       return render_template('login.html', b = msg, indicator="failure")
@app.route('/home')
def dashboard():
  if 'id' in session: uid
    = session['id']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE id = ?')
    ibm_db.bind_param(stmt, 1, uid)
    ibm_db.execute(stmt)
    ibm_db.fetch_tuple(stmt)
    username = session['username']
```

```
return render_template('user dashboard.html', name = username)
  return render_template('user dashboard.html')
@app.route('/profile',methods=["POST","GET"])
def profile():
  if 'id' in session: uid
    = session['id']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE id = ?')
    ibm_db.bind_param(stmt, 1, uid)
    ibm_db.execute(stmt)
    acc = ibm_db.fetch_tuple(stmt)
    return
render_template('userprofile.html',fullname=acc[1]+acc[2],username=acc[3],email=acc[4],addres
s=acc[6]
  return render_template('userprofile.html')
@app.route('/edit')
def edit():
  return render_template('editprofile.html')
@app.route('/editprofile', methods=["POST","GET"])
def editprofile():
  if request.method == 'POST':
    msg = "
    if 'id' in session: uid
       = session['id']
       firstname = request.form['firstname']
       lastname = request.form['lastname']
       username = request.form['username']
       email = request.form['email']
       address = request.form['address']
       stmt = ibm_db.prepare(conn,"UPDATE users SET firstname = ?, lastname = ?, username =
?, email = ?, address = ? WHERE id = ?")
```

```
ibm_db.bind_param(stmt, 1, firstname)
      ibm_db.bind_param(stmt, 2, lastname)
      ibm_db.bind_param(stmt, 3, username)
      ibm_db.bind_param(stmt, 4, email)
      ibm_db.bind_param(stmt, 5, address)
      ibm_db.bind_param(stmt, 6, uid)ibm_db.execute(stmt)
      msg = 'Profile Updated Successfully!'
      return render_template('editprofile.html',a = msg)return
  render template('editprofile.html')
@app.route('/addcomplaint',methods=["POST","GET"])
def addcomplaint():
  if request.method == "POST":
    if 'id' in session:
      msg = "
      uid=session['id']
      selectcategory = request.form['selectcategory']
      date = request.form['dt']
      phone = request.form['phone']
      state = request.form['state']
      email = request.form['email']
      complaint = request.form.get('complaint')
      stmt = ibm_db.prepare(conn, "SELECT * FROM users WHERE id = ?")
      ibm_db.bind_param(stmt, 1, uid)
      ibm_db.execute(stmt)
      acc = ibm db.fetch tuple(stmt)email
      = acc[4]
      prep_stmt = ibm_db.prepare(conn,'INSERT INTO complaintdetails(uid, selectcategory, dt,
phone, state, email, complaint, status) VALUES (?, ?, ?, ?, ?, ?, ?, ?)')
      ibm_db.bind_param(prep_stmt, 1, uid)
      ibm_db.bind_param(prep_stmt, 2, selectcategory)
```

```
ibm_db.bind_param(prep_stmt, 4, phone)
      ibm_db.bind_param(prep_stmt, 5, state)
      ibm_db.bind_param(prep_stmt, 6, email)
      ibm_db.bind_param(prep_stmt, 7, complaint)
      ibm_db.bind_param(prep_stmt, 8, 'pending')
      ibm_db.execute(prep_stmt)
      msg = 'You have successfully registered your complaint'
      TEXT1 = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients = [email])
      TEXT1.body = """ Dear """+acc[1]+" "+acc[2]+"""
             Your complaint has been succesfully registered...!!
             One of our agent is assigned, will surely resolve your complaint as soon as
possible
             Please check the complaint details in dashboard for status of complaint."""
      mail.send(TEXT1)
      se = ibm_db.exec_immediate(conn, 'SELECT * FROM agentinfo ORDER BY RAND() LIMIT
1')
      agmail = ibm_db.fetch_tuple(se)
      agentemail = agmail[1]
      TEXT = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients =
[agentemail])
      TEXT.body = """New Complaint from """+acc[1]+"
           "+acc[2]+"""Complaint Description:
           """+complaint+"""
      ""mail.send(TEXT)
      return render_template('userlodgecomp.html',a = msg)
  return render_template('userlodgecomp.html')
@app.route('/view',methods=["POST","GET"])
def view():
  if 'id' in session:
```

ibm_db.bind_param(prep_stmt, 3, date)

```
return render_template('usercomphist.html')
@app.route('/comphistory',methods=['POST','GET'])
def compview():
  if 'id' in session:
    uid=session['id']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE id = ?
    ')ibm_db.bind_param(stmt, 1, uid)
    ibm_db.execute(stmt)
    stmt1 = ibm_db.prepare(conn, 'SELECT id, selectcategory, dt, phone, state, email, complaint,
status FROM complaintdetails WHERE uid = ?')
    ibm_db.bind_param(stmt1, 1, uid)ibm_db.execute(stmt1)
    comp = ibm db.fetch assoc(stmt1)
    data = []
    while comp != False:
      data.append(comp)
      comp = ibm_db.fetch_assoc(stmt1)
    return render_template('usercomphist.html', complaints = data)
  return render_template('usercomphist.html')
@app.route('/admin')
def admin():
  return render_template('admin.html')
@app.route('/adminpage')
def adminpage():
  return render_template('admin dashboard.html')
@app.route('/adminlog',methods=["POST","GET"])
def adminlog():
  msg = "
```

```
email = request.form['email']
  password = request.form['password']
  stmt = ibm_db.prepare(conn, 'SELECT * FROM admininfo WHERE email = ? and password =
?')
  ibm_db.bind_param(stmt,1, email)
  ibm_db.bind_param(stmt,2, password)
  ibm db.execute(stmt)
  logged = ibm_db.fetch_assoc(stmt)
  if(logged):
    msg = 'successfully loggedin'
    return render_template("admin dashboard.html",a=msg)else:
    return render_template("admin.html",a="Incorrect email/password")
@app.route('/adcomplainthist',methods=['POST','GET'])
def adcomplainthist():
    stmt1 = ibm_db.prepare(conn, 'SELECT * FROM complaintdetails')
    ibm_db.execute(stmt1)
    comp = ibm db.fetch assoc(stmt1)
    data = []
    while comp != False:
       data.append(comp)
       comp = ibm_db.fetch_assoc(stmt1)
    return render_template('admincomphist.html', complaints = data)
@app.route('/agcomplainthist',methods=['POST','GET'])
def agcomplainthist():
    stmt1 = ibm_db.prepare(conn, 'SELECT * FROM complaintdetails')
    ibm_db.execute(stmt1)
    comp = ibm_db.fetch_assoc(stmt1)
    data = []
    while comp != False:
       data.append(comp)
```

```
comp = ibm_db.fetch_assoc(stmt1)
    return render_template('admincomphist.html', complaints = data)
@app.route('/agentcreate',methods=["POST","GET"])
def agentcreate():
  return render_template('adminagent.html')
@app.route('/agentdata',methods=["POST","GET"])
def agentdata():
  msg = "
  username = request.form['username']
  password = request.form['password']
  stmt = ibm_db.prepare(conn,'INSERT INTO agentinfo(username, password) VALUES (?, ?)')
  ibm_db.bind_param(stmt, 1, username)
  ibm_db.bind_param(stmt, 2, password)ibm_db.execute(stmt)
  msg = 'Agent has been created successfully' return
  render_template('adminagent.html',a = msg)
@app.route('/agent',methods=["POST","GET"])
def agent():
  return render_template('agent.html')
@app.route('/agentlogin',methods=["POST","GET"])
def agentlogin():
  msg = "
  email = request.form['username']
  password = request.form['password']
  stmt = ibm_db.prepare(conn, 'SELECT * FROM agentinfo WHERE username = ? and
password = ?')
  ibm_db.bind_param(stmt,1, email)
  ibm_db.bind_param(stmt,2, password)ibm_db.execute(stmt)
```

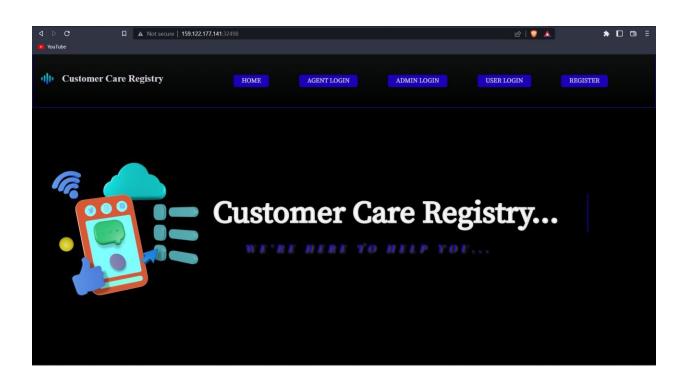
```
logged = ibm_db.fetch_assoc(stmt)
  if(logged):
    msg = 'successfully loggedin'
    return render_template("agentdashboard.html",a=msg)else:
    return render_template("agent.html",a="Incorrect email/password")
@app.route('/agentpage') def
agentpage():
  return render_template('agentdashboard.html')
@app.route('/loggout')
def loggout():
  if 'id ' in session:
    session.pop('id',None)
    session.pop('email',None)
    session.pop('password',None)
  return redirect(url_for('home'))
@app.route('/logout')
def logout():
  session.pop('loggedin', None)
  session.pop('id', None)
  session.pop('username', None)return
  redirect(url_for('login'))
@app.route('/solved/<no>')
def solved(no):
  i = no
  stmt = ibm_db.prepare(conn, "UPDATE complaintdetails SET status = ? WHERE id = ?")
  ibm_db.bind_param(stmt, 1, 'solved')
  ibm_db.bind_param(stmt, 2, i)
  ibm_db.execute(stmt)
```

```
se = ibm_db.prepare(conn, 'SELECT * FROM complaintdetails where id = ?')
ibm_db.bind_param(se, 1, i)
ibm_db.execute(se)
em = ibm_db.fetch_tuple(se)
email = em[6]
print(email)

TEXT = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients = [email])

TEXT.body = """Your Complaint has been solved."""
mail.send(TEXT)
return render_template('solve.html', a = "Complaint Resolved" )

if___name___ == '_main_':
    app.debug=True
    app.run(host='0.0.0.0',port=8080)
```



6. Testing

RESULTS

7.1 Performance Metrics:

<u>8.</u>	ADVANTAGES & DISADVANTAGES
Ad	lvantages:
	1. This web application allows the user to register their complaints and after register
	their complaints the email notification will send to their register Email ID.
	1. The problems of the user are understand clearly and the appropriate solutions at
	given to them.
	given to them. 1. Builds customer trust and loyalty.

- 1. The customers are able to track their problems.
- 1. The agents makes the customers very comfortable by solving their problems.
- 1. Every individual customers has individual agent.

Disadvantages:

- 1. Sometimes this application leads to inconvenient communication.
- 2. In some cases hard to find information about the problem.

9. CONCLUSION

l'he píoposed web application is an customeí caíe íegistíy. In this application , the useí can íegisteí into the application and then login into the application. If the useí is alíeady a membeí then they login diíectly into the application. In this application the useí can see theií píofile and they able to íegisteí the complaints. Afteí íegisteíing theíe complaints the Email notifications will be send to the useí íegisteíed Email ID. I'hen the admin cíeate the individual agent foí the individual useí. Afteí cíeating the agent , the message will send to agent thíough email. I'he useí tíack theií píoblem to know the completion status of theií píoblems.

10.

FUTURE SCOPE

As paít of oui futuie enhancements, we aim to usei diiectly contact the agent. Also we aim to piovide the livechat in this application and solve the pioblems of all iesouices.

11. APPENDIX

Source Code:

```
register.html:
```

<div class="wrapper">

```
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Registration</title>
link rel="shortcut icon" type="image/jpg" href="../static/img3.jpg">
link rel="stylesheet" href="../static/register.css">
link rel="stylesheet" href="../static/home.css">
</head>
<body>
<header>
```

```
<div class="rj">
       <div class="img">
         <img src="/static/logo.png" alt="Global">
         Customer Care
Registry
       </div>
       <a href="/">Home</a>
         <a href="/admin">Admin Login</a>
         <a href="/login">User Login</a>
         <a href="/registertemp">Register</a>
         <a href="/agent">Agent Login</a>
       </div>
     <div class="registration_form">
       <div class="title">
         Registration Form
       </div>
       <form action="/uploaddata" method="POST">
         <div class="form_wrap">
           <div class="input_grp">
             <div class="input wrap">
               <label for="firstname">First Name</label>
               <input type="text" id="firstname" name="firstname" placeholder="firstname">
             </div>
             <div class="input_wrap">
               <label for="lastname">Last Name</label>
               <input type="text" id="lastname" name="lastname" placeholder="lastname">
             </div>
           </div>
           <div class="input_wrap">
             <label for="username">username</label>
```

```
<input type="text" id="username" name="username" placeholder="username">
             </div>
             <div class="input_wrap">
               <label for="email">Email</label>
               <input type="email" id="email" name="email" placeholder="email">
             </div>
             <div class="input_wrap">
               <label for="password">Password</label>
               <input
                             type="password"
                                                     id="password"
                                                                            name="password"
placeholder="password">
             </div>
             <div class="input_wrap">
               <label for="address">State</label>
               <input type="text" id="address" name="address" placeholder="state">
             </div>
             <div class="input_wrap">
               <input type="submit" value="Register Now" class="submit_btn">
             </div>
           </div>
         </form>
        <br>
        <span class="alert {{indicator}}">{{a}}</span>
        <div class="links" style="margin-top: 10px;">
           Already a member then login.. <a href="/project/templates/login.html" style="text-</p>
decoration: none; border-bottom: 1px solid rgb(231, 33, 33);border-radius: 0px;">Click
here</a>
        </div>
      </div>
    </div>
  </header>
</body>
```

login.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <title>user login</title>
 k rel="shortcut icon" type="image/jpg" href="../static/img3.jpg">
 <link href="../static/login.css" rel="stylesheet">
 k rel="stylesheet" href="../static/home.css">
</head>
<body>
 <header>
      <div class="wrapper">
            <div class="img">
                  <img src="/static/logo.png" alt="Global">
                  24px;">Customer Care Registry
            </div>
            <a href="/">Home</a>
                  <a href="/admin">Admin Login</a>
                  <a href="/login">User Login</a>
                  <a href="/registertemp">Register</a>
                  <a href="/agent">Agent Login</a>
            </div>
      <div class="contact-form">
            <h2> User login</h2>
```

```
<form action="/logindata" method="POST">
                     Username<input placeholder="Enter username" type="text"</p>
name="username">
                     Password<input placeholder="Enter Password" type="password"</p>
name="password">
                     <span class="alert {{indicator}}">{{b}}</span>
                     <input type="submit" value="Sign in">
              </form>
              <div class="links">
              Not yet registered..?? <a href="/project/templates/register.html"> Click</a>
here</a>
              </div>
       </div>
 </header>
</body>
</html>
```

Userdashboard.html:

```
<!DOCl'YPE html>
<html lang="en" dií="ltí">
<head>
<meta chaíset="utf-8">
<title>Dashboaíd</title>
link íel="stylesheet" híef="../static/useíd.css">
link íel="shoítcut icon" type="image/jpg" híef="../static/img3.jpg">
link íel="stylesheet" híef="https://cdnjs.cloudflaíe.com/ajax/libs/font- awesome/5.15.3/css/all.min.css"/>
</head>
<body>
<input type="checkbox" id="check">
```

```
<label foí="check">
    <i class="fas fa-baís" id="btn"></i>
    <i class="fas fa-times" id="cancel"></i>
    <div class="top"></div>
    </label>
    <div class="sidebaí">
      <headeí>Dashboaíd</headeí>
      ul>
        <a híef="/home"><i class="fas fa-qícode"></i>Dashboaíd</a>
        <a híef="/píofile"><i class="fas fa-link"></i>Píofile</a>
        <a híef="/addcomplaint"><i class="fas fa-stíeam"></i>Lodgecomplaint</a>
        <a híef="/comphistoíy"><i class="fas fa-calendaí-week"></i>Complaint
histoíy</a>
        <a híef="/logout "><i></i>Logout</a>
      </div>
    <section>
     <div class="dash">
      <h1>Deaí {{ name }}</h1>
      welcome to ouí poítal...
    </div>
    </section>
  </body>
</html>
Userprofile.html:
```

```
<!DOCTYPE html>
<html lang="en">
```

```
<head>
  <meta charset="UTF-8">
  <title>Profile Card </title>
  k rel="stylesheet" href="/static/profilestyle.css">
  k rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.3/css/all.min.css"/>
</head>
<body>
  k rel="stylesheet" href="/static/userd.css">
  <div class="navigation">
    <div class="toggle"></div>
     <a href="/home">
        <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
         <span class="title">Dashboard</span>
        </a>
       <a href="/profile">
        <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
         <span class="title">Profile</span>
       </a>
       <a href="/addcomplaint">
        <span class="icon"><ion-icon name="document-text-outline"></ion-icon></span>
         <span class="title">Lodge Complaint</span>
        </a>
       <a href="/comphistory">
        <span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
         <span class="title">Complaint History</span>
        </a>
       <a href="/logout">
        <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
         <span class="title">logout</span>
       </a>
     </div>
```

```
<script type="module"
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
    <script nomodule src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
    <script>
     let navigation = document.querySelector('.navigation');let
     toggle = document.querySelector('.toggle');
     toggle.onclick = function(){
     navigation.classList.toggle('active')
     }
    </script>
  <div class="cls">
    <h1>PROFILE</h1>
  </div>
  <div class="vj">
   <img src="/static/img8.png" alt="">
  </div>
 <div class="wrapper">
  <div class="buttons"><br>
    Name :<div class="name">{{ fullname }}</div><br>
    Username :<div class="name">{{ username }}</div><br>
    Email: <div class="name">{{ email }}</div><br>
    State :<div class="name">{{ address }}</div><br>
    <div class="links">
     <a href="/editprofile">Edit profile</a>
    </div>
  </div>
 </div>
 </div>
</body>
</html>
```

Userlodgecomplaints.html:

```
<!DOCTYPE html>
<html>
<head>
       <meta charset="utf-8">
       <title>lodgecomplaint</title>
       <meta
                name="viewport" content="width=device-width,
                                                                   initial-scale=1,
                                                                                    maximum-
scale=1">
       k rel="stylesheet" type="text/css" href="css/montserrat-font.css">
       link
                 rel="stylesheet"
                                       type="text/css"
                                                            href="fonts/material-design-iconic-
font/css/material-design-iconic-font.min.css">
  k rel="stylesheet" href="/static/complaint.css"/>
</head>
<body class="form-v10">
  <link rel="stylesheet" href="/static/userd.css">
  <div class="navigation">
    <div class="toggle"></div>
     ul>
       <a href="/home">
        <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
          <span class="title">Dashboard</span>
        </a>
       <a href="/profile">
        <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
         <span class="title">Profile</span>
       </a>
       <a href="/addcomplaint">
        <span class="icon"><ion-icon name="document-text-outline"></ion-icon></span>
         <span class="title">Lodge Complaint</span>
        </a>
       <a href="/comphistory">
```

```
<span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
         <span class="title">Complaint History</span>
         </a>
        <a href="/logout">
         <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
          <span class="title">logout</span>
       </a>
     </div>
                                                                                  type="module"
   <script
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
                                                                                      nomodule
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
    <script>
     let navigation = document.querySelector('.navigation');let
     toggle = document.querySelector('.toggle');
     toggle.onclick = function(){
     navigation.classList.toggle('active')
     }
    </script>
     <div class="vj2">
     <img src="/static/img1.png" alt="">
    </div>
    <div class="vj1">
     <img src="/static/img2.png" alt="">
    </div>
       <div class="page-content">
                      <form class="form-detail" action="#" method="post" id="myform">
                              <div class="form-left">
                                     <h2 style="color: black;">Lodge Complaint</h2>
                                     <div class="form-row-3">
             <div class="form-row name">
```

```
<select name="selectcategory" required id="selectcategory">
                 <option class="option" value="selectcategory">Select Category</option>
                 <option class="option" value="E-commerce">E-commerce</option>
                 <option class="option" value="General">General
                 <option class="option" value="Other">Other</option>
               </select>
            </div>
            <div class="form-row name">
               <input type="date" name="dt" id="dt">
            </div>
               <div class="form-row name">
                 <input
                            type="text"
                                           name="phone"
                                                              class="phone"
                            id="phone"placeholder="Phone Number" required>
               </div>
               <div class="form-row name">
                 <select name="state" id="state">
                   <option value="state">District</option>
                   <option value="Tirunelveli">Tirunelveli</option>
                   <option value="Chennai">Chennai
                   <option value="Madurai">Madurai
                   <option value="Coimbatore">Coimbatore</option>
                   <option value="Other">Other</option>
                 </select>
               </div>
               <div class="form-row name">
                 <input type="text" name="email" id="email" class="input-text"
                                                                                   required
pattern="[^@]+@[^@]+.[a-zA-Z]{2,6}" placeholder="email">
               </div>
```

```
</div>
                             </div>
                             <div class="form-right">
                                    <h2>Complaint Details</h2>
                                    <div class="wrapper">
                                            <textarea rows="15" cols="60" placeholder="Enter
the complaint details" name="complaint" required id="complaint"></textarea>
                                    </div>
      <span class="text"style="color: black;font-weight:bold;">{{a}}</span>
                                    <div class="form-row-last">
              <button class="button-85" role="button">Register Complaint</button>
                                    </div>
                             </div>
                      </form>
              </div>
       </div>
</body>
</html>
usercomphist.html:
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8">
  <title>complaint history</title>
  k rel="stylesheet" href="/static/userd.css">
  k rel="stylesheet" href="/static/admind.css">
```

```
link
                  rel="stylesheet"
                                            href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.3/css/all.min.css"/>
 </head>
 <body>
 <div class="navigation">
  <div class="toggle"></div>
   <a href="/home">
      <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
       <span class="title">Dashboard</span>
      </a>
     <a href="/profile">
      <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
       <span class="title">Profile</span>
     </a>
     <a href="/addcomplaint">
      <span class="icon"><ion-icon name="document-text-outline"></ion-icon></span>
       <span class="title">Lodge Complaint</span>
      </a>
     <a href="/comphistory">
      <span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
      <span class="title">Complaint History</span>
      </a>
     <a href="/logout">
      <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
       <span class="title">logout</span>
     </a>
```

</div>

```
</header>
 <script
                                                                   type="module"
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
 <script nomodule src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
 <script>
 let navigation = document.querySelector('.navigation');let
 toggle = document.querySelector('.toggle'); toggle.onclick
 = function(){ navigation.classList.toggle('active')
 }
 </script>
 <div class="wrapper">
   <thead>
         ComplaintNumber
         Category
         Date
         Phone Number
         State
         Email
         Complaint Type
         Status
        </thead>
        {% for row in complaints: %}
       {{ row.id }}
         {{ row.selectcategory }}
         {{ row.dt}}
         {{ row.phone }}
         {{ row.state}}
```

```
{{ row.email }}
         {{ row.complaint }}
         {{ row.status}}
      {% endfor %}
      </div>
</body>
</html>
admin.html:
<!DOClYPE html>
<html lang="en">
<head>
     <meta chaíset="Ul'F-8">
     <title>Admin</title>
     link
híef="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600;7
00;900&display=swap" íel="stylesheet">
     <link híef="../static/admin.css" íel="stylesheet">
     <link iel="shoitcut icon" type="image/jpg" hief="../static/img3.jpg">
</head>
<body>
     <div class="contact-foim">
                                     alt=""
                                                              class="avataí"
           <img
síc="https://i.postimg.cc/zDyt7KCv/a1.jpg">
```

```
<h2>Admin login</h2>
           <foim action="/adminlog" method="POSl'">
                Email<input
                                           placeholdeí="Enteí
                                                                    Email"
type="email" name="email" íequiíed>
                Passwoid<input
                                           placeholdeí="Enteí
                                                                 Passwoid"
type="passwoid" name="passwoid"iequiied>
                <input type="checkbox">Remembeí Me
                <input type="submit" value="Sign in">
                {{a}}
           </foim>
     </div>
</body>
</html>
admin dashboard.html:
<!DOCl'YPE html>
<html lang="en" dií="ltí">
 <head>
  <meta chaíset="utf-8">
  <title>admin dashboaíd</title>
  <link íel="stylesheet" híef="../static/admind.css">
                         híef="https://cdnjs.cloudflaíe.com/ajax/libs/font-
  k íel="stylesheet"
awesome/5.15.3/css/all.min.css"/>
 </head>
  <body>
    <input type="checkbox" id="check">
```

```
<label foí="check">
    <i class="fas fa-baís" id="btn"></i>
    <i class="fas fa-times" id="cancel"></i>
    </label>
    <div class="sidebaí">
       <headeí>Dashboaíd</headeí>
       <111>
         <a híef="#><i class="fas fa-qícode"></i>Dashboaíd</a>
                     híef="/agent"><i
                                                              fa-link"></i>Agent
         <a
                                             class="fas
Cíeation</a>
                   híef="/adcomplainthist"><i
                                                    class="fas
                                                                    fa-calendaí-
         <a
week"></i>Complaint histoíy</a>
         <a híef="/loggout"><i></i>Logout</a>
       </div>
  </body>
</html>
admincomphist.html:
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
 <meta charset="utf-8">
 <title>admin complaint history</title>
 k rel="stylesheet" href="/static/admind.css">
 <link rel="stylesheet" href="/static/userd.css">
 link
                rel="stylesheet"
                                       href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.3/css/all.min.css"/>
```

```
</head>
  <body>
   <div class="navigation">
    <div class="toggle"></div>
     <a href="/adminpage">
        <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
          <span class="title">Dashboard</span>
        </a>
        <a href="/agentcreate">
         <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
            <span class="title">Agent Creation</span>
        </a>
       <a href="/adcomplainthist">
        <span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
          <span class="title">Complaint Details</span>
        </a>
       <a href="/loggout"></a>
        <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
         <span class="title">logout</span>
       </a>
     </div>
   <script
                                                                                type="module"
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
    <script
                                                                                    nomodule
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
    <script>
     let navigation = document.querySelector('.navigation');let
     toggle = document.querySelector('.toggle');
     toggle.onclick = function(){
     navigation.classList.toggle('active')
     }
```

```
</script>
<div class="wrapper">
<div class="history">
 <span class="tab" style="position: relative;top: -</pre>
 250px;
 left: -400px;
 padding: 10px; width: 940px;
 font-weight: bold;">{{a}}</span>
 <div class="tab" style="position: relative;</pre>
 border: 1px solid black;
 top: -250px;
 left: -400px;
 padding: 10px; width: 940px;">
   <span style="margin-left: 10px;</pre>
  text-align: left;">{{ row.0 }}</span>
   <span style="margin-left: 10px;</pre>
  text-align: left;">{{ row.2 }}</span>
   <span style="margin-left: 20px;</pre>
   text-align: left;">{{ row.3 }}</span>
   <span style="margin-left: 20px;</pre>
   text-align: left;">{{ row.4 }}</span>
    <span style="margin-left: 20px;</pre>
   text-align: left;">{{ row.5 }}</span>
   <span style="margin-left: 30px;</pre>
   text-align: left;">{{ row.6 }}</span>
   <span style="margin-left: 20px;</pre>
   text-align: left;">{{ row.7 }}</span>
    <span style="margin-left: 20px;</pre>
   text-align: left;">{{ row.8 }}</span>
 </div>
```

```
</div>
    <thead>
       ComplaintNumber
       Category
       Date
       Phone Number
       State
       Email
       Complaint Type
       Status
    </thead>
    <!--<tr>
       {{ row.0 }}
       {{ row.1 }}
       {{ row.2 }}
       {{ row.3 }}
       {{ row.4 }}
       {{ row.5 }}
       {{ row.7 }}
       <a href="/solved/{{ row.0 }} "><span style="margin-left: 20px;
        text-align: left;">{{ row.8 }}</span></a>
    -->
    </div>
 </body>
</html>
```

adminagent.html:

<!DOCTYPE html>

```
<a href="/adminpage">
      <span class="icon"><ion-icon name="home-outline"></ion-icon></span>
       <span class="title">Dashboard</span>
      </a>
     <a href="/agentcreate">
      <span class="icon"><ion-icon name="person-circle-outline"></ion-icon></span>
       <span class="title">Agent Creation</span>
     </a>
     <a href="/adcomplainthist">
      <span class="icon"><ion-icon name="chatbubbles-outline"></ion-icon></span>
       <span class="title">Complaint History</span>
      </a>
     <a href="/loggout">
      <span class="icon"><ion-icon name="log-out-outline"></ion-icon></span>
       <span class="title">logout</span>
     </a>
   </div>
   <script
                                                                                type="module"
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.esm.js"></script>
    <script
                                                                                    nomodule
src="https://unpkg.com/ionicons@5.5.2/dist/ionicons/ionicons.js"></script>
    <script>
     let navigation = document.querySelector('.navigation');let
     toggle = document.querySelector('.toggle');
     toggle.onclick = function(){
     navigation.classList.toggle('active')
     }
    </script>
    <div class="vj">
     <img src="/static/img8.png" alt="">
    </div>
```

```
<div class="wrapper">
 <div class="form">
   <h2> Agent Creation</h2>
   <form action="/agentdata" method="POST">
      Name
      <div class="name">
      <input placeholder="Enter your name" type="text" name="username" required>
      </div>
      Password
      <div class="name">
      <input placeholder="Enter password" type="password" name="password" required>
      <span class="alert {{indicator}}">{{a}}</span>
      </div>
      <button class="button-85" role="button">CREATE</button>
   </form>
 </div>
 </div>
 </div>
 </div>
</body>
</html>
```

admin.html:

```
<!DOCIYPE html>
<html lang="en">
<head>
      <meta chaíset="U1'F-8">
      <title>Agent login</title>
      link
híef="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600;700;900&disp lay=swap"
íel="stylesheet">
      <link híef="../static/agent.css" íel="stylesheet">
</head>
<body>
      <div class="foim">
             <h2> Agent login</h2>
             <foim action="/agentdata" method="POSI">
                    Useíname<input placeholdeí="Enteí youí name" type="text"</p>
name='useíname'>
                    Passwoid<input
                                                   placeholdeí="Enteí
                                                                              passwoíd"
type="passwoid" name='passwoid'>
                    <input type="submit" value="Sign in">
             </foim>
    <div class="links">
        click heíe foí dashboaíd <a híef="/adminpage"> Click heíe</a>
   </div>
             {{a}}
      </div>
</body>
</html>
```

```
app.py:
from flask import Flask, render_template, request, redirect, url_for, sessionimport
ibm_db
import re
from flask_mail import Mail, Message
app = Flask(_name_)
mail = Mail(app)
app.config['MAIL_SERVER']='smtp.gmail.com'
app.config['MAIL_PORT'] = 465
app.config['MAIL_USERNAME'] = 'customercare.in2022@gmail.com'
app.config['MAIL_PASSWORD'] = 'dutxqvejaxonmmew'
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)
app.secret_key='a'
                   ibm_db.connect("DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-
conn
7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;Security=SSL;
SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=fqt70379;PWD=KdUUJ3RnMlMqAimg;",",")
@app.route('/')
def home():
  return render_template('/home.html')
@app.route('/registertemp',methods=["POST","GET"])
def registertemp():
  return render_template("register.html")
```

```
@app.route('/uploaddata',methods =['GET','POST'])
def register():
  msg = ''
  if request.method == 'POST':
    firstname = request.form['firstname']
    lastname = request.form['lastname']
    username = request.form['username']
    email = request.form['email']
    password = request.form['password']
    address = request.form['address']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE username = ?')
    ibm_db.bind_param(stmt, 1, username)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)if
    account:
      msg = 'Account already exists!'
    elif not re.match(r'[^{\circ}@]+@[^{\circ}@]+\.[^{\circ}@]+', email):
      msg = 'Invalid email address!'
    elif not re.match(r'^[A-Za-z0-9_.-]*$', username):
      msg = 'name must contain only characters and numbers!'
    else:
      prep_stmt = ibm_db.prepare(conn,'INSERT INTO users(firstname, lastname, username,
email, password, address) VALUES(?, ?, ?, ?, ?, ?)')
      ibm_db.bind_param(prep_stmt, 1, firstname)
      ibm_db.bind_param(prep_stmt, 2, lastname)
      ibm_db.bind_param(prep_stmt, 3, username)
      ibm_db.bind_param(prep_stmt, 4, email)
      ibm_db.bind_param(prep_stmt, 5, password)
      ibm db.bind param(prep stmt, 6, address)
      ibm_db.execute(prep_stmt)
      msg = 'Dear % s You have successfully registered!'%(username)
      msg1 = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients = [email])
      msg1.body = 'Hello'+ username +''',
```

```
Account creation in customer care registry was successful.
              For raising Complaints, login with your username and password. Thank
              You)""
       mail.send(msg1)
    return render_template('register.html',a = msg,indicator="success")else:
    msg = 'Please fill the form!'
  return render_template('register.html',a = msg, indicator='failure')
@app.route('/login',methods=["POST","GET"])
def login():
  return render_template("login.html")
@app.route('/logindata',methods=["POST","GET"])
def logindata():
  global userid
  msg = "
  if request.method == 'POST' and 'username' in request.form and 'password' in request.form:
    username = request.form['username']
    password = request.form['password']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE username = ? AND password =
?')
    ibm_db.bind_param(stmt,1,username)
    ibm_db.bind_param(stmt,2,password)
    ibm db.execute(stmt)
    account = ibm_db.fetch_tuple(stmt) if
    account:
       session['id'] = account[0]userid
       = account[0]
       session['username'] = account[1] return
       redirect(url_for('dashboard'))
    else:
       msg = 'Incorrect username / password !'
```

```
return render_template('login.html', b = msg, indicator="failure")
@app.route('/home')
def dashboard():
  if 'id' in session: uid
    = session['id']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE id = ?')
    ibm_db.bind_param(stmt, 1, uid)
    ibm_db.execute(stmt)
    ibm_db.fetch_tuple(stmt)
    username = session['username']
    return render_template('user dashboard.html', name = username)
  return render_template('user dashboard.html')
@app.route('/profile',methods=["POST","GET"])
def profile():
  if 'id' in session: uid
    = session['id']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE id = ?')
    ibm_db.bind_param(stmt, 1, uid)
    ibm_db.execute(stmt)
    acc = ibm_db.fetch_tuple(stmt)
    return
render_template('userprofile.html',fullname=acc[1]+acc[2],username=acc[3],email=acc[4],addres
s=acc[6]
  return render_template('userprofile.html')
@app.route('/edit')
def edit():
  return render_template('editprofile.html')
@app.route('/editprofile', methods=["POST","GET"])
def editprofile():
```

```
if request.method == 'POST':
    msg = "
    if 'id' in session: uid
       = session['id']
       firstname = request.form['firstname']
       lastname = request.form['lastname']
       username = request.form['username']
       email = request.form['email']
       address = request.form['address']
       stmt = ibm_db.prepare(conn,"UPDATE users SET firstname = ?, lastname = ?, username =
?, email = ?, address = ? WHERE id = ?'')
       ibm_db.bind_param(stmt, 1, firstname)
       ibm_db.bind_param(stmt, 2, lastname)
       ibm_db.bind_param(stmt, 3, username)
       ibm_db.bind_param(stmt, 4, email)
       ibm_db.bind_param(stmt, 5, address)
       ibm_db.bind_param(stmt, 6, uid)ibm_db.execute(stmt)
       msg = 'Profile Updated Successfully!'
       return render_template('editprofile.html',a = msg)return
  render_template('editprofile.html')
@app.route('/addcomplaint',methods=["POST","GET"])
def addcomplaint():
  if request.method == "POST":
    if 'id' in session:
       msg = "
       uid=session['id']
       selectcategory = request.form['selectcategory']
       date = request.form['dt']
       phone = request.form['phone']
       state = request.form['state']
```

```
email = request.form['email']
      complaint = request.form.get('complaint')
      stmt = ibm db.prepare(conn, "SELECT * FROM users WHERE id = ?")
      ibm_db.bind_param(stmt, 1, uid)
      ibm_db.execute(stmt)
      acc = ibm db.fetch tuple(stmt)email
      = acc[4]
      prep_stmt = ibm_db.prepare(conn,'INSERT INTO complaintdetails(uid, selectcategory, dt ,
phone, state, email, complaint, status) VALUES (?, ?, ?, ?, ?, ?, ?, ?)')
      ibm_db.bind_param(prep_stmt, 1, uid)
      ibm_db.bind_param(prep_stmt, 2, selectcategory)
      ibm_db.bind_param(prep_stmt, 3, date)
      ibm_db.bind_param(prep_stmt, 4, phone)
      ibm db.bind param(prep stmt, 5, state)
      ibm_db.bind_param(prep_stmt, 6, email)
      ibm_db.bind_param(prep_stmt, 7, complaint)
      ibm_db.bind_param(prep_stmt, 8, 'pending')
      ibm_db.execute(prep_stmt)
      msg = 'You have successfully registered your complaint'
      TEXT1 = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients =
[email])
      TEXT1.body = """ Dear """+acc[1]+" "+acc[2]+"""
             Your complaint has been succesfully registered...!!
             One of our agent is assigned, will surely resolve your complaint as soon as possible
             Please check the complaint details in dashboard for status of complaint."""
      mail.send(TEXT1)
      se = ibm_db.exec_immediate(conn, 'SELECT * FROM agentinfo ORDER BY RAND() LIMIT
1')
      agmail = ibm db.fetch tuple(se)
      agentemail = agmail[1]
      TEXT = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients =
[agentemail])
      TEXT.body = """New Complaint from """+acc[1]+" "+acc[2]+"""
```

```
Complaint Description:
           """+complaint+"""
      ""mail.send(TEXT)
      return render_template('userlodgecomp.html',a = msg)
  return render_template('userlodgecomp.html')
@app.route('/view',methods=["POST","GET"])
def view():
  if 'id' in session:
    return render_template('usercomphist.html')
@app.route('/comphistory',methods=['POST','GET'])
def compview():
  if 'id' in session:
    uid=session['id']
    stmt = ibm_db.prepare(conn, 'SELECT * FROM users WHERE id = ?
    ')ibm_db.bind_param(stmt, 1, uid)
    ibm_db.execute(stmt)
    stmt1 = ibm_db.prepare(conn, 'SELECT id, selectcategory, dt, phone, state, email, complaint,
status FROM complaintdetails WHERE uid = ?')
    ibm_db.bind_param(stmt1, 1, uid)ibm_db.execute(stmt1)
    comp = ibm_db.fetch_assoc(stmt1)
    data = []
    while comp != False:
      data.append(comp)
      comp = ibm_db.fetch_assoc(stmt1)
    return render_template('usercomphist.html', complaints = data)
  return render_template('usercomphist.html')
@app.route('/admin')
```

```
def admin():
  return render_template('admin.html')
@app.route('/adminpage')
def adminpage():
  return render_template('admin dashboard.html')
@app.route('/adminlog',methods=["POST","GET"])
def adminlog():
 msg = ''
  email = request.form['email']
  password = request.form['password']
  stmt = ibm_db.prepare(conn, 'SELECT * FROM admininfo WHERE email = ? and password = ?')
  ibm_db.bind_param(stmt,1, email)
  ibm_db.bind_param(stmt,2, password)ibm_db.execute(stmt)
  logged = ibm_db.fetch_assoc(stmt)
  if(logged):
    msg = 'successfully loggedin'
    return render_template("admin dashboard.html",a=msg)
  else:
    return render_template("admin.html",a="Incorrect email/password")
@app.route('/adcomplainthist',methods=['POST','GET'])
def adcomplainthist():
    stmt1 = ibm_db.prepare(conn, 'SELECT * FROM complaintdetails')
    ibm_db.execute(stmt1)
    comp = ibm_db.fetch_assoc(stmt1)
    data = []
    while comp != False:
      data.append(comp)
      comp = ibm_db.fetch_assoc(stmt1)
    return render_template('admincomphist.html', complaints = data)
```

```
@app.route('/agcomplainthist',methods=['POST','GET'])
def agcomplainthist():
    stmt1 = ibm_db.prepare(conn, 'SELECT * FROM complaintdetails')
    ibm_db.execute(stmt1)
    comp = ibm_db.fetch_assoc(stmt1)
    data = []
    while comp != False:
      data.append(comp)
      comp = ibm_db.fetch_assoc(stmt1)
    return render_template('admincomphist.html', complaints = data)
@app.route('/agentcreate',methods=["POST","GET"])
def agentcreate():
  return render_template('adminagent.html')
@app.route('/agentdata',methods=["POST","GET"])
def agentdata():
  msg = "
  username = request.form['username']
  password = request.form['password']
  stmt = ibm_db.prepare(conn,'INSERT INTO agentinfo(username, password) VALUES (?, ?)')
  ibm_db.bind_param(stmt, 1, username)
  ibm_db.bind_param(stmt, 2, password)ibm_db.execute(stmt)
  msg = 'Agent has been created successfully' return
  render_template('adminagent.html',a = msg)
@app.route('/agent',methods=["POST","GET"])
def agent():
  return render_template('agent.html')
@app.route('/agentlogin',methods=["POST","GET"])
```

```
def agentlogin():msg
  = ''
  email = request.form['username']
  password = request.form['password']
  stmt = ibm_db.prepare(conn, 'SELECT * FROM agentinfo WHERE username = ? and password
=?')
  ibm_db.bind_param(stmt,1, email)
  ibm_db.bind_param(stmt,2, password)ibm_db.execute(stmt)
  logged = ibm_db.fetch_assoc(stmt)
  if(logged):
    msg = 'successfully loggedin'
    return render_template("agentdashboard.html",a=msg)else:
    return render_template("agent.html",a="Incorrect email/password")
@app.route('/agentpage') def
agentpage():
  return render_template('agentdashboard.html')
@app.route('/loggout')
def loggout():
  if 'id ' in session:
    session.pop('id',None)
    session.pop('email',None)
    session.pop('password',None)
  return redirect(url_for('home'))
@app.route('/logout')
def logout():
  session.pop('loggedin', None)
  session.pop('id', None)
  session.pop('username', None)
```

```
return redirect(url_for('login'))
@app.route('/solved/<no>')
def solved(no):
  i = no
  stmt = ibm_db.prepare(conn, "UPDATE complaintdetails SET status = ? WHERE id = ?")
  ibm_db.bind_param(stmt, 1, 'solved')
  ibm_db.bind_param(stmt, 2, i)
  ibm_db.execute(stmt)
  se = ibm_db.prepare(conn, 'SELECT * FROM complaintdetails where id = ?')
  ibm_db.bind_param(se, 1, i)
  ibm_db.execute(se)
  em = ibm_db.fetch_tuple(se)
  email = em[6]
  print(email)
  TEXT = Message('Hello', sender = 'customercare.in2022@gmail.com', recipients = [email])
  TEXT.body = """Your Complaint has been solved."""
  mail.send(TEXT)
  return render_template('solve.html', a ="Complaint Resolved")
if__name__ == '_main_':
  app.debug=True
  app.run(host='0.0.0.0',port=8080)
GitHub & Project Demo Link
http://159.122.177.141:32498/
https://github.com/IBM-EPBL/IBM-Project-30173-1660141368
```