PROJECT DEVELOPMENT PHASE

SPRINT-4 SOURCE CODE

Date	17 November 2022
Team ID	PNT2022TMID30874
Project Name	Intelligent vehicle damage assessment & cost estimator for insurance companies.
Maximum Marks	8 Marks

Dashboard.html

```
<html>
  <head>
    <title>
      Intelligent Vehicle Damage Assessment and Cost Estimator for insurance
      Companies
    </title>
    <style type="text/css">
      #topmenu {
        width: 100%;
        background-color: 312D2D;
        height: 50px;
      }
      #hedder {
        color: white;
        padding-top: 13px;
        padding-left: 60px;
      }

      #home {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
```

```
  font-size: medium;
}
#login {
  float: right;
  padding-top: 13px;
  padding-right: 50px;
  color: rgb(222, 216, 216);
  font-size: medium;
}
#register {
  float: right;
  padding-top: 13px;
  padding-right: 50px;
  color: rgb(222, 216, 216);
  font-size: medium;
}
#prediction {
  float: right;
  padding-top: 13px;
  padding-right: 50px;
  color: rgb(222, 216, 216);
  font-size: medium;
}
#about {
  text-align: center;
  padding-top: 10%;
  color: gray;
  font-size: 20px;
}
#footer {
  width: 99%;
```

```
  background-color: 312D2D;
  height: 50px;
  position: absolute;
  bottom: 1%;
}
#textcontent {
  color: white;
  font-size: 15px;
  padding-left: 18%;
  padding-top: 1%;
}
#logo {
  margin-top: -1.5%;
  margin-right: 28%;
  float: right;
}
.container {
  display: flex;
}
#vehicle_img {
  margin-top: 4%;
  margin-left: 5%;
}
#topic_content {
  font-family: Georgia;
  font-size: large;
  padding-top: 4%;
  color: DodgerBlue;
  padding-right: 10%;
}
.pname1 {
```

```
    margin-top: 3%;
    font-weight: 600 !important;
    font-size: large;
    color: SlateBlue !important;
  }
  .login_prediction {
    display: flex;
  }
  #login_details {
    padding-left: 10%;
  }
  #signin {
    text-align: center;
    padding-bottom: 10%;
    font-size: large;
  }
  #predict {
    text-align: right;
  }
  #blink {
    color: red;
    animation: blinker 0.9s linear infinite;
    font-weight: bold;
  }
  @keyframes blinker {
    50% {
      opacity: 0;
    }
  }
 </style>
</head>
```

```
<body onload="flashMessage()">
  <script>
    function flashMessage(){
      if("{{flash_message}}" == "True"){
        alert("account created successfully")
      }
      if("{{flash_message}}" == "Fals"){
            alert("invalid credentials")
      }
      if("{{flash_message}}" == "Fal"){
        alert("Logged in successfully")
      }
    }
  </script>
  <div id="topmenu">
    <div id="prediction">
      <a href="{{ url_for('prediction') }}" style="color: white;text-decoration: none;">prediction</a>
    </div>
    <div id="register">
      <a href="{{ url_for('register') }}" style="color: white;text-decoration: none;">Register</a>
    </div>
    <div id="login">
      <a href="{{ url_for('login') }}" style="color: white;text-decoration: none;">Login</a>
    </div>
    <div id="home">
      <a href="{{ url_for('dashboard') }}" style="color: white;text-decoration: none;">Home</a>
    </div>
    <div id="hedder">
      Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance
      Companies
    </div>
```

```
</div>
<div class="container">
  <div id="vehicle_img">
    <img
      src="/static/images/bsi1.png"
      alt="Damaged Vehicle"
      width="80%"
      height="auto"
    />
  </div>
  <div id="topic_content">
    <p>
      <i>
        <b>Vehicle Damage detection </b> uses algorithms to automatically
        detect a vehicle's exterior body and assess its injuries and the
        extent of the damage. Here damage to the vehicle are identified not
        only for insurance purpose but also for repair cost estimation.
      </i>
    </p>
  </div>
</div>
<div id="slider_text">
  <marquee
    class="pname1"
    direction="left"
    behavior="scroll"
    scrollamount="10"
    >Login to know more about the level of damage and cost
    estimation</marquee
  >
</div>
```

```
<div class="login_prediction">
  <div id="login_details" style="padding-top: 5%">
    <div id="signin">
      <b><i>Log in</i></b>
    </div>
    <form action="dashboard" method="POST">
      <input
        type="text"
        name="email"
        id="email"
        placeholder="Enter registered email ID"
        style="width: 150%; height: 35px"
      /><br />
      <br />
      <input
        type="password"
        name="password"
        id="password"
        placeholder="Enter Password"
        style="width: 150%; height: 35px"
      /><br />
      <br />
      <input
        type="submit"
        name="submit"
        id="submit"
        value="Login"
        style="
          width: 150%;
          height: 35px;
          text-align: center;
```

```
        background-color: black;
        color: white;
      "
    />
  </form>
 </div>
 <div id="predict" style="text-align: center;margin-left: 25%;">
  <p>
   <b>To predict the cost for the damage in vehicle and percentage of damage in car </b>
  </p>
  <!--<p id="blink">Click Here!</p>-->
 </div>
</div>

<div id="footer">
 <div id="textcontent">Copyright</div>
 <div id="logo">
  <img
   src="/static/images/twitter.jpg"
   height="28px"
   width="28px"
   style="border-radius: 18%; margin-right: 40px"
  />

  <img
   src="/static/images/linkedin.jpg"
   height="28px"
   width="28px"
   style="margin-left: 30px; border-radius: 18%"
  />
 </div>
```

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

Prediction.html

```
<html>
  <head>
    <title>index</title>
    <style type="text/css">
      #topmenu {
        width: 100%;
        background-color: 312D2D;
        height: 50px;
      }
      #hedder {
        color: white;
        padding-top: 13px;
        padding-left: 60px;
      }

      #home {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #login {
        float: right;
        padding-top: 13px;
```

```
  padding-right: 50px;
  color: rgb(222, 216, 216);
  font-size: medium;
}
#register {
  float: right;
  padding-top: 13px;
  padding-right: 50px;
  color: rgb(222, 216, 216);
  font-size: medium;
}
#prediction {
  float: right;
  padding-top: 13px;
  padding-right: 50px;
  color: rgb(222, 216, 216);
  font-size: medium;
}
#about {
  text-align: center;
  padding-top: 10%;
  color: gray;
  font-size: 20px;
}
#content {
  padding-top: 50px;
  padding-left: 40px;
  padding-right: 40px;
  font-size: large;
}
```

```
    #footer {
      width: 99%;
      background-color: 312D2D;
      height: 50px;
      position: absolute;
      bottom: 1%;
    }
    #textcontent {
      color: white;
      font-size: 15px;
      padding-left: 18%;
      padding-top: 1%;
    }
    #logo {
      margin-top: -1.5%;
      margin-right: 28%;
      float: right;
    }
  </style>
</head>
<body onload="flashMessage()">
  <div id="topmenu">
    <div id="login">
      <a href="{{ url_for('logout') }}" style="color: white;text-decoration: none;">Logout</a>
    </div>
    <div id="home">
      <a href="{{ url_for('dashboard') }}" style="color: white;text-decoration: none;">Home</a>
    </div>
    <div id="hedder">
      Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance
```

```
   Companies
  </div>
</div>
<form action="prediction" method="POST"  enctype="multipart/form-data">
  <input type="file" id="myFile" name="myFile">
  <input type="submit">
  <script>
    function flashMessage(){
      if("{{flash_message}}" == "True"){
      //  alert("invalid credentials")
      //  const im = document.createElement('img');
      // im.src = "{{url_for('static', filename='imagedata/save.png')}}";
      // im.height = "200px";
      // im.width = '200px';
      // im.alt = 'hello world'
      // document.getElementById('about').appendChild(im);
        document.getElementById('image').src = 'static/imagedata/save.png';
        const e = document.getElementById("qwerty");
        const para = document.createElement("p");
        const node = document.createTextNode("The prediction of vehicle is : | {{value}} |");
        para.appendChild(node);
        e.appendChild(para);
      }
    }
  </script>
</form>
<!-- <script>
  function flashMessage(){
    if("{{ flash_message }}"=='True'){
      const im = document.createElement('img');
```

```
        im.src = "{{url_for('static', filename='static/image data/save.png')}}";
        im.height = "200px";
        im.width = '200px';
        im.alt = 'hello world'
      }
    }
  </script> -->
<!-- <img src="{{url_for('static', filename='static/image data/save.png')}}" alt=""
  height="200px"
  width="200px"
  /> -->
  <div id="about">
    <div id="qwerty">
      <p></p>
    </div>
    <hr style="width: 30%" color="yellow" />
    <img src="static/images/bsi1.png" height="250px" width="400px" alt="" id="image">
  </div>

  <div id="footer">
    <div id="textcontent">Copyright</div>
    <div id="logo">
      <img
        src="/static/images/twitter20.jpg"
        height="28px"
        width="28px"
        style="border-radius: 18%; margin-right: 40px"
      />

      <img
```

```
            src="/static/images/linkedin20.jpg"
            height="28px"
            width="28px"
            style="margin-left: 30px; border-radius: 18%"
           />
          </div>
         </div>
        </body>
</html>
```

Register.html

```
<html>
  <head>
    <title>Register</title>
    <style type="text/css">
      #topmenu {
        width: 100%;
        background-color: 312D2D;
        height: 50px;
      }
      #hedder {
        color: white;
        font-size: large;
        padding-top: 13px;
        padding-left: 40px;
      }
      #home {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #login {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #register {
        float: right;
        padding-top: 13px;
```

```
      padding-right: 50px;
      color: rgb(222, 216, 216);
      font-size: medium;
    }
    #box {
      height: 300px;
      width: 500px;
      background-color: antiquewhite;
      margin: 10px;
      border-color: black;
      border-width: 25px;
    }
    div.background {
      border: 2px solid gray;
      height: 350px;
      width: 500px;
      margin: auto;
      margin-top: 7%;
    }
    #registerlogo {
      text-align: center;
      margin-top: 20px;
    }
    #textcontent {
      margin-top: 28px;
      margin-left: 25px;
    }
    div.choice {
      border: 2px solid gray;
      height: 35px;
      width: 500px;
      background-color: rgb(230, 227, 227);
      margin: auto;
      margin-top: 0%;
    }

    #question {
      margin-top: 7px;
    }
    #choice-login {
      color: rgb(67, 64, 247);
      text-decoration: underline;
      margin-left: 200px;
      margin-top: -20px;
    }
  </style>
</head>
<body onload="flashMessage()">
  <div id="topmenu">
    <div id="login">
      <a href="{{ url_for('login') }}" style="color: white;text-decoration: none;">Login</a>
    </div>
    <div id="home">
      <a href="{{ url_for('dashboard') }}" style="color: white;text-decoration: none;">Home</a>
    </div>
    <div id="hedder">Vehicle Damage Detection</div>
```

```
</div>
<div class="background">
  <div id="registerlogo">
    <img
      src="/static/images/login icon.png"
      alt="login logo"
      style="width: 100px; height: 100px; border-radius: 50%"
    />
  </div>
  <div id="textcontent">
    <form action="register" method="POST">
      <script>
        function flashMessage(){
          if("{{flash_message}}" == "True"){
          alert("account with this email id already exist")
          }

        }
      </script>
      <input
        type="text"
        name="name"
        id="name"
        placeholder="Enter Name"
        style="width: 440px; height: 35px; margin-bottom: 15px"
      />
      <input
        type="text"
        name="email"
        id="email"
        placeholder="Enter Email ID"
        style="width: 440px; height: 35px; margin-bottom: 15px"
      />
      <input
        type="password"
        name="password"
        id="password"
        placeholder="Enter Password"
        style="width: 440px; height: 35px; margin-bottom: 15px"
      />
      <input
        type="submit"
        value="Register"
        name="submit"
        style="
          width: 440px;
          height: 35px;
          text-align: center;
          background-color: black;
          color: white;
        "
      />
    </form>
  </div>
</div>
<div class="choice">
```

```
      <div id="question">Already have an account?</div>
      <div id="choice-login">
        <a href="{{ url_for('login') }}" style="color: #7ed8ff;">Login</a>
      </div>
    </div>
  </body>
</html>
```

Login.html

```
<html>
  <head>
    <title>Register</title>
    <style type="text/css">
      #topmenu {
        width: 100%;
        background-color: 312D2D;
        height: 50px;
      }
      #hedder {
        color: white;
        font-size: large;
        padding-top: 13px;
        padding-left: 40px;
      }
      #home {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #login {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #register {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #box {
        height: 300px;
        width: 500px;
        background-color: antiquewhite;
        margin: 10px;
        border-color: black;
```

```
      border-width: 25px;
    }
    div.background {
      border: 2px solid gray;
      height: 350px;
      width: 500px;
      margin: auto;
      margin-top: 7%;
    }
    #registerlogo {
      text-align: center;
      margin-top: 20px;
    }
    #textcontent {
      margin-top: 28px;
      margin-left: 25px;
    }
    div.choice {
      border: 2px solid gray;
      height: 35px;
      width: 500px;
      background-color: rgb(230, 227, 227);
      margin: auto;
      margin-top: 0%;
    }

    #question {
      margin-top: 7px;
    }
    #choice-login {
      color: rgb(67, 64, 247);
      text-decoration: underline;
      margin-left: 200px;
      margin-top: -20px;
    }
  </style>
</head>
<body onload="flashMessage()">
  <div id="topmenu">
    <div id="login">
      <a href="{{ url_for('login') }}" style="color: white;text-decoration: none;">Login</a>
    </div>
    <div id="home">
      <a href="{{ url_for('dashboard') }}" style="color: white;text-decoration: none;">Home</a>
    </div>
    <div id="hedder">Vehicle Damage Detection</div>
  </div>
  <div class="background">
    <div id="registerlogo">
      <img
        src="/static/images/login icon.png"
        alt="login logo"
        style="width: 100px; height: 100px; border-radius: 50%"
      />
    </div>
    <div id="textcontent">
```

```
      <form action="register" method="POST">
        <script>
          function flashMessage(){
            if("{{flash_message}}" == "True"){
            alert("account with this email id already exist")
            }

          }
        </script>
        <input
          type="text"
          name="name"
          id="name"
          placeholder="Enter Name"
          style="width: 440px; height: 35px; margin-bottom: 15px"
        />
        <input
          type="text"
          name="email"
          id="email"
          placeholder="Enter Email ID"
          style="width: 440px; height: 35px; margin-bottom: 15px"
        />
        <input
          type="password"
          name="password"
          id="password"
          placeholder="Enter Password"
          style="width: 440px; height: 35px; margin-bottom: 15px"
        />
        <input
          type="submit"
          value="Register"
          name="submit"
          style="
            width: 440px;
            height: 35px;
            text-align: center;
            background-color: black;
            color: white;
          "
        />
      </form>
    </div>
  </div>
  <div class="choice">
    <div id="question">Already have an account?</div>
    <div id="choice-login">
      <a href="{{ url_for('login') }}" style="color: #7ed8ff;">Login</a>
    </div>
  </div>
 </body>
</html>
```

Index.html

```
<html>
  <head>
    <title>index</title>
    <style type="text/css">
      #topmenu {
        width: 100%;
        background-color: 312D2D;
        height: 50px;
      }
      #hedder {
        color: white;
        padding-top: 13px;
        padding-left: 60px;
      }

      #home {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #login {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #register {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #prediction {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #about {
        text-align: center;
        padding-top: 10%;
        color: gray;
        font-size: 20px;
      }
      #content {
        padding-top: 50px;
```

```
      padding-left: 40px;
      padding-right: 40px;
      font-size: large;
    }
    #footer {
      width: 99%;
      background-color: 312D2D;
      height: 50px;
      position: absolute;
      bottom: 1%;
    }
    #textcontent {
      color: white;
      font-size: 15px;
      padding-left: 18%;
      padding-top: 1%;
    }
    #logo {
      margin-top: -1.5%;
      margin-right: 28%;
      float: right;
    }
  </style>
</head>
<body>
  <div id="topmenu">
    <div id="prediction">
      <a href="{{ url_for('prediction') }}" style="color: white;text-decoration: none;">prediction</a>
    </div>
    <div id="register">
      <a href="{{ url_for('register') }}" style="color: white;text-decoration: none;">Register</a>
    </div>
    <div id="login">
      <a href="{{ url_for('login') }}" style="color: white;text-decoration: none;">Login</a>
    </div>
    <div id="home">
      <a href="{{ url_for('dashboard') }}" style="color: white;text-decoration: none;">Home</a>
    </div>
    <div id="hedder">
      Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance
      Companies
    </div>
  </div>
  <div id="about">
    ABOUT PROJECT
    <hr style="width: 13%" color="yellow" />
  </div>
  <div id="content">
    <p>
      Vehicle damage detection is used to reduce claims leakage during
      insurance processing. Visual inception and validation are usually done.
      As it takes a long time, because a person needs to come and inspect the
      damage. Here we are trying to automate the procedure. Using this
      automation, we can avoid time conception for the insurance claim
      problem.
    </p>
```

```
    </div>

    <div id="footer">
      <div id="textcontent">Copyright</div>
      <div id="logo">
        <img
          src="/static/images/twitter20.jpg"
          height="28px"
          width="28px"
          style="border-radius: 18%; margin-right: 40px"
        />

        <img
          src="/static/images/linkedin20.jpg"
          height="28px"
          width="28px"
          style="margin-left: 30px; border-radius: 18%"
        />
      </div>
    </div>
  </body>
</html>
```

Logout.html

```
<html>
  <head>
    <title>Logout</title>
    <style type="text/css">
      #topmenu {
        width: 100%;
        background-color: 312D2D;
        height: 50px;
      }
      #hedder {
        color: white;
        font-size: large;
        padding-top: 13px;
        padding-left: 40px;
      }
      #home {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
      }
      #login {
        float: right;
        padding-top: 13px;
        padding-right: 50px;
        color: rgb(222, 216, 216);
        font-size: medium;
```

```
    }
    #register {
      float: right;
      padding-top: 13px;
      padding-right: 50px;
      color: rgb(222, 216, 216);
      font-size: medium;
    }
    #loggedout {
      color: black;
      font-size: large;
      text-align: center;
      justify-content: center;
      position:  absolute;
      top: 50%;
      left: 40%;
      transform: translateY(-500%);
    }
    #info {
      color: green;
      font-size: small;
      display: flex;
      align-items: center;
      justify-content: center;
      text-align: center;
      position:  absolute;
      top: 50%;
      left: 40%;
      transform: translateY(-500%);
    }
    #login-button {
      margin: 0%;
      display: flex;
      align-items: center;
      justify-content: center;
      text-align: center;
      position:  absolute;
      top: 50%;
      left: 40%;
      transform: translateY(-500%0);
    }
  </style>
</head>
<body>
  <div id="topmenu">
  <div id="register">
    <a href="{{ url_for('register') }}" style="color: white;text-decoration: none;">Register</a>
  </div>
  <div id="login">
    <a href="{{ url_for('login') }}" style="color: white;text-decoration: none;">Login</a>
  </div>
  <div id="home">
    <a href="{{ url_for('dashboard') }}" style="color: white;text-decoration: none;">Home</a>
  </div>

    <div id="hedder">Vehicle Damage Detection</div>
```

```
    </div>
    <div id="loggedout" style="vertical-align: middle">
      Successfully Logged Out!
    </div>
    <div id="info">Login for more information and gain the knowledge</div>
    <div id="login-button">
      <form action="">
        <input
          type="submit"
          value="Login"
          style="
            background-color: black;
            color: white;
            width: 200px;
            height: 35px;
          "
        />
      </form>
    </div>
  </body>
</html>
```

Main.py

```
from flask import Flask, app, request, render_template
import os
import flask
import flask_login
import base64
from PIL import Image
from io import BytesIO
import datetime
import cv2
import numpy as np
from tensorflow.keras.models import load_model
from cloudant.client import Cloudant
from cloudant.error import CloudantException
from cloudant.result import Result, ResultByKey


#os.chdir('Project Development Phase\Sprint-3')
model1 = load_model('Model/level.h5')
model2 = load_model('Model/body.h5')


def detect(frame,model1,f):
    img = cv2.resize(frame,(244,244))
    img = cv2.cvtColor(img,cv2.COLOR_BGR2RGB)
    if(np.max(img)>1):
        img=img/255.0
    img = np.array([img])
```

```
    prediction = model1.predict(img)
    if(f):
        label= ['front','rear','side']
    else:
        label  =['minor','moderate','severe']
    preds = label[np.argmax(prediction)]
    return preds



client = Cloudant.iam(
    '74ea3e6f-04fa-4f93-977a-f90736ba19f7-
bluemix','eI8X3foZgdln6z0hsZEfVOtCAG8bKC39O8nbBWUQnnGx',connect=True)
name = 'name'
email = 'a@b.c'
password = '123'

user_database = client.create_database('user_database')
user_image_database = client.create_database('user_image_database')
#upload the database to divyasri account

def image_database_updation(name,email,imagestr):
    global user_image_database
    now = datetime.datetime.now()
    json_image_document={
        'name':name,
        'email':email,
        'image':imagestr,
        'datetime':now.strftime("%m/%d/%Y, %H:%M:%S")
    }
    new_image_document = user_image_database.create_document(json_image_document)
    if(new_image_document.exists()):
        print('database updated')
    else:
        print('database couldn\'t be edited')
    return

def image_database_retrieval():
    global user_image_database
    image_result_retrieved = Result(user_image_database.all_docs,include_docs=True)
    image_result ={}
    for i in image_result_retrieved:
        if(i['doc']['email'] in image_result.keys()):
            # like current date> rx date('str')
            n = datetime.datetime.strptime(i['doc']['datetime'],'%m/%d/%Y, %H:%M:%S')
            o = datetime.datetime.strptime(image_result[i['doc']['email']]['date'],'%m/%d/%Y, %H:%M:%S')
            if(n>o):

                image_result[i['doc']['email']] = {'name':i['doc']['name'],'image':i['doc']['image'],'date':i['doc']['datetime']}
        else:
            image_result[i['doc']['email']] = {'name':i['doc']['name'],'image':i['doc']['image'],'date':i['doc']['datetime']}
    return(image_result)

def database_updation(name,email,password):
    global user_database
```

```
    jsonDocument = {
        'name':name,
        'email':email,
        'password':password
    }
    newDocument = user_database.create_document(jsonDocument)
    if(newDocument.exists()):
        print('database updated')
    else:
        print('database couldn\'t be edited')
    return
#database_updation(name,email,password)

def database_retrieval():
    global user_database
    result_retrieved = Result(user_database.all_docs,include_docs=True)
    #print(list(result_retrieved))
    result = {}
    for i in list(result_retrieved):
        result[i['doc']['email']]={'name':i['doc']['name'],'password':i['doc']['password']}
    return result
#print(database_retrieval())
app = Flask(_name_)
app.secret_key = 'apple'
login_manager = flask_login.LoginManager()

login_manager.init_app(app)
users = {'a@b.c': {'password': '123'}}
class User(flask_login.UserMixin):
    pass


@login_manager.user_loader
def user_loader(email):
    data = database_retrieval()
    if email not in data:
        return

    user = User()
    user.id = email
    user.name = data[email]['name']
    return user


@login_manager.request_loader
def request_loader(request):
    email = request.form.get('email')
    data = database_retrieval()
    if email not in data:
        return

    user = User()
    user.id = email
    user.name = data[email]['name']
    return user
@app.route('/')
```

```
def index():
    if(flask_login.current_user.is_authenticated):
        return render_template('dashboard.html')
    else:
        return flask.redirect(flask.url_for('login'))

@app.route('/register',methods = ['GET','POST'])
def register():
    data = database_retrieval()
    if(flask.request.method == 'GET'):
        return render_template('register.html')
    email = flask.request.form['email']
    if(email in data):
        return render_template('register.html',flash_message='True')
    else:
        database_updation(flask.request.form['name'],email,flask.request.form['password'])
        #users[email]={'password':flask.request.form['password']}
        user = User()
        user.id = email
        user.name = flask.request.form['name']
        flask_login.login_user(user)
        return render_template('dashboard.html',flash_message='True')



@app.route('/login',methods =['GET','POST'])
def login():
    data = database_retrieval()
    if(flask.request.method == 'GET'):

        return render_template('login.html',flash_message='False')
    email = flask.request.form['email']
    if(email in data and flask.request.form['password']==data[email]['password']):
        user = User()
        user.id = email
        flask_login.login_user(user)
        return render_template('dashboard.html',flash_message='Fal')
    #flask.flash('invalid credentials !!!')
    return render_template('login.html',flash_message="True")
    #error = 'inavlid credentials')


@app.route('/dashboard',methods = ['GET','POST'])
@flask_login.login_required
def dashboard():
    if(flask.request.method == 'GET'):
        return render_template('dashboard.html',flash_message='False')
    email = flask.request.form['email']
    if(email in users and flask.request.form['password']==users[email]['password']):
        user = User()
        user.id = email
        flask_login.login_user(user)
        return render_template('dashboard.html',flash_message="Fal")
    return render_template('dashboard.html',flash_message="Fals")
```

```
@app.route('/logout')
@flask_login.login_required
def logout():
    flask_login.logout_user()
    return render_template('logout.html')


@app.route('/prediction',methods = ['GET','POST'])
@flask_login.login_required
def prediction():
    if(flask.request.method=='POST'):
        img = flask.request.files['myFile']
        try:
            os.remove('static\imagedata\save.png')
        except:
            pass
        imgstr = base64.b64encode(img.read()).decode('utf-8')
        image_database_updation(flask_login.current_user.name,flask_login.current_user.id,imgstr)
        data = image_database_retrieval()
        print(flask_login.current_user.id)
        #print(len(base64.b64decode(data[flask_login.current_user.id]['image'].strip())))
        image = Image.open(BytesIO(base64.b64decode(data[flask_login.current_user.id]['image'])))
        img_retrived = np.array(image)
        '''img_retrived = np.asarray(base64.b64decode(data[flask_login.current_user.id]['image']))
        print(data[flask_login.current_user.id]['image'])
        print(img_retrived.shape)'''
        #img_retrived = np.resize(img_retrived,(244,244))
        img_retrive = Image.fromarray(img_retrived)
        img_retrive.save('static/image data/sae.png')
        '''img_retrived = np.frombuffer(
            BytesIO(
                base64.b64decode(data[flask_login.current_user.id]['image'])
                )
            )'''
        print('##################################')
        result1=detect(img_retrived,model1=model2,f=True)
        result2 = detect(img_retrived,model1=model1,f=False)
        value=''
        if(result1 == 'front' and result2 == 'minor'):
            value = 'Cost=3000 - 5000 INR , Percentage=10% , Type=car front minor damage'
        elif(result1 == 'front' and result2 == 'moderate'):
            value = 'Cost=6000 - 8000 INR , Percentage=20% , Type=car front moderate damage'
        elif(result1 == 'front' and result2 == 'severe'):
            value = 'Cost=9000 - 11000 INR , Percentage=30% , Type=car front severe damage'
        elif(result1 == 'rear' and result2 == 'minor'):
            value = 'Cost=4000 - 6000 INR , Percentage=40% , Type=car rear minor damage'
        elif(result1 == 'rear' and result2 == 'moderate'):
            value = 'Cost=7000 - 9000 INR , Percentage=50% , Type=car rear moderate damage'
        elif(result1 == 'rear' and result2 == 'severe'):
            value = 'Cost=11000 - 13000 INR , Percentage=60% , Type=car rear severe damage'
        elif(result1 == 'side' and result2 == 'minor'):
            value = 'Cost=6000 - 8000 INR , Percentage=70% , Type=car side minor damage'
        elif(result1 == 'side' and result2 == 'moderate'):
            value = 'Cost=9000- 11000 INR , Percentage=80% , Type=car side moderate damage'
        elif(result1 == 'side' and result2 == 'severe'):
            value = 'Cost=12000 - 15000 INR , Percentage=90% , Type=car side severe damage'
```

```
        else:
            value = '16000 - 50000 INR , Percentage=100% ,Type=heavy damage'
        print(result1,result2,value)
        print('#################################')
        img_retrived = Image.fromarray(img_retrived)
        img_retrived.save('static/image  data/save.png')
        print('image uploaded and retrieved')
        return render_template('prediction.html',flash_message='True',value = result1+' '+result2+' '+value)
        #,imag=img_retrived)

    return  render_template('prediction.html',flash_message='Flase')

if_name_== ' main ':
    app.run(debug=True)
```