PROJECT DEVELOPMENT PHASE

SPRINT-4 SOURCE CODE

Date	17 November 2022
Team ID	PNT2022TMID49491
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);
```

```css
    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%;
```

```css
  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 {
```

```css
      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>
```

```html
<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>
```

```html
    </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>
```

```html
<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;
```

```html
          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
<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;
```

```css
  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;

}
```

```css
    #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>
```

```html
    </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">
```

```html
      <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
<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;
```

```css
      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">
```

```html
<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
<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;
```

```css
      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>
```

```html
  </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

```python
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])
```

```python
    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
```

```python
    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('/')
```

```python
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")
```

```python
@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'
```

```python
        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)
```