APPLICATION BUILDING

Team id	PNT2022TMID23900
Project name	AI powered Food Demand Forecaster

CREATE AN HTML FILE:

HOME PAGE

```
<!DOCTYPE html>
<html>
<head>
<title>Home</title>
<style>
.navbar
{
margin: 0px;
padding:20px;
background-color:white;
opacity:0.6;
color:black;
font-family:'Roboto',sans-serif;
font-style: italic;
border-radius:20px;
font-size:25px;
}
a
{
color:black;
float:right;
text-decoration:none;
font-style:normal;
padding-right:20px;
}
```

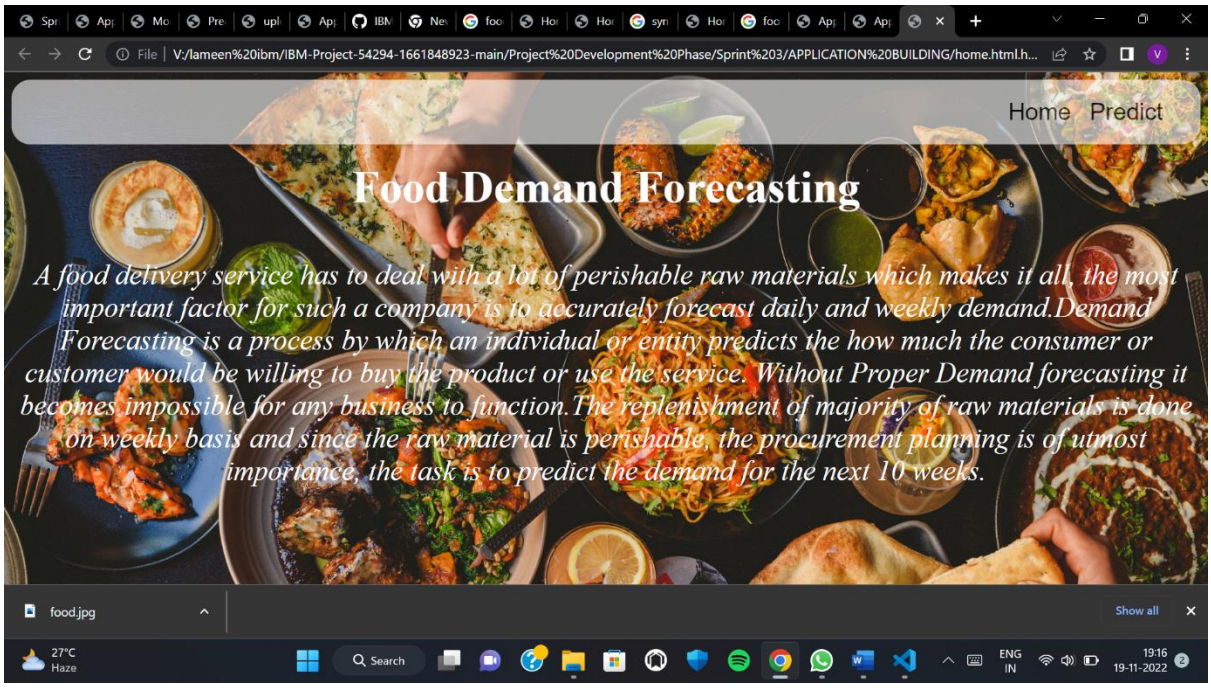
```
a:hover{
background-color:black;
color:white;
border-radius:15px;0
font-size:30px;
padding-left:10px;
}
p
{
color:white;
font-style:italic;
font-size:30px;
}
body
{
background-image: url("food.jpg");
background-size: cover;
}
</style>
</head>
<body>
<div class="navbar">
<a href="/pred">Predict</a>
<a href="/home">Home</a>
<br>
</div>
<br>
<center><b><font color="white" size="15" font-family="Comic Sans MS" >Food Demand Forecasting</font></b></center>
<div>
<br>
<center>
```

A food delivery service has to deal with a lot of perishable raw materials which makes it all, the most important factor for such a company is to accurately forecast daily and weekly demand.Demand Forecasting is a process by which an individual or entity predicts the how much the consumer or customer would be willing to buy the product or use the service. Without Proper Demand forecasting it becomes impossible for any business to function.The replenishment of majority of raw materials is done on weekly basis and since the raw material is perishable, the procurement planning is of utmost importance, the task is to predict the demand for the next 10 weeks.

</body>

</html>

HOME PAGE:



UPLOAD HTML FILE:

```
<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>Predict</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link
href="https://fonts.googleapis.com/css2?family=Poppins:wght@200;300;400;600;800&displ
ay=swap" rel="stylesheet">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0-
beta2/css/all.min.css">


<style>
.bar
{
margin: 0px;
padding: 15px;
background-color:rgb(247, 240, 240);
/* opacity:0.6; */
font-family:'Times New Roman', Times, serif;
font-size:25px;
}
a
{
color:rgb(95, 11, 197);
float:right;
text-decoration:none;
padding-right:20px;
}
```

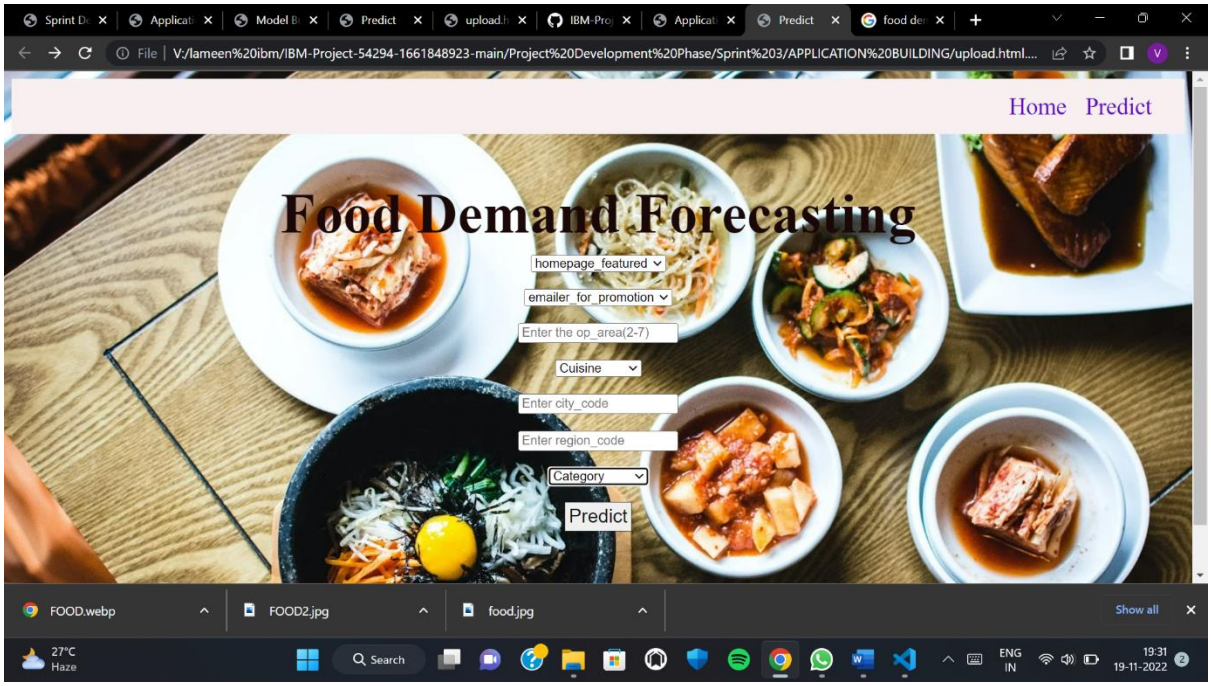
```
a:hover{
    padding: 3.5px;
    background: #FAAE42;

}
body
{
background-image: url("FOOD.webp");
background-size: cover;
}
h1{
    color:rgb(5, 3, 15);
    font-family:'Times New Roman', Times, serif;
    font-size:30
}
h2{
    color:rgb(26, 9, 9);
    font-family: 'Times New Roman', Times, serif;
    font-size:60;
    margin-bottom: 10px;

}
.my-cta-button{

    font-size: 20px;
    color: rgb(15, 15, 15);
    border: 1px solid #0e0e0ccf;
    padding: 3.5px;

    cursor: pointer;
}
.my-cta-button:hover{
```

```
    border: 2px solid #faae42;
    padding: 3.5px;
    background: #FAAE42;
}
p
{
color:white;
font-family: 'Times New Roman', Times, serif;
font-size:30px;
}
</style>
</head>

<body>
    <div class="bar">
      <a href="/pred">Predict</a>
      <a href="/home">Home</a>
     <br>
       </div>
    <div class="container">
          <center> <div id="content" style="margin-top:2em">
          <h2><center>Food Demand Forecasting</center></h2>
              <form action="{{ url_for('predict') }}" method="POST">

     <select id="homepage_featured" name="homepage_featured">
      <option value="">homepage_featured</option>
        <option value="0">No</option>
        <option value="1">Yes</option>

       </select><br><br>
     <select id="emailer_for_promotion" name="emailer_for_promotion">
      <option value="">emailer_for_promotion</option>
```

```
        <option value="0">No</option>
        <option value="1">Yes</option>

      </select><br><br>

    <input class="form-input" type="text" name="op_area" placeholder="Enter the op_area(2-7)"><br><br>
    <select id="cuisine" name="cuisine">
    <option value="">Cuisine</option>
        <option value="0">Continental</option>
        <option value="1">Indian</option>
        <option value="2">Italian</option>
        <option value="3">Thai</option>

      </select><br><br>
      <input class="form-input" type="text" name="city_code" placeholder="Enter city_code"><br><br>
    <input class="form-input" type="text" name="region_code" placeholder="Enter region_code"><br><br>
    <select id="category" name="category">
    <option value="">Category</option>
        <option value="0">Beverages</option>
        <option value="1">Biryani</option>
        <option value="2">Desert</option>
        <option value="3">Extras</option>
        <option value="4">Fish</option>
        <option value="5">Other Snacks</option>
        <option value="6">Pasta</option>
        <option value="7">Pizza</option>
        <option value="8">Rice Bowl</option>
        <option value="9">Salad</option>
        <option value="10">Sandwich</option>
```

```
        <option value="11">Seafood</option>
        <option value="12">Soup</option>
        <option value="13">Starters</option>
      </select><br><br>

                <input type="submit" class="my-cta-button" value="Predict">
            </form>

        <br>
         <h1 class="predict">Number of orders: {{ prediction_text }}</h1>
          </div></center>
        </div>
    </body>
</body>
```

UPLOAD PAGE:



BUILD PYTHON CODE:

```
import pandas as pd
import numpy as np
import pickle
import os
from flask import Flask,request, render_template
app=Flask(__name__,template_folder="templates")
@app.route('/', methods=['GET'])
def index():
return render_template('home.html')
@app.route('/home', methods=['GET'])
def about():
return render_template('home.html')
@app.route('/pred',methods=['GET'])
def page():
return render_template('upload.html')
@app.route('/predict', methods=['GET', 'POST'])
def predict():
print("[INFO] loading model...")
model = pickle.load(open('fdemand.pkl', 'rb'))
input_features = [float(x) for x in request.form.values()]
features_value = [np.array(input_features)]
print(features_value)
features_name = ['homepage_featured', 'emailer_for_promotion', 'op_area',
'cuisine',
'city_code', 'region_code', 'category']
prediction = model.predict(features_value)
output=prediction[0]
print(output)
return render_template('upload.html', prediction_text=output)
```

if __name__ == '__main__':

app.run(debug=False)