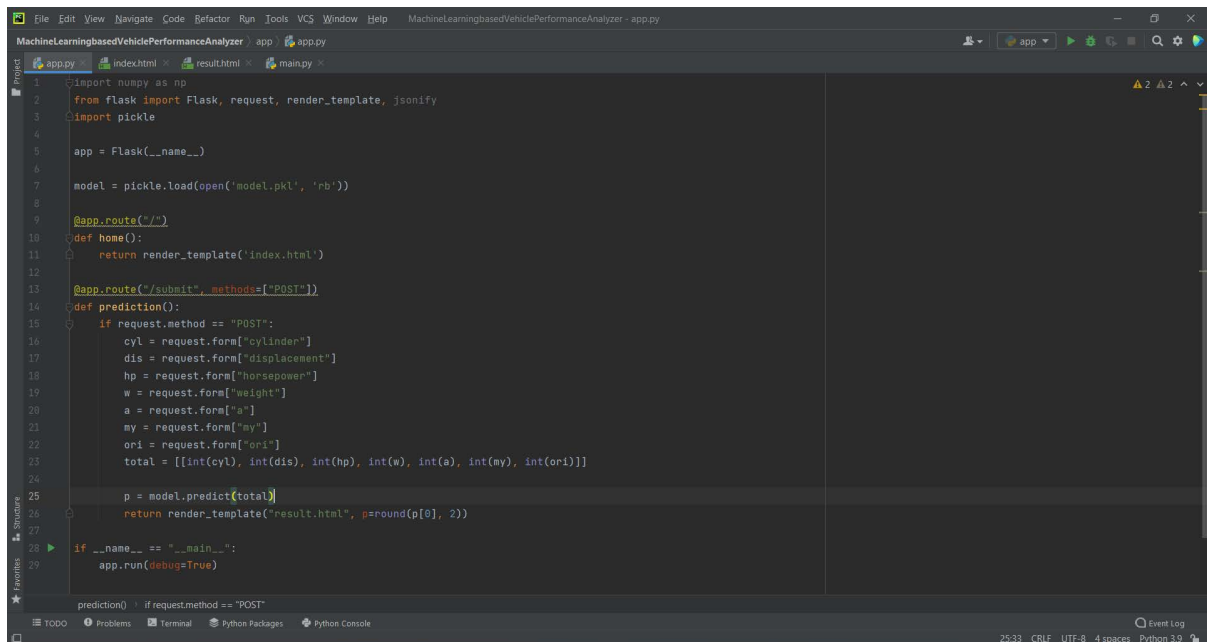


PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT-3

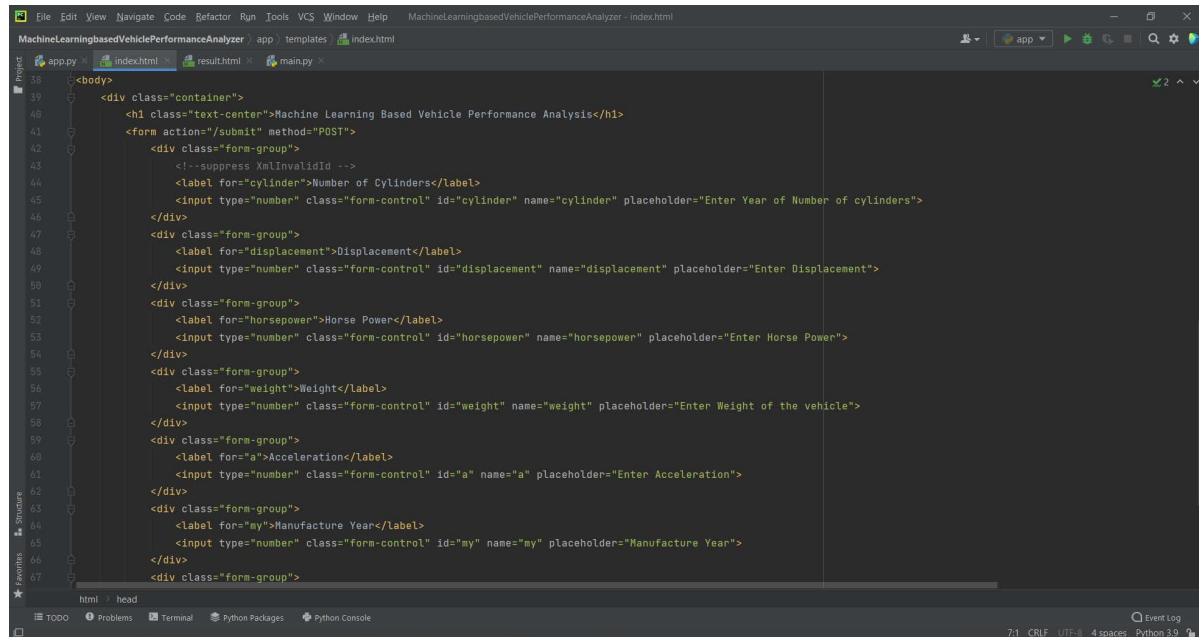
DATE	8 November 2022
TEAM ID	PNT2022TMID15686
PROJECT NAME	Machine Learning based Vehicle Performance Analyzer
MAXIMUM MARK	4 Marks

- Flask framework



```
1  import numpy as np
2  from flask import Flask, request, render_template, jsonify
3  import pickle
4
5  app = Flask(__name__)
6
7  model = pickle.load(open('model.pkl', 'rb'))
8
9  @app.route("/")
10 def home():
11     return render_template('index.html')
12
13 @app.route("/submit", methods=["POST"])
14 def prediction():
15     if request.method == "POST":
16         cyl = request.form["cylinder"]
17         dis = request.form["displacement"]
18         hp = request.form["horsepower"]
19         w = request.form["weight"]
20         a = request.form["a"]
21         my = request.form["my"]
22         ori = request.form["ori"]
23         total = [[int(cyl), int(dis), int(hp), int(w), int(a), int(my), int(ori)]]
24
25         p = model.predict(total)
26         return render_template("result.html", p=round(p[0], 2))
27
28 if __name__ == "__main__":
29     app.run(debug=True)
```

- **HTML design code**

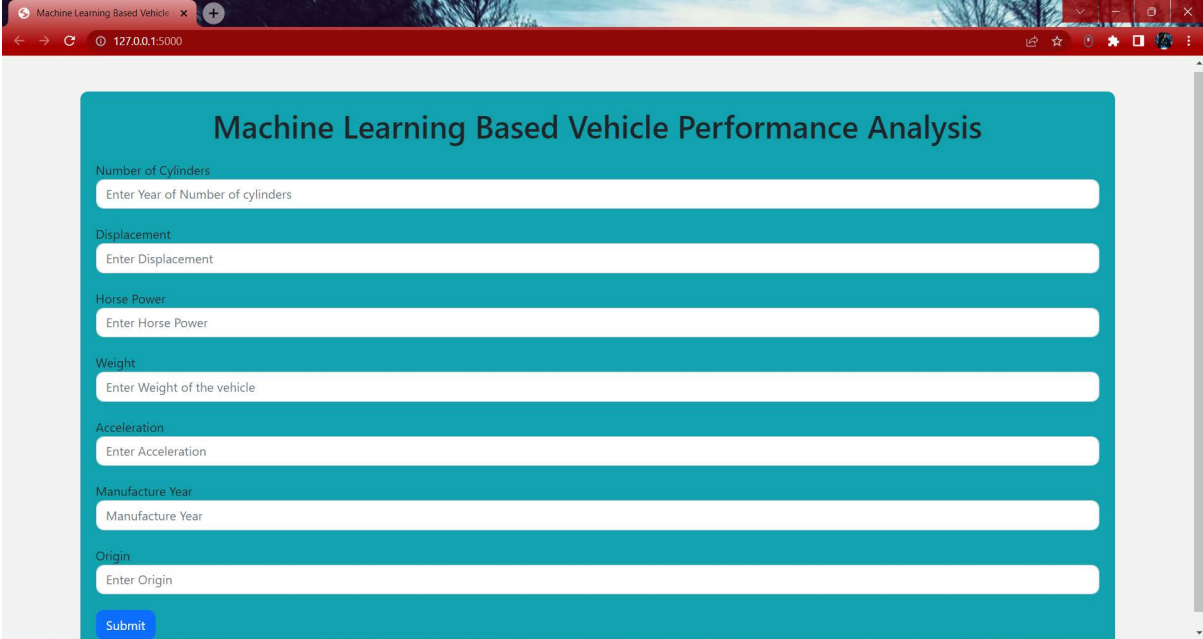


The screenshot shows a code editor window titled "MachineLearningbasedVehiclePerformanceAnalyzer - index.html". The editor displays HTML code for a web form. The code is as follows:

```
38 <body>
39   <div class="container">
40     <h1 class="text-center">Machine Learning Based Vehicle Performance Analysis</h1>
41     <form action="/submit" method="POST">
42       <div class="form-group">
43         <!--suppress XmlInvalidId -->
44         <label for="cylinder">Number of Cylinders</label>
45         <input type="number" class="form-control" id="cylinder" name="cylinder" placeholder="Enter Year of Number of cylinders">
46       </div>
47       <div class="form-group">
48         <label for="displacement">Displacement</label>
49         <input type="number" class="form-control" id="displacement" name="displacement" placeholder="Enter Displacement">
50       </div>
51       <div class="form-group">
52         <label for="horsepower">Horse Power</label>
53         <input type="number" class="form-control" id="horsepower" name="horsepower" placeholder="Enter Horse Power">
54       </div>
55       <div class="form-group">
56         <label for="weight">Weight</label>
57         <input type="number" class="form-control" id="weight" name="weight" placeholder="Enter Weight of the vehicle">
58       </div>
59       <div class="form-group">
60         <label for="a">Acceleration</label>
61         <input type="number" class="form-control" id="a" name="a" placeholder="Enter Acceleration">
62       </div>
63       <div class="form-group">
64         <label for="my">Manufacture Year</label>
65         <input type="number" class="form-control" id="my" name="my" placeholder="Manufacture Year">
66       </div>
67     </div>
68   </div>
69 </body>
```

The IDE interface includes a sidebar on the left with a file explorer showing "app.py", "index.html", "result.html", and "main.py". The bottom status bar indicates "7:1 CR LF UTF-8 4 spaces Python 3.9".

- **Application webpage**



The screenshot shows a web browser window with a red address bar displaying the URL `127.0.0.1:5000`. The browser tab is titled "Machine Learning Based Vehicle". The main content area features a teal-colored form titled "Machine Learning Based Vehicle Performance Analysis". The form contains seven input fields, each with a label and a placeholder text:

- Number of Cylinders**: Enter Year of Number of cylinders
- Displacement**: Enter Displacement
- Horse Power**: Enter Horse Power
- Weight**: Enter Weight of the vehicle
- Acceleration**: Enter Acceleration
- Manufacture Year**: Manufacture Year
- Origin**: Enter Origin

A blue "Submit" button is located at the bottom left of the form.