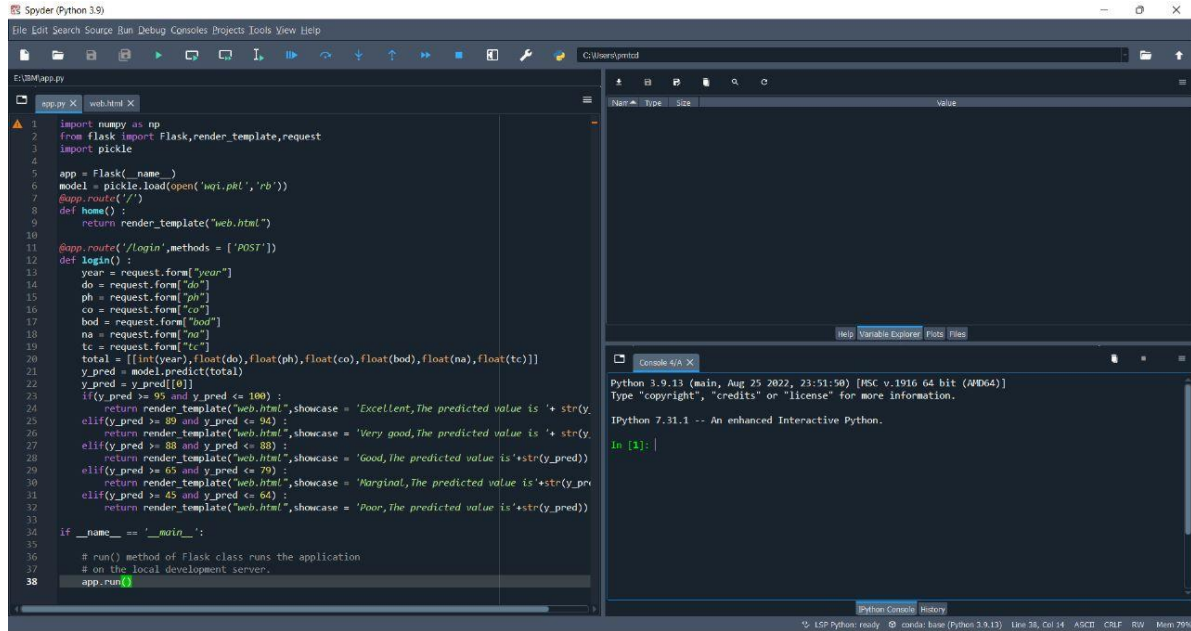


PROJECT DEVELOPMENT - DELIVERY OF SPRINT 4

Date:	17 November 2022
Team ID:	PNT2022TMID08065
Name:	Efficient Water Quality analysis & Prediction using Machine Learning.

FLASK INTEGRATION MODEL :



The screenshot displays the Spyder Python IDE interface. The main editor window shows a Python file named `app.py` with the following code:

```
1 import numpy as np
2 from flask import Flask, render_template, request
3 import pickle
4
5 app = Flask(__name__)
6 model = pickle.load(open('wqi.pkl', 'rb'))
7 @app.route('/')
8 def home():
9     return render_template("web.html")
10
11 @app.route('/login', methods = ['POST'])
12 def login():
13     year = request.form["year"]
14     do = request.form["do"]
15     ph = request.form["ph"]
16     co = request.form["co"]
17     bod = request.form["bod"]
18     na = request.form["na"]
19     tc = request.form["tc"]
20     total = [[int(year), float(do), float(ph), float(co), float(bod), float(na), float(tc)]]
21     y_pred = model.predict(total)
22     y_pred = y_pred[0]
23     if(y_pred >= 95 and y_pred <= 100):
24         return render_template("web.html", showcase = 'Excellent, The predicted value is '+ str(y_pred))
25     elif(y_pred >= 89 and y_pred <= 94):
26         return render_template("web.html", showcase = 'Very good, The predicted value is '+ str(y_pred))
27     elif(y_pred >= 88 and y_pred <= 88):
28         return render_template("web.html", showcase = 'Good, The predicted value is '+ str(y_pred))
29     elif(y_pred >= 65 and y_pred <= 79):
30         return render_template("web.html", showcase = 'Marginal, The predicted value is '+ str(y_pred))
31     elif(y_pred >= 45 and y_pred <= 64):
32         return render_template("web.html", showcase = 'Poor, The predicted value is '+ str(y_pred))
33
34 if __name__ == '__main__':
35
36     # run() method of Flask class runs the application
37     # on the local development server.
38     app.run()
```

The right-hand side of the IDE shows the Python Console with the following output:

```
Python 3.9.13 (main, Aug 25 2022, 23:51:50) [MSC v.1916 64 bit (AMD64)]
Type "copyright", "credits" or "license()" for more information.
IPython 7.31.1 -- An enhanced Interactive Python.
In [3]:
```