

Built Python Code

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Project Name	Crude Oil Price Prediction

The screenshot displays the Spyder Python IDE interface. The main editor window shows a Python script named `app.py` located at `C:\Users\HP\Desktop\bm\Flask\app.py`. The script is a Flask web application that uses TensorFlow Keras to load a pre-trained model for crude oil price prediction. It includes routes for a home page, an about page, a prediction page, and a login page. The prediction logic involves processing input data (temp_input) and using the loaded model to predict the output (yhat).

```
1 import numpy as np
2 from flask import Flask, render_template, request
3 from tensorflow.keras.models import load_model
4 app = Flask(__name__)
5 model = load_model('crude.h5')
6 @app.route('/')
7 def home():
8     return render_template("index.html")
9 @app.route('/about')
10 def home1():
11     return render_template("index.html")
12 @app.route('/predict')
13 def home2():
14     return render_template("web.html", showcase="")
15 @app.route('/login', methods=['POST'])
16 def login():
17     x_input = []
18     for i in request.form:
19         x_input.append(float(request.form[i]))
20     x_input = np.array(x_input).reshape(1, -1)
21     temp_input = list(x_input)
22     temp_input = temp_input[0].tolist()
23     list_output = []
24     n_steps = 10
25     i = 0
26     while(i < 1):
27         if(len(temp_input) > 10):
28             x_input = np.array(temp_input[1:])
29             print("{} day input {}".format(i, x_input))
30             x_input = x_input.reshape(1, -1)
31             x_input = x_input.reshape((1, n_steps, 1))
32             yhat = model.predict(x_input, verbose=0)
33             print("{} day output {}".format(i, yhat))
34             temp_input.extend(yhat[0].tolist())
35             temp_input = temp_input[1:]
```

The right-hand side of the IDE features a Variable Explorer, Plots, and Files panel, which are currently empty. Below these is the IPython Console, showing the Python version (3.8.10) and the IPython version (7.34.0). The bottom status bar indicates the Spyder version (3.4.0) and the internal Python version (3.8.10).

