Your script sets up a **Flask API** for predicting energy consumption based on temperature, time of day, and day of the week. Additionally, it includes an **IoT simulation** that sends data to the API. Before running it, you'll need to fix some minor errors:

**Corrections**

1. **Flask Initialization Issue**  
   You’ve used \_name\_ instead of \_\_name\_\_, which will cause an error. Update it:
2. app = Flask(\_\_name\_\_)
3. **Main Function Check**  
   Same issue occurs in the if condition. Update:
4. if \_\_name\_\_ == "\_\_main\_\_":

**Steps to Run**

If you have **Python installed**, run the following in your terminal or command prompt:

python energy\_efficiency\_system.py

**Expected Output**

1. The Flask API should start on http://127.0.0.1:5000
2. The **IoT device simulation** will send five sets of random temperature, time, and day data to the API.
3. The API will predict and return an **energy consumption estimate** based on the trained model.
4. You'll see printed output like this:
5. Starting Energy Efficiency API on http://127.0.0.1:5000
6. --- Simulated IoT Device Output ---
7. Sent: {'temperature': 28.7, 'hour': 10, 'day\_of\_week': 6} → Predicted Energy: 94.3
8. Sent: {'temperature': 31.2, 'hour': 15, 'day\_of\_week': 3} → Predicted Energy: 102.8
9. ...