5. IoT Data Aggregation

Scenario:

Process IoT sensor data to calculate daily temperature averages.

Datasets:

Sensor Readings (sensors.csv):

SensorID	Timestamp	Temperature
S001	2024-12-01 10:00:00	22.5
S001	2024-12-01 11:00:00	23.0
S002	2024-12-01 10:30:00	19.0

Output:

Date	SensorID	AvgTemperature
2024-12-01	S001	22.75
2024-12-01	S002	19.0

Files:

- sensor_readings_region1.csv
- sensor_readings_region2.csv
- sensor_readings_region3.csv

Activities:

1. Read IoT sensor data from multiple regions.
2. Standardize timestamp formats.
3. Aggregate daily averages by sensor.