import java.util.ArrayList;

import java.util.List;

// Subject

interface WeatherStation {

void addObserver(WeatherObserver observer);

void removeObserver(WeatherObserver observer);

void notifyObservers();

}

// Concrete Subject

class WeatherStationImpl implements WeatherStation {

private List<WeatherObserver> observers = new ArrayList<>();

private int temperature;

public void setTemperature(int temperature) {

this.temperature = temperature;

notifyObservers();

}

@Override

public void addObserver(WeatherObserver observer) {

observers.add(observer);

}

@Override

public void removeObserver(WeatherObserver observer) {

observers.remove(observer);

}

@Override

public void notifyObservers() {

for (WeatherObserver observer : observers) {

observer.update(temperature);

}

}

}

// Observer

interface WeatherObserver {

void update(int temperature);

}

// Concrete Observer

class Display implements WeatherObserver {

@Override

public void update(int temperature) {

System.out.println("Temperature updated: " + temperature + "°C");

}

}

// Usage

public class ObserverPatternDemo {

public static void main(String[] args) {

WeatherStation station = new WeatherStationImpl();

WeatherObserver display = new Display();

station.addObserver(display);

station.setTemperature(25);

station.setTemperature(30);

}

}