

DESIGN PATTERNS - CPIT252

## LAB\_5

Shehab

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## 1- MAIN CLASS(APP)

```
6 public class App {
7     public static void main(String[] args) {
8         // Jeddah => 21.543333, 39.172778
9         System.out.println(new Adapter().getWeatherInfo( latitude: 21.383333, longitude: 39.850000));
10    }
11 }
```

Here I am creating a new object of **Adapter** class and I am using the method **getweatherInfo()** to print the weather info.

## 2- ADAPTER CLASS

```
1 package edu.kau.fcit.cpit252;
2
3 import edu.kau.fcit.cpit252.geoLocation.GeoLocation;
4 import edu.kau.fcit.cpit252.weatherDB.WeatherDBI;
5
6 public class Adapter implements WeatherGeo {
7
8     @Override
9     public String getWeatherInfo(double latitude, double longitude) {
10         return new WeatherDBI().getWeatherInfo(new GeoLocation().search(latitude, longitude));
11     }
12 }
```

```
public GeoLocation() {
    GEO_LOCATIONS.put(new Location( latitude: 21.383333, longitude: 39.850000), "Makkah");
    GEO_LOCATIONS.put(new Location( latitude: 24.466667, longitude: 39.6), "Medina");
    GEO_LOCATIONS.put(new Location( latitude: 21.543333, longitude: 39.172778), "Jeddah");
    GEO_LOCATIONS.put(new Location( latitude: 24.633333, longitude: 46.716667), "Riyadh");
    GEO_LOCATIONS.put(new Location( latitude: 28.397222, longitude: 36.578889), "Tabuk");
    GEO_LOCATIONS.put(new Location( latitude: 26.283333, longitude: 50.2), "Khobar");
    GEO_LOCATIONS.put(new Location( latitude: 18.216944, longitude: 42.505278), "Abha");
    GEO_LOCATIONS.put(new Location( latitude: 16.889167, longitude: 42.561111), "Jazan");
}
```

This class import to classes (GeoLocation, WeatherDBI)

Basically, it has the implemented method form the interface **WeatherGeo**

- 1- New **Geolocation** object and pass through its method **search()** the parameters required which they are
  - Latitude <- double
  - Longitude <- double
- 2- New **WeatherDBI** object and pass through its method **getWeatherInfo()** the parameter required which is
  - The return of the method **search()** which is city name.

and in the end, it returns the weather information as a String.

## 3- OUTPUT

```
C:\Users\Shehab\.jdk\openjdk-17.0.2\bin\java.exe ...
WeatherInfo{time='Thursday 7:00 PM', tempInC=29.0, tempInF=85.0}
```