

# Lab # 8

## Weather Application

### Objective

To build an iPhone application that uses weather API from OpenWeatherMap to read and display the weather information to the user.

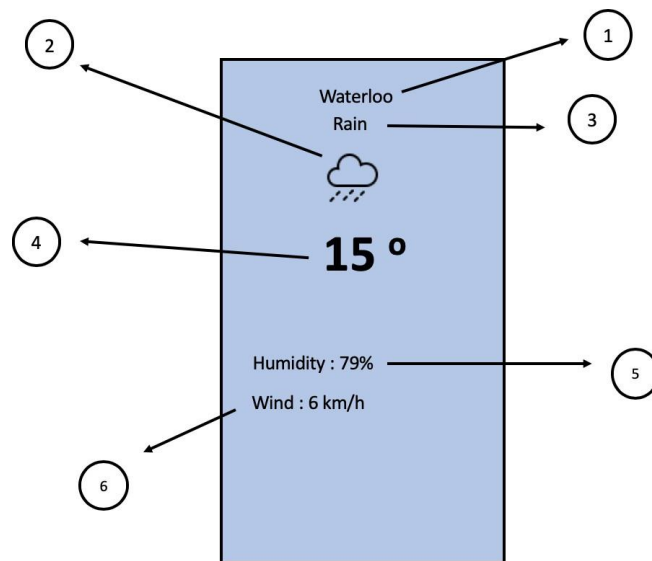
### Key Concepts

- Using Wep based API
- URLSession
- Parsing Json
- Updating the UI on the main thread
- Catching Errors

### Requirements

Build an iPhone application as shown in **Figure 1**.

- a. Read the user location (lat, lon). (20%)
- b. Based on the user location use the weather API from OpenWeatherMap to get the required weather information for the application. (20%)



**Figure 1** The overall layout of the application

1. The name of the City based on the simulated location (5%)
2. Weather description. (5%)
3. A Weather icon represents the weather description. (10%)
4. Weather temperature. (5%)
5. Weather Humidity. (5%)
6. Wind Speed. (5%)
7. Match all the units. (5%)
8. You should write a clean code and follow/use the proper naming convention, functions, classes and structs. (20%)

*Use the location option in the simulator to simulate Waterloo location.*