

Időjárás alkalmazás (angol)

The goal of the assignment is to create a **Weather Info Application**. During the development you can practice the following techniques in Android:

- *Network communication*
- *Http*
- *JSON parsing*
- External libraries:
 - o Retrofit (<http://square.github.io/retrofit/>)
 - o Glide (<https://github.com/bumptech/glide>)

1 Assignment Details

The task is to implement a Weather Info application that downloads weather info from *OpenWeatherMap*:

<http://openweathermap.org/>

In order to use OpenWeatherMap, **you must register to the website and get your API key**.

http://home.openweathermap.org/users/sign_up

After that with the key the API can be tested, for example (use https):

<https://api.openweathermap.org/data/2.5/weather?q=Budapest,hu&units=metric&appid=f3d694bc3e1d44c1ed5a97bd1120e8fe>

<https://api.openweathermap.org/data/2.5/weather?q=Budapest,hu&units=imperial&appid=f3d694bc3e1d44c1ed5a97bd1120e8fe>

Complete description about the API:

<http://openweathermap.org/api>

2 Requirements

- The application has one Activity that has an *EditText* for the city name and a Button.
- When the button is pressed, the weather is asked from *openweathermap* API via HTTP call and is displayed below the button on a *TextView* and *ImageView* (optionally).
- Icon can be downloaded based on the icon field of the retrieved JSON result (use the Glide library, more info in the next Section): <https://openweathermap.org/img/w/10d.png>

The weather screen is an *Activity* that shows the weather info (current temperature, description, weather icon, min and max temperature, humidity, sunrise and sunset, etc.).

3 Tips and Advises

- It is recommended to use **Retrofit** for network communication.
- For image loading from URL you can use the Glide library: <https://github.com/bumptech/glide>

Gradle:

```
implementation 'com.github.bumptech.glide:glide:4.8.0'
annotationProcessor 'com.github.bumptech.glide:compiler:4.8.0'
```

On newer version it is required to use *kapt* instead of *annotationProcessor*.
In that case this line is probably required in the beginning of the build.gradle:

```
apply plugin: 'kotlin-kapt'
```

Usage:

```
Glide.with(this@MainActivity)
    .load(
        ("https://openweathermap.org/img/w/" +
         response.body()?.weather?.get(0)?.icon
         + ".png"))
    .into(ivWeather)
```