*Simone Quaresmini (112139564)*

# Weather in Ireland-Mobile App Design

The project is about an application for showing to the user the weather conditions in some Irish cities.

I put the cities in the db without a Java procedure for it. So, it's important to move the database dbWeather.sqlite into the SD Card.

At the beginning, the application shows a "splash" screen, i.e. a presentation image with the app title. An animation is applied to the title and to the splash screen end (fade out).

The main activity is based on a map of Ireland and some transparent buttons, located on the city names. Clicking on a city, the city's information is extracted from the database and a city object is instantiated. This object is passed to the next activity.

The activity OptionWeatherActivity allows the user to read some geographic information about the selected city and to select an operation: display weather conditions, grab data from the BBC's website or view historical information (using stored data). The option menu uses an Iconic Adapter for mixing text and image on every item.

The option Grab Data opens a progressDialog and, by means of a thread (GrabThread), the BBC's Data are stored in the database in the SD Card.

Choosing the first option, we start the DisplayWeatherActivity. In this screen there are some information about the weather conditions: the images of weather condition and of wind direction are dynamic and they change according to the stored data.

For displaying the weather conditions is used a class DataWeather that include in an object a record of the data table in the db. Furthermore, the class DataWeatherExtractor allows us to instantiate some DataWeather objects and put them in an array. The last class is very important for displaying the conditions and also for the history graphs.

DisplayWeatherActivity uses a ViewPager: 3 similar fragments are generated when the activity is created and, using an PageAdapter, the user is able to swipe from right to left (or vice versa) for changing day. It's possible to use the buttons above too. The user can notice the selected page for the color of the button: the yellow one is the selected day. This characteristic is possible for the android support library.

The historical stats are not so interesting because the little quantity of stored data. For a good example, I advise you to choose Cork because it's richer of data than the other cities.

The Historic activity allows us to choose to view five graphs. Clicking on a button, the graph is showed. The graphs are drawn using the AndroidPlot library. A class Graph is useful for instantiate the graphs and for organizing all the common features of every graph.

In the project, the GUI is very important: round buttons, option screens in colored boxes, map in the main activity and the splash screen are the most important things. I used some time for create an user-friendly application. It would have been possible to implement the menu but I haven't enough time.