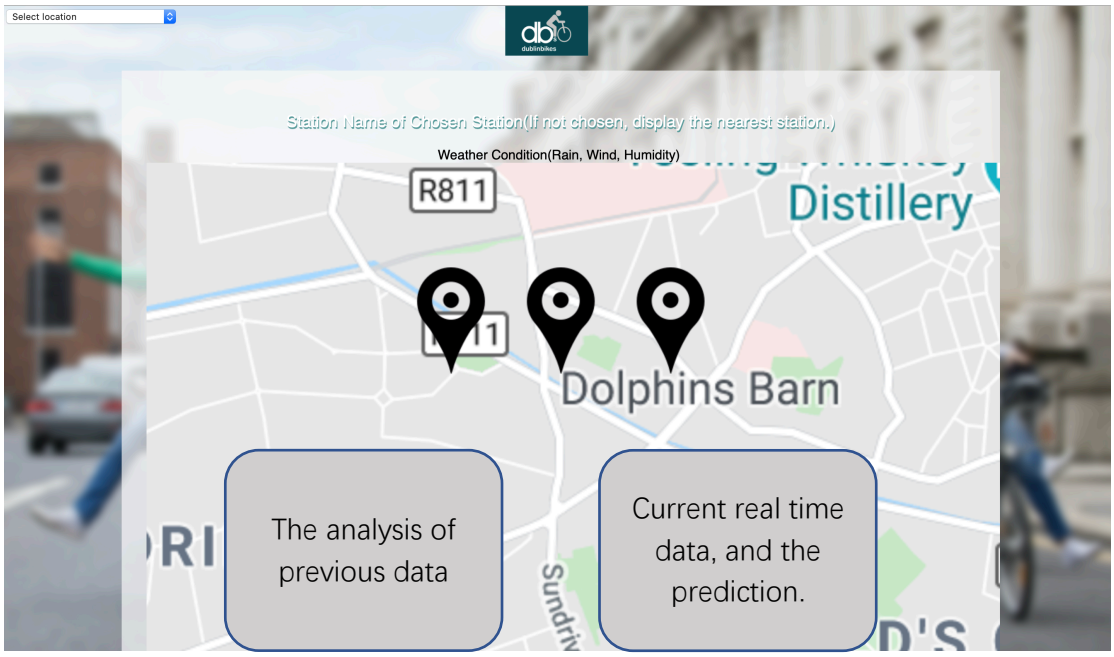
DublinBike Application Note

Once the application is opened, the interface should be as following figure. The map is already displayed, and all bike stations are covered by the map. Above the map, the locations of bike stations are displayed as icons.



There are two ways to get the needed information, one is selecting locations by the “select location” button. After the selection, the location of selected station will be displayed at the center of the map. The station name will be displayed on the top of the map, and the weather information of this station will also be displayed below the station name. Besides, there should be two boxes at the bottom of the map. One box displays the analysis of previous usage data. Another one provides the proper prediction, such as how many bikes will be available as the time going. These two boxes only show up after the station is chosen. The second way to select location is to click the location icons on the map.

The weather text box should be clickable, initially when the user selected a location, the current weather was displayed. Here the current weather data is obtained by the API of current weather on OpenWeather website. If the user wants to get the future weather data, he/she can click the weather text box. Another API will be used to get the weather forecast. Eventually a text box will be popped out to show the weather forecast.

Another thing is done after the user selected the location. When the two boxes show up, one of them provides the previous usage data like the average available bikes at various time, this means the RDS should be connected. The form of the analysis outcome could be in form of figure with text. The other box gives the current information of this station and gives the prediction as well, like how many bikes will be available according to previous data and the weather condition. So here we need the JCDecaux API to get real time data. And the prediction is implemented by machine learning or data analysis.