Testing Approach

**Business scope:**

* As a customer, I can search the weather in the city
  + On the screen displaying a place to search, customer can enter his city and if Openweathermap can search an information, it will display the weather information to the customer.

**Acceptance Criteria:**

* In the search box, if customer enters data that the Openweathermap can search for information, that information will be displayed. In the opposite, Openweathermap cannot search anything, displaying a error message. If customer does not enter anything, nothing will happen.

**Feature:** Search weather in your city

**Backend:**

* API Request URL: <https://openweathermap.org/data/2.5/find>

**Frontend:** <https://openweathermap.org/>

**Testing Level:**

* Integration Testing
  + The QA should test the integrate of “Weather in your city” search box with the Find page (search result)

**Testing Type:**

* Functional Testing
  + Exploratory Testing
    - To understand the AUT, the QA should explore it base on the experience, knowledge, scenarios.
  + GUI Testing
    - Test the feature’s UI, button, icon, text box, wording… that meet the requirement, design.
  + Compatibility Testing
    - Test if the software is capable of running on different hardware, operating systems, applications, or mobile devices.
    - Test Browser (Google Chrome, Mozilla Firefox)
    - Test Device (Windows OS, Android OS)
  + API Testing
    - Test application programming interfaces directly. Because there are some cases that can be prevented or handled in the Frontend site. But in the Backend site and Database, it cannot or missing.
  + End-to-End Testing
    - Test to determine if the application execution is on demand or not. It is performed from start to finish according to real world scenarios.

**Testing Coverage:**

* Test Execution Coverage Percentage = x 100%

**Automation Test:**

* Coding Language: Java
* Tool and library: Maven, Java 8, Selenium, API Rest Assured, Cucumber
* Automation of the UI
* Automation of the API

**Test Case and Defect Management:**

* Excel