**Openweathermap.org API testing plan**

1. **Introduction**

This plan was created as a common guide to perform a partial testing of the functionality of the openweathermap.org API available for free accounts. This document was created within the confines and due to limitations of the task of round 2 of QA category of Dev Challenge 12.

1. **Test Items**

* Current weather data
* 5 day / 3 hour weather forecast

1. **Risks**

* The weather data will be volatile through whole testing process
* The weather data can be changed while execution of the single test
* The weather forecast is can not be properly verified in cause to very high complexity, volatility and using of probability algorithm, which is unknown to the end user
* The API realization can be changed while testing process is running
* All other major and/or minor risks which is not listed in this document section

1. **Features to be Tested**

All features which to be tested are listed in the Checklist document.

1. **Features Not to be Tested**

All other features, which was not described in the Checklist document, are not to be tested.

1. **Approach**

To reduce number of test cases, optimize the numbers of checks of the same functionality and to avoid of exhaustive testing will be used such test design technics as pairwise, boundary values and equivalence partitioning.

Because with very high probability we can assume that calling of both current and forecast weather data for a single city, using formats of weather data, for example: temperature, wind speed and others, uses the same functionality it is not necessary to perform testing of it variations for each API resources. This tests will be performed by using PICT as a tool to combine possible variants of test data. Also, will be performed several tests for functionality which is exclusive for each (Current weather data and 5 day / 3 hour weather forecast) API resource.

1. **Item Pass/Fail Criteria**

Pass criteria:

* All tests are successfully executed

Fail criteria:

* There is one or more failed test

1. **Suspension Criteria and Resumption Requirements**

Suspension criteria:

* Weather data was changed
* API realization was changed
* Service is unavailable

Resumption criteria:

* Necessary changes are made to test data and/or test cases
* Service is available

1. **Test Deliverables**

Test Plan (This document)

Checklist

SoapUI project file

Test Report