**Test Report**

The goal of the testing was aimed to test the following list of features:

* Search the current weather within one location by city name;
* Search the current weather within one location by city name and country code;
* Search the current weather within one location by ZIP code;
* Search the current weather within one location by city ID;
* Search the current weather within one location by geographic coordinates

The performance of the tested feature was held except functionality.

Before starting the test design and test execution activities test plan was created. Exploratory and functional testing types were used during testing the project. Postman tool was used due to access only to server part of the application. 95 verification within one global check-list were created and automated.

All functionality were divided into positive testing cases and negative test cases (validation and Format of data).

For each functionality was created request with get type. All of them you can find in GitHub account.

QA found 23 defects. You can find all of them in Defect Reports documentation.

QA found 3 defects with High priority, 10 defects with Medium priority and 10 defects with Low priority.

Huge amount of the found defects are related to support of the whole list of countries for ISO 3166. Besides that searching by geographic coordinates feature wasn’t tested the whole because smoke testing pointed out that this feature isn’t ready for testing.

All designed tests were run manually and automation. The statistics for run test cases are following:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Priority of cases | Status | Functional | | Performance | |
| Quantity | % | Quantity | % |
| High | passed | 3 | 23.08% | 11 | 84.62% |
| failed | 10 | 76.92% | 2 | 15.38% |
| Medium | passed | 21 | 70.00% | 23 | 76.67% |
| failed | 9 | 30.00% | 7 | 23.33% |
| Low | passed | 40 | 76.92% | 40 | 76.92% |
| failed | 12 | 23.08% | 12 | 23.08% |
| **Total** | **passed** | **64** | **67.37%** | **74** | **77.89%** |
| **failed** | **31** | **32.63%** | **21** | **22.11%** |

So only 64% of verifications were passed. Huge amount of failed cases due to incorrect working of functionality are cases with High and Medium priority.

Due to performance issues 22% test cases were failed too. Huge amount of failed cases are among verification about non-valid data.

All provided requirements are covered by created tests and traceability matrix for this goal was created.

Test coverage for selected feature is 89%. Among the uncovered flows are searching the current weather on Antarctica and searching for current weather by coordinates.

|  |  |
| --- | --- |
| Covered flows | 108 |
| All found flows | 122 |
| Quantity of TCs | 95 |
| Test Coverage | 88.52% |

Summary: Project has a lot of defects and QA doesn’t recommend it for releasing. All High and Medium priority defects should be fixed and re-tested again. Besides that all needed requirements related to supporting all codes from ISO-3166 should be clarified with Product Owner. Testing of searching by coordinates feature are blocked because all tests are failed. That’s why it is difficult to understand whether feature was implemented or not. Only after regression testing, all high and medium priority defect fixing and positive QA feedback this project can be released.