Master Test plan for Navigator.ba

1.Introduction

**1.1. Purpose**

This test plan describes the testing approach and overall framework that will drive the testing of the Navigator.ba web and mobile application.

The document introduces:

* *Test Strategy:* rules the test will be based on, including the givens of the project (e.g.: start / end dates, objectives, assumptions); description of the process to set up a valid test (e.g. : entry / exit criteria, creation of test cases, specific tasks to perform, scheduling, data strategy).
* *Execution Strategy:* describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
* *Test Management:* process to handle the logistics of the test and all the events that come up during execution (e.g.: communications, escalation procedures, risk and mitigation, team roster)

**1.2. Project Overview**

Navigator.ba is a web and mobile application that provides information on locations of streets and objects throughout Bosnia and Herzegovina (with focus on Sarajevo). Users have the possibility to add new locations or update existing information provided in the application. One of its functionalities is also booking tickets for theater plays.

Application is intuitive and simple to use. It is intended to be the most popular city guide with a rich database that is constantly updated.

**1.3. Audience**

Internship coordinator schedules planning activities in the overall internship schedule, tracks the performance of the intern according to the tasks specified.

Mentor specifies the tasks, monitors intern’s progress, reviews documents and test scripts and gives advice and answers to questions to the intern.

Test Automation intern writes the test plan, test cases, smoke test, does exploratory testing, regression testing and writes an automated test script for smoke test. Intern is also obliged to learn and apply new testing tools and operation system.

2. Analysis of the product

**2.1. Who will use the application?**

Website and application will be used by people who need an information about the location of a certain object/street; tourists, people who just moved into town, mainly young people, someone looking for a place to go out...

**2.2. What is it used for?**

The aim of application is to provide the information about the location of an object or a street. Also, user can add a new location to the database, update information on existing location. Apart from that, one can review some public locations and objects as well as book tickets for theatre play.

**2.3. How will it work?**

Application works mainly through search for wanted keyword or category

**2.4. What are software/ hardware the product uses?**

Application is compatible with all devices so it needs only an electronic device and internet connection in order to fulfill its purpose.

3.Test Strategy

**3.1. Start/End Dates**

Testing of the application starts on January 19th 2018. and proposed deadline for completing all test phases is one month later, i.e. between 19th and 21th February 2018.

**3.2. Test Objective**

Test objective for Navigator.ba is to test functionality, usability, performance, user interface and accuracy of output results.

Navigator.ba will be treated as a black box, meaning that internal structure and source code will not be considered and tested.

**3.3. Scope of testing**

Testing of Navigator.ba application will address functionality, responsiveness, user interface and accuracy of information given as output result. Also, some proposed improvements will be discussed. Both desktop and mobile version of application will be tested.

**3.4. Test deliverables**

In the period before testing it is expected that a master test plan is created along with test cases and smoke test.

After testing is done, testing intern is obliged to deliver full bug and improvements report. Also, demo presentation with an overview of entire testing process for Navigator.ba is to be created and delivered in front of Management.

**3.5. Testing type**

Testing of Navigator.ba will start with exploratory testing, followed by creation of test cases, smoke test, system test and regression test. Smoke and regression tests will also have automated versions, i.e. test scripts will be made. Considering the fact that Navigator.ba is a complete product, the aim is to inspect basic functionalities and make sure that no new bugs were introduced.

**3.6. Testing Tools**

It is necessary for a tester to have a Linux OS, access to Internet and installed minimum of two browsers: Firefox and Chrome. Apart from that, Ruby is going to be used as a scripting language. Testing tools will include RSpec, Watir/Capybara and Selenium.

Trello will be tool for tracking progress and communicating with mentor.

Google sheets will be used for test cases, smoke test and bug/improvements report.

**3.7. Risks and proposed solutions**

One of the first problems that may appear is that tester lacks required testing skills to make testing successful. This issue may be resolved by a constant research and learning more.

Another risk is an unsuccessful environment setup, which can be solved by changing the laptop.

There is also a risk of wrong estimate of time needed to finish testing before the demo day. That is why a detailed plan in advance needs to be created with a regular weekly updates with a mentor and one sync up after two weeks with mentor and internship coordinator.

Problems can also appear because test scripts behave differently in different browsers. That is why it is required for test scripts to be run in Chrome and Firefox (and maybe Safari) to make sure everything works in all browsers.

**3.8. Exit Criteria**

It is required that a high rate of test cases pass tests in order for it to be acceptable to stop testing a certain feature.

**3.9. Resources**

When it comes to hardware, a laptop with a stable internet connection will suffice.

When it comes to software, Linux OS or Linux virtual machine is preferred along with properly installed all required testing tools.

**3.10. Roles and Responsibilities**

Team assigned with testing Navigator.ba application consists of a tester, project mentor, internship coordinator and a number of engineer and management teams’ members.

Tester is an intern in charge of realization of the entire testing process along with all testing deliverables.

Mentor is an experienced QA engineer who monitors the intern’s progress and is available for all questions and potential problems. Mentor is present during planning meeting, sync up and demo. Apart from that, constant communication is ongoing between intern and mentor using email, Trello and live meetings. It is recommended that mentor and intern arrange live meetings at least once a week. Mentor is present on demo presentation as well.

Internship coordinator is an experienced engineer in charge of supervising all internship candidates. When it comes to testing process, coordinator organizes planning and sync up meetings and is present on demo presentation.

Engineer and Management teams’ members are called for demo presentation to give feedback and help make an overview of the entire testing process and progress of an intern. People from these teams that will be present on demo day are chosen before demo.

4. Test Tasks and Schedule

Note: All tasks must be verified by mentor in order to be considered done.

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Description** | **Assigned to** | **Deadline** |
| Navigator.ba - Exploratory Testing | The aim of exploratory testing is to get to know the application and all of its functionalities | Tester/Intern | February 16th 2018. |
| Write Test plan | Test plan describes the testing approach and overall framework that will drive the testing of the Navigator.ba web and mobile application. | Tester/Intern | February 16th 2018. |
| Write Test cases | Write all possible functionalities of the application with execution steps. | Tester/Intern | February 16th 2018. |
| Based on exploratory testing write smoke test | One detailed test case. | Tester/Intern | February 16th 2018. |
| Install and setup environment | Install Linux virtual machine, Ruby, RSpec, Watir, Capybara and Selenium and write a sample facebook login script | Tester/Intern | February 16th 2018. |
| Get familiar with Rspec, Watir/Capybara and Selenium | Write sample test scripts for each of the tools | Tester/Intern | February 16th 2018. |
| Write full bugs/improvements report | Based on exploratory testing find existing bugs and suggest improvements. | Tester/Intern | February 16th 2018. |
| Write regression tests for Navigator.ba | Almost the same as test cases. | Tester/Intern | February 16th 2018. |
| Create automation test script for smoke test for Navigator.ba | Use installed test tools to create script. | Tester/Intern | February 16th 2018. |
| Push project to Github repository | At the end of the project push entire documentation and all scripts to Github | Tester/Intern | February 16th 2018. |
| Create draft of demo presentation content | Review the planned content with mentor before presentation is made | Tester/Intern | February 16th 2018. |
| Make a demo presentation | Use Google slides because of compatibility with different OS’s | Tester/Intern | February 16th 2018. |
| Deliver demo presentation | Present the process and results of testing application Navigator.ba | Tester/Intern | February 16th, 2018. |

5. Expected results

It is expected that at the end of testing process there are bugs that need to be fixed in application Navigator.ba, as well as improvements that could be implemented in order to achieve better quality of a product. Apart from that, testing process for this application has educational purpose, and it is expected that tester/intern working on this project makes a visible progress regarding the use of different testing tools, writing automation scripts and independently conducting a testing process. Final approvals of all the things achieved during testing process are assigned to present people on demo presentation.