**Sport Tracking Application**

**Test Plan**

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| **Author(s)** | QA Team |
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| **Owner** | Davidescu Elena |

**Document Control**

**Revision History**

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**Authorization List**

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| --- | --- |
| **Name** | **Role** |
| **Team Member Name** | **Project Manager** |
| **Team Member Name** | **Team Lead** |
| **Draniceanu Mihaela** | **Reviewer** |

**1. Test Plan Identifier:** Test Plan Sport Tracking App V4.1 2022

**2. Introduction**

The scop of testing for this project is to validate that the application works according to the specific requirements. In this plan we will detail the testing strategy, the types of testing that will be used, the scope, schedule and the risks. The testing will be made on the Unit, Integration, System and Acceptance Testing.

**3. References**

* Functional and Non-Functional Testing;
* Design document;
* Help or User document.

**4. Items of testing**

* Application has both a mobile and web version;
* Sign in/login functionality;
* Add personal information;
* Exercises function;
* Add gear function;
* Feed functionality;
* Look/add friends functionality.

**5. Features to be/not to be tested**

* **Features to be tested**

The following is a list of the areas to be focused on during testing of the application.

1. Sign in/login;
2. Settings/personal information;
3. Exercises;
4. Gear;
5. Feed;
6. Friends;
7. Profile/personal bests.

Integration with third-party components.

1. Login with Facebook/Google/Apple accounts;
2. External API for calculating calories based on duration and the type of the execises.

* **Features not to be tested**

The fallowing is a list of the areas that will not be specifically addressed. All testing in these areas will be indirect as a result of other testing efforts.

1. External API for calculating calories based on duration and the type of sport. Functionality of this API is not part of this project and cannot be controlled.
2. Compatibility with old platforms:

* Android 10 and older;
* IOS 14 and older;
* Firefox 92 and older;
* Chrome 93 and older.

**6. Approach**

* **Testing type**

1. Static testing – informal reviews and technical reviews;
2. Dinamic testing – functional and non-functional testing.

* **Test Tools**

1. Asana will be used during the testing the application;
2. Google Sheet will be used for created test cases;
3. Postman for testing API;
4. JMeter for performance testing;
5. Selenium will be used to write the automatic tests.

* **Functional testing**

It is necessary to cover with test cases each feature that will be implemented. I will take into consideration both kinds of scenarios: positives and negatives. Also, techniques like boundary analysis and aquivalence partitioning will be applied while implementing the tests.

The development of the application is fallowing the waterfall model, thereforce, next testing activities will be organized in the following way:

* Test case design will start once all requirements are analysed and approved;
* Test case implementation should happened in parallel with the development of the features;
* Test case execution should start once the development off all features is finished.
* **Non-functional testing** As this is a distributed application where there is an API to which will connect all the clients from mobile and web platforms it is clear that most of the load will be supported by API. It is necessary to determine how many clients the API will be able to connect. For this performance testing will be executed. All performance tests at API level will be implemented and executed in the JMeter tool.
* **Responsabilities**

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| **Function** | **Description** |
| Project Manager | He is involved in multiple aspects of team management, such as leadership, team building, communication, decision making, planning and coaching. |
| Test Lead | Involved in the planning, monitoring and control of the testing activities and tasks. |
| Software developer | In charge of writing the code and developing the software products. The one that also fixes the bugs. |
| QA | Perform testing where they evaluate the functionality of the app with the intention to find the existing defects in the software. |
| QC | Verifies that the product meets the quality standards and ensures that the techniques, methods and approaches are following correctly. |

* **Schedule Test estimation**

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| **Test activity** | **Estimation** | **Date** |
| Test planning | 3 Days | 18.11.2022 – 20.11.2022 |
| Test case creation | 5 Days | 21.11.2022 – 25.11.2022 |
| Test execution | 5 Days | 26.11.2022 – 30.11.2022 |
| Bug reporting and retesting | 3 Days | 31.11.2022 – 2.12.2022 |
| Performance testing | 4 Days | 3.12.2022 – 6.12.2022 |
| Buffer | 2 Days | 7.12.2022 – 8.12.2022 |
| **Total** | **22 Days** |  |

If the described testing process takes less time than estimated then we will allow 3 days for User Acceptance Testing.

**7.Software risk issues**

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| --- | --- | --- |
|  | **Risk** | **Mitigation** |
| **1** | Incorect deadlines | Focus only on the most important features |
| **2** | Lack of knowledge of team members regarding different technologies and tools | Training before testing for the team members |
| **3** | Unexpected and urgent changes of the initial project | Deliver only important features of the project |
| **4** | Team members with knowhow are leaving the project | Good and often communication between teams |
| **5** | Incompatibility with the new version of mobile OS and new version of web browser |  |

**8.Test criteria**

* **Suspension Criteria** – if more than 15% of the test cases are failed/blocked.
* **Exit Criteria** – testing will be considered complete when 95% of the test cases have been executed and passed

– we do not have defects with severity and high priority.

**9.Test deliverables**

* **Before the test activity –** requirements – test plan – test cases
* **During the test activity** – simulators – test data – test tools
* **At the end of test activity** – test results – test completion report.