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Software Quality Assurance Plan (SQAP)

Project/Product Name: Ballistics App

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Revision History

Version Date Updates/Changes Author

v0.1.0 10/8/2024 Rough Draft: Title page, TOC, Section 1-3 Trey Yearsley

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1. Purpose and Scope

Purpose:

The goal of this Software Quality Assurance Plan (SQAP) is to establish the processes and policies to ensure the Ballistics App is of the highest quality. This document outlines the quality assurance (QA) processes, tools, metrics, and resources that will be used to create and deliver a high-quality product.

Scope:

The scope of this SQAP includes testing all functional and non-functional aspects of the Ballistics App. Much of the testing for this project as covered by this document will be user testing.

2. Definitions and Acronyms

Term Definition

QA: Quality Assurance: Ensures that software quality meets defined standards.

UI: User Interface: The graphical layout of an application.

SQA: Software Quality Assurance: A set of standards put in place to ensure the quality of the product.

SDLC: Software Development Life Cycle: The cycle in which software is designed, developed, tested, etc.

3. Reference Documents

• Ballistics App Test Plan

• Ballistics App Contract/Customer Agreement

• IEEE 730-2014 Standard for Software Quality Assurance Plans

4. SQA Plan Overview

4.1 Organization and Independence

The QA team for the Ballistics App project operates hand in hand with the development team to ensure issues are taken care of. Usewr testing will reduce the bias that may be introduced by the teams working together. Roles and responsibilities are as follows:

• QA Lead: Coordinates testing efforts and oversees test execution.

• QA Engineers: Conduct user tests and other testing methods.

• Developers: Responsible for unit testing.

• UX Designer: Will work with QA Engineers to conduct user tests and other testing methods. Will suggests changes based on test results.

4.2 Software Product Risk

Potential risks associated with the Disco project include:

• Project Risks: time restraints, inaccurate requirements, and miscommunication between development teams, stakeholders, etc.

• Product Risks: Inaccurate data, there are many brands of ammunition, these slight differences could produce inaccuracies in product function.

4.3 Tools

The following tools will be used in the QA process:

• JIRA: For test case management and bug tracking.

• Katalon: For test automation.

• Github: For version control.

4.4 Standards, Practices, and Conventions

• Testing Standards: IEEE 829 (Test Documentation) and IEEE 730 (SQA).

• Practices: Agile development and testing methodology.

4.5 Effort, Resources, and Schedule

• Effort: Estimated total effort for testing activities is 40% of the development lifecycle.

• Resources: Two full-time QA engineers, one automation specialist, access to testing environments, and necessary tools.

• Schedule: Testing to begin in the Development phase and continue through to Production. Specific milestones will be defined in alignment with project goals.

5. Activities, Outcomes, and Tasks

5.1 Product Assurance

5.2 Process Assurance

6. Additional Considerations

6.1 Contract Review

6.2 Quality Measurement

6.3 Waivers and Deviations

6.4 Task Repetition

6.5 Risks to Performing SQA

6.6 Communications Strategy

6.7 Non-conformance Process

7. SQA Records

7.1 Analyze, Identify, Collect, File, Maintain and Dispose

7.2 Availability of Records