Software Test Plan - STP

"duoCo Strip"

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Version Control

CURRENT VERSION

Title	Software Test Plan - STP
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1 Document Overview

1.1 Introduction

This document serves as the Software Test Plan for <”**duoCo Strip”** app> **<Version 5.0.3>**.

The purpose of this STP is to define the framework and Strategy for the testing of “duoCo Strip” app.

The plan is tailored to support the Agile Scrum methodology, emphasizing on flexibility, and iterative development.

Our objective is to validate the High Quality of “duoCo Strip” app.

We will verify “duoCo Strip” web site behaves as expected by testing its features and functionality.

In alignment with Scrum principles, this document will try to stay as short and focused on Testing needs so it could be easily updated and evolve throughout project iterations.

1.2 Objectives

At a high level the primary objectives of this Software Test Plan for duoCo Strip are as follows:

✓ Ensure Product Quality:

To uphold the high standards of quality for which duoCo Strip is known, verifying that all features work as intended and meet the user requirements.

✓ Enable Efficient Development Cycles:

To align testing activities with Scrum sprints, facilitating swift identification and resolution of defects, and supporting the development team in quick iterations.

✓Support Business Goals:

To ensure that the testing process aligns with the overarching business objectives, contributing to the sustained success and growth of duoCo Strip

1.3 Scope

- The scope of this document is only for version <5.0.3> of “duoCo Strip” product.

2 Scope of testing

2.1 Features to be tested.

Here you'll state all the Modules Features you plan to test.
<Note that because its evolving document that some features/Modules could be added / deleted while the project is on process depends on timetables and complexity>

- First load.
- "Adjust" Tab.
- Group Manage feature.
- "Style" Tab.
- "Schedule" Tab.
- "Shake" feature.
- "Music" Tab.
- "Mic" Tab.

2.2 Features not to be tested.

- Modify Pin Sequence.

2.3 Testing Types

Outlined below are the test types that will be planned and performed during this project:

- **Functionality Verification:**

  To ensure all features of duoCo Strip, such as query input, search execution, Filters, and tabs, operate as intended across various platforms and devices.

- **Usability Assessment:**

  To evaluate the user interface for intuitiveness, ease of use, and accessibility.
  This includes ensuring the app is easily navigable and that the interface elements are responsive to user interactions.

- **Compatibility Testing:**

  To confirm that duoCo Strip works seamlessly across different operating systems (e.g., IOS, Android)

- **Localization and Internationalization Verification:**

  To ensure that duoCo Strip provides accurate results and a user-friendly experience in different languages and regions.

- **Smoke Testing**
  - Download functionality.
    1. Check if app is downloadable.
  - Load functionality
    2. Check if app opens correctly.
  - Bluetooth functionality
    3. Check if app connects to LED strips
  - LED control functionality
    4. Check if the app successfully changes the LED's color according to the user's actions.
  - Close app functionality
    5. Check if app can be exited, and when exited disconnects from LED's Bluetooth

- **User Interface Testing**

  - Check if all elements showing and not overlapping each other.

- **Error handling**
  - Check if app allows changes in LED when not connected to any LED.
  - Check if app allows deleting all groups.

2.4 Test Strategy and Approach

Our test approach is systematic and structured to ensure thorough and efficient validation of each build received from the Development team.

The following outlines our planned testing progression for each release cycle:

Initial Build Assessment with Smoke Testing:

Upon receipt of a new build, the Quality Assurance (QA) team will execute a Smoke Testing Suite.
This suite is designed to quickly check the stability of the build and ensure that the core functionalities of duoCo Strip are operating as expected.

Only after a build passes the smoke test will it move forward in the testing process.

Focused Testing on New Features and Bug Fixes with Sanity Testing:

After the build has passed the Smoke Testing phase, the QA team will proceed to Sanity Testing.
This phase is targeted at the new features and bug fixes included in the release.

The objective is to ensure that specific updates are functioning correctly in the application without any immediate issues.

Comprehensive Regression Testing:

Following the Sanity Testing phase, comprehensive Regression Testing will be conducted.
This is critical to ensure that new code changes have not adversely affected existing functionalities of duoCo Strip.

The Regression Testing will be extensive and is designed to cover all areas of the application that could potentially be impacted by the changes.

Incorporation of Exploratory Testing:

Parallel to the structured testing phases, we allocate approximately 20% of the total testing effort during the execution phase for Exploratory Testing.

This approach allows testers to go beyond predefined test cases and scenarios, using their insights and experience to uncover issues that may not have been anticipated in the test planning stages.

Iterative Feedback and Continuous Integration:

The testing strategy is aligned with the Agile Scrum framework, which advocates for continuous integration and iterative feedback.

Testing phases will be tightly integrated with the sprint cycles, ensuring prompt feedback to the Development team and allowing for quick iteration and refinement of the application.

The proposed testing approach ensures a balance between structured testing and the flexibility to discover unforeseen issues, making it highly effective in an Agile development environment.

By following this approach, the QA team contributes to the delivery of a stable, high-quality product that meets the rigorous standards expected of duoCo Strip.