Software Development Testing Plan

Changelog

|  |  |  |  |
| --- | --- | --- | --- |
| Version # | Date of change | Change by | Outline |
| 1.0 | 5/11/2020 | Daniel Ewen | Test Plan Creation |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Introduction

## Scope

### In Scope

Features to be tested.

|  |  |
| --- | --- |
| Feature | Description |
| Application design is responsive | Application formats automatically to better suite the available screen size. |
| User Interface | User controls are easy to use |
| Interface responds in real-time |  |
| Database migrates correctly to the new design. |  |

### Out of Scope

These are features that won’t be tested.

|  |  |
| --- | --- |
| Feature |  |
|  |  |
|  |  |
|  |  |

### Quality Objective

Our team’s objective is to deliver a working prototype to the client with the following qualities:

* AUT[\*](#_Terms_/_Acronyms) must conform to the client’s requirements for each sprint.
* AUT must meet the client’s quality standards.
* Bugs/defects are tested and fixed before the application is deployed for the client.
* The AUT meets coding and commenting standards defined by each coding language standard.

### Roles and Responsibilities

|  |  |
| --- | --- |
| Role | Team Member/s |
| Developers |  |
| Test Manager |  |
| QA analyst |  |
| Business Analyst |  |
| Bug Triage |  |

# Test Methodology

## Overview

Our team will utilize the RAD[\*](#_Terms_/_Acronyms) test methodology throughout this project. Each sprint will seek to develop, test, and deliver a fully functioning prototype to the specification of the client.

## Test Levels

Our testing team will implement the following test types for this project:

* Exploratory Testing
* Functional Testing
* Accessibility Testing
* Compatibility Testing
* Integration Testing
* System testing
* User Acceptance Testing (UAT)

## Bug Triage

Our process for bug/defect triage is as follows:

* **Bug discovered:** Bug report is added to the bug list. For this our team will use the issue tracker built into GitHub, detailing the bug.
* **Investigate:** Developers read the report and try to replicate the bug. If replication occurs, the bug can then be prioritized.
* **Bug added to backlog:** Bug is awaiting resolution during sprint.
* **Resolved:** Bug is fixed during development and the issue is closed.

## Suspension Criteria & Resumption Requirements

During testing, should any test return more than a 30% fail the following should occur:

* Testing ceases
* Test case / module being tested investigated for design flaws
* If bugs are discovered, add them to the triage queue.
* Once the bug has resolved in the triage queue, run the test again.

## Test Completeness

Testing will be complete when:

* The AUT has been deemed to have 100% test coverage,
* all designed test cases return with a pass,
* all current bugs/issues have been resolved,
* the client is satisfied with the current condition of the AUT and has signed off on its deployment.

# Test Deliverables

|  |  |  |
| --- | --- | --- |
| Deliverable | Author/s | Reviewer/s |
| Test Plan | Daniel Ewen |  |
| Test Cases with validation |  |  |
| Requirements |  |  |
| Analysis Report |  |  |
| Bug Reports |  |  |
| Client Sign-off | Client |  |

# Resource & Environment Needs

## Testing Tools

* **Chromium developer tools:** Exploratory testing and during development.
* **PHP CodeSniffer:** Checks the PHP code for syntax and standards errors.

## Test Environment

### Hardware Environment

A modern development workstation with the following minimum specifications:

|  |
| --- |
| Part |
| Intel CPU 4-cores or more with hyperthreading |
| 16GB DDR4 RAM 2600MHz |
|  |

### Required Software

|  |  |
| --- | --- |
| Software | |
| Xampp | Local webserver and database hosting |
| Visual Studio Code | Code and application development |
| GitHub Desktop | Source Control |

# Terms / Acronyms

|  |  |
| --- | --- |
| Term / Acronym | Definition |
| RAD | Rapid Application Development |
| AUT | Application Under Test |