Software Development Testing Plan

Develop a test plan for the project

CHANGELOG

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

## Scope

### In Scope

Features to be tested:

* Application design is responsive
* User Interface
* Interface responds in real-time
* Database migrates correctly to the new design.

### Out of Scope

Features that won’t be tested:

* Movie database

## 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

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| --- | --- |
| Role | Description |
| Developers | Research, design, implement and manage software programs |
| Test Manager | Organise and control the testing process to deliver a high-quality software |
| QA analyst | Test software on other computers to ensure they are functioning accurately |
| Business Analyst | Connect IT and business using data analytics and determine client requirements |
| Bug Triage | Evaluate, prioritise and assign resolution defects |

# 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

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| Deliverables |
| Test Plan |
| Test Cases with validation |
| Requirements |
| Analysis Report |
| Bug Reports |
| Client Sign-off |

# 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:

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

### Required Software

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

# Terms / Acronyms

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