|  |
| --- |
| Software Development Team |
| Let’s Quiz |
| Master Test Plan |

|  |
| --- |
| Michelle Vinall |

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# Project Introduction

## Project Team

|  |  |  |
| --- | --- | --- |
|  | Function | Responsibility |
| Michelle Vinall | Design & Development Team Member | Writing the document |
| Collin Mckeahnie | Design & Development Team Member | Reviewer |
| Aaron Peachey | Design & Development Team Member | Global Reviewer |
| Charnes Nell | Design & Development Team Member | Global Reviewer |

## Project Objective

[Content Here]

## Test Objective

[Content Here]

# Assignment Formulation

## Project Client

[Content Here]

## Project Supplier

[Content Here]

## Project Assignment

[Content Here]

## Project Scope

### Functions to Be Tested

[Content Here]

### Functions Not to Be Tested

[Content Here]

## Preconditions and Assumptions

### Preconditions

[Content Here]

### Assumptions

[Content Here]

## Acceptors and Acceptance Criteria

### Acceptors

|  |  |  |
| --- | --- | --- |
|  | Function | Department |
| Jim Tulip | Lecturer | IT303 Lecturer CSU |
| The Client | Sign off and project acceptance | Online Question Game Group |

### Acceptance Criteria

|  |  |
| --- | --- |
| Description | Standard |
| Game must be playable on different operating systems. | High |
| The game should allow 1/multiple players. | High |
| The game must display a login scene to the user. | High |
| Menu screen must allow player to start a game. | High |
| Menu screen should allow players to invite, share and like on Facebook. | Medium |
| Menu screen must allow player to enter settings menu. | Medium |
| Menu screen must allow player to access high scores. | Medium |
| Questions must be presented to the player. | High |
| User must be able to choose an answer. | High |
| The application must be able to determine if the player has selected the correct answer. | High |
| The score of each player must be recorded. | High |
| The application must have the ability to determine the winner. | High |
| A congratulatory message should be displayed to the winning player. | Medium |
| A list of correct answers will be displayed to the user when the game is over. | Medium |
| When the game ends the program should ask the player if a new game should be started. | High |
| A timer should limit the amount of time of each round. | High |
| Application must meet the subject outline criteria | High |

# Documentation

## Measurement Criteria

|  |  |  |  |
| --- | --- | --- | --- |
|  | Version | Date | Author |
| Initial Requirements Model | 0.1 |  | Michelle Vinall |
| Project Plan | 0.1 |  | Charnes Nell |

## Project Standards

[Content Here]

|  |  |  |  |
| --- | --- | --- | --- |
|  | Version | Date | Author |
| C# Coding Convensions | NA | 20 July 2015 | [https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/inside-a-program/coding-conventions#naming-conventions](https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/inside-a-program/coding-conventions%23naming-conventions) |
| PHP Coding Standards | NA | 31 March, 2008 | PSR-1 |
| SQL Server Database Coding Standards and Guidelines | 1.0 | NA | SQLAuthority |

# Test Strategy

## Product Risk Analysis

[Content Here]

|  |  |  |
| --- | --- | --- |
|  | Description | Characteristic |
| Functionality | To ensure the application works as intended | Game progress, performance, basic usability, error conditions, accessibility |
| OS compatibility | To ensure game works in all intended operating systems | Compatibility with android and IOS |
| Data integrity | Verify the data stored in the database is accurate and reliable | Data correctness |

# Test Approach

## Test Levels

[Content Here]

|  |  |
| --- | --- |
|  | Goal |
| Unit Testing | To isolate each part of the program and test that the individual parts are working correctly |
| Integration Testing | To test the interaction between individual modules. |
| User Acceptance Testing | Testing of the application in a real environment |

## Unit Testing

### Goal

[Content Here]

### Description

[Content Here]

### Responsible

[Content Here]

## Integration Testing

### Goal

[Content Here]

### Description

[Content Here]

### Responsible

[Content Here]

## User Acceptance Testing

### Goal

[Content Here]

### Description

[Content Here]

### Responsible

[Content Here]

## Phasing Per Test Level

[Content Here]

## Entrance & Exit Criteria

### Unit Testing

#### Entrance Criteria

[Content Here]

#### Exit Criteria

[Content Here]

### Integration Testing

#### Entrance Criteria

[Content Here]

#### Exit Criteria

[Content Here]

### User Acceptance Test

#### Entrance Criteria

[Content Here]

#### Exit Criteria

[Content Here]

# Project Organisation

## Organisation Structure

[Content Here]

## Roles, Tasks, & Responsibilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Responsibility | Hours Per Week | Period | Description |
| Test Manager | Michelle Vinall | 10-12 | 4 weeks | Write MTP  Coordinate overall test process |
| Test Coordinator | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall | 10-12 | 3 weeks | Write test plans  Coordinate tests |
| Tester | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall | 10-12 | 4 weeks | Make test specifications  Execute (re)tests |

## Project Meetings

|  |  |  |  |
| --- | --- | --- | --- |
|  | Goal | Frequency | Responsibility |
| Project Meeting | Discuss overall project progress including decision making and group processes | Weekly | Team |
| Status Update Meeting for Each Test Level | Discuss progress including problem solving, prioritization for each test level | Weekly | Team Testers |
| Defect Triage | Discuss and prioritize defects found during the different testing levels | Weekly | Team Testers |

## Project Reporting

|  |  |  |  |
| --- | --- | --- | --- |
|  | Goal | Frequency | Responsibility |
| Risk Report | To outline the established risks, their priority and mitigation strategies we will use | When necessary | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall |
| Release Advice | Discuss the test pricedures and when and how they will be executed | Once-only | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall |
| Status Report | This will provide a summary of the overall test case status | Weekly | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall |
| Defect Status Reports | To notify the team of any defects and their status | Weekly | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall |
| Test Summary Report | This document is to explain various details and activities about the testing performed on the software application. | Once only | Aaron Peachey  Charnes Nell  Collin Mckeahnie  Michelle Vinall |

## Project Completion

[Content Here]

# Project Infrastructure

## Test Environment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Environment* | *Requirements* | *From* | *To* |
| UT | * NUnit/Mockito * Mono Develop/ Visual Studio * GitHub * Unity3D | * Requirements must be available * The environment will be needed for two weeks till unit testing is complete. * Readable test case * Repeatable tests * Testers * Progress and end of test reports | 4 May 2018 | 18 May 2018 |
| IT | * NUnit/Mockito * Mono Develop/ Visual Studio * GitHub * Unity3D | * Requirements must be available * The environment will be needed for one week till integration testing is complete. * Readable test case * Repeatable tests * Unit testing should be completed * Testers * Progress and end of test reports | 18 May 2018 | 25 May 2018 |
| UAT | * Running version of the game on Android and IOS | * Requirements must be available * Test cases * Integration testing should be completed * Testers * Progress and end of test reports | 25 May 2018 | 1 June 2018 |

## Test Tools

|  |  |  |
| --- | --- | --- |
|  | Components | Comments |
| UT | Personal computer OS Win 7 upwards  NUnit  Mockito  GitHub repository  Mono develop/ Visual Studio  SQL Server  Let’s Quiz application | These will be using NUnit, Mockito testing tools as well as NUnit assert.  The tools will set up and communally used through the GitHub repository.  Test tools can execute tests scripts much more reliably that humans. |
| IT | Personal computer OS Win 7 upwards  NUnit  Mockito  GitHub repository  Mono develop/ Visual Studio  SQL Server  Let’s Quiz application | As above |
| UAT | Mobile device running Android and IOS  Let’s Quiz application | The application will be installed on the before mentioned mobile devices or emulators if no mobile device is usable. |

## Office Setup

|  |  |  |
| --- | --- | --- |
|  | Components | Comments |
| UT | Software components, local and remote communal repository (GitHub)/test server, MS Word and MS Excel | Access to these will be through the communal repository and local machines |
| IT | Software components, local and remote communal repository (GitHub)/ test server, MS Word and MS Excel. | Access to these will be through the communal repository and local machines |
| UAT | Application server/Front end running environment, hardware server, database server, network, local and remote communal repository (GitHub), MS Word and MS Excel | This will be accessed through the application itself and the remote GitHub repository. |

# Project Management

## Process Management

[Content Here]

## Infrastructure Management

[Content Here]

## Product Management

[Content Here]

## Defect Procedure Management

[Content Here]

# Test Process Risks & Countermeasures

## Criteria

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Event | Consequence | Impact | Chance | Score | Countermeasures | Owner |
| 01 | Testing data/ environment not available | Requirements are missing, incomplete or incorrect and cause a delay | 3 | 1 |  | Prepare testing data and environments well ahead of time according the test plan | Aaron  Michelle |
| 02 | Communication problems | This can occur when test documents are not maintained or inadequate communication concerning testing is given to team members. | 3 | 2 |  | Make sure all documentation is well maintained and distributed to all team members | Charnes  Aaron |
| 03 | Delay in starting testing | The schedule of testing is often inadequate for the amount of testing that should be performed. | 3 | 3 |  | Add a buffer to schedule to allow for unexpected contingencies | Collin  Charnes |
| 04 | Natural disasters | Team member not available due to unforeseen reason | 2 | 1 |  | Provide a back-up tester for all tests in case of unforeseen circumstances | Michelle  Collin |
| 05 | Undefined requirements | If requirements are unknown or incorrect this can cause confusion when testing causing a delay | 3 | 2 |  | Make a requirements list that is update regularly during the planning stage | Aaron  Charnes  Collin  Michelle |
| 06 | Inadequate testing with defects found at a late stage | These defects can be time consuming to fix | 3 | 2 |  | Organise a thorough testing schedule, that outlines all tests and testing order | Aaron  Charnes  Collin  Michelle |

## Measurements

### Impact

|  |  |  |
| --- | --- | --- |
| Impact | Number | Level |
| 3 | High |
| 2 | Medium |
| 1 | Lower |

### Chance

|  |  |  |
| --- | --- | --- |
| Chance | Number | Level |
| 3 | Frequent |
| 2 | Occasional |
| 1 | Unlikely |

### Risk Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | *Impact Severity* | | |
| 1 | 2 | 3 |
| *Chance Factor* | 3 | Moderate | High | High |
| 2 | Low | Moderate | High |
| 1 | Low | Low | Moderate |

# Global Estimation & Planning

## Estimation

[Content Here]

## Planning

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Week* | | | | | | | | | | | | | |
| *01* | *02* | *03* | *04* | *05* | *06* | *07* | *08* | *09* | *10* | *11* | *12* | *13* | *14* |
| *Planning* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Master Test Plan* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Infrastructure* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Unit Test* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Unit Test Plan* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Specification* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Execution* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Conclusion* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Integration Test* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Integration Test Plan* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Specification* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Execution* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Conclusion* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *User Acceptance Test* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *UAT Test Plan* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Specification* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Execution* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Conclusion* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Sign Off on All Testing* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Milestones

|  |  |
| --- | --- |
| Description | Date |
| Finish planning | 12 March 2018 |
| Sign of on Master Test plan | 8 April 2018 |
| Conclude Unit Tests | 17 May 2018 |
| Conclude Integration testing | 24 May 2018 |
| Conclude UAT testing | 1 June 2018 |
| Sign off on all testing | 3 June 2018 |

# Glossary

|  |  |
| --- | --- |
| MTP | Master Test Plan - A document that sets out a guide to the software testing process of the application |
| IOS | Operating System employed by Apple |
| Android | Operating System employed by Google |
| OS | Operating system - the system software that manages a device |
| IT | Integration Testing - testing to check that the different units of scan work together |
| UT | Unit Testing - testing of the individual units of the software |
| UAT | User Acceptance Testing - testing process that tests the application in a real-world environment |

# Appendix

## Management Summary

### Project Objective

[Content Here]

### Test Objective and Assignment

[Content Here]

#### Assigned To

[Content Here]

### Short Description of the Test Approach

[Content Here]

### Results to be Realised

[Content Here]

### Qualitative Objectives

[Content Here]

### Estimated Completion

[Content Here]

### Test Process Risks & Measures

[Content Here]

### Go / No-Go Decisions

[Content Here]