

test plan

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# Version history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version # | Written by | Revision date | Approval date | Details |
| 1.0 | Isaac Dunn | 30/11/22 | 12/12/22 | Initial plan created |

# Introduction

Purpose of the plan will be to test the code of the website project with black and white box testing to ensure all components behave and work as expected to create a robust system for the client.

# Test strategy

## Features to be tested

Features within the tourist website as defined in the software requirement documentation are shown below which will be required for testing

|  |  |  |
| --- | --- | --- |
| Feature name | User roles | Description |
| Home page | Users | User: Splash page for website allows users to navigate between all pages |
| About page | Users | User: provides information about organisation to the user |
| Location page | Users  Moderators | User: allows users to view each location and provide reviews  Moderators: allows moderators to view reviews and comments for moderation |
| 5 star review system | Users | Users: allows user to rate a location from 1-5 stars with 1 star being low and 5 stars being high praise |
| Review post system | Users  Moderators | Users: allows users to post reviews about a location  Moderator: can remove a review at policy discretion |
| review comment system | Users  Moderator | Users: allows comments on a review  Moderator: can remove a review at policy discretion |
| Review/ comment flag system | Users | Users: Allows user to flag a comment or review for a moderator to view |
| Log in | Users  Moderator | Users: allows users to log in to a pre-existing user account  moderator: allows moderators to log in to a pre-existing moderator account |
| Set up account | Users | Users: allows users to set up a new account with email and password |
| Search bar | Users | Users: search up a location webpage using a string of text |
| Sort search system | Users | Users: allows user to search by location type and 5 star review totals |
| Database storage | Moderators  Admin | Moderators: allows moderator to check for flagged comments or remove users  Admin: allows admin to create new page, remove users, add new moderator accounts. |

## Features to not be tested

Hardware interface – user’s system is unknown and uncontrollable factor in web development meaning any issues that occur on the hardware level for users cannot be reasonably mitigated by the development process

Software interface – the user will likely use a web browser such as Google Chrome or Microsoft Edge which are common and stable browsers which will not need to be tested however the website should be made to be able to work on these web browsers to check the website can be viewed on common browsers

## Test type

Unit testing – unit testing will be carried out for each feature developed.

Integration testing – when a feature passes a unit test a integration test will be used to implement the feature.

System testing – when all predefined tests have been passed (as defined in test criteria) begin full system test to define any remaining issues and check software is ready for client.

## Risks and issues

|  |  |
| --- | --- |
| Risk | Mitigation |
| Lack of testing skills for developers | Developers will be given a meeting on how the testing plan will take place and what types of tests they would be expected to perform i.e. unit testing |
| Schedule issues | Time constraints will cause each feature to only be developed and therefore tested by priority of the feature as defined in software requirements documentation |
| Poor management skills | Test manager will enter training for management and further issues will result in a change of management |
| Lack of testing | If developers do not cooperate with test plan the integration tests by the test manager will still find any issues not picked up by the unit testing or lack thereof |
| Costing issues | Revisit scope of project before starting and remove non-critical features until project is profitable again |

## Test logistics

Who is responsible for the testing will change from the type of testing being carried out.

For each feature developed the developer of the feature should conduct a unit test to ensure the feature works in isolation. If successful, this should then be forwarded to the test manager for a integration test of the feature. When the project is complete each the test manager should conduct a system test of all features to ensure it is compliant with the system requirements.

# Test objective

Testing should be used to focus on features in the project that are crucial for the project (see requirements specification document for features in project)

# Test Criteria

Testing should be monitored to ensure the pass rate of the project at any given time to note when the project is in a catastrophic state and requires immediate repair before any new features are developed.

## Suspension criteria

If the project has featured that overall cause 20% of all test cases to fail, then development will need to halt to rectify these errors to maintain the overall code

## Exit criteria

Success - Project is complete when all tests in the test plan is 100% pass rate

Pass – project can pass testing if 70% of tests pass

# Resource Planning

## System resources – tools and system requirements for tests

|  |  |  |
| --- | --- | --- |
| Resource # | Resource | Description |
| 1 | Server | A server will be required for testing PHP elements in the website |
| 2 | Test Link | Test Link is a premade tool that will be used for automated testing |
| 3 | Network | A wireless network will be used to host the website with a required speed of 10/Mb/s |
| 4 | Google Chrome | Common browser that can run the website |
| 5 | Microsoft Edge | Common browser that can run the website |
| 6 | Mozilla Firefox | Common browser that can run the website |
| 7 | Computer | A computer with basic requirements, Windows 10 |

## Human resources – people required

|  |  |  |
| --- | --- | --- |
| Member # | Member | Tasks |
| 1 | Test manager | Directs testing for each feature being in charge of integration and system testing  Defining and implementing test cases  Managing the project integrity through test pass rate  Testing for software requirements |
| 2 | Developer/s | The developer/s of a feature they develop to be required to perform a unit test of the feature before signing off |

# Test Environment

Test setup should be done on a desktop depending on the test requirement it may use a browser or wirelessly connect to a server with the browser as seen in the diagram below

# Test deliverables

Documents that can be delivered from this plan from different phases of the project are shown below.

## Before testing phase

Test plans document

Test design specifications

Test cases document

## During testing

Scripts

Simulations

Test data

Test traceability matrix just feature trace diagram

Error and execution logs

## After testing

Test report

Defect report

Installation and test procedures

Release notes