Rapid App Development – Testing Plan

LNL

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# Introduction

This project is designed to be worked on in a team of three team members. The aim is to use the Agile workflow method to deliver a quality product within scope and on time following the standards of quality defined by CITE.

## Functional Requirements

* The list of movies must be displayed as a list.
* Searches will filter out movies that do not match the criteria of the search.
* Specific titles, ratings, years and genres must be able to be searched for by the user.
* A list of the top searched movies must be displayed in a graph in a separate page.

## Non-Functional Requirements

* Search results may be segmented into multiple pages when there are many results for the sake of performance on low end hardware that can only show few results at a time.
* The top searched movies graph may be displayed as a coloured bar graph.
* The graph may also display a legend to indicate the titles more clearly.
* All pages may load within 10 seconds of the last user input, making the website responsive and quick to use.
* Pages must be properly rendered on larger and smaller screens without parts of the website being off screen or of an inappropriate size.

## Quality Objective

An objective of quality testing is to assure the features of the final product are in alignment with the functional and non-functional requirements. High priority features concerning the correct functionality and usability of the website will be addressed.

Testing of the project is conducted throughout the development of the project. Errors and other outstanding issues will be fixed before deployment of the program as per the Agile SDLC the team will be following.

The project will meet the standards of quality specified by CITE at this page: <http://www.citems.com.au/?page_id=93>.

## Member Roles

* The boss is the overarching manager of all projects currently being worked on. The only member of the development teams that communicate with the boss are the leaders of those groups.
* The role of scrum master will be moved to a new team member every week. They are the main communication between the boss and the development team and manage how the rest of the team operates based on what the boss says.
* The development team, including the scrum master and the rest of the team members, must work based on the input of the scrum master and communicate between each other to accomplish the work for the current sprint.

# Test Methodology

## Overview

The project will be using the Agile testing methodology. It is the standard for most professional projects.

## Test Levels

The following types of test will be conducted:

* Unit testing, when the separate parts of the project are tested individually.
* Integration Testing, that is performed on individual units that are combined to be tested as a group.
* System Testing, which is done on a complete integrated system to ensure correspondence with the laid-out requirements.
* Acceptance Testing, when the implementation of the project is complete, it will then be evaluated whether it is suitable for deployment.

## Suspension Criteria and Resumption Requirements

In the testing of the project, team members find that %40 of the tests result in failure, testing will be suspended until development has fixed all failed cases.

## Test Completeness

The pass rate of tests will be %80. Tests are not considered to have passed if they fall below that threshold. All decided manual or automated tests must be completed.

## Test Deliverables

The following test deliverables will be produced:

Before the testing phase:

* Testing plan document
* Test cases document
* Test design specifications

During the testing:

* Test data
* Testing logs and error logs

After the testing:

* Results of the testing
* Defect report
* Installation and test procedures guide
* Release notes

# Resource and Environment Needs

## Testing Tools

* Automated testing tools that can conduct tests and auto generate test data.
* Debugging tools used by the development to manually find bugs and errors in the code.

## Testing Environment

* A modern Windows 10 computer.
* An internet network connection.
* A server to host the website and database. A solution such as USBWebServer may also be satisfactory.
* The Google Chrome web browser to navigate the website.

# Test Cases

These are the test cases for the current version of the project.

|  |  |  |  |
| --- | --- | --- | --- |
| Test Case | Description | Expected Outcome | Evidence |
| Case 1 | Open the website/Click the Home button in the header | Opens the home page (index) |  |
| Case 2 | Click the Search button in the header | Opens the search page, there will be no search results at first |  |
| Case 3 | Click the Top Searches button in the header | Opens the top 10 searches page, the graph will be empty at first |  |
| Case 4 | Search for a movie title only | Displays movies containing the term in its title | Searched for “monkey” in title textbox |

|  |  |  |  |
| --- | --- | --- | --- |
| Case 5 | Search for a movie genre only | Displays movies containing the term in its genre | Searched for “horror” in genre textbox |
| Case 6 | Search for a movie rating only | Displays movies containing the term in its rating | Searched for “PG” in rating textbox |
| Case 7 | Search for a movie year only | Displays movies containing the term in its year | Searched for “1999” in year textbox |
| Case 8 | Search using multiple textboxes | Displays movies containing the term in the specified columns | Searched for “12 Monkeys, R, 1995, Drama” |
| Case 9 | Search with no matching results | Displays a “No results” message | Searched for “Movie, G, 2000, Horror” |
| Case 10 | View top searches page after making several searches | Displays a graph showing the top 10 searched movies |  |
| Case 11 | Different browsers | Tested on chrome, firefox and Edge | Chrome  Firefox    Edge |
| Case  12 | Different sizes for scaling purposes | 100% and 150% | 100%    150% |