Test Plan

Planr, an Agile Project Planning Application

Version 1.0

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# Introduction

This document will include the plan for testing the critical use cases and functionalities described in the Vision Document.

## 1.1 Objectives

The test plan for the application should support the following objectives:

* Identify the features of the application which will be tested.
* Define the criteria in which a test case passes or fails.
* Define any test approaches required during testing.
* Identify the testing deliverables.

# 2. Features to Test

This section lists the requirements that will be tested for the Planr application. Each major feature has as designated identifier for test case references.

|  |  |  |
| --- | --- | --- |
| **Actor** | **Feature Identifier** | **Description** |
| User | PROJ | Project Setup / Settings |
|  | FEAT | Feature Setup / Modification |
|  | ENG | Engineer Setup / Modification |
|  | PLAN | Planned Features |
|  |  |  |

# 3. Test Cases for User Requirements

## 3.1 Project Setup / Settings

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Test Case** | **Action** | **Result** |
| PROJ.1.1 | Project Setup / Settings | Setup an empty project. | Empty project created with project name with no assigned Engineers or Unplanned Features. |
| PROJ.1.2 | Project Setup / Settings | Assign an Engineer to created project. | The project now has a name and one assigned Engineer. |
| PROJ.1.3 | Project Setup / Settings | Remove an Engineer from a project. | The project no longer has an assigned Engineer. |
| PROJ.1.4 | Project Setup / Settings | Assign an unplanned feature to created project with one engineer. | The project now has an assigned Engineer and one unplanned feature. |
| PROJ.1.5 | Project Setup / Settings | Adjust the Planr settings to have an average velocity of 10 points per Engineer, a sprint length of two weeks, and an estimate padding of 0%. | The settings reflect the changes applied. |

## 3.2 Feature Setup / Modification

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Test Case** | **Action** | **Result** |
| FEAT.1.1 | Feature Setup / Modification | Create an unplanned feature with a name, summary, at least one platform, an effort estimate above 0 points, a priority between 0 and 1000, and no concurrency allowed. | A valid created, unplanned feature. |
| FEAT.1.2 | Feature Setup / Modification | Create an invalid unplanned feature by attempting to assign an invalid point value of 300 sprint points. | An error message is displayed showing the invalid input information. |

## 3.3 Engineer Setup / Settings

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Test Case** | **Action** | **Result** |
| ENG.1.1 | Engineer Setup / Modification | Create a new engineer to assign to the project with a valid first and last name, at least one valid platform, and two unavailable dates within the next two weeks. | A valid Engineer created with a name, platform, and valid unavailable dates. |
| ENG.1.2 | Engineer Setup / Modification | With a created engineer, update their unavailable dates to have four total unavailable dates in the next two weeks. | A valid engineer with four unavailable dates within the next two weeks. |
| ENG.1.3 | Engineer Setup / Modification | Create an invalid Engineer by attempting to enter in a first or last name with a value that is greater than 40 characters. | An error message is displayed showing the invalid input information. |

## 3.4 Planned Features

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Test Case** | **Action** | **Result** |
| PLAN.1.1 | Planned Features | Create a project with four valid features, each feature has a sprint point total of greater than 18 points. Create three engineers to work on the project / features and have the necessarily platform proficiences to match the project needs. | A valid Roadmap output for the given input parameters. |
| PLAN.1.2 | Planned Features | Create a project with four valid features, each feature has a sprint point total of greater than 18 points. Create three engineers to work on the project / features but none of which have the necessarily platform proficiences to match the project needs. | An error message is displayed showing the invalid input information. |

# 4. Approach

This test plan addresses the testing of the Planr application using automated unit testing using XCTest framework in XCode. The Planr application will be manually tested as well.

# 5. Item Pass/Fail Criteria

Tests will pass if they meet the requirements specified for the tested feature in the Vision Document 2.0 or will otherwise fail.

# 6. Suspension Criteria and Resumption Requirements

## 6.1 Suspension Criteria

In the case of a manual test failure, any tests for a feature dependent upon the failed feature must be suspended. The failed test case will be logged with a description of the test case failure as well as the date and time the failure took place. Any feature that does not have a dependency upon the failed feature may continue to be tested. Automated unit testing may resume regardless of failures.

## 6.2 Resumption Criteria

Testing for a failed feature may resume when the root cause of the defect has been identified and addressed.

# 7. Test Deliverables

## 7.1 Test Log

A test log will be used to document the test cases. The log must include a date and time of the test, if the test passed or failed, and if a failure occurs the reason for the failure must be documented with suggested solutions.