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# **1. Introduction**

This section outlines the purpose of the document and overview of the project.

## **1.1 Purpose**

This test plan depicts the testing approach and overall framework that will drive through the testing of the task logger application. This document includes the list of items and features of the application to test, resources required to test, schedule of the test plan, responsibilities of the user in testing and the processes used in testing the application before the release of a deliverable.

## **1.2 Project Overview**

This application is used to store data electronically in a device to enable the user easy access. The user will be writing notes about events and activities, while also being able to search for specific tasks and information associated with them which can be displayed to her for quick access. This application works by allowing the user to add a task or search for a task. In the add task page, the user would be able to select a person, multiple persons, or organizations to be associated with the task as applicable. The user will then be able to enter a comment associated with this task, noting anything of importance and significance. This information along with the current time and date will be captured and stored to the device by clicking on save. In the search page, the user can similarly search for a specific task by entering any task related information. The application filters the data and displays the results. The results can be deleted in the results page.

# **2. Assumptions**

This section lists the assumptions made at the time the test plan is written.

* The team determines all necessary inputs required to test the application functionality.
* Testing is performed for each increment during the development of the application.
* All defects detected while testing is reported to the team.
* The team will come with the defect fix plans in each increment to fix the defects in the code.
* Test cases are prepared from the use cases in the requirements document.
* The team will be doing the tests in the development environment and the target environment.
* All the team members will review the test cases and makes necessary corrections before starting the testing.
* All the team members will review the test deliverables.
* If there are no more defects, then a new increment will be initiated.
* User acceptance test will be performed by Dr. Stringfellow.

# **3. Test Items**

This section outlines the items, that is, the modules in the application that need to be tested.

* Add Entry module
* Search Entry module
* View Results module
* Home module

# **4. Features to be Tested**

This section outlines the features, that is, the functionality of the modules that need to be tested. They are displayed below in Table 1.

Table 1. Features to be Tested

|  |  |
| --- | --- |
| **Test Items** | **Features** |
| Add Entry | Able to select task type |
| Add Entry | Able to select people or organization |
| Add Entry | Able to write comment |
| Add Entry | Able to save the entry with date and time |
| Search Entry | Displays related data on search |
| Search Entry | All the related entries are listed |
| View Results | Information associated with the entry is displayed |

# **5. Features not Tested**

This section outlines the features of the modules which will not be tested. They are displayed below in Table 2.

Table 2. Features not Tested

|  |  |
| --- | --- |
| **Test Items** | **Features not tested** |
| Add Entry | Grammar mistakes in the comment section |

# **6. Approach**

The approach for testing the application will combine low level and high level testing strategies consisting of: unit testing, integration testing, functional testing, and system testing. This will require both black and white box testing techniques. The approach philosophy will have testing taking place during implementation for unit, integration, and functional testing. These will be able to be executed in a simulated environment on the development team’s laptops. Additionally, every test including system testing will be executed again, on the target environment device hardware.

# **7. Item Pass and Failure Criteria**

The criteria for each test to pass or fail will utilize a blanket system. An itemized list of test cases will be produced. These test cases will cover each of the testing strategies from above. If the actual output does not match the expected output precisely, then that test case fails. For testing to be completed, all test cases must pass. This ensures that one hundred percent of test cases have been completed, ensuring that each testing strategy has also been completed.

# **8. Suspension and Resumption Criteria**

The test cases must run to completion. If there is an error in execution, then that test case must be terminated. Implementation will commence once again, and the execution of the test case will begin anew. There will be no check points associated with integration or system testing, so the test will always start from the beginning.

# **9. Test Deliverables**

The completely tested application is to be delivered and installed on the target environment device, Samsung galaxy tablet. Along with it, will be a completed testing documentation report and a user manual. The testing documentation report will have a completed itemized list of test cases, with actual outputs. The user manual will have screenshots and descriptions on using the application on the target device.

# **10. Testing Table**

Since the testing table is a large document, it is attached at the end of this document in Table 3.

# **11. Environmental Needs**

This project will be tested on Samsung Galaxy Tab S3 and developer’s laptops. Specific versions of other supporting software need to be installed on the laptop while testing.

# **12. Responsibilities**

Developers are responsible for creating the test scripts, scenarios, test execution, and so on that make up the tests to be performed. User is responsible for reviewing, validating, and approving the test materials created by the test designer to assure the quality.

# **13. Staffing and Training Update**

The testers are need to be trained on the basic operations of the user interface to test the application functionality. At least one developer needs to be trained on the installation and control.

# **14. Schedule**

Testing of the electronic task logger application is scheduled as followed:

Development of test plan is scheduled for 2 days. Test cases are designed by each member of the team, that is scheduled for 3 days. Functional testing on the developer’s laptops before deploying the application on the tablet, that is scheduled for 2 days. Fixing errors, and final testing on the developer’s laptops and then deployment on the tablet for performance testing, that is scheduled for 3 days. Finally test cases are executed and the test report is made.

# **15. Resources**

Team TriNetra has an assortment of resources available that will be utilized in the testing of this project. These resources include: team members, customer, hardware, and software.

## **15.1 Team members and Customer**

Team TriNetra consists of the following members: Anusha Karnati, Sai Kishan Naraparaju, and Matthew Schenk. Dr. Catherine Stringfellow is the customer and primary user for our application.

## **15.2 Hardware and software**

This project will be developed on Team TriNetra’s personal laptops and desktops. However, the project is being developed for the Samsung Galaxy Tab S3. This project will be developed utilizing Windows 10 operating system, through Visual Studio 2017 Community Edition. It will utilize Ionic framework with Apache Cordova plug-ins, that will allow execution on an Android 7 operating system. Samsung handwriting recognition software will allow for our customer to write with the S-Pen Stylus, included with the Samsung Galaxy Tab S3.

# **16. Risks and Contingencies**

Lack of availability of personnel resources when testing is to begin. Lack of availability of required hardware, software, data or tools. Late delivery of the application results in delay of the testing process. Deviations from the original requirements or designs can delay in testing process.

# **17. Approvals**

Test plan is approved when all the requirements were covered by the test cases and it should cover all the complexities involved in the application. It is approved by Dr. Stringfellow.