**FUNCTIONAL TEST PLAN**

**FOR**

**News App Reader**

**Version 1.5**

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# Introduction

This Test Plan provides the strategy for testing the project “News App Reader”. It includes the objectives, scope, schedule, risks and approach. This document will clearly identify what the test deliverables will be and what is deemed in and out of scope.

## Document Purpose

This Test Plan contains all detail following:

* Existing project information
* Business Requirements and critical transactions to be tested
* Testing types and strategies to be implemented
* A proposed testing schedule.
* Summary of necessary test environment, test tool
* Summary of test Deliverables

## Team Members

|  |  |
| --- | --- |
| Name | Role |
| Ho Si Hung | Leader |
| Ho Viet Long | Member |
| Le Tuan Liem | Member |
| Phan Tai Duc | Member |

# Test Items

News App Reader version 1.0.

Our team will test the following functions:

- Home Screen  
- Category Screen  
- Category Articles Screen  
- Bookmark Screen  
- Download Screen

- Chart Screen

Non-Function testing:

* Check performance
* Usability testing
* Load testing

# Features to be tested

All the features of News App Reader software that are defined in the required specs of software needed to be tested.

|  |  |
| --- | --- |
| Fuction Name | Detailed description |
| Home Screen | Display a list of articles from the API and load article details using webkitview |
| Category Screen | Display 4 categories: Heath, Science, Entertaiment, Technology |
| Category Articles Screen | Show list of articles sorted by category and load article details using webkitview |
| Bookmark Screen | Display a list of articles that the user has bookmarked and load article details using webkitview |
| Download Screen | Display the list of articles that the user has downloaded and load the article details without using the internet |
| Chart Screen | Display the statistical chart of the number of visits to the categories, data stored in firebase |

# Features not to be tested

None (all functions will be tested)

# Approach

* Preventative approaches (Write TCs from the beginning)
* Analytical approaches (Guess which functions may have more errors, and test them more carefully)
* Methodical approaches (Guess Error)
* Process approaches (Business Rules)
* Dynamic approaches (Exploratory test)
* Regression-averse approaches (Reuse TCs example)

# Item pass/fail criteria

## Pass Criteria

An item is considered to have passed when the test results show that the actual result is the same as the expected result in the test case.

## Fail Criteria

When the actual results are different from the desired results

## Block Criteria

When test case can’t not be tested because of some external factor like testing environment doesn’t support, the test suit has changed for updating or waiting for customer’s response.

# Suspension and resumption criteria

## Suspension

Work will be paused if following situations happened:

* Manager demand project to be paused
* Remain paused until get full requirement from customers
* Remain paused until conflict between customers and company is over
* Remain paused until get agreement with deliverables from customers
* Remain paused until notice from manager is released

## Resumption

Work will be automatically resumed after following situations happened:

* Manager notices
* Customer agreed with deliverables
* Customers, developers, and test team agree to continue project

# Test Deliverables

|  |  |  |
| --- | --- | --- |
| Document | Submission Time | Description |
| Test Plan | Before the test design phase. | Describing the scope, approach, resources, and schedule of intended test activities. |
| Test Design | When the test plan is specified. | The test design revolves around tests themselves, including how many will need to be performed, the test conditions and ways that testing will be approached. |
| Test Cases | During the test design phase. | A test case usually contains: Title, Description, Test steps, Expected result, Actual result (once tested). |
| Test results/ reports | After the testing step is over. | Test results are the outcome of the whole process of software testing life cycle. |
| Bug/ Defect Report | At the end of each week throughout the test execution step. | A Bug Report in Software Testing is a detailed document about bugs found in the software application. It shows a list of all items that are already tested but all these tests are failed. This document also shows the priority of the test cases that need to be fixed and corrective actions. |
| Test Summary Report | At the end of testing. | The summary of testing activity in general. Information detailed here includes: The number of test cases executed the numbers of test cases pass, The numbers of test cases fail, Pass percentage, Fail percentage, Comments, ... |
| Release notes | After the testing step is over. | Release notes are documents that are distributed with software products. |

# Test Tasks

The testing tasks to be done are:

* Analyze software requirement specification.
* Create the Test Design Specification.
  + Design test scenarios.
  + Create test cases.
  + Review test cases.
* Execute the Test Cases.
  + Build up the test environment.
  + Perform the test execution.
  + Review test execution results.
* Report the defects.
  + Create Test Results.

# Environmental needs

* MacOS 10.14 and up
* Xcode 10 and up
* IOS devices simulator or physical devices

# Responsibilities

|  |  |  |
| --- | --- | --- |
|  | Member | Tasks |
| 1 | Test Manager | - Manage the whole project.  - Define project directions.  - Acquire appropriate resources. |
| 2 | Tester | - Identifying and describing appropriate test techniques.  - Verify and assess the Test Approach.  - Execute the tests, Log results, Report the defects. |
| 3 | Developer | - Deliver complete builds of the application.  - Implement the test cases, test program, test suite, etc.  - Eliminate defects. |
| 4 | Test Administrator | - Builds up and ensures that Test Environment are managed and maintained. |
| 5 | Clients | - Describe and review Business Requirements.  - Perform Customer Acceptance Testing. |

# Staffing and training needs

* **Staffing needs :**
  + 1 Test Manager.
  + 5 Test Designer.
  + 1 Test Analyst.
  + 10 Testers.
* **Training needs :**
  + Test execution training.
  + Documentation training.
  + Teamwork training.

# Schedule

|  |  |  |  |
| --- | --- | --- | --- |
|  | Work name | Implementation date | Actual completion date |
| 1 | Create test plan | 24/05/2021 | 25/05/2021 |
| 2 | Review Test Plan | 26/05/2021 | 26/05/2021 |
| 3 | Create Test Design, Test Cases | 27/05/2021 | 12/06/2021 |
| 4 | Review Test Cases | 13/06/2021 | 15/06/2021 |
| 5 | Prepare Test Environment | 15/06/2021 | 15/06/2021 |
| 6 | Perform Test Execution | 16/06/2021 | 17/06/2021 |
| 7 | Create Defect Report | 18/06/2021 | 19/06/2021 |
| 8 | Acceptance test | 20/06/2021 | 20/06/2021 |
| 9 | Complete Test Results |  | 21/06/2021 |

# Risks and contingencies

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Impact | Trigger | Mitigation Plan |
| Late - Some members do not finish the work on time due to personal reasons | HIGH | Delays in implementation date | Each time the content is deployed, the content deployed will have to be understood by all members. When something goes wrong, it can be easily replaced with another member |
| Not on schedule - Due to subjective or objective reasons, the proposed schedule cannot be implemented on schedule | HIGH | Delays in implementation date | The schedule implemented must ensure a safe period from the handover deadline so that remedial work can be carried out |
| Change request - Changes to the functionality may negate the tests already written and we may lose test cases already written | HIGH – to schedule and quality | Loss of all test cases | The change of requirement must be placed a safe period before the handover deadline |
| Some members were absent from the meeting | HIGH | Difficulty in content implementation | The meeting schedule must be agreed upon by all members |
| Some members have conflicting opinions | HIGH | Difficulty in reaching consensus | To avoid conflict of opinion, all members must clearly understand the content being mentioned, avoid misunderstanding, unclear understanding. |
| Some members are afraid to contribute ideas and lose focus | HIGH | Difficulty in developing ideas | Members attending the meeting have the right and responsibility to contribute opinions on the contents of the meeting |
| Team members lack the necessary skills to carry out the project | HIGH | Difficulty in project implementation | Plan training courses to improve skills for team members |
| The SRS is unclear or incomplete | HIGH | Difficulty in project implementation | Use experience and logic to complement and perfect the SRS. |

# Approvals

|  |  |  |
| --- | --- | --- |
| Name | Position | Sign |
| Ho Si Hung | Team leader |  |
| Ho Viet Long | Team member |  |
| Le Tuan Liem | Team member |  |
| Phan Tai Duc | Team member |  |