Group 19



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Purpose

Purpose - Test Scope

- Verify Tangerine open source software functions effectively, accurately, and reliably
- The following metrics well be tested
 - Assess all assessment related features on various Android devices with different specs
 - Test a variety of assessment content with different requirements
 - Make sure that all the data and server related functions are accurate and functional
 - Examine the performance of the application in a different network conditions.
 - Validate the offline functionality of the software

Purpose - Environment

- The testing will be conducted on various Android devices
 - Range of android devices will be used to have a in-depth testing
- The testing will oversee how different assessment content will be created
- Different network conditions will be used to measure data related functions
- Both offline and online testing will be used
- Testing team will have full-access to tangerine server infrastructure to have in-depth evaluation.

Purpose - Audience

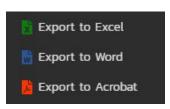
- The intended audience is the Tangerine software test team and Tangerine Software Developer
- Test team will focus on ensuring the software functions as intended and test lead will handle the overseeing of the effort.

Testing Approach

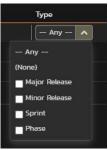
Testing Approach

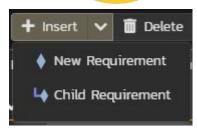


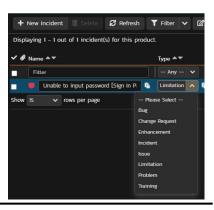
- SpiraPlan for all documentation
 - Test Cases
 - Requirements
 - Issues
- Supports Agile methodologies
 - Scrum
 - Kanban
- Easily manageable and export data quickly
- Independent testers for each section of software







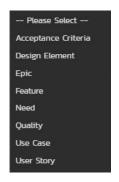




Requirement-Based Testing

- Requirements documented on SpiraPlan
 - Define the user stories and acceptance criteria into multiple categories
- Test cases can be automated/manual
- Easily tracked and managed







Manual testing

- Manual testing will use various approaches to ensure functionality for real world applications
- Testers will be assigned specific software components for assessments and tracking generation and execution
- SpiraPlan will be used to hold all test related content
- Testers must report any issues such as no suitable test cases or information is lacking and collaborate with test lead for refinement

Automated testing

- Automated testing ensures consistency and efficiency
- The test suite should align with the latest build of the software
- Changes in software requirements may change the test suite as well
- Results will be stored in the provided test results directory
- All failures and anomalies will be reported for inspection

Regression testing

- Done to ensure that modifications don't adversely affect existing functionality
- Goal is to maintain the integrity of Tangerine's core features while accommodating changes
- Approach involves selecting a strategic set of test cases that comprehensively cover crucial aspects
- Test maintenance plays a vital role in this context

Test maintenance

- Review of Test Cases
- Update Test Cases
- Add New Test Cases
- Data Maintenance
- Regression Testing
- Documentation Updates
- Review and Approval

For managing test maintenance tasks, SpiraPlan will remain the main tool.

Item Pass/Fail Criteria

- Specific, well-defined criteria for test cases chosen to determine success/failure
- Some pass criteria considered:
 - Data collection processes must be reliable
 - User interactions should be smooth and error-free
 - Offline to online synchronization should occur seamlessly
- Some fail criteria considered:
 - Usability affected due to limitations in the user interface
 - Data upload failures
 - Compatibility issues

Test deliverables

The following test documentations will be maintained and updated throughout testing to make sure activities can be traced back and progress speeds can be checked. They will also be submitted at the conclusion of the testing.

- Test Plan
- Test Cases
- Test Scripts
- Test Data
- Test Reports
- Defect Reports

Resources

Tools used in this test plan

Process	Tool
Automated tests and documentation	Spira

Browsers used

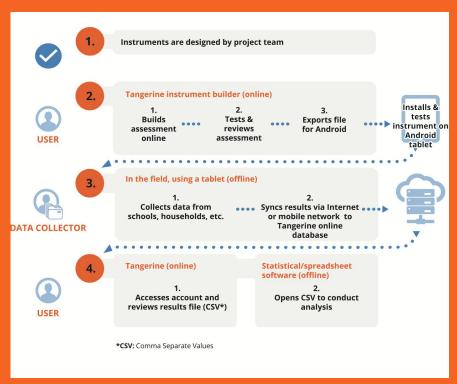
Browser	Version
Chrome	Latest
Firefox	Latest
Safari	Latest

Devices Used

Device	Version
IPhone	Latest
Android phone	Latest
Local Computer	Running latest Windows update

Test responsibilities





Test schedule

Test Phase	Start Date	End Date
Test Planning	2024-01-01	2024-01-05
Requirements Testing	2024-01-06	2024-01-12
Manual Testing	2024-01-13	2024-01-19
Automated Testing	2024-01-20	2024-01-26
Regression Testing	2024-01-27	2024-02-02
Test Report Generation	2024-02-03	2024-02-07

Risk and contingencies

Risk or contingency	Fix
Changes to the program that are not reported to the testing team	Make sure all changes to the program are discussed with the testing team as soon as possible
Changes to requirements without discussing with the testing team	Make sure any changes to requirements are discussed with the testing team first
Delays in training personnel on testing	Make sure personnel is trained fast and properly as early as possible
Lack of availability of required software, hardware or tools	Make sure all required resources are collected early
Changes to timeline without discussion with the testing team leading to rushed testing.	Make sure any changes to the timeline are discussed with the testing team before hand

Test reporting and requirements

- Reliant on SpiraPlan features
- Test requirements, test cases, test runs, and results are documented
- Clear traceability from requirements to test cases ensured
- Centralised overview of all tests and their corresponding statuses
- Streamlined monitoring and reporting

Thank you