
XYZ Software Solutions

Functional Test Plan Document - WhatsApp

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Document Control Information

Review & Approval:

Name	Role	Reviewer/ Approver	Approved on	Date
Varsha Raj	xxxx	xxxx	xxxx	xxxx

1. INTRODUCTION

1.1. Purpose

This document hypothetically outlines the testing methodology that could guide the evaluation of the WhatsApp chat-based mobile application

The test plan includes the following key components:

- **Test Strategy:** This section defines the foundational rules for testing, including essential project parameters such as start and end dates, objectives, and assumptions. It also details the process for establishing a valid testing environment, which encompasses entry and exit criteria, the formulation of test cases, specific tasks to be completed, and scheduling logistics.
- **Execution Strategy:** Here, we describe the methodology for conducting tests, including how to identify and report defects. This section also outlines the procedures for addressing and implementing fixes.
- **Test Management:** This part focuses on managing the logistical aspects of testing, addressing all events that arise during execution. It includes communication protocols, escalation procedures, and strategies for risk assessment and mitigation.

1.2 Overview

The primary goal of the testing effort is to verify that the developed solution aligns with the functional requirements specified in the functional specification document. This document details the approach the testing team will take to ensure that the functionality meets the documented business needs.

The key responsibilities of the testing team include:

- **Identifying High-Risk Areas:** Focus on areas that pose significant risks and should be prioritized in test planning.
- **Creating and Managing Test Cases:** Develop, document, and prioritize test cases within the Application Lifecycle Management system.
- **Defect Identification and Analysis:** Detect, analyze, and reproduce any defects found in the solution being tested.

All defects identified during testing will be recorded in a Defect/Bug Tracking Tool (Jira). The testing teams will hold regular cross-functional “Triage” meetings with project leadership to facilitate effective prioritization and assignment of outstanding defects. Any defects that remain unresolved and unverified when the solution transitions to Production will either be carried over to a future phase of the XYZ Agency or marked as ‘Rejected.’

1.3 Audience

- Project Team Members: Team members are responsible for executing the tasks outlined in this document and offering feedback and suggestions regarding its content.
- Project Manager: The Project Manager is responsible for integrating testing activities into the overall project schedule, reviewing the document, monitoring test performance based on the specified tasks, approving the document, and being accountable for the outcomes.
- Stakeholder Participation: Representatives and participants from stakeholder groups may engage in User Acceptance Testing (UAT) to ensure that the business objectives align with the test results.
- Technical Team: The Technical Team ensures that the test plan and its deliverables are consistent with the design specifications. They also provide the testing environment and adhere to procedures for addressing defects.
- Business Analysts: Business analysts will contribute their insights regarding any functional changes.

2. TEST STRATEGY

2.1. Test Objectives

The aim of the testing process is to ensure that WhatsApp's functionality would operate in accordance with specified requirements if implemented. The testing will involve executing and validating test scripts, identifying, addressing, and retesting all high and medium severity defects based on the entry criteria, while lower severity defects will be prioritized for future resolution through Change Requests (CR).

The expected outcomes of the testing include:

- A fully production-ready application.
- A collection of stable test scripts that can be reused for Functional and User Acceptance Testing (UAT) execution.

2.2. Assumptions

The information presented in this document is founded on the following assumptions regarding the Functional testing effort:

- Project team leaders and members will provide timely and thorough responses to inquiries from the testing team, covering aspects such as functionality and usability.
- All testers will create test cases based on their assigned functional requirements.
- The Project Manager and Business Analyst will review and approve all test deliverables.
- Testing will be conducted in each project environment: Test, Pre-production, and Production.
- Each testing environment will be accessible for testing 24 hours a day from any location worldwide, with all maintenance activities formally scheduled in coordination with the respective testing teams.

- All required personnel will be available to support testing activities, including server administration, debugging, tools development, as well as for planning, executing, and analyzing tests.
- The testing team will receive sufficient training on the tools, processes, and techniques necessary to carry out all activities described in this document.
- The testing team will have access to the required tools to execute all activities specified in this document.

2.3 Test Principles

The testing efforts will prioritize achieving business objectives, ensuring cost efficiency, and maintaining high quality.

- All teams involved in testing activities will follow standardized and consistent procedures.
- Testing processes will be clearly defined but adaptable, allowing for adjustments as necessary.
- Testing activities will build on previous phases to prevent redundancy and duplication of effort.
- The testing environment and data will closely replicate the production environment whenever possible.
- Testing will be a repeatable, quantifiable, and measurable process.
- The testing process will be divided into distinct phases, each with specific objectives and goals.
- Entrance and exit criteria will be established for each phase.

2.4 Scope

The testing teams will conduct functional testing to ensure that the WhatsApp Mobile Application operates according to the specified requirements. Any defects identified during the testing process will be logged and monitored using the Defect Tracking Tool (Jira). The Business Analysis team will input requirements into Jira, ensuring they are traceable back to the Functional Specification Documents (FSDs), and the testing team will formally accept these requirements for testing.

The objectives of the testing effort include:

- Verifying that the application fulfills the business requirements outlined in the Functional Specifications.
- Ensuring that system configurations are accurate and complete according to business needs.
- Confirming that all system-level solution components have been implemented as specified in the business requirements.
- Providing project managers and business stakeholders with sufficient and precise data to support decision-making regarding implementation.

2.5. Out of Scope

The Manual testing effort will exclude the following:

- Unit Testing: This will be conducted by the Development team.
- Usability Testing: This will be carried out by the UX team.
- End-to-End Testing: This will be performed by the End-to-End testing team.
- Performance/Load Testing: This will be executed by the Performance testing team.
- Penetration Testing: This will be handled by the client.
- Static Security Testing: This will be conducted by Development using a static code analysis tool.
- Infrastructure/Disaster Recovery Testing: This will be performed by the Infrastructure team.
- Acceptance Testing (User Acceptance Testing): This will be executed by the client.
- Any activities that do not directly relate to the XYZ Agency website.

2.6 Test Acceptance Criteria

1. The approved Functional Specification document and use case documents must be accessible before the commencement of the Test design phase.
2. Test cases must receive approval and sign-off prior to the initiation of Test execution.
3. Development should be fully completed, and Unit Testing should be conducted by developers with a Pass status. Results must be shared with the Testing team to prevent duplicate defects.
4. The test environment should be properly configured and in a "Ready to Use" state.

Sign Off

Approved Functional Specification Document

Approved Use cases

Approved Test cases

Readiness:

Development completed & Unit tested

Application deployed and system ready for testing on Test environment.

2.7 Deliverables

S.No.	Deliverable Name	Author	Reviewer
1	Test Plan	Test Lead	Project Manager
2	Functional Test Cases	Test Team	Business Analyst
3	Logging Defects in HP ALM	Test Team	Test Lead
4	Daily/weekly status report	Test Team/ Test Lead	Test Lead/ Project Manager
5	Test Closure report	Test Lead	Project Manager

2.8 Roles and Responsibilities

The testing effort will involve both test leads and testers. Below is a general overview of the activities that the test team is expected to undertake for this project:

- Review project documentation.
- Create and maintain test documentation.
- Establish best practices.
- Document policies and procedures.
- Assist in project planning.
- Help evaluate and mitigate project risks.
- Log and monitor defects and issues.
- Coordinate releases, builds, and configuration changes.
- Generate reports.
- Review and recommend equipment and tools.
- Attend project-related meetings.
- Train new team members.
- Participate in retrospective activities.

The designated test lead for the team is: xxxxx.

The test lead for all other testing efforts on the project is: xxxxx.

The overall lead for the testing effort is: xxxx.

2.9 Test Entry, Stoppage and Exit Criteria

Test Entry Criteria:

The following criteria must be met before initiating the testing effort:

- Completion and Approval of Specifications and Design Documents: All specifications and design documents must be finalized and signed off. Stability in business requirements is essential for determining the structure of the Test Plan and scheduling the necessary effort to complete it.
- Requirements Defined in Jira: Requirements must be clearly defined, entered into the Defect Tracking and Management system (Jira), and marked as accepted for testing by the test team. These requirements should be mapped to the corresponding Functional Specifications they address.
- Test Plan Module Finalized: The Test Plan Module must be fully developed and approved. This module serves as the framework for formal, prioritized test cases/scripts that will be executed as part of the project.
- Initial Test Scripts Developed: The initial test scripts must be created and approved, covering all individual test cases that align with the documented requirements.

- **Successful Unit Testing in Development:** Unit testing must have been successfully completed in the Development environment. The unit test framework established during development should have been executed and passed.
- **Completion of Hand-off Meeting:** A hand-off meeting between the Development team and the testing team must have taken place, during which the development teams formally transferred the initial build to the testing team.
- **Test Data Prepared and Available:** Test data, including necessary content, must be set up and accessible. A foundational set of mock data should be created within the solution's data sources, prepared by the testing team with assistance from Development. This data will serve as a baseline for augmenting data entered into or removed from the system during testing. It should be comprehensive enough to support exploratory (ad hoc) testing of all system functionalities, simulating a realistic production dataset.

Test Stoppage Criteria:

The following criteria indicate that the testing effort should be halted:

- Failure of the Build Verification Test (BVT).
- Instability in the test environment.
- More than 30% of executed test cases have failed.

Test Exit Criteria:

The following criteria must be met before concluding this testing effort:

- All test scripts must have been executed, and this execution should be documented in Jira.
- 100% of Severity 1 (Critical) and Severity 2 (High) defects must either be resolved or have an agreed-upon resolution plan in place.
- 100% of Severity 3 (Medium) defects must be resolved or have an agreed-upon resolution plan for after deployment.
- At least 80% of the in-scope test scripts must have been completed with a 'Pass' status, and the results should be recorded in Jira.
- Release notes must be created and reviewed by the testing team.
- All defects identified during the execution of test scripts and exploratory (ad hoc) testing must be logged and managed in Jira.
- All defects must either be closed or deferred with approval from Project Management. The status and impact of any deferred defects must be documented and agreed upon in the Test Summary Report.
- The Test Summary Report must be completed and signed off, confirming the final scope of the completed testing effort.

2.10 Test Tools and Equipment

The following hardware and software are required for the execution and management of testing. The essential software tools that will be used for the testing effort in this project include:

Tool/Equipment	Location
Defect Tracking Tool	Jira for requirements and test case management, as well as defect reporting and tracking.
pCloudy	Allows you to test for cross-browser, Cross Device compatibility. Instant access to multiple desktop and mobile browsers. Accessible from anywhere in the world.

2.11 Schedules

Schedules outline the sequence, duration, and synchronization of events and milestones. For detailed information on all milestones, please consult the project schedule documents. Below are some key events and milestones that are particularly relevant to the testing effort for this project.

Note: This information is subject to change.

Key Milestones	Expected	
	Start Date	End Date
Test Scenarios and Conditions with Test Scripts.	24/2/2022	24/2/2023
Design Complete		

2.12 Risks and Mitigations

Project risks will be addressed as concerns during daily standup meetings and managed accordingly. However, certain risks are ongoing and intrinsic to this specific project. The following risks have been identified as pertinent to this testing effort:

Risk	Impact	Mitigation
Limited Resources	If testers become unavailable or face issues during testing, it could negatively affect test coverage and the delivery schedule.	The Test Architect and Test Leads will ensure that the testing effort is thoroughly documented, allowing the team to operate independently with empowered leadership.
Baseline Functionality Already Committed	The project's scope is fixed, meaning that any unforeseen issues could impact the timeline or the quality of the final solution.	The test team will prioritize maintaining high quality within the designated time frame, advocating for quality over project deadlines if necessary.

2.13 Training

Training may be necessary to support the testing effort for the project. Test team members must be trained in the proper use of Jira and Browser Stack. Additionally, the test team may provide training to others on how to use these tools for defect reporting and tracking. The identified training needs for the test team are as follows:

- Jira: All test team members need to be proficient in using this tool for creating and executing test scripts, as well as for defect tracking and reporting. Training will be conducted within the test team on an "as needed" basis.
- pCloudy: All test team members should be skilled in using this tool for testing across various devices, browsers, and operating systems.

2.14 Processes and Procedures

The following are the activities and events related to the testing effort, outlining "how things are done" within the project. The documented test processes and procedures identified include:

- Test Acceptance Process: This is the procedure the test team will use to review requirements and specification documents, as detailed under "Testing Acceptance Criteria" above.
- Test Case Creation Process: This outlines how the test team will create formal test cases/scripts in Jira.
- Defect Management Process: This describes the approach the test team will take to manage defects throughout the project.
- Defect Triage Procedures: These are the procedures that the test team will follow to ensure proper prioritization and assignment for defect resolution.

2.15 Platforms

Platforms encompass all the components that the solution relies on, including both external hardware and software, as well as server-side platforms. All of these elements should be tested as part of the overall solution. For testing device platform combinations, the current plan is to utilize pCloudy. The identified supported platforms include:

Mobile Platforms:

- iOS
- Android

2.16 Conclusion

This document outlines the functional test plan that the test team will use for the XYZ Agency project. It serves as the foundation for the testing processes and procedures that will be implemented throughout the project.