**1. Introduction**

**1.1 Overview**

A Test Plan is a document that describes the scope of testing, test strategy, objectives, effort, schedule, and resources required. It serves as a guide to testing throughout the development process.

**1.2 Scope**

The scope of work is defined at the beginning of the testing process. A project team should clearly understand what features and functions there are to be tested and which ones are out of scope. To determine the scope of testing, the project specification, budget, and customer’s requirements should be taken into account.

**2. Test Plan and Strategy**

**2.1 Unit Testing**

2.1.1 Objective

The main objective of unit testing is to verify whether every unit operates as intended. A function, procedure, method, or even the entire module can be considered a separate unit. Unit testing can be conducted manually, but automated testing is a more common practice.

**2.1.2 Entry Criteria**

* the planning phase has been finished
* testable units are available
* all functional requirements have been defined
* the unit testing environment has been set up (by developer)

**2.1.3 Exit Criteria**

* all planned test cases have been covered
* all the bugs found have been reviewed

**2.1.4 Logging Tests and Reporting**

Developers fix the defects found in each unit. If these defects are related to other modules and units, they must be reported.

**2.2 System Testing**

**2.2.1 Objective**

System testing is generally conducted after Unit Testing.

**2.2.2 Testing Procedure**

* test cases preparation
* test executions
* bug reporting

**2.2.3 Types of System Testing**

**2.2.3.1 Performance Testing**

Performing testing is conducted to detect issues related to:

* memory consumption
* power utilization
* network connectivity
* operating in the background
* switching between applications
* memory leakage

**2.2.3.2 Interrupt Testing**

This testing type examines how an application reacts to interruption and resumes to its previous state. There are numerous reasons that can potentially interrupt the operation of an app, such as getting a phone call, messages, notifications, battery low, etc.

**2.2.3.3 Usability Testing**

Usability testing is performed to check whether the application is easy to use and understand for the end-user.

**2.2.3.4 Installation and Launch testing**

Installation testing aims to detect whether there are any issues during the installation, uninstallation, and updating process. Once the application has been installed, a QA engineer also checks the launching process.

**2.2.3.5 Functional Testing**

All the functions and features of the application are tested to verify whether they operate according to the specification.

**I will cover some and high priority testcases here**

**2.2.3.5 Security testing**

Security testing is conducted to find the application vulnerabilities and prevent data breaches.

**2.2.3.6 Regression testing**

Regression testing is a re-execution of tests that had been done before the code changes. Its purpose is to verify whether a new functionality has affected the existing one.

**3. Schedules for Testing**

A test schedule, created by Project Managers, helps to monitor the testing process.

**4. Risks**

**4.1 Risks**

The following risks may occur during the mobile app testing process:

* availability of devices
* new features and modification which have not been planned in advance
* changes in requirements
* delays in schedule

**5. Roles and Responsibilities**

Project roles and responsibilities should be clearly defined and divided among the project staff. Commonly, the roles are as follows:

**8.1 Project Manager**

The Project Manager is responsible for managing the whole testing process. They approve all test documentation, considers budget and time terms, and provide necessary resources.

**8.2 Test Lead**

The Test Lead is responsible for collecting requirements, planning process, test activity monitoring, and project reporting.

**8.3 Test Engineer**

The Test Engineer is responsible for test case preparation and execution, as well as issue reporting.

**6. Deliverables**

The list of testing deliverables usually contains:

* test plan
* test cases documents
* test strategy
* test results
* test summary report