# Client\_Apps Automation Test Plan

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# Objective:

The primary objective of this Automation Test Plan is to portray the step-by-step process that will enhance the efficiency, reliability and scalability of the testing process. This automation of repetitive, time-consuming and critical test scenarios will improve the product quality and will speed up the delivery cycle.

# Assumptions:

This automation plan can be considered as the initial plan to automate Client apps across all different platforms. Given the allocated resource will completely concentrate on the automation process & the implementation itself.

# Project Overview:

Live interactive streaming app, which is used across all different platforms to upload, watch, comment & like on the live content. This Application has multiple functionalities that can be verified through the Automation process.

# Automation Test Life Cycle:

Typically, automated testing follows a 6-step by step process as below:

* Determining The scope of the test automation
* Selecting The Right Automation tool
* Plan, design and strategies
* Setting up The Test Environment
* Automation of Test scripts Development & Execution
* Analysis, generation of Test Reports and maintain tests

A diagram of a software testing process

Description automatically generated

# Test Coverage:

Test Methodolgies that can be covered during this Automation process:

* Sanity/Smoke testing
* Functional testing
* Regression testing
* Performance testing
* Integration Testing
* Security testing
* End to End testing

# Platforms In-scope:

**In- Scope:**

* Desktop Web application (OSX Safari, OSX Chrome, Windows Edge, Windows Firefox, Windows Chrome)
* Mobile Web application (Android Chrome, iOS Safari, iOS Chrome)
* iOS Native app (iPhone, iPad; latest OS)
* Android Native app (Samsung, Moto; last 2 OSes)
* FireTV application
* AndroidTV application
* Roku channel
* Chromecast app (Android and iOS)

**Out-Of Scope:**

* Any other Platforms (TVOS, STB)

# High level Test Plan & Time Estimation:

Below is the Automation Test plan which can be applied to each platform mentioned above.

in Brief: End to End Automation on one platform will take at least 5-6 months.

A screenshot of a document

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PS: Above test automation plan is a prediction, which can vary based on the change of scope, resource availability, Addition of test scenarios & Unresolved/Blocked issues.

# Defect Management:

All the issues identified during the Automation process with respect to the project will be raised manually using the JIRA system. As mentioned above in the Test estimates after the Automation of Status reporting is in place- Status of the execution will be notified through Email, but the Issues/bugs identified during or after the process will be raised manually in JIRA.

# Automation Maintenance:

Automation maintenance activities include -

* Enhancing the exception handling and error logging mechanism
* Making framework more robust and scalable
* Adding new functionalities in the framework to handle more use cases and test cases.
* Code refactoring
* We collect lessons learned and other metrics and take corrective actions for process improvement.

# Recommended Tools:

There are wide variety of Automation tools out there to work with, but based on my experience I would suggest using below tools for the platforms-

* **Selenium tool- An open-source tool** for the Desktop Web application (OSX Safari, OSX Chrome, Windows Edge, Windows Firefox, Windows Chrome)
* **Appium**- Another open-source tool for Mobile applications & Mobile Web applications
* **Suitest-**
  + **One of the Best tool that am currently exploring, which supports most of the devices For Smart TV, Android (TV and mobile), Apple TV (tvOS), iPhone and iPad (iOS and iPadOS), Fire TV, Roku, Tizen, webOS, VIDAA, Vizio, Xfinity, Xbox (One, Series X/S), PlayStation 4/5 and web apps**
  + **This tool automatically inserts the assertions needed and is very easy to use and less scripting required.**
* **Postman- For the Performance/Load testing of API’s**

**As we have many platforms to work on, it would be good to explore Suitest tool to perform the automation test.**