

| **.. TEST PLAN ..** |
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**PROJECT NAME: YouTube Website Testing with Cypress**



**YouTube**

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**Introduction**

The Aim of this document is to give an overview of the testing Approach,Strategies and Scope for the YouTube Web application. This document includes details like scope of the project, Objectives, test schedules and resource allocations, test deliverables and reports.

AUT : [YouTube](https://www.youtube.com/)

**Objectives**

Validate the core functionalities of the YouTube website using Cypress for end-to-end testing, ensuring that critical workflows such as searching, video playback, and playlist management work as expected and deliver a reliable user experience.

**Scope**

This test plan covers all critical features of the YouTube Web application that are thoroughly tested, providing a reliable and user-friendly experience for customers.

**In-Scope Functionalities:**

* User login and authentication
* Video search and filtering
* Video playback and quality controls
* Subscription and channel management
* Commenting and liking functionality
* Playlist management and watch later
* UI and accessibility elements

**Testable features:**

* **Sign In**
* **Home**
* **Shorts**
* **Search**
* **Video Playback**
* **Subscriptions**
* **Library**
* **Watch Later**
* **Playlists**
* **Comments**
* **Likes and Dislikes**
* **Notifications**
* **Channel Page**
* **Settings**
* **Accessibility**

**Testing Approach:**

* **Test Type:** End-to-end, functional, and UI tests.
* **Testing Environment:** Test on various browsers like Chrome, Firefox, and Edge (as supported by Cypress).
* **Data Requirements:** Test data for login, video search keywords, and valid/invalid comments.
* **Tools and Technologies:** Cypress, Mocha (for reporting).

**Operation System**

iOS

Android

Windows

macOS.

**Roles/Responsibilities**

| **Name** | **Role** | **Responsibilities** |
| --- | --- | --- |
| Shiva | Test Manager | * Manage budget and resources. * Allocating additional support resources. * Assess and prioritize project risks/tasks. * Monitoring project progress. * Resolve communication issues and conflicts effectively. |
| Manas | Test Lead | * Develop test plans and strategies in alignment with project objectives and requirements. * Assign tasks, set priorities, and provide and support to team members. * Review test results and provide feedback to team members. * Monitor and manage risks throughout the testing life cycle |
| Pooja | Test Engineer | * Understand customer requirements * Write Test scenarios & Test cases * Executing the Test cases. * Performing root cause analysis to identify underlying issues. * Defect tracking and reporting. |
| Tanzeela | Test Engineer | * Understand customer requirements * Configuring and Setting up test environment. * Management of Automation tools. * Executing Regression Test cases. * File Closure activity |
| Priyanka | Test Engineer | Understand areas for regression testing feasibility.  Responsible for writing automation scripts.   * Conducts Smoke, Functional, Integration, System. * Collaboration with on shore subject matter experts. |

**Test Schedule**

Following is the test schedule planned for the project.

| **Task** | **Time Duration** |
| --- | --- |
| Test Plan creation | 12 Nov 2024 - 13 Nov 2024 |
| Test Scenario creation | 13 Nov 2024 - 14 Nov 2024 |
| Test case creation | 14 Nov 2024 - 15 Nov 2024 |
| Test case Execution | 14 Nov 2024 - 15 Nov 2024 |
| Summary Report Submission | 16 Nov 2024 - 16 Nov 2024 |

**Test Deliverables**

**The following**  are to be delivered to the client.

| **Deliverables** | **Description** | **Responsible Owner** | **Target Completion Date** |
| --- | --- | --- | --- |
| Test plan | Outlines the testing approach, strategies, and scope for the YouTube application | Tanzeela | 12 Nov 2024 |
| Test Cases | Test Cases created for both functional testing and compatibility testing | Tanzeela | 13 Nov 2024 |
| Defect Reports | Detailed description of the defects identified in different versions of application. | Tanzeela | 15 Nov 2024 |

**Entry and Exit Criteria**

The below are the entry and exit criteria for every phase of Software Testing Life Cycle:

### **1. Planning Phase**

* **Entry Criteria**
  + Project requirements and objectives are clearly defined.
  + Access to YouTube’s testing environment or site (if sandboxed) is granted.
  + Test planning meeting with key stakeholders has been completed.
* **Exit Criteria**
  + Test plan document is finalized and approved.
  + All required tools and resources for testing (Cypress, test accounts, etc.) are identified and available.
  + Test scenarios and high-level test cases are defined.

### **2. Test Design Phase**

* **Entry Criteria**
  + Approved test plan document.
  + Access to YouTube website or sandbox environment and necessary user credentials.
  + Requirements and expected functionalities are fully understood.
* **Exit Criteria**
  + Detailed test cases are written and reviewed, covering all in-scope functionalities.
  + Test data (e.g., test users, keywords, video IDs) is prepared and validated.
  + Test cases are mapped to requirements to ensure full coverage.

### **3. Test Setup Phase**

* **Entry Criteria**
  + Completed and approved test cases.
  + Test data is ready and verified.
  + Required test environment is accessible, stable, and configured for testing.
* **Exit Criteria**
  + Cypress test scripts are developed for all critical test cases.
  + Test environment is verified and functioning as expected.
  + Test execution schedule and test tracking are set up.

### **4. Test Execution Phase**

* **Entry Criteria**
  + Test scripts are ready and have passed initial validation.
  + Test environment is stable and configured for execution.
  + All pre-requisites, including data and access, are available.
* **Exit Criteria**
  + All planned test cases are executed, with pass/fail results recorded.
  + Any defects identified are logged and prioritized.
  + Retesting and regression testing are completed for any bug fixes.

### **5. Test Closure Phase**

* **Entry Criteria**
  + All test cases have been executed and all critical defects resolved.
  + Test execution summary and defect report are ready.
  + Final review meeting with stakeholders completed.
* **Exit Criteria**
  + Final test execution report is delivered, summarizing results and key findings.
  + All documentation, including test scripts and logs, are stored for future reference.
  + Project sign-off from stakeholders is obtained, indicating testing completion.

**Tools**

The following are the list of Tools we will be using in this Project:

* Cypress
* Mocha (for reporting).

#### **Test Environment .**

* **Browser**: Chrome, Firefox
* **Devices**: Desktop and mobile view (responsive testing)
* **Framework**: Cypress (JavaScript)

**Risks and Assumptions:**

**Risks:**

* + Delayed availability of test environment
  + Limitations due to API restrictions (like rate limits)

**Assumptions:**

* + All required access permissions are provided
  + Cypress is compatible with the current YouTube features

**Approvals**

Masai will send different types of documents for Client Approval like below:

* Test Plan
* Test Scenarios
* Test Cases
* Reports  
  Testing will only continue to the next steps once these approvals are done