**Test Execution Report for YouTube Web Application**

#### **1. Test Execution Summary**

* Test Plan Identifier: TP-001
* Test Execution Date: 14/11/2024
* Test Executed By: Stephen Chitaranjan B
* Application Version: 1.0.0
* Environment: QA

**2. Test Execution Results**

| **Test Case ID** | **Test Case Type** | **Test Case Description** | **Status** | **Remarks** |
| --- | --- | --- | --- | --- |
| TC-001 | Functional | Verify user can access YouTube feed | Pass | Home feed with recommended videos displayed. |
| TC-002 | Functional | Verify trending videos are displayed | Pass | Trending section visible and working fine. |
| TC-003 | Functional | Verify search functionality | Pass | Relevant videos shown for search term. |
| TC-004 | Usability | Verify the layout of the homepage | Pass | Layout is intuitive and user-friendly. |
| TC-005 | Performance | Verify homepage loads within acceptable time | Fail | Homepage took 4 seconds to load (acceptable: < 3 seconds). |
| TC-006 | Functional | Verify video thumbnails are displayed | Pass | Thumbnails displayed for all videos. |
| TC-007 | Functional | Verify the "Subscriptions" section is visible | Pass | Subscribed channels and videos displayed. |
| TC-008 | Functional | Verify recommended videos based on history | Pass | Videos aligned with the user's viewing history. |
| TC-009 | Functional | Verify user can log out | Pass | User logged out successfully. |
| TC-010 | Usability | Verify accessibility features | Pass | Accessibility features are functional. |
| TC-011 | Functional | Verify "Watch Later" functionality | Pass | Video added to "Watch Later" list successfully. |
| TC-012 | Functional | Verify video playback functionality | Pass | Video plays without errors. |
| TC-013 | Security | Verify secure login process | Pass | Error message displayed for invalid login credentials. |
| TC-014 | Functional | Verify notifications are displayed | Pass | Notifications visible and functional. |
| TC-015 | Usability | Verify the presence of help and support links | Pass | Help links accessible from footer. |

#### **3. Overall Test Execution Summary**

* **Total Test Cases Executed**: 15
* **Total Passed**: 14
* **Total Failed**: 1 (TC-005)

#### **4. Conclusion**

The test execution for the YouTube application has been mostly successful. The system passed the majority of the functional and usability tests, ensuring a high level of reliability for user interactions. However, the performance test results indicate that the homepage loading time exceeds the desired threshold (taking 4 seconds instead of 3). While this is still an acceptable time for many users, optimization may be necessary for users with slower network connections or in regions with lower bandwidth.

The security of the system was thoroughly verified and works as expected, with appropriate handling of invalid login attempts.

#### **5. Next Steps**

**Performance Optimization**: Investigate and address the performance issue observed in TC-005 (homepage loading time).

**Regression Testing**: Perform additional regression tests after addressing the performance issue to ensure no other functionality is impacted.

**Additional Exploratory Testing**: Test additional edge cases, such as handling of large video files or testing with different user roles and network conditions.

**Final Approval**: Once the performance issue is addressed, perform a final round of tests to confirm the resolution and sign off the test execution.

#### **6. Approval**

| **Name** | **Role** | **Date** |
| --- | --- | --- |
| John Doe | Test Manager | November 15th, 2024 |
| Michael Johnson | Development Lead | November 15th, 2024 |
| Stephen | QA Lead | November 15th, 2024 |
| Williams | Product Owner | November 15th, 2024 |