**Test Plan**

This document outlines a plan for testing Google Search. The plan covers the following areas:

**Test objectives**: What are the goals of the testing?

**Test scope**: What parts of Google Search will be tested?

**Test cases**: What specific tests will be performed?

**Test environment**: What hardware and software will be used for testing?

**Test data**: What data will be used for testing?

**Test execution**: How will the tests be executed?

**Test results**: How will the test results be analysed and reported?

**Objectives**

This document describes the testing plan for the Google Search engine.

The goal of testing is to ensure that the search engine works as per requirement and delivers relevant / more accurate results.

**Scope**

The scope of testing with below aspects of the search engine, excluding assumptions:

* Functionality (Search query processing)
* Performance (Result snippets)
* Accuracy (Relevance of results)

Assumption: since scope of work not clear, scope not added for below:

* Ranking Algorithm
* Google search offered in Multiple language (Localization)
* Image Search
* Search Labs (AI Search)
* I’m Feeling Lucky (Doodles Archive / Search)
* Performance
* Accessibility

**Test Cases:**

The following are some of the key test cases that will be executed to cover scope:

Functionality (Search query processing):

* Verify that Google page loaded with all UI and active controls with content.
* Verify that User able to enter query which parse and process by google search page.
* Verify that that User able to enter complex queries and queries with special characters which parse and process by google search page.
* Verify that the search engine displayed entered query’s Auto complete / predictions which help user to write query efficiently.
* Assumption: since scope of work not clear, test cases not added for “Search by Image”, “Search by Voice”

Performance (Result snippets):

* Verify that the result snippets informative.
* Verify that time taken in loading search results.
* Verify that result includes the snippets for a variety of different search results, including web pages / Links, images, and videos.
* Verify that the result preview available with search results.
* Assumption: since scope of work not clear, test cases not added for “Converse”, “News”, “Shopping”, “Maps”, “Books” and “Flights” etc.

Relevance of results:

* Verify that the search engine is returning relevant results to users.
* Verify that the search engine includes variety of different search queries, including searched query and prediction of query.
* Assumption: since scope of work not clear, test cases not added for “Comparison” , “Pagination”, “Ranking Algorithm”, which compare searched result from other browsers.

**Test Environment:**

* QA
* Staging (Replica of production environment)
* Assumption: “Production environment” not a part of execution scope.

**Test Devices:**

* Desktop computers
* Laptops
* Mobile devices
* Tablets

**Test Browsers:**

* Chrome
* Firefox
* Safari
* Edge

**Type of Testing involve:**

* Functional Testing
  + Unit Testing
  + Smoke Testing
  + Regression Testing
  + Integration Testing
  + Volume Testing
  + System Integration
  + User acceptance Testing
* Non-Functional Testing
  + Compatibility Testing
  + Performance Testing
  + Usability Testing

**Test Execution:**

The scoped test cases will be executed using combination of Testing devices and Testing Browser.

Manual testing will be used to test the overall user experience of the search engine.

Test case used to cover functionality which will be difficult to automate.

After executing defined Test cases, scope of regression can be identified to test specific features which can be used for regression.

Assumption: since scope not defined some combination of test cases are not included for example combination of device.

**Test Team and Approvals:**

Test engineers: experience team responsible for prepare test cases, test data and execute test cases.

Test managers: All test result reviewed by senior test engineers / Managers, once result approved product (search engine) available to give demo to the customer / Alpha users.

**Test Reporting:**

The test results will be reported in a detailed test report. The test report will include the following information:

* A summary of the test cases that were executed
* The results of each test case
* Any bugs that were found
* Conclusion

This test plan is used to ensure that the search engine worked as per requirement and delivers more accurate / relevant results to the customer.