



Test Plan report for Google Translate

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Introduction:

Overview of the test plan

This test plan outlines the strategy and approach for evaluating the functionality, accuracy, and usability of the translations between Sinhala and English languages in Google Translator. The primary objective of this test plan is to ensure that Google Translator delivers reliable and accurate translations while maintaining a user-friendly experience for its diverse user base for the aforementioned languages.

Purpose and objectives of testing Google Translator

The purpose of testing Google Translator is to ensure the accuracy of the translations of English text to Sinhala and vice versa in different usage contexts. The objective also encompasses ensuring consistency in translations, evaluating usability across various platforms and devices, maintaining stability, and guaranteeing accessibility.

Ultimately, the objective is to provide a dependable, high-quality, and user-friendly translation service bridging English and Sinhala.

Scope

The scope of testing for Google Translator web application includes validating translation accuracy and functionality between Sinhala and English languages, as well as assessing the capability to translate text from images, documents, and websites between English and Sinhala.

Functional Requirements

1. **Accuracy:** The translated text should accurately convey the meaning of the original text.
2. **Language Support:** Ensure that the Google Translate service fully supports both Sinhala and English languages.
3. **Grammar and Syntax:** Verify that the translated text follows the grammatical rules and syntax of the target language while preserving the meaning of the original text.
4. **Long Text Handling:** Verify the translation of long passages or documents to ensure that the translation remains accurate.
5. **Translate text from images:** Verify if the Google translator is capable of extracting text from images and translates them accurately.
6. **Translate text from documents:** Verify if the Google translator is capable of extracting text from documents uploaded by the user and translates them accurately.
7. **Translate text from websites:** Verify if the Google translator is capable of translating texts from other web pages accurately.

Non-Functional Requirements

1. **Performance under load:** Google translator should be capable of performing gracefully under a big load.
2. **Simultaneous Translations with load:** Google translator should be capable of gracefully handling the load given to it even when other loads are provided to it at the same time.

Out of Scope

Translations involving languages other than English and Sinhala will not be within the scope of this project.

Quality Risks

No risks have been identified as of now.

Assumptions

Since Google Translator is an application that runs on the browsers, We are assuming that the Google Translator runs fine on different platforms given that the browsers we are taking into the consideration run on those platforms without any issues.

Test Strategy and Types

The test strategy for Google Translator focuses on both manual and automated testing methodologies to comprehensively evaluate its performance and accuracy.

Both positive and negative test cases will be executed to cover a wide range of scenarios, including typical usage scenarios as well as edge cases and error conditions. This dual approach to testing aims to ensure that Google Translator delivers reliable and accurate translations.

Functional Testing

Manual testing will be conducted to assess translation accuracy between Sinhala and English languages, ensuring that the translations reflect the intended meaning with precision.

Performance/Load Testing

Automated tests will be carried out to verify performance under various loads, assessing its responsiveness and efficiency in handling translation requests.

Compatibility Testing

Compatibility tests will be conducted to make sure that the Google Translator functions correctly across different browsers in different screen sizes.

This will include testing in Chrome, Firefox, Edge, and Safari browsers in smartphones, Laptops, Desktops, and Tablets.

Testing Techniques

1. Boundary value analysis

This technique will be used to test the behavior of the Google translator with the max amount of the characters that it supports and the maximum size of the images and the files it supports.

2. Error guessing

Google translator will be tested with some invalid inputs to validate if it goes to any failures.

Testing Team

Person	Responsibilities
QA Lead	Test plan creation Manage the whole project Define project directions Guide the team Foresee risks and uncertainties and planning for mitigation
Senior QA Engineer	Identifying and describing appropriate test techniques/tools/automation architecture Verify and assess the Test Approach Execute the tests, Log results, Report the defects. Managing juniors
QA Engineer - Manual	Execute the tests, Log results, Report the defects.
QA Engineer - Automation	Writing test automations and executing them

Test Deliverables

The deliverables for testing the Google Translator within the specified scope outlined in the previous sections will consist of the following three documents.

1. Test cases for English to Sinhala translations and vice versa.
2. Test execution report
3. Defects Report

Test Environment:

1. Access to Google Translator Website
 - Testers need access to the Google Translator website to perform testing on the English-to-Sinhala and Sinhala-to-English translations.
 - Testers will have to navigate through different sections of the website to access translation features and verify functionality.
2. Internet Connectivity for Real-Time Translations:
 - Since Google Translator operates online and provides real-time translations, a stable internet connection is required for testing.
 - It's important to consider potential network issues or bandwidth limitations that may impact translation performance and responsiveness.
3. Devices with Various Screen Sizes and Resolutions for Cross-Platform Testing:
 - Testing should be conducted on devices with diverse screen sizes and resolutions to ensure compatibility and usability across different platforms.
 - This includes testing on desktop computers, laptops, tablets, and mobile devices with different screen sizes ranging from small to large.
4. Availability of different browsers on the devices being used for testing.
 - Google Translator will be tested on Chrome, Firefox, Safari, and Edge browsers.

Test Schedule

Phase	Task Name	Duration	Start	Finish
1	Test Plan Creation	12H	26:04:2024:09:00	28:04:2024:13:00
2	Test Case writing	12H	28:04:2024:09:00	29:04:2024:13:00
3	Test Case Review	4H	29:04:2024:13:00	29:04:2024:17:00
4	Test Execution - Manual	24H	30:04:2024:09:00	02:05:2024:17:00
5	Test Automation Writing	16H	30:04:2024:09:00	01:05:2024:17:00
6	Test Execution - Automation	3H	02:05:2024:09:00	02:05:2024:12:00
7	Defect Reporting and Tracking	32H	30:04:2024:09:00	03:05:2024:17:00
8	Test Summary and Reporting	16H	04:05:2024:09:00	06:05:2024:17:00

- The schedule may vary based on project timelines, team size, and scope.
- Flexibility should be maintained to accommodate unexpected issues or delays.
- Continuous communication and collaboration among team members are crucial for the success of the testing process.

Test Resources

Testers Proficient in Both English and Sinhala Languages:

- Testers conducting the translation testing should possess proficiency in both languages to accurately assess the quality of translations.
- Proficiency in both languages enables testers to understand the source content and verify that it is translated correctly into the destination language.
- Testers should be able to identify any mistranslations, grammatical errors, or contextual inaccuracies that may occur during the translation process.

Devices with Different Browsers:

- Testing should be performed on devices running various browsers to ensure compatibility and functionality across different browsers.
- Testing across different screen sizes helps identify any layout inconsistencies, rendering errors, or browser compatibility issues that may affect the user experience.

Test Data Containing English & Sinhala Text Samples for Translation:

- Test data consisting of text samples serves as input for the translation process and enables testers to evaluate the accuracy and quality of the translation output.
- The test data should cover a wide range of both English and Sinhala language constructs, including vocabulary, grammar, syntax, idioms, and specialized terminology.

Testing Approach

Manual Testing:

For English to Sinhala

- Input various English texts of different lengths, complexity, and contexts.
- Evaluate the accuracy of the Sinhala translations.
- Verify the handling of punctuation, grammar, and syntax.

For Sinhala to English

- Input various Sinhala texts of different lengths, complexity, and contexts.
- Evaluate the accuracy of the English translations.
- Verify the handling of punctuation, grammar, and syntax.

For translating text extracted from Images

- Upload images that contain texts of different lengths, complexity, and contexts
- Evaluate the accuracy of the translations (for both ways).
- Verify the handling of punctuation, grammar, and syntax.

For translating text extracted from Documents

- Upload documents from different types that contain texts of different lengths, complexity, and contexts
- Validate if valid document types can be uploaded.
- Validate if invalid document types cannot be uploaded.
- Evaluate the accuracy of the translations (for both ways).
- Verify the handling of punctuation, grammar, and syntax.

For translating text-extracted web pages

- Insert links of web pages that contain texts of different lengths, complexity, and contexts
- Evaluate the accuracy of the translations (for both ways).
- Verify the handling of punctuation, grammar, and syntax.

Automated Testing:

- Execute automated tests to simulate translation requests under different loads.
- Measure response times and system performance.

Test Execution

Execute Test Cases According to the Test Plan:

Testers execute the test cases prepared to validate the functionality, performance, and behavior of Google Translator.

Document Test Results Including Any Defects Found:

During test execution, testers document the outcomes of each test case, recording both the expected results and the actual results observed.

Reporting

- Generate test execution reports highlighting test coverage, pass/fail status, and defects identified.
- Provide feedback on translation quality to relevant stakeholders.

Approval and Sign-off

- Test results and findings will be reviewed by stakeholders for approval.
- Sign-off will be obtained before releasing the translation feature to production.