

Test Plan Document: Google Translate QA Testing

1. Test Plan Overview

This document outlines the approach and methodology for testing the Google Translate service for translations between two languages, specifically focusing on **Sinhala**, **Tamil**, and **English**. The testing aims to validate the accuracy of translations, assess the performance and usability of the interface, and ensure that the system works as expected across browsers.

2. Objective

The primary objective of this test plan is to:

- Validate that the translation functionality of Google Translate works as intended for the selected language pairs (Sinhala, Tamil, and English).
 - Identify and document any defects related to translation accuracy, performance, UI/UX, or other functional issues.
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3. Scope

The scope of testing includes:

- Translation between **English**, **Sinhala**, and **Tamil**.
- Testing on desktop browsers (Chrome, Firefox).
- Testing for basic functionality, UI correctness, and translation accuracy.
- Performance testing for the speed of translations.
- Usability tests for language selection and swapping.

The following will **not** be in the scope of this test plan:

- Testing all supported languages (only Sinhala, Tamil, and English are included).
 - Mobile testing (unless explicitly required).
 - Automated testing (manual testing only).
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4. Test Strategy

4.1 Test Types

- **Functional Testing:** Ensure that the translations between languages are accurate, and all features of the interface (buttons, language selection, etc.) work correctly.
- **UI/UX Testing:** Verify that the UI is intuitive, responsive, and free of any visual or usability issues.
- **Performance Testing:** Measure the time it takes for translations to be processed.
- **Negative Testing:** Test for improper or empty inputs to validate error handling.

4.2 Test Approach

- **Manual testing** will be conducted on a desktop browser using the Google Translate web interface.
 - Test cases will be written to cover the main functionalities of Google Translate, including translation, UI responsiveness, and language selection.
 - Testers will manually execute test cases, document the results, and report any defects encountered.
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5. Test Environment

5.1 Hardware and Software Requirements

- **Operating System:** Ubuntu (or any other desktop OS such as Windows/macOS)
- **Browsers:**
 - Google Chrome (latest version)
 - Mozilla Firefox (latest version)
- **Internet Connection:** Stable and reliable for continuous testing.

5.2 Test Data

- **Test languages:** English, Sinhala, Tamil.
 - **Test inputs:**
 - Single words and simple phrases.
 - Complex sentences.
 - Empty inputs for negative testing.
 - Pasted text from external sources.
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6. Test Schedule

Activity	Start Date	End Date	Owner
Test Planning	Day 1	Day 2	QA Engineer
Test Case Design	Day 2	Day 3	QA Engineer
Test Execution	Day 3	Day 4	QA Engineer
Defect Logging and Reporting	Day 4	Day 5	QA Engineer
Test Report Preparation	Day 5	Day 5	QA Engineer

7. Test Cases

Detailed test cases have been created to cover the following areas:

Test Case Doc

https://docs.google.com/spreadsheets/d/15zowuYhljUD3RZGOQubv9cll2jzfdRNWGITH_ZuGP9Y/edit?gid=0#gid=0

Test Case ID	Test Case Description	Priority	Expected Results
TC001	Verify the translation of a single word from English to Sinhala.	High	Should be able to see expected Sinhala output: "කුසුමේවත්"
TC002	Verify the translation of a single word from English to Tamil.	High	Should be able to see expected Tamil output: "வணக்கம்"
TC003	Verify the translation of a sentence from Sinhala to English.	High	Should be able to see expected English output: "I need a coffee."
TC004	Verify the translation of a sentence from Sinhala to Tamil.	High	Should be able to see expected Tamil output: "எனக்கு காபி வேண்டும்."
TC005	Verify can translation of a sentence from Tamil to Sinhala	High	Should be able to see expected Sinhala output: "මම කෝපි ඔත."
TC006	Verify can translation of a sentence from Tamil to English	High	Should be able to see expected English output: "I need a coffee."
TC007	Verify transliteration feature when translating English to Sinhala.	High	The transliterated output should be able to appear as "කුසුමේවත්".
TC008	Verify that language selection drop-down displays all supported languages.	High	The drop-down should be able to display all languages, including Sinhala, Tamil, and English.
TC009	Verify that the "swap languages" button works correctly between Sinhala and English.	High	The languages should be able to swap positions (source becomes target and vice versa),

			maintaining the translation.
TC010	Verify that Google Translate handles empty input without crashing.	High	The system should not be able to translate and should remain idle or show a message indicating the need for input.
TC011	Verify that previous translations are saved in history for later access.	High	The recent translations should be able to appear under the history section.
TC012	Verify that previous translations are saved in saved items for later access.	High	The saved translations should be able to appear under the saved section.
TC013	Verify the speed of translation for a sentence from Sinhala to English.	High	The translation should be able to happen within 1-2 seconds.
TC014	Verify the speed of translation for a sentence from Tamil to English.	High	The translation should be able to happen within 1-2 seconds.
TC015	Verify that copy-paste of text from an external source into the input box works correctly.	High	The copied text should be able to successfully be pasted and translated.
TC016	Verify the speech-to-text input feature for English.	High	The sentence should be able to be correctly captured by the speech-to-text function and translated.
TC017	Verify the "clear input" button works correctly.	High	The input box should be able to be cleared immediately.
TC018	Verify can translate images for all 3 languages	High	Should be able to translate the images
TC019	Verify can translate documents for all 3 languages	High	Should be able to translate the documents
TC020	Verify can translate websites for all 3 languages	High	Should be able to translate the website
TC021	Verify that more than 5000 words cannot be entered per page.	High	Should not be able to enter more than 5000 words
TC022	Verify that a proper popup message is displayed when trying to add more than 5000 words.	High	A proper message and a next arrow should be visible in the popup message.

TC023	Verify that input tool option is working for all the languages	High	Should be able to input drop down to select options
TC024	Verify that handwriting tool is working for English language	High	Should be able to select handwriting tool
TC025	Verify that Turn on or off input option is working for Sinhala language	High	Should be able to select Turn on or off input option
TC026	Verify that Turn on virtual keyboard option is working for Tamil language	High	Should be able to select Turn on virtual keyboard option

8. Test Data

Sample text for translations will be used, as outlined below:

- **English to Sinhala:**
 - Word: "Hello" → Expected: "ආයුබෝවන්"
 - Sentence: "Can you help me?" → Expected: "ඔබට මට උදව් කළ හැකිද?"
 - **Sinhala to English:**
 - Word: "කෝපි" → Expected: "Coffee"
 - Sentence: "මට කෝපි එකක් ඕන." → Expected: "I need a coffee."
 - **Tamil to Sinhala:**
 - Word: "வணக்கம்" → Expected: "ආයුබෝවන්"
 - Sentence: "எனக்கு காபி வேண்டும்." → Expected: "මට කෝපි ඕන."
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9. Deliverables

The following deliverables will be created during the testing phase:

- Test Plan (this document)
 - Test Cases document
 - Test Execution Results
 - Defect Reports (if any defects are found)
 - Final Test Summary Report
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10. Roles and Responsibilities

Role	Responsibilities	Assigned to
Test Lead	Oversee testing activities, review test plans and test cases, and ensure timely execution.	
QA Engineer	Execute the test cases, report defects, and provide updates on test progress.	
Developer	Fix any defects found during testing and coordinate with the QA team for re-testing.	

11. Risk Management

Risk	Mitigation Strategy
Browser compatibility issues	Test on multiple browsers (Chrome, Firefox) to ensure coverage.
Network issues impacting testing	Ensure stable internet connection during testing.
Inaccurate translations in certain contexts	Report any inaccurate translations for further investigation.

12. Entry and Exit Criteria

Entry Criteria:

- Test environment is set up and ready.
- Test cases have been reviewed and approved.

Exit Criteria:

- All test cases have been executed.
 - No critical defects remain open.
 - Test Summary Report has been delivered.
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13. Test Reporting

During and after the testing phase, the following reports will be generated:

- **Test Case Execution Report:** Details the status of each test case (Pass/Fail).
 - **Defect Report:** Lists all defects found, including their status (Open, In Progress, Closed).
 - **Final Test Summary Report:** Summarizes the testing effort, including the number of test cases executed, defects found, and any open issues.
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14. Approval

This test plan is reviewed and approved by:

Role	Name	Signature	Date
Test Lead			
QA Engineer			
Project Manager			

