Test Plan

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| Project Name | Web-Based Language Translation – QA Functional Testing (Google Translate) |
| Deliverable | Test Plan |
| Release No | V 1.0 |
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| Date | 8/6/2025 |
| Test Type | Manual Functional Testing |
| Release | Initial |

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# 1. Objective

The objective of this test plan is to validate the functional correctness, usability, and language support of Google Translate, focusing on translation between Sinhala, Tamil, and English. Testing will include text input, language switching, pronunciation, and user interactions.

# 2. Scope of Testing

The scope defines all the areas, functionalities, and test dimensions that will be validated during the testing effort. Since this is a web-based application focused on language translation, the scope will include both **functional** and **non-functional** aspects across different language pairs.

The scope of testing includes:

1. **Functional Testing**

These are the core actions the user is expected to perform.

* **Translation Accuracy**
  + Validate correct translation from English → Sinhala / Tamil
  + Validate Sinhala / Tamil → English
  + Validate Tamil ↔ Sinhala (if supported)
  + Check short phrases, single words, and complete sentences
* **Language Detection**
  + Auto-detect source language (for Tamil and Sinhala)
  + Translate based on detection
* **UI Interaction Features**
  + Text input functionality
  + Clear text button (X icon)
  + Copy translated text to clipboard
  + Speaker icon (text-to-speech output)
  + Swap languages button
* **Language Selection Dropdown**
  + Verify Sinhala, Tamil, and English are available in the dropdown
  + Selection reflects correctly in the interface

1. **UI & Usability Testing**

* Check font rendering for Sinhala and Tamil scripts
* Responsive layout for different screen sizes
* Alignment of text boxes, buttons, icons
* Language direction (LTR for English, LTR for Sinhala and Tamil)

3. **Input Validation & Edge Case Testing**

* Unsupported characters (e.g., @#$%^&\*())
* Very long sentences or paragraphs
* Empty input fields
* Multilingual input (mixed Sinhala/Tamil/English)
  + 1. **Cross-Browser Testing**
* Test on latest versions of: Google Chrome and Mozilla Firefox
* Validate consistent rendering and functionality across browsers
  + 1. **Accessibility Check (Light Level)**
* Ensure all icons/buttons are clickable
* Screen reader compatibility (basic support)
* Contrast and readability (especially for local scripts)
* Contrast and readability (especially for local scripts)

# Out of Scope

The following areas are out of scope:

* Testing of file-based or document (PDF, DOCX, etc.) translation features is excluded.
* Only the **web application** (<https://translate.google.com>) is within scope. Native or mobile app versions are not tested.
* Any translation functionality requiring offline access (such as cached translations) is not included.
* Features that involve voice recognition or microphone-based input are out of scope for this test.
* Testing features related to signing in, saving translation history, or personalization are not covered.
* Translations involving other language pairs are outside the scope of this assignment.

# 4. Types of Testing

* Smoke Testing – Basic availability of UI and input fields
* Functional Testing – Language translation logic
* UI Testing – Element visibility, overlap, language rendering
* Negative Testing – Random characters, unsupported languages
* Cross-browser Testing – Chrome, Firefox

# 5. Environment & Data Setup

**Testing Environment**: https://translate.google.com

**Browsers**: Chrome (latest), Firefox

**Test Data**:

- English: Hello, Good Morning

- Sinhala: හෙලෝ, සුභ උදෑසනක්

- Tamil: வணக்கம், காலை வணக்கம்

# 6. Tools

* MS Word – Requirement gathering.
* MS Excel - Test case management & Evidence tracking.
* Azure DevOps/ JIRA – Tasks creation and Defects reporting, Updating QA test results and Testing status.
* Screenshot tools – Evidence captures
* Browser Dev Tools – Console error/log check (optional)

# 7. Risks

**R1:** There may be rendering issues with Tamil and Sinhala characters depending on the browser used. This can be mitigated by testing across multiple browsers to ensure proper font support and layout consistency.

**R2:** An unstable internet connection could affect the outcome of translation testing, especially for features like pronunciation or auto-translation. This risk can be mitigated by capturing logs or screenshots for offline analysis and retesting when the connection is stable.

**R3:** Keyboard limitations may prevent direct typing of certain Sinhala or Tamil characters. This risk can be addressed by using copy-paste functionality or external language tools to input the required characters.

# 8. Resource Allocation

**QA Team**: 01 QA resource is allocated to handle testing activities, and 01 QA lead is allocated to handle reviewing and approving QA artifacts.

Estimated Time: 8 hours total

- Test planning: 3 hour

- Execution: 3hrs

- Bug reporting: 1 hour

- Documentation: 1 hour

# 9. Assumptions

- Google Translate platform is accessible without login

- Latest browser version is used

- Sinhala and Tamil fonts render correctly

# 10. Glossary

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| **Abbreviation** | **Definition** |
| DOCS | Microsoft Word Open XML Document |
| LTR | Left-to-Right |
| MS | Microsoft |
| PDF | Portable Document Format |
| QA | Quality Assurance |
| UI | User Interface |