

**International School**

**Capstone Project 1**

CMU-SE 450

**Test Plan Document**

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**LinguaSnap for Travelers**

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**Project Information**

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**Test Plan Document**

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**TABLE OF CONTENTS**

[**1.** Introduction 4](#_Toc135612792)

[***1.1.*** Purpose 4](#_Toc135612793)

[***1.2.*** Scope 4](#_Toc135612794)

[***1.3.*** Out of scope 4](#_Toc135612795)

[***1.4.*** Reference 4](#_Toc135612796)

[***1.5.*** Risk list 5](#_Toc135612797)

[**2.** Target Test Areas 6](#_Toc135612798)

[**3.** Test Specification 7](#_Toc135612799)

[***3.1.*** Features 7](#_Toc135612800)

[***3.3.*** Requirements for test 8](#_Toc135612801)

[***3.4.*** Test schedule 11](#_Toc135612802)

[**4.** Test Cycle and Exit Criteria 13](#_Toc135612803)

[***4.1.*** Entry criteria 13](#_Toc135612804)

[***4.2.*** Exit criteria 13](#_Toc135612805)

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# Introduction

A test plan is a detailed software verification document that provides specifics on how the validate will test all aspects of software design. Test plans are test specifications used as guides for writing test case suites for design validation in both the software engineering fields. This test plan document contains a description of product functionality, a description of test cases to be written for each function, and a description of the testing platform to be used.

## Purpose

The purpose of the Test Plan is to define, schedule and monitor the test execution. It supports the following objectives:

* Provide a high-level list of the major target test functions
* List the Requirements for Test
* Describe the testing strategies to be employed on each target test functions
* Identify the required resources and schedule the Test execution

## Scope

This Test Plan is for release test plan for LinguaSnap system.

The Test Plan defines the unit, integration and system testing approach. The test scope includes the following:

* Identify the components and features within the App Translate application that will be included in the testing phase.
* Specify the languages and translation pairs that will be covered in the testing.
* Determine any excluded functionalities or components that are out of scope for this test plan.

## Out of scope

The following is considered out of scope for LiguaSnap Test Plan and testing scope: Performance testing for LinguaSnap system

## Reference

**Table 1: Document references**

|  |  |
| --- | --- |
| **No** | **Document references** |
| 01 | Proposal document |
| 02 | Product Backlog document |
| 03 | Project Plan Document |

## Risk list

**Table 2: Risks list**

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk** | **Mitigation Strategy** | **Responsibility** | **Contingency (Risk is realized)** |
| External Risks | Get fewer projects but will definitely succeed or have a high success rate | Not under control of the Project Team or Project Steering Group | Do your part, recognize and eliminate risks as soon as possible |
| Project Management | Agree on all the standards before starting the project | Leader | It is mandatory to revise the whole project to the original standard if it is not correct |
| Tester | Sick , busy or crash cannot do it | Team tester | self-supplementing undo their assigned work, the way other members are supposed to support |
| Technology | Technology analysis before starting each project | Tester | Exchange learning in groups |
| Tester Skill | Train, or recruit experienced people | Tester, Team leader | Train technology professionals or invite professors to help with the project |
| Estimate Plan | Calculate carefully and accurately when taking requests and analyzing, apply good models and methods for estimation | Request Collectors, Request Analyst | Enlist the product delivery time or overtime for timely delivery |
| Automation Tool Risks | Choose the right tools and quality, check the tools before starting the project | Tester, Team leader | Exchange in groups, Change new tools and remove inconsistent tools |
| Out of system scope | Analyze and find solutions to test all testable areas | Tester |  |

# Target Test Areas

* Black box Testing

# Test Specification

## Features

**Mobile**

* FE01 – Authentication user’s account
* Login with email
* Register with email
* Forgot password
* Change password
* Add, edit, delete Profile
* FE02 – Translate
* Traslate with many languages
* Automatic translation
* FE03 – Image to Text
* From the gallery
* From the camera
* FE04 – Speech to Text
* Speech with many languges
* FE05 – Search Result
* Search results on Google
* FE06 – Spell Check
* Provide grammatically correct text
* FE07 – History
* History translated
* Export history to Translate Page
* FE08 – Bookmark
* Add, delete bookmark
  1. **Test deliverables**
* Test Plan Document
* Test Case Document
* Test Summary Report

## Requirements for test

**Test items**

The following list describes the features that will be tested:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID Function** | **Function** | **A part of** | **Priority** | **Type test case** | **Constraints** |
| FE01 – 01 | Login with email | Authentication | 3 | User interface  Function test | The user can log in with their email and password with OTP authentication to use other features |
| FE01 - 02 | Register with email or google account | 3 | User interface  Function test | The users can register by email or with google account |
| FE01 - 03 | Forgot password | 2 | User interface  Function test | The users can retrieve their forgotten password and install a new one |
| FE01 – 04 | Change password | 2 | User interface  Function test | The users can change password |
| FE02 – 01 | Translate with many languages | Translate | 3 | User interface  Function test | The users can multiple languages to translate |
| FE02 – 02 | Automatic translation | 3 | User interface  Function test | The users can translate automatically |
| FE03 – 01 | From the gallary | Image to text | 1 | User interface  Function test | The users can taken photo from the gallery |
| FE03 – 03 | From the camera | 1 | User interface  Function test | The users can taken photo and use picture |
| FE04 – 01 | Speech with many languages | Speech to text | 1 | User interface  Function test | The users can speech many languages |
| FE05 – 01 | Search results on Google | Search result | 1 | User interface  Function test | The users can search results on in the browser |
| FE06 – 01 | Provide grammatically correct text | Spell Check | 1 | User interface  Function test | When users want to spell check, they will send a grammar issuses |
| FE07 – 01 | History translated | History | 1 | User interface  Function test | The users can looking for translations |
| FE07 – 02 | Export history to Translate Page | 1 | When users want to edit translation, they will click on the translation. |
| FE08 – 01 | Add, edit, delete bookmark | Bookmark | 1 | User interface  Function test | The users can add, edit, delete bookmark |

**Test strategy**

* Describe the overall approach to testing. For each major group of features or feature combinations, specify the approach which will ensure that these feature groups are adequately tested. Specify the major activities, techniques, and tools which are used to test the designated groups of features
* The approach should be described with sufficient details to permit identification of the major testing tasks and estimation of the time required to do each one.

**Hardware environment**

* Computer: Acer Nitro5, MSI GF63
* Mobile: Galaxy Z Flip, Xiaomi Redmi Note 9, LG V60

## Test schedule

**Human resources**

|  |  |
| --- | --- |
| **Name** | **Role** |
|  | Tester |

**Test Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| Sprint 1 | Authentication in app |  | 09/03/2023 – 08/04/2023 |
| Develop backend for register |
| Design frontend for register |
| Develop backend for login |
| Design frontend for login |
| Integrate login with firebase |
| Design fontend for forgot password |
| Design backend for forgot password |
| Design app interface |
| View tour detail for app |
| Backend api for tour detail |
| Front-end for tour detail |
| Back-end translate |
| Back-end spinner list selection |
| Back-end auto detect language |
| Sprint 2 | Backend Search Image |  | 08/04/2023 – 09/05/2023 |
| Backend Auto-Translate |
| Backend API for Text to Speech |
| Backend API for Speech to Text |
| Backend character limit |
| Backend API for Dictionary |
| Backend Save used languages |
| Backend API for Spell checker |
| Update fontend Main page design |
| Backend Search text result |
| Update fontend “Image to text” page design |
| Translation History |
| Change password |
| Update fontend Login/Forgot password/Register |
| Update fontend Menu |
| Sprint 3 | Backend Bookmark |  | 09/05/2023 – 31/05/2023 |
| Backend user information |
| Backend Swap languages |
| Backend Copy translated text |

# Test Cycle and Exit Criteria

## Entry criteria

* All test hardware platforms must have been successfully installed, configured, and functioning properly.
* All the necessary documentation, design, and requirements information should be available that will allow testers to operate the system and judge the correct behavior.
* Proper test case is available.
* The test environment such as, lab, hardware, software, and system administration support should be ready.

## Exit criteria

* All test cases have been run.
* A certain level of requirements coverage has been achieved.
* No high priority or severe bugs are left outstanding.
* All high-risk areas have been fully tested, with only minor residual risks left outstanding.
* The schedule has been achieved.
* Not over the allowed project budget.