



**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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## 1. 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.

### 1.1. 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

### 1.2. 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.

### 1.3. Out of scope

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

### 1.4. Reference

**Table 1: Document references**

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

**1.5. 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	

## 2. Target Test Areas

- Black box Testing

### 3. Test Specification

#### 3.1. Features

##### Mobile

- ❖ FE01 – Authentication user's account
  - Login with email
  - Register with email
  - Forgot password
  - Change password
  - Add, edit, delete Profile
- ❖ FE02 – Translate
  - Translate with many languages
  - Automatic translation
- ❖ FE03 – Image to Text
  - From the gallery
  - From the camera
- ❖ FE04 – Speech to Text
  - Speech with many languages
- ❖ 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

#### 3.2. Test deliverables

- Test Plan Document
- Test Case Document
- Test Summary Report



### 3.3. 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	The users can change password

				test	
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 gallery	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 issues
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

### **3.4. Test schedule**

#### **Human resources**

<b>Name</b>	<b>Role</b>
	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 frontend 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 frontend Main page design		
	Backend Search text result		
	Update frontend “Image to text” page design		
	Translation History		

	Change password		
	Update frontend Login/Forgot password/Register		
	Update frontend Menu		
Sprint 3	Backend Bookmark		09/05/2023 – 31/05/2023
	Backend user information		
	Backend Swap languages		
	Backend Copy translated text		

#### 4. Test Cycle and Exit Criteria

##### 4.1. 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.

##### 4.2. 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.