Bilinguo

Vision Document

Version 2.0

Revision History

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
| 16/04/2024 | 1.0 | Initial version | Nguyễn Trọng Phúc  Nguyễn Dương Trường Sinh |
| 16/04/2024 | 1.1 | Update Stakeholder and user descriptions | Trần Minh Triết |
| 16/04/2024 | 1.2 | Update Product features | Nguyễn Thị Ngọc Châm |
| 18/04/2024 | 1.3 | Update Non-functional requirements | Nguyễn Tấn Phát |
| 20/04/2024 | 2.0 | 2nd – submission: Detail product functional and non-functional requirements, alternatives and competitors, user environments | Nguyễn Thị Ngọc Châm  Nguyễn Trọng Phúc |

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Vision (Small Project)

# Introduction

## 1.1 Purpose

This document is all about figuring out what Bilinguo needs to do and why. It focuses on what users and stakeholders need and how Bilinguo will meet those needs, which you can find in the detailed use-case and supplementary specifications.

## 1.2 Scope

This Vision Document applies to the Bilinguo system, which will be developed by group 03. Group 03 will develop this browser web application for English learners and teachers. The Bilinguo system will enable users to register accounts, learning and teaching support on web platforms.

## 1.3 References

Applicable references are syllabus - Moodle courses.

# Positioning

## Problem Statement

| The problem of | learn vocabulary and support English teaching |
| --- | --- |
| affects | English learners and English teachers. |
| the impact of which is | learning vocabulary in a traditional way often leads to boredom and lacks effectiveness. Teachers must be able to create tests and review materials for their students easily. |
| a successful solution would be | that an online English learning platform through flashcards with accompanying support will make learning English more enjoyable and effective. |

## Product Position Statement

| For | English language learners and educators |
| --- | --- |
| Who | want effective digital tools for language acquisition and teaching |
| Bilinguo | is an innovative language learning and teaching platform |
| That | provides learners with tools for memorizing words, exercises, and mock tests, as well as a dictionary, while empowering teachers to design tests, assign homework, and track student progress |
| Unlike | Duolingo, Memrise, Babbel, Hello English, Rosetta Stone, Cake |
| Our product | provides an engaging approach to ensure user participation through points, streaks, leaderboards, and rewards, encouraging continuous usage. It focuses on building vocabulary and grammar skills, making it a good starting point for beginners. While lacking in-depth speaking practice, it offers a solid foundation. Additionally, Bilinguo is fully downloadable for offline use, catering to learners in areas with limited internet access, enhancing its accessibility and appeal. |

# Stakeholder and User Descriptions

## Stakeholder Summary

| **Name** | **Description** | **Responsibilities** |
| --- | --- | --- |
| Sponsor | The person or group giving financing and support for the project. | Providing funding and support for the project, setting project goals and priorities, securing necessary resources. |
| Development Team | Including developers, designers, testers, and other technical staff. | They are responsible for building and maintaining the app |
| Educational Experts | Professionals in language education. | Ensuring the effectiveness of learning English via this app |
| Legal Advisors | Legal experts and advisors | Ensuring that the app doesn’t violate relevant laws regarding data privacy. |

## User Summary

| **Name** | **Description** | **Responsibilities** | **Stakeholder** |
| --- | --- | --- | --- |
| Learners | They are individuals seeking to master their English language. | Engage with lesson materials, involving flashcards, quizzes, tests  Complete assigned tasks | Development Team  Educational Experts  Legal Advisors |
| Teachers | They use the app as a tool to enhance their teaching quality. | Create learning materials such as tests, quizzes, homework. | Educational Experts  Development Team  Legal Advisors |

## User Environment

As a personal assistant of learners and teachers, there is only one person involved in completing tasks. For example, a student creates flashcards for himself/herself. This process is totally personal.

The length of a task cycle depends on the complexity of the task. For example, it takes learners 5 to 10 minutes to review vocabulary with flashcards while taking 30 minutes to 1 hour to finish a test completely.

For teachers, the length of cycles is variable as well. It spans from 5 minutes to assign homework to more than 1 hour to design a test.

Currently, the app is accessible via web browsers on desktop computers or mobile devices such as smartphones and laptops. In the future, its Android application version will be available.

## Alternatives and Competition

Duolingo:

* + Strengths:
    - Well-recognized by common users
    - Providing a range of language options: English, Spanish, French, German, and Mandarin.
    - User-friendly: free to use and accessible on various platforms, including web browsers and mobile devices
  + Weaknesses:
    - Advertisements: Duolingo offers a free version with advertisements. Despite the fact that it can reach potential users, learners with low income for example, it can be frustrating and disrupting.
    - Lack of Personalization: Duolingo provides a fixed approach to all users, which may not be able to meet the need of individual learners.

# Product Features

| No. | Feature | Description | Priority |
| --- | --- | --- | --- |
| 1 | Creating flashcards | - Users can create flashcards to memorize words, each flashcard has 2 sides, one side is the word, the other is the corresponding meaning.  - Users can save flashcards in different boxes based on how well the word is memorized. | High |
| 2 | Taking mock tests | Users can solve questions in parts of the question or the whole to be scored. Users can review their test history. | High |
| 3 | Dictionary | Users can look up words, save vocabulary to a personal word list. | High |
| 4 | Designing tests | Users can design tests to practice and assess their level. | Medium |
| 5 | Assigning homework | Users who are teachers can assign homework to students for scoring. | Medium |
| 6 | Linking a dictionary to a flashcard | Users who look up the dictionary can assign new words to the flashcard library to learn. | Low |
| 7 | Tracking progress | Users can view progress learning new words or progress on assignments. | Low |
| 8 | Dashboard | This dashboard aims to provide a comprehensive and user-friendly interface for learners of all levels, offering a range of features and resources to support their language acquisition journey effectively. | High |

# Non-Functional Requirements

**- Portability:**

+ Hardware: These are the physical devices and components that are used to run and access web applications. Hardware can include servers, routers, switches, cables, modems, computers, laptops, tablets, smartphones, and other devices.

+ Platform: Your browser shall support HTML Iframe.This website can run on various operating systems such as Windows, Mac, Linux, Android, iOS.

**- Performance:**

+ Dictionary response speed: less than 1s. Speed of response to interactions such as creating, editing.

+ Edit, save and review flashcards: under 1s.

**- Reliability:**

+ Stability and reliability: The probability of causing data loss during manipulation is approximately 0.001%.

+ Frequency of errors: 2 days/1 error.

**- Easy of use:**

+ Simplicity: Users can use it after 15 minutes of training.

**- Size:**

+ Capable of storing, managing, providing powerful databases to ensure.