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**Group06**

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**VocaBoost**  
**Master Test Plan**

**Version 2.0**

VocaBoost	Version: 2.0
Iteration Test Plan	Date: 25/08/2025
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## Revision History

Date	Version	Description	Author
02/08/2025	1.0	Initialize test plan	All team member
25/08/2025	2.0	Add a new “Epic” column to group features and add remaining features of VocaBoost	All team member

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# Iteration Test Plan

## 1. Introduction

### 1.1 Objectives

This document defines the testing strategy for **VocaBoost**, an English vocabulary learning platform using Spaced-repetition method and AI integration. The main objectives include:

- Ensuring key functionalities operate correctly as per requirements.
- Identifying and addressing defects before project submission or deployment.
- Providing a clear roadmap for testing activities.

### 1.2 About This Document

This test plan includes:

- List of features to be tested.
- Hardware and software requirements and support tools for the test environment.
- Role assignments and responsibilities within the team.

### 1.3 Intended Audience

- Developers: To understand testing scope and code quality expectations.
- Testers: To write, execute and report test cases and results.
- Instructors: To verify project quality and testing approach.

### 1.4 Key Features

- Functional testing of all major system flows.
- Testing in simulated real-world environments (modern browsers, various roles).
- Clear and concise test reports for each use case.

## 2. Target Test Items

Epic	Feature	Test Area	Description
Authentication	Sign Up	Functionality, Security, Usability	Verify that new users can register successfully with valid credentials, receive a verification email, and handle cases of existing emails or weak passwords. This includes signing up using a Google account.
	Sign In	Functionality, Security	Ensure registered users can log in with valid credentials. This includes signing in using a Google account. Test handling of invalid passwords, non-existent accounts, and different account statuses (e.g., active,

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			suspended).
	Log Out	Functionality, Security	Verify that logged-in users can successfully log out, terminating their session and invalidating their access token.
Vocabulary	Create New Vocabulary List	Functionality, Usability	Verify that users can create a new vocabulary list with a title, description, and privacy settings. This includes adding words with terms, definitions, images, examples, and synonyms during the creation process.
	View & Choose Vocabulary Lists	Functionality, Performance	Ensure users can view their personal lists, search public lists, and filter results. Verify that list details and word contents load correctly and efficiently.
	Edit Vocabulary List	Functionality, Usability	Verify that users can edit the properties of a list they own (title, privacy). This includes adding new words, updating existing words (including their examples/synonyms), and deleting words from the list.
	AI-Assisted Content Generation	Integration, Functionality, Performance, Usability	Verify the "Generate with AI" feature for examples and definitions. Test the successful integration with the external AI service. Ensure that generated content is relevant and populates correctly. Critically, test the system's handling of AI service failures, timeouts, and unexpected responses.
Review	Review Vocabulary List	Functionality, Usability, Performance	Test the core learning engine. Verify that the Spaced Repetition System (SRS) correctly schedules words for review. Ensure all review methods (Flashcard, Fill-in-the-blank, Word Association) work as expected and that session progress is saved correctly.
Classroom	Create & Manage Classrooms	Functionality, Usability	Verify that a teacher can create a new classroom, providing a name and description, and setting privacy options, as well as view, edit properties of, and delete classrooms. Ensure a unique join code is generated upon creation.
	Add & Remove Learner	Functionality, Usability, Security	Ensure that a teacher can add learners to their classroom by email invitation and remove existing learners from the class roster. Verify that the learner list updates correctly and permissions are enforced.

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	View Classroom Details	Functionality, Usability	Ensure a learner can select an enrolled classroom and view its dashboard. Verify the correct display of classroom information (name, teacher), a list of assigned exercises with their due dates, and links to start the review sessions.
	Assign Exercise	Functionality, Usability	Verify a teacher can assign a vocabulary list as an exercise to a classroom, setting parameters like review method and due dates.
	View Classroom Analytics	Functionality, Performance	Ensure the teacher's analytics dashboard correctly displays class-wide and individual student progress, completion rates, and identifies struggling learners.
	Approve Join Requests	Functionality, Usability, Security	Test the teacher's ability to approve or reject requests from learners who wish to join a classroom using a join code.
User	Report Content	Functionality	Test the user's ability to report inappropriate or incorrect content to the administrators for review.
	View Learning Statistics	Functionality, Performance	Verify that personal learning statistics (words learned, streak, retention rate) are calculated correctly and displayed in a clear, understandable format.
	Update Profile	Functionality, Usability	Verify that users can successfully update their personal information, such as display name and password.
	Join Classroom by Code	Functionality, Usability	Verify that a learner can successfully find and request to join a classroom using a valid invitation code. Test handling of invalid or expired codes.
Admin	Ban/Unban Account	Functionality, Security	Verify an admin can suspend and reactivate user accounts. Test that a banned user is unable to log in and that their content is handled according to platform policy.
	Approve Teacher Requests	Functionality, Security	Ensure the admin can review and approve/reject requests from users who want to upgrade their role to "Teacher".
	Moderate Content	Functionality, Usability	Test the admin's ability to review user-reported content (from USC22) and take appropriate action (e.g., remove content, issue a warning).

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### 3. Environmental Needs

#### 3.1 Hardware Requirements

Device	Specification
Client desktop (Windows)	8GB RAM, 256GB SSD, Intel i5 or equivalent
Client desktop (macOS)	Apple M1 / Intel Core i5, 8 GB RAM, 256 GB SSD

#### 3.2 Software in the Test Environment

The following base software elements are required in the test environment for this *Test Plan*.

Software Name	Purpose	Version	Type and Other Notes
Google Chrome	Execute application for web browser	138.0.7204.158	Internet Browser
Microsoft Edge	Execute application for web browser	138.0.3351.95	Internet Browser
Windows 11, 64 bit	Test client OS	24H2	Operating System
Mac OS Sequoia	Test client OS	15.5	Operating System
Gmail	Test email client functionality	Latest	eMail Client software

#### 3.3 Productivity and Support Tools

The following tools will be employed to support the test process for this *Test Plan*.

Tool Category or Type	Tool Brand Name	Vendor or In-house	Version
Write test cases for key features	Google Sheets	Google	Latest
Write bug reports for failed test cases	Google Sheets	Google	Latest

### 4. Responsibilities, Staffing, and Training Needs

#### 4.1 People and Roles

This table shows the staffing assumptions for the test effort.

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Human Resources		
Role	Minimum Resources Recommended (number of full-time roles allocated)	Specific Responsibilities or Comments
Test Manager	Nguyễn Hiệp Thắng Phan Hoàng Quang Nghị	Provides management oversight. Responsibilities include: <ul style="list-style-type: none"> <li>• Planning</li> <li>• Agree mission</li> <li>• Consult with the developing team to devise appropriate test cases.</li> <li>• Keep track of process and completion</li> <li>• Evaluate effectiveness of test effort</li> </ul>
Tester	Phan Thế Hoàng Nguyễn Lê Trúc Mai Nguyễn Hoàng Phi Hùng Nguyễn Hiệp Thắng Phan Hoàng Quang Nghị	Implements and executes the tests. Responsibilities include: <ul style="list-style-type: none"> <li>• Implement tests and test suites</li> <li>• Execute test suites</li> <li>• Log results</li> <li>• Analyze and recover from test failures</li> <li>• Document incidents</li> </ul>
Test System Administrator	Phan Thế Hoàng Nguyễn Hiệp Thắng Phan Hoàng Quang Nghị	Ensures the test environment and assets are managed and maintained. Responsibilities include: <ul style="list-style-type: none"> <li>• Administer test management system</li> <li>• Install and support access to, and recovery of, test environment configurations and test labs</li> </ul>