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**Group 06**

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**VocaBoost**  
**Use-Case Specification**

**Version 2.2**

VocaBoost	Version: 2.0
Use-Case Specification	Date: 13/07/2025
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## Revision History

Date	Version	Description	Author
01/06/2025	1.0	Initial use-case specifications for VocaBoost core functionalities	All team members
30/06/2025	2.1	Adjust the use cases and consider their suitability by comparing them with the Figma design	All team members
13/07/2025	2.2	Add new use cases: USC25: Manage classrooms and USC26: View detail assignment	All team members

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## 2. Use-case Specifications

### 2.1 [USC1] Use-case: Sign up

Use case Name	Sign up
Brief description	This use case allows new users to create an account on VocaBoost platform using either email registration or Google OAuth, providing necessary information for registration and selecting their role as either a learner or teacher.
Actors	Guest
Basic Flow	<ol style="list-style-type: none"> <li>1. Guest navigates to VocaBoost landing page and clicks "Sign Up" button</li> <li>2. System displays registration form with required fields</li> <li>3. Guest enters email address in the email field</li> <li>4. Guest creates and confirms password meeting security requirements</li> <li>5. Guest clicks "Sign up" to submit registration</li> <li>6. System sends verification email to provided address</li> <li>7. Guest receives confirmation message to check email for verification</li> <li>8. After verifying successfully, guest selects user type (Learner or Teacher)</li> <li>9. For Teacher role, guest provides additional professional information</li> </ol>
Alternative Flows	<p><b>Alternative flow 1: Email already exists</b></p> <ol style="list-style-type: none"> <li>1. From step 5 of basic flow, system displays error "Email already registered"</li> <li>2. Guest have to choose to sign in or use different email</li> </ol> <p><b>Alternative flow 2: Weak password</b></p> <ol style="list-style-type: none"> <li>1. From step 4 of basic flow, password doesn't meet requirements (8+ chars, mixed case, numbers)</li> <li>3. Guest enters stronger password</li> <li>4. Continue with step 5 of basic flow</li> </ol> <p><b>Alternative flow 3: Teacher verification required</b></p> <ol style="list-style-type: none"> <li>1. From step 8 of basic flow, guest selects Teacher role</li> <li>2. System requires verification documents</li> <li>3. Guest uploads teaching credentials or institutional proof and wait response from admin</li> </ol> <p><b>Alternative flow 4: Sign Up with Google account</b></p> <ol style="list-style-type: none"> <li>1. From step 2 of the basic flow, guest clicks "Sign up with Google" button instead of filling out registration form</li> <li>2. System redirects guest to Google's OAuth registration screen</li> <li>3. Guest selects a Google account (or enters credentials if not already signed in)</li> <li>4. Google authenticates guest and redirects back to VocaBoost</li> <li>5. Continue with step 8 of basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Guest must have valid email address</li> <li>• Guest must not have existing account with same email</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• New user account created in system database</li> <li>• Verification email sent to user's email address</li> <li>• For teachers, additional status "Pending Teacher Verification"</li> </ul>

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## 2.2 [USC2] Use-case: Sign in

Use case Name	Sign in
Brief description	This use case describes the authentication process allowing registered users to access their personalized VocaBoost accounts and begin activities.
Actors	Learner, Teacher, Admin
Basic Flow	<ol style="list-style-type: none"> <li>1. User navigates to VocaBoost landing page or clicks "Sign In" from any page</li> <li>2. System displays sign-in form with required fields</li> <li>3. User enters registered email address in the email field</li> <li>4. User enters corresponding password in the password field</li> <li>5. Guest clicks "Sign In" button to submit credentials</li> <li>6. System redirects user to personalized dashboard based on user role</li> <li>7. User gains access to full platform functionality appropriate to their role</li> </ol>
Alternative Flows	<p><b>Alternative flow 1: Invalid credentials</b></p> <ol style="list-style-type: none"> <li>1. From step 5 of basic flow, system displays error message "Invalid email or password"</li> <li>2. User returns to step 2 to retry credentials</li> </ol> <p><b>Alternative flow 2: Forgot password</b></p> <ol style="list-style-type: none"> <li>1. From step 4 of basic flow, the user clicks "Forgot Password?" link</li> <li>2. System presents password reset form</li> <li>3. User enters email address and submits reset request</li> <li>4. System sends password reset link to registered email</li> <li>5. User follows email instructions to create new password</li> </ol> <p><b>Alternative flow 3: Account suspended</b></p> <ol style="list-style-type: none"> <li>1. From step 5 of basic flow, system displays suspension notice with contact information</li> <li>2. User cannot proceed with login until account is reactivated</li> </ol> <p><b>Alternative flow 4: Remember me option</b></p> <ol style="list-style-type: none"> <li>1. From step 4 of basic flow, user checks "Remember Me" checkbox</li> <li>2. System extends session duration for convenience</li> <li>3. Continue with step 6 of basic flow</li> </ol> <p><b>Alternative flow 5: Sign in with google account</b></p> <ol style="list-style-type: none"> <li>1. From step 2 of the basic flow, user clicks "Sign in with Google" button instead of entering email and password</li> <li>2. System redirects user to Google's OAuth login screen</li> <li>3. User selects a Google account (or enters credentials if not already signed in)</li> <li>4. Google authenticates user and redirects back to VocaBoost</li> <li>5. Continue with step 6 of basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• User must have a registered account in the VocaBoost system</li> <li>• User account must be in active status (not suspended or deleted)</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• User is authenticated and logged into the system</li> </ul>

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	<ul style="list-style-type: none"> <li>• User session is established with appropriate role permissions</li> <li>• User can access personalized content and platform features</li> <li>• Login activity is recorded for security auditing</li> </ul>
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### 2.3 [USC3] Use case: Log out

Use case Name	Log out
Brief description	This use case allows users to log out their account on VocaBoost
Actors	Learner, Teacher, Admin
Basic Flow	<ol style="list-style-type: none"> <li>1. In the profile page, the user presses Log out button</li> <li>2. The user is logged out and redirected to homepage</li> </ol>
Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• The user account is logged in</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• The user log out successfully</li> </ul>

### 2.4 [USC4] Use-case: Review vocabulary with Spaced Repetition

Use case Name	Review vocabulary with Spaced Repetition
Brief description	This use case describes how learners review vocabulary using Spaced Repetition to optimize long-term retention. The system intelligently schedules vocabulary review based on individual performance and memory patterns.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. System display a variety of vocabulary lists that user need to review today in dashboard</li> <li>2. Learner choose list to review</li> <li>3. Learner choose which method to learn</li> <li>4. Learner clicks "Start Review" to begin the session</li> <li>5. Learner revise vocabulary by method chosen before</li> <li>6. System processes the rating and calculates next review date using SM-2 algorithm</li> <li>7. Learner view session summary with performance statistics</li> </ol>
Alternative Flows	<b>Alternative flow 1: Session interruption</b> <ol style="list-style-type: none"> <li>1. During any step, learner closes browser or loses connection</li> <li>2. System automatically saves current progress</li> <li>3. When learner returns, system offers to resume from last completed word</li> <li>4. Continue from appropriate step in basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be authenticated and logged into the system</li> <li>• Learner must have at least one vocabulary list with previously learned words</li> <li>• At least one word must be due for review according to Spaced Repetition schedule</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Spaced Repetition schedule updated for all reviewed words</li> <li>• Learning session statistics recorded in learner profile</li> <li>• Progress toward daily learning goals updated</li> <li>• Performance data stored for future algorithm refinements and analytics</li> </ul>

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## 2.5 [USC5] Use-case: Review with Flashcard

Use case Name	Review with Flashcard
Brief description	This use case describes the specific flashcard learning method where learners study vocabulary through interactive card-flipping interface, testing recall before revealing answers.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. Learner selects "Flashcard" as learning method from review options</li> <li>2. Learner view first flashcard showing only the English word on front side</li> <li>3. Learner attempts to mentally recall the word's definition and pronunciation</li> <li>4. Learner clicks "Flip Card" or uses spacebar to reveal the answer</li> <li>5. Learner evaluates their recall performance by selected known or unknown</li> <li>6. Process repeats until all scheduled cards are completed</li> <li>7. Learner session summary with performance statistics</li> </ol>
Alternative Flows	<b>Alternative flow 1: Request additional examples</b> <ol style="list-style-type: none"> <li>1. From step 4 of basic flow, learner clicks "More Examples" button</li> <li>2. System displays additional example sentences or AI-generated contextual usage</li> <li>3. Continue with step 5 of basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be in an active review session</li> <li>• Selected vocabulary list must contain items ready for review</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• All flashcards in session completed or marked for later review</li> <li>• Individual word performance data updated for Spaced Repetition scheduling</li> <li>• Session statistics recorded for progress tracking</li> <li>• User ready to continue with additional learning activities or end session</li> </ul>

## 2.6 [USC6] Use-case: Review with Fill-in-blank

Use case Name	Review with Fill-in-blank
Brief description	This use case describes the fill-in-blank learning method where learners study vocabulary by completing sentences with missing words, testing contextual understanding and spelling accuracy.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. Learner selects "Fill-in-blank" as learning method from review options</li> <li>2. Learner views first exercise with a sentence containing a blank space where the target word should be</li> <li>3. Learner reads the sentence context and attempts to determine the correct vocabulary word</li> <li>4. Learner types their answer into the blank field</li> <li>5. System validates the answer against correct spelling and accepted variations</li> <li>6. If correct, system displays confirmation with full sentence and word definition</li> <li>7. If incorrect, system shows the correct answer and highlights differences</li> <li>8. Process repeats until all scheduled exercises are completed</li> <li>9. System displays session summary with accuracy statistics and areas for improvement</li> </ol>



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Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be in an active review session</li> <li>• Selected vocabulary list must contain words with contextual sentences</li> <li>• Fill-in-blank exercise generator must be operational</li> <li>• System must have sentence templates or AI capability to create contextual sentences</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• All fill-in-blank exercises completed or marked for later review</li> <li>• Individual word performance updated for Spaced Repetition scheduling</li> <li>• Session completion statistics available for progress tracking</li> </ul>

## 2.7 [USC7] Use-case: Review with Word Association

Use case Name	Review with Word Association
Brief description	This use case describes the word association learning method where learners study vocabulary through matching exercises, connecting words with meanings, images, or related concepts to strengthen memory through association patterns.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. Learner selects "Association word" as learning method from review options</li> <li>2. System loads vocabulary items scheduled for review and prepares matching exercise</li> <li>3. System shuffles the order of vocabulary words and their corresponding meanings/images</li> <li>4. System displays vocabulary words on the left and association options (meanings, images, or related concepts) on the right</li> <li>5. Learner reads through all available words and association options displayed side by side</li> <li>6. Learner clicks on any word to select it and then clicks on the corresponding meaning, image, or related concept on the other side</li> <li>7. System validates the association and provides immediate visual feedback</li> <li>8. If correct, the system highlights both matched items in green and removes the pair from active options. If incorrect, system shows red border, deselects current word, and allows learner to try again</li> <li>9. Learner continues selecting words and matching them with their associations until all pairs are correctly matched</li> <li>10. System calculates accuracy percentage and time taken for completion</li> <li>11. System records performance data for Spaced Repetition algorithm</li> <li>12. Process repeats with new sets of vocabulary items until session complete</li> <li>13. System displays comprehensive results with matching accuracy and speed metrics</li> </ol>

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Alternative Flows	<b>Alternative flow 1: Timed challenge mode</b> <ol style="list-style-type: none"> <li>1. From step 3 of basic flow, learner enables "Timed Challenge" option</li> <li>2. System starts countdown timer for increased difficulty</li> <li>3. Learner must complete all associations within time limit</li> <li>4. System provides time warnings and pressure indicators</li> <li>5. Bonus points awarded for speed and accuracy combination</li> <li>6. Continue with step 13 of basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be in an active review session</li> <li>• Selected vocabulary list must have sufficient items for meaningful associations</li> <li>• System must have association data (definitions, images, synonyms) for vocabulary items</li> <li>• Association matching interface must be loaded and responsive</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• All word association exercises completed with recorded accuracy</li> <li>• Performance metrics updated for adaptive learning algorithm</li> <li>• Session results contribute to overall vocabulary mastery assessment</li> </ul>

## 2.8 [USC8] Use-case: Choose vocabulary list

Use case Name	Choose vocabulary list
Brief description	This use case enables learners to select vocabulary lists for their learning sessions, browsing through personal, public, and classroom-assigned lists.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. System displays available vocabulary lists</li> <li>2. Learner views by categories, for example: Personal Lists, Classroom Lists, Recently Lists, Popularly Lists,...</li> <li>3. Learner browses through list previews showing title and description</li> <li>4. Learner clicks "Overview list" on desired list to view overview of a list</li> <li>5. System displays list overview with sample words and statistics</li> <li>6. Learner clicks "Study This List" to select for learning session</li> <li>7. System presents learning method options for the selected list</li> </ol>
Alternative Flows	<b>Alternative flow 1: Search for specific list</b> <ol style="list-style-type: none"> <li>1. From step 1 of basic flow, learner uses search bar</li> <li>2. Learner enters keywords, tags, or list name</li> <li>3. System displays filtered results matching search criteria</li> <li>4. Continue with step 5 of basic flow</li> </ol> <b>Alternative flow 2: Overview list contents</b> <ol style="list-style-type: none"> <li>1. From step 5 of basic flow, learner clicks "Overview" option</li> <li>2. System displays first 5 words with their definitions along with statistics including total word count, topic category (if available), estimated study time, and number of learners who have completed the list</li> <li>3. Learner reviews the sample content and statistics before making decision</li> <li>4. Continue with step 8 of basic flow</li> </ol> <b>Alternative flow 3: Add public list to personal library</b> <ol style="list-style-type: none"> <li>1. From step 6 of basic flow, learner clicks "Add to My Lists"</li> </ol>

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	2. System creates copy of public list in personal library 3. Learner can now edit personal copy 4. Continue with step 7 of basic flow
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be authenticated and logged in</li> <li>• At least one vocabulary list must be available</li> <li>• Learner must have appropriate permissions for classroom lists</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Selected vocabulary list added to learning queue</li> <li>• List marked as "Currently Studying" in user profile</li> <li>• Learning session ready to begin with chosen list</li> </ul>

## 2.9 [USC9] Use-case: Create new vocabulary list

Use case Name	Create new Vocabulary List
Brief description	This use case enables learners and teachers to create customized vocabulary lists organized by topic, or learning objectives. The system supports both personal learning organization and structured classroom content creation.
Actors	Learner, Teacher
Basic Flow	1. User navigates to vocabulary management section from main menu 2. User selects "Create New List" option 3. System presents list creation form with required and optional fields 4. User enters descriptive list name and optional description 5. User configures privacy settings (Private, Public) 6. User begins adding vocabulary items one by one 7. For each word, user enters English term, definition, and optional fields (pronunciation, example sentences, images) 8. User reviews all entered vocabulary items for accuracy 9. User clicks "Create List" to create the vocabulary list 10. System validates entries, assigns unique identifier, and confirms successful creation
Alternative Flows	<p><b>Alternative flow 1: Use AI assistance</b></p> 1. From step 7 of basic flow, user clicks "Generate with AI" for definitions or examples 2. System leverages AI service to create contextual content 3. User reviews and accepts or modifies AI-generated content 4. Continue with step 8 of basic flow  <p><b>Alternative flow 2: Create empty list for future use</b></p> 1. From step 6 of basic flow, user chooses to save empty list 2. System creates list structure without vocabulary items 3. User can add words gradually over time
Pre-conditions	<ul style="list-style-type: none"> <li>• User must be authenticated with appropriate permissions</li> <li>• For teachers creating classroom lists, verified teacher status may be required</li> <li>• System must have available storage capacity for new lists</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• New vocabulary list created with unique identifier</li> <li>• List appears in user's vocabulary management section</li> </ul>

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	<ul style="list-style-type: none"> <li>• For public lists, content becomes discoverable by other users</li> <li>• List ready for immediate use in learning activities</li> </ul>
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## 2.10 [USC10] Use-case: View vocabulary list

Use case Name	View vocabulary list
Brief description	This use case allows learners to examine detailed contents of vocabulary lists, including all words, definitions, examples, and associated learning progress.
Actors	Learner, Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. Learner navigates to vocabulary management section</li> <li>2. Learner selects a vocabulary list from available options</li> <li>3. System displays complete list information</li> <li>4. Learner views list metadata: title, description, creation date, privacy setting</li> <li>5. System displays all vocabulary items in list view</li> <li>6. For each word, learner sees: term, definition, pronunciation, example sentences</li> <li>7. Learner can view personal progress indicators for each word</li> <li>8. System shows Spaced Repetition status and next review dates</li> <li>9. Learner can sort words by alphabetical</li> <li>10. Learner can search within the list for specific words</li> </ol>
Alternative Flows	<b>Alternative flow 1: Share list</b> <ol style="list-style-type: none"> <li>1. From step 4 of basic flow, learner clicks "Share" option</li> <li>2. System generates shareable link or invite code</li> <li>3. Learner copies link to share with others</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be authenticated</li> <li>• Learner must have access permissions for the list</li> <li>• List must exist in the system database</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• List viewing activity recorded in user history</li> <li>• Any sorting or filter preferences saved for future sessions</li> <li>• List remains available for learning activities</li> </ul>

## 2.11 [USC11] Use-case: Edit vocabulary list

Use case Name	Edit vocabulary list
Brief description	This use case enables learners and teachers to modify existing vocabulary lists by adding, removing, or updating vocabulary items and list properties.
Actors	Learner, Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. User navigates to vocabulary list management section</li> <li>2. User selects "Edit" option for desired list</li> <li>3. System verifies user has edit permissions</li> <li>4. System displays list in editable mode</li> <li>5. User can modify list properties: title, description, privacy settings</li> <li>6. User can add new vocabulary items using "Add Word" function</li> <li>7. User can edit existing words: definitions, examples, pronunciation</li> <li>8. User can delete words from the list</li> </ol>

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	9. User reviews all changes before saving 10. User clicks "Save Changes" to update list
Alternative Flows	<b>Alternative flow 1: Discard changes</b> 1. From any step, user clicks "Cancel" or navigates away 2. System prompts to confirm discarding changes 3. If confirmed, system reverts to original list state
Pre-conditions	<ul style="list-style-type: none"> <li>• User must be authenticated with edit permissions</li> <li>• List must be owned by user or user must be assigned editor role</li> <li>• List must not be locked for editing by another user</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Vocabulary list updated with new content</li> <li>• Modification history recorded with timestamp</li> <li>• Changes reflected across all users accessing the list</li> <li>• Spaced Repetition schedules adjusted for modified words</li> </ul>

## 2.12 [USC12] Use-case: Update profile

Use case Name	Update profile
Brief description	This use case enables authenticated users to modify their personal information, learning preferences, and account settings to customize their VocaBoost experience.
Actors	Learner, Teacher
Basic Flow	1. User accesses profile settings from main navigation or user menu 2. System displays current profile information in editable form 3. User modifies desired fields such as display name, contact information, or profile picture 4. User updates learning preferences including daily learning goals 5. For teachers, user updates professional information like institution affiliation and teaching experience 6. User reviews all changes for accuracy 7. User clicks "Save Changes" to update profile 8. System displays confirmation message and updated profile information
Alternative Flows	<b>Alternative flow 2: Password change</b> 1. From step 2 of basic flow, user clicks "Change Password" 2. System presents password change form requiring current password 3. User enters current password, new password and confirm it 4. System validates password strength and confirms match 5. Continue with step 3 of basic flow  <b>Alternative flow 3: Cancel changes</b> 1. From any step, user clicks "Cancel" 2. System displays warning about unsaved changes 3. User confirms cancellation or returns to editing 4. If confirmed, system discards changes and returns to previous state
Pre-conditions	<ul style="list-style-type: none"> <li>• User must be authenticated and logged into the system</li> <li>• User must have appropriate permissions to modify profile information</li> </ul>

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	<ul style="list-style-type: none"> <li>• System profile management service must be operational</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• User profile information updated in system database</li> <li>• Changes reflected across all platform interfaces</li> <li>• Audit trail created for profile modifications</li> <li>• Updated preferences applied to user experience immediately</li> </ul>

### 2.13 [USC13] Use-case: View learning statistics

Use case Name	View learning statistics
Brief description	This use case allows learners to analyze their learning progress, identify strengths and weaknesses, and make informed decisions about study strategies through comprehensive data visualization and performance metrics.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. Learner accesses statistics dashboard from main navigation menu</li> <li>2. Learner views summary metrics: total words learned, average daily study time, overall retention rate and learning streak</li> <li>3. Learner explores time-based analysis showing learning progress over weeks and months</li> <li>4. System displays visual representations including progress charts</li> </ol>
Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be authenticated and logged into the system</li> <li>• Learner must have sufficient learning history data (minimum 5 review sessions or 50 studied words)</li> <li>• System must have processed and aggregated recent learning activities</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• User gains insights into learning patterns and performance trends</li> <li>• Recommendations for study strategy improvements are provided</li> <li>• Statistical data remains accessible for future reference and comparison</li> </ul>

### 2.14 [USC14] Use-case: Create classroom

Use case Name	Create classroom
Brief description	This use case allows teachers to create classrooms for organizing learners and managing vocabulary learning activities in a structured educational environment.
Actors	Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. Teacher navigates to "My Classrooms" section from teacher dashboard</li> <li>2. Teacher clicks "Create New Classroom" button</li> <li>3. System displays classroom creation form</li> <li>4. Teacher enters classroom name and description</li> <li>5. Teacher sets classroom privacy (invite-only or public)</li> <li>6. Teacher sets enrollment capacity limit</li> <li>7. Teacher reviews classroom settings</li> <li>8. Teacher clicks "Create Classroom" to finalize</li> <li>9. System generates unique classroom ID and join code</li> <li>10. System creates classroom and redirects to classroom dashboard</li> </ol>
Alternative Flows	

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Pre-conditions	<ul style="list-style-type: none"> <li>• Teacher must be authenticated with verified teacher status</li> <li>• Teacher account must be in good standing</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• New classroom created in system</li> <li>• Teacher assigned as classroom owner</li> <li>• Unique classroom code generated for learner enrollment</li> <li>• Classroom appears in teacher's dashboard</li> </ul>

## 2.15 [USC15] Use-case: Add/Remove learner

Use case Name	Add/Remove learners
Brief description	This use case allows teachers to manage classroom membership by adding new learner to their classes and removing learners who are no longer participating.
Actors	Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. Teacher navigates to "My Classrooms" section from teacher dashboard</li> <li>2. Teacher selects specific classroom to manage</li> <li>3. System displays current classroom information and the current lists of classroom</li> <li>4. Teacher enter learner's email and clicks "Add" to include new class members</li> <li>5. The system sends invitation email to the email of learner.</li> <li>6. The learner list is updated, showing which learners are waiting to join</li> <li>7. To remove learners, the teacher selects names from the current list</li> <li>8. Teacher clicks "Remove Selected" and confirms the action</li> <li>9. System removes those learners from the class and notifies them</li> </ol>
Alternative Flows	<b>Alternative flow 1: Share classroom code</b> <ol style="list-style-type: none"> <li>1. From step 3 of basic flow, teacher selects "Share Classroom Code" option</li> <li>2. Teacher shares code with learners for independent joining</li> <li>3. Learners use code to join classroom without teacher invitation</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Teacher must be authenticated with verified teacher status</li> <li>• Teacher must have ownership or management rights for the classroom</li> <li>• For adding learners, target learners must have registered accounts</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• The learner list is updated with any learners added or removed</li> <li>• Added learners receive access to assignments</li> <li>• Removed learners lose access to classroom content</li> <li>• Notification emails sent to affected learners about the learner list changes</li> </ul>

## 2.16 [USC16] Use-case: Assign exercise

Use case Name	Assign exercise
Brief description	This use case allows teachers to assign vocabulary exercises and learning tasks to learners in their classrooms, setting deadlines and tracking completion.
Actors	Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. Teacher navigates to classroom management section</li> <li>2. Teacher selects target classroom</li> <li>3. Teacher clicks "Assign Exercise" from classroom menu</li> </ol>

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	<ol style="list-style-type: none"> <li>4. System displays exercise creation interface</li> <li>5. Teacher selects vocabulary list(s) for the exercise</li> <li>6. Teacher chooses exercise method (Flashcard/ Fill-in-blank/ Word Association)</li> <li>7. Teacher sets exercise parameters: word per review</li> <li>8. Teacher specifies assignment deadline</li> <li>9. Teacher reviews assignment details</li> <li>10. Teacher clicks "Assign to Classroom"</li> <li>11. System creates assignment and notifies learners in the classroom</li> </ol>
Alternative Flows	<b>Alternative flow 1: Schedule for later</b> <ol style="list-style-type: none"> <li>1. From step 8 of basic flow, teacher sets future start date</li> <li>2. System schedules assignment for automatic release</li> <li>3. Learners receive notification when assignment becomes available</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Teacher must have active classroom with enrolled learners</li> <li>• At least one vocabulary list must be available</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Assignment created and linked to classroom</li> <li>• Learners notified of new assignment</li> <li>• Assignment appears in learner dashboards</li> <li>• Teacher can track assignment progress and completion</li> </ul>

## 2.17 [USC17] Use-case: View classroom analytics

Use case Name	View classroom analytics
Brief description	This use case allows a teacher to view a comprehensive dashboard summarizing class performance. The dashboard displays key metrics such as assignment completion rates, learner engagement, average progress, and system-generated insights to help the teacher identify struggling learners and improve instruction strategies.
Actors	Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. The teacher navigates to the "My Classrooms" section from their dashboard.</li> <li>2. The system displays a list of classrooms the teacher manages.</li> <li>3. The teacher selects a classroom.</li> <li>4. The system displays the classroom overview page with a visible "Analytics" button.</li> <li>5. The teacher clicks the "Analytics" button.</li> <li>6. The system displays a single dashboard screen, including: <ul style="list-style-type: none"> <li>- Summary cards: total learners, completion rate, number of low-performing learners, average study time.</li> <li>- A line chart showing weekly average progress.</li> <li>- A table of learner performance (name, progress, average score, last active).</li> </ul> </li> <li>7. The teacher may use optional filters (e.g., by time range, performance level).</li> <li>8. The teacher exits the analytics view or switches to another classroom.</li> </ol>



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Alternative Flows	<p><b>Alternative flow 1: No Analytics Data Available</b></p> <ol style="list-style-type: none"> <li>1. From step 5, the system finds no available data.</li> <li>2. The system displays a message: “No analytics data available. Please assign exercises or wait for learner activity.”</li> <li>3. Continue with step 8 from basic flow.</li> </ol> <p><b>Alternative flow 2: Filter</b></p> <ol style="list-style-type: none"> <li>1. From step 7, the teacher clicks “Filter”, then chooses filter criteria.</li> <li>2. The system filters the learner table to display only low-performing learners.</li> <li>3. Continue with step 8 from basic flow</li> </ol> <p><b>Alternative flow 3: Change Time Period</b></p> <ol style="list-style-type: none"> <li>1. From step 7, the teacher selects a new time range from the dropdown (e.g., “Last month”, “Custom”).</li> <li>2. The system updates all relevant data (charts and tables) accordingly.</li> <li>3. Continue with step 8 from basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• The teacher is logged in with a verified teacher account</li> <li>• The teacher has at least one classroom with enrolled learners</li> <li>• There is learner activity data available for the selected classroom</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Teacher views analytics data relevant to a selected classroom</li> <li>• Data-driven recommendations available for curriculum and teaching method adjustments</li> </ul>

## 2.18 [USC18] Use-case: Ban/Unban account

Use case Name	Ban/Unban account
Brief description	This use case allows administrators to suspend or reinstate user accounts that violate platform policies or require administrative action.
Actors	Admin
Basic Flow	<ol style="list-style-type: none"> <li>1. Admin accesses user management section from admin panel</li> <li>2. Admin searches for target user by email, username, or ID</li> <li>3. System displays user profile and account status</li> <li>4. Admin reviews user activity history and violation reports</li> <li>5. For banning: Admin clicks "Ban Account" button</li> <li>6. Admin provides detailed explanation</li> <li>7. Admin confirms ban action</li> <li>8. System notify banned user via email</li> <li>9. For unbanning: Admin clicks "Unban Account" for suspended user</li> <li>10. System reactivates account and notifies user</li> </ol>
Alternative Flows	<p><b>Alternative flow 1: Content removal with ban</b></p> <ol style="list-style-type: none"> <li>1. From step 7 of basic flow, admin selects "Remove Content"</li> <li>2. System deletes or hides user's public vocabulary lists</li> <li>3. System preserves data for potential recovery</li> <li>4. Continue with step 8 from basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Admin must be authenticated with administrative privileges</li> </ul>

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	<ul style="list-style-type: none"> <li>• Target user account must exist in system</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• User account status updated (active/suspended)</li> <li>• Ban/unban action logged in admin audit trail</li> <li>• User access to platform modified accordingly</li> <li>• Email notification sent if configured</li> </ul>

## 2.19 [USC19] Use-case: Approve Teacher Requests

Use case Name	Approve Teacher Requests
Brief description	This use case enables administrators to review and process teacher role upgrade requests, verifying credentials and granting appropriate permissions.
Actors	Admin
Basic Flow	<ol style="list-style-type: none"> <li>1. Admin accesses teacher request queue from admin dashboard</li> <li>2. System displays list of pending teacher applications</li> <li>3. Admin selects specific request to review</li> <li>4. System shows applicant profile and submitted credentials</li> <li>5. Admin reviews teaching qualifications and documentation</li> <li>6. Admin makes approval decision</li> <li>7. Admin clicks "Approve" for approval, "Reject" for rejection</li> <li>8. Admin provides reason for rejection</li> <li>9. System notifies applicant of decision via email</li> </ol>
Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• Pending teacher requests must exist in queue</li> <li>• Applicants must have submitted required documentation</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Teacher request status updated (approved/rejected/pending)</li> <li>• User roles modified for approved requests</li> <li>• Email notifications sent to applicants</li> <li>• Approval/rejection logged in admin audit system</li> </ul>

## 2.20 [USC20] Use-case: Moderate Content

Use case Name	Moderate Content
Brief description	This use case allows administrators to review, approve, or remove user-generated content that may violate platform guidelines or contain inappropriate material.
Actors	Admin
Basic Flow	<ol style="list-style-type: none"> <li>1. Admin accesses content moderation queue from admin panel</li> <li>2. System displays reported content and flagged items</li> <li>3. Admin selects specific content item to review</li> <li>4. System shows content details and report information</li> <li>5. Admin examines vocabulary list or user-generated content</li> <li>6. Admin checks against platform content guidelines</li> <li>7. Admin makes moderation decision</li> <li>8. Admin clicks "Delete Content" to permanently remove it, "Keep Content" to retain it.</li> <li>9. System notifies content creator of decision</li> </ol>

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Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• Reported or flagged content must exist in queue</li> <li>• Content moderation guidelines must be defined</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Content status updated (approved/removed)</li> <li>• Moderation action recorded in system logs</li> <li>• Content creator notified of moderation outcome</li> </ul>

## 2.21 [USC21] Use-case: View system analytics

Use case Name	View system analytics
Brief description	This use case provides administrators with comprehensive platform analytics including user activity, content statistics, performance metrics, and system health indicators.
Actors	Admin
Basic Flow	<ol style="list-style-type: none"> <li>1. Admin accesses analytics dashboard from admin panel</li> <li>2. System displays overview dashboard with key metrics</li> <li>3. Admin views platform statistics: total users, active users, content volume</li> <li>4. Admin reviews content creation and engagement metrics</li> <li>5. Admin analyzes learning effectiveness across the platform</li> <li>6. Admin checks system performance indicators</li> <li>7. Admin explores detailed reports by category</li> <li>8. Admin can filter data by date range or region</li> </ol>
Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• System must have collected sufficient data for analysis</li> <li>• Analytics processing service must be operational</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Analytics viewing activity logged</li> <li>• System continues collecting analytics data</li> </ul>

## 2.22 [USC22] Use-case: Report Content

Use case Name	Report Content
Brief description	This use case allows users (learners and teachers) to report inappropriate content, violations of platform guidelines, or offensive vocabulary lists to administrators for review and moderation.
Actors	Learner, Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. User clicks "Report" button associated with the content</li> <li>2. System displays report form with description textbox</li> <li>3. User provides detailed description of the issue in text field</li> <li>4. User clicks "Submit Report" to send to administrators</li> <li>5. System sends notification email to user confirming report submission</li> </ol>
Alternative Flows	
Pre-conditions	<ul style="list-style-type: none"> <li>• User must be authenticated and logged into the system</li> <li>• Content to be reported must exist and be accessible to the user</li> <li>• User must have encountered the content through normal platform usage</li> </ul>

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Post-conditions	<ul style="list-style-type: none"> <li>• Report created and added to admin moderation queue</li> <li>• Content flagged in system for admin review</li> <li>• User receives confirmation of report submission</li> <li>• Admin team notified of new report for review</li> </ul>
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### 2.23 [USC23] Use-case: Join Classroom by Code

Use case Name	Join Classroom by Code
Brief description	This use case allows learners to join a classroom using an invitation code provided by their teacher, enabling self-enrollment without requiring individual invitations from the teacher.
Actors	Learner
Basic Flow	<ol style="list-style-type: none"> <li>1. Learner receives classroom invitation code from teacher</li> <li>2. Learner navigates to "My Classrooms" section from dashboard</li> <li>3. Learners clicks "Join Classroom" button</li> <li>4. System displays join classroom interface with code entry field</li> <li>5. Learner enters the provided classroom invitation code</li> <li>6. Learner clicks "Join" button to submit request and await approval from teacher</li> </ol>
Alternative Flows	<b>Alternative flow 1: Classroom full</b> <ol style="list-style-type: none"> <li>1. From step 3 of basic flow, classroom has reached capacity limit</li> <li>2. System displays message "This classroom is full"</li> <li>3. System redirect user to dashboard</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Learner must be authenticated and logged into the system</li> <li>• Valid classroom invitation code must exist</li> <li>• Classroom must be active and accepting new members</li> <li>• Teacher must have generated and shared the invitation code</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Join request created and added to teacher's approval queue</li> <li>• Upon approval, learner added to classroom member list</li> <li>• Learner gains access to classroom content and assignments</li> <li>• Classroom member count updated</li> <li>• Both teacher and learner receive appropriate notifications</li> </ul>

### 2.24 [USC24] Use-case: Approve Join Classroom Requests

Use case Name	Approve Join Classroom Requests
Brief description	This use case allows teachers to review, approve, or reject learner requests to join their classrooms. Teachers can process requests individually or in bulk, set auto-approval rules, and manage classroom access control.
Actors	Teacher
Basic Flow	<ol style="list-style-type: none"> <li>1. Teacher accesses classroom management dashboard</li> <li>2. System displays notification indicator for pending join requests</li> <li>3. Teacher clicks "Manage Join Requests"</li> <li>4. System displays list of pending requests with learner name and email</li> <li>5. Teacher selects one or more requests to process</li> </ol>

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	6. Teacher clicks "Approve Request" for approval, and "Reject Request" for rejection 7. Teacher returns to classroom dashboard
Alternative Flows	<p><b>Alternative flow 1: Bulk approve all requests</b></p> <ol style="list-style-type: none"> <li>From step 5 of basic flow, teacher clicks "Approve All"</li> <li>System prompts for confirmation</li> <li>Continue with step 7 of basic flow</li> </ol> <p><b>Alternative flow 2: Configure auto-approval</b></p> <ol style="list-style-type: none"> <li>From step 3 of basic flow, teacher clicks "Auto-Approval Settings"</li> <li>Teacher enables auto-approval with conditions:             <ul style="list-style-type: none"> <li>- Maximum number of learners</li> <li>- Email domain restrictions</li> </ul> </li> <li>System saves configuration</li> <li>Continue with step 7 of basic flow</li> </ol>
Pre-conditions	<ul style="list-style-type: none"> <li>• Teacher must be authenticated with verified teacher status</li> <li>• Teacher must own or manage the classroom</li> <li>• At least one pending join request must exist</li> <li>• Classroom must be active and not archived</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Join requests processed (approved/rejected)</li> <li>• Classroom member list updated for approved learners</li> <li>• Notifications sent to all processed learners</li> <li>• Request queue updated</li> <li>• Activity logged for audit trail</li> <li>• Auto-approval rules applied if configured</li> </ul>

## 2.25 [USC25] Use-case: Manage classrooms

Use case Name	Manage classrooms
Brief description	This use case allows users view the classroom lists which is available and view each classroom detail
Actors	Learner, Teacher
Basic Flow	<ol style="list-style-type: none"> <li>User clicks to "My classrooms" button of the sidebar which navigated to classrooms list</li> <li>System displays list of the classrooms</li> <li>User selects a classroom from available options</li> <li>The system displays classroom details including classroom name, classroom code and privacy</li> <li>For learner, the system displays a menu including "to-review lists" which navigate to lists of vocabulary learner need to finish and "reviewed-lists" navigated to the learner finished list. For teacher, the system displays a menu including "assignment" which displays the number of vocabulary lists that teacher has been assigned, "statistics" support the teacher view classroom report, and "learners" view the list of learners.</li> </ol>
Alternative Flows	<p><b>Alternative flow 1: Remove classroom for teacher role</b></p> <ol style="list-style-type: none"> <li>From step 3 of the basic flow, the teacher clicks "..." at the classroom title.</li> </ol>

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	2. System display removes the classroom option. 3. User clicks remove the classroom option. 4. Teacher returns to step 2.
Pre-conditions	<ul style="list-style-type: none"> <li>• User must be authenticated</li> <li>• User must have access permissions for the classrooms</li> <li>• Classrooms must exist in the system database</li> </ul>
Post-conditions	<ul style="list-style-type: none"> <li>• Classroom viewing activity recorded in user history</li> <li>• Classroom remains available for learning activities</li> </ul>

## 2.26 [USC26] Use-case: View detail assignment

Use case Name	View detail assignment
Brief description	This use case support user to view the assignment details including: title, start date, due date, total words and total learners who reviewed
Actors	Teacher, Learner
Basic Flow	1. User clicks the “My classrooms” button of the sidebar to navigate to the classrooms list 2. System displays the list of classrooms 3. User selects a classroom from available options 4. User chooses an assignment. 5. System displays metadata of the assignment: title, start date, due date, total words, total learners who reviewed. 6. System displays all vocabulary items in the assignment.
Alternative Flows	<b>Alternative flow 1: Remove assignment for teacher role</b> 1. From step 5 of the basic flow, the teacher clicks “...” at the assignment title. 2. System display removes the assignment option. 3. Teacher clicks the “remove” button. 4. Teacher returns to step 4.
Pre-conditions	<ul style="list-style-type: none"> <li>• User must be authenticated</li> <li>• User must have access permissions for the classroom</li> <li>• Assignment must exist in the system database</li> </ul>
Post-conditions	