Project Proposal

Mobile App Development - Spring 2025

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EasyLingo: Overview

Learning a new language can be overwhelming, especially when done independently. Many new learners struggle with consistency and lack of access to a structured curriculum, or become discouraged due to inefficient learning methods. Language learning apps with a variety of different approaches to teaching a new language are widely available for anyone looking to expand their repertoire.

Most people learn a new language by using it in their daily lives. For individuals moving to a new country for work or education, learning a language efficiently is essential. EasyLingo aims to simplify the process and cater to people's different learning styles by integrating essential language-learning tools in one convenient package, providing users with a customizable and stress-free experience.

EasyLingo is a language-learning application designed to help users master new languages in a flexible and engaging way. Unlike structured playforms like Duolingo, EasyLingo will allow users to take control of their own learning process, providing features such as translation, flashcards, interactive quizzes, and progress tracking. The app will cater to students, professionals, and casual learners alike, offering a personalized experience tailored to individual goals.

Feature Set

- **Translation Tool:** Users can input words, phrases, or sentences to translate to and from their target language.

- **Flashcards:** Users can create and review flashcards from their translation search history for self-revision.

- **Interactive Quizzes:** Users can take quizzes to test their knowledge and track their progress.

- **Sort Your Learning:** Users can monitor their learning progress and sort their learning materials based on their proficiency level.

- **Text-to-Speech** Users can listen to audio playback for words and phrases to communicate with native speakers or improve their pronunciation.

- **Daily Learning Goals:** Users can set daily targets and enable push-notifications to maintain consistency.

- **Community Forum:** Users can interact with other learners, ask questions, and practice their language skills.

- **Camera Translation:** Users can use their phone's camera to translate text from images or real-world objects.

User Roles

Guest User

- Limited access to basic translation features.

- Cannot save progress or create flashcards.

- No access to community interactions or personalized settings.

Registered User

- Full access to all features.

- Can create, save, and manage flashcards.

- Can save progress and set learning goals.

- Access to community forum and personalized settings.

Community Moderator

- Can moderate community forums and user-generated content.

- Can create and manage quizzes and learning materials.

- Can provide feedback and assistance to users.

Admin

- Full access to all features.

- Can manage user accounts, content, and app settings.

- Can monitor app analytics and user feedback.

User Flows

Guest User Flow

1. User opens the app and lands on the home page (translation tool).

2. Enters text, speaks into the microphone, or uses the camera to translate.

3. Views translation result or listens to audio playback.

4. Attempts to save translation or create flashcards → receives prompt to sign up.

5. If the user signs up, they become a registered user and gain access to additional features.

Registered User Flow

1. User logs in to the app and lands on the home page.

2. Uses translation features (same as guest user).

3. Saves translation to history, or creates flashcards from the translation.

4. Navigates to dashboard and views recent translations, reviews flashcards, sets and tracks daily progress, takes interactive quizzes etc.

5. Navigates to community forum to interact with other users.

Community Forum Flow

1. User navigates to the community forum.

2. Views recent posts, questions, and discussions.

3. Engages with other users by upvoting/downvoting posts and comments, participating in discussions, or answering questions.

4. Posts a new question or starts a discussion.

5. If a moderator/admin comments, their comment is pinned at the top of the thread.

6. If a post violates community guidelines, users can flag or report it.

Moderator Flow

1. Moderator logs in to the app and lands on the home page.

2. Navigates to the community forum and views recent posts.

3. Provides answers, corrections or feedback on users' posts.

4. Creates and manages quizzes, or posts learning materials.

5. Monitors and reviews reported posts.

6. Removes inappropriate content, bans users, or provides feedback.

Admin Flow

1. Admin logs in to the app and lands on the home page.

2. Navigates to the admin panel.

3. View user analytics, app performance, and user feedback.

4. Manages user accounts, content, and app settings.

UI/UX Design Approach

The UI will primarily use pre-made templates from Figma UI kits or Flutter's built-in components. Custom components may be used if necessary for the app's functionality. The UI will be clean and intuitive, prioritizing navigatability.

Technical Specifications

- **State Management:** Riverpod for simplified state management and easy debugging and testing.

- **Authentication:** Google Authentication for quick and secure login. Users will also be able to sign up using email or phone number.

- **Backend Services:** Firebase for real-time database, storage, and push notifications.

- **Testing Plan:** Tests will be written to check translation accuracy, flashcard functionality, community forum interactions, etc.