Concept plan
IMA Projects

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Start date: 01/03/2025

End date: 15/06/2025

Objectives

IMA Projects runs a refugee camp in South Limburg, home to over a hundred refugees from around the world. Many of them are required to stay in the camp for extended periods while waiting for permits and documentation — a process that can take up to three years. During this time, many refugees experience boredom and express a strong desire to learn the Dutch language. However, due to a shortage of volunteers, they currently receive only one hour of basic Dutch lessons per week — far from sufficient.

Our goal is to create a Dutch language learning app specifically designed for refugees. The app will support learning from their native languages and will also accommodate those who are illiterate, meaning the interface will rely entirely on visuals rather than written words. This way, while refugees wait in the camp, they can learn Dutch as much as they want, at their own pace and on their own terms.

Scope of Work

Deliverables

- Sentence, word, pronunciation learning
- Automated user registration (number)
- Select language
- A.I. Integration
- Games
- Mascot design
- Level Selection

Out of scope

- Quests
- Conversations
- Progress
- Name registration
- Streak
- Push notification
- Reward system

Techstack

- Node.js
- ollama AI
- SQL
- HTML
- CSS
- JavaScript
- GitHub
- Hera

Node.js powers the backend, handling user requests and integrating with AI models like Ollama AI for language processing tasks. SQL stores essential data such as user progress and lesson content. The frontend is built with HTML, CSS, and JavaScript, ensuring a responsive, visually appealing, and interactive user interface. GitHub is used for version control and collaboration, while Hera is used to deploy and serve the website, ensuring the app is accessible to users. Together, these technologies provide a smooth, reliable, and user-friendly app tailored to the needs of the refugees.

Timeline

First, we will research other language learning apps, programs and websites, and also do field research to get to know the target audience. In the design phase, we start with wireframes, then we will do testing with the wireframe, and then we design the app. Once the app design is finished, we will make a prototype which we can use to test with the target audience.

For the development phase, we use 2 sprints. In the first sprints we will make POCs and MVPs. In the second phase, we will finalize the prototype of the app.

At the end, we have time to test the working app and gather feedback to do final improvements to the app before we launch it and present it to the client.

Phase	Dates	Duration
Discovery & Research	3 Weeks	19/03 – 14/04
Design & Research phase	1 Week	14/04 – 24/04
Development sprint 1	3 Weeks	24/04 – 15/05
Development sprint 2	3 Weeks	15/05 – 05/06
Testing & Feedback	1 Week	05/06 – 12/06
Final fixes & Launch	0.5 Week	12/06 – 15/06

DCODE

User flow

This user flow of the app visualizes the steps the user takes to complete a specific task within the app. It maps out the path from the user's entry point through various interactions to their final goal, like learning Dutch words.

Start

Registered? — MUST HAVE

- YES → Homescreen — MUST HAVE
- NO → Get an automated Account number — MUST HAVE (user doesnt see this) → Fill in your name — SHOULD HAVE → Homescreen

Select language — MUST HAVE

Homescreen → What do I want to do? — MUST HAVE

- Learn Dutch → Learn Dutch page — MUST HAVE
- Play Game → Which game? — SHOULD HAVE
  - Game 1 → Game 1 page — SHOULD HAVE
  - Game 2 → Game 2 page — SHOULD HAVE

Learn Dutch page → What do I want to learn? — MUST HAVE

- Sentence learning page — MUST HAVE → Level? — MUST HAVE → 1 2 3 4 5 — MUST HAVE
- Word learning page — MUST HAVE → Level? — MUST HAVE → 1 2 3 4 5 — MUST HAVE
- Pronunciation learning page — MUST HAVE → Level? — MUST HAVE → 1 2 3 4 5 — MUST HAVE