CSE 499 Project Plan

## Project Name: Readerz

# Requirements:

List your project requirements with accompanying user stories. All the “core” requirements must be completed. Optional requirements are features you would like to add if time permits. For each requirement list the user stories you will be addressing.

## Required

Use this table to document the features of your project. **You must have at least 4 requirements.** Modify the table as needed.

|  |  |  |
| --- | --- | --- |
| Requirement | C/E\* | Description |
| Upload and display .txt files | c | Users can upload a .txt file to read in the web app |
| User Stories   |  |  | | --- | --- | | Name | Description | | Upload Text File | As a user, I want to upload a .txt file so I can read the content in the app | |  |  | |  |  | |
| Word translation | c | Users can click on a word to get a translation |
| User Stories   |  |  | | --- | --- | | Name | Description | | Click to Translate | As a user, I want to click on any word and see the translation instantly | |  |  | |  |  | |
| Save translated words | c | Store translations in the user's account for future reference |
| User Stories   |  |  | | --- | --- | | Name | Description | | Save translated words | Store translations in the user's account for future reference | |  |  | |  |  | |
| User authentication | c | Users can register and log in to access their data |
| User Stories   |  |  | | --- | --- | | Name | Description | | User Login | As a user, I want to sign up and log in to save and access my reading history | |  |  | |  |  | |
| Analytics tracking |  | Track user activity such as number of translations, reading time |
| User Stories   |  |  | | --- | --- | | Name | Description | | Usage Analytics | As a user, I want to see how many words I’ve translated and how long I’ve read | |  |  | |  |  | |
| Admin panel | e |  |
| User Stories   |  |  | | --- | --- | | Name | Description | |  | Allow admin to manage users and content (optional) | |  |  | |  |  | |
|  |  |  |
| User Stories   |  |  | | --- | --- | | Name | Description | |  |  | |  |  | |  |  | |

\*C=Core, E=Enhancement

## Project Schedule:

Create a rough project schedule broken down by sprint. For each sprint list the milestones you will meet. This is a rough guideline for future planning, you will make a more detailed plan at the first of each sprint. You will not be held accountable to this schedule as it will likely change as the class progresses.

|  |  |
| --- | --- |
| Sprint | Milestone(s) |
| 1 | Set up project repository, initialize React app, integrate Supabase auth |
| 2 | Build file upload and .txt display functionality |
| 3 | Implement click-to-translate, save words to database, user dashboard |
| 4 | Add optional analytics, finalize UI, testing, and deploy on Vercel |

# Project Architecture

The application will follow a **web-based client-server architecture**. It will be a **single-page application (SPA)** using React on the client side, which communicates with **Supabase** for backend services like authentication and database access. All content is rendered in the browser, with dynamic requests to APIs and Supabase as needed. Deployment will be handled via **Vercel**, allowing quick updates and scalability.

# Technology

Frontend: React (JavaScript), Tailwind CSS (optional for styling)

Backend/Database: Supabase (includes PostgreSQL, auth, and file storage)

API: Google Translate API or another free translation service

Deployment: Vercel

Version Control: GitHub

Other tools: ESLint, Prettier for code formatting and quality control