Gali Alony Final Project Proposal HCDE 438 Web Technologies 5/15/25

LexiLog

Overview

LexiLog is a vocabulary journal app designed for individuals who want to expand and retain new words they encounter. Users can quickly log new words they hear or read, receive a real-time definition sourced from an external dictionary API, and document their own usage examples to reinforce learning. The goal is to support active vocabulary acquisition in a more intentional and customizable way than generic flashcard apps or a regular notes app.

Value Provided

Learners often come across interesting or unfamiliar words but forget them without a structured way to revisit or reflect on them. LexiLog bridges that gap by making word capture instant and personally contextualized. It encourages active learning and a feeling of achievement by allowing users to track and reinforce their growing vocabulary.

Key Features

- Input a new word and fetch its definition from a dictionary API
- Store multiple personal usage examples
- Tag words (e.g., "academic," "casual," "literary")
- star favorites or mark words as "mastered"

Strech Goals

- Flashcard review mode
- Daily "word of the day" from saved list
- Usage progress tracker
- Sync data with Firebase Auth for cloud access
- Take care of misspelled words (via user)

Target Users

- Students aiming to strengthen their vocabulary for academic or standardized testing
- Writers and avid readers who encounter and want to retain new vocabulary
- English learners looking for a personalized language learning tool

User Stories

- As a student, I want to tag and organize words by context (e.g., literary or science) so that I can revisit them when studying.
- As a writer, I want to add my own usage examples so that I can internalize the words through meaningful reflection.
- As a language learner, I want to look up and save new words so that I can practice using them in my own speaking and writing.

Technical Architecture Plan

Frontend

- · React for building the user interface
- React Router for navigation (e.g., Home, Add Word, Word Log)
- Components: WordList, WordCard, AddWordForm, UserExamples, Header, Login
- Hooks: useState, useEffect, useContext

Backend

- Firebase Firestore: to store user accounts, saved words, and personal usage examples
- Firebase Auth: for user authentication (Google or email/password login)
- External APIs: <u>DictionaryAPI.dev</u> to fetch word definitions, parts of speech, and example usages

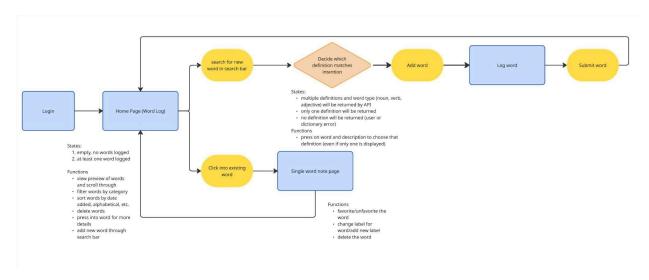
Github

Github Repo

Wireframes

Miro Board

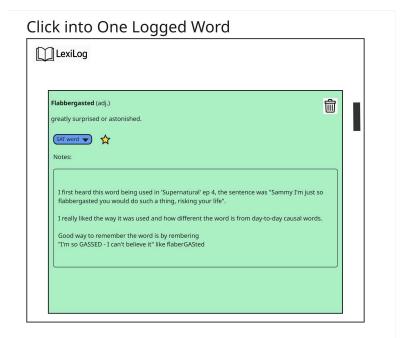
Flowchart



Low-Fi Frames

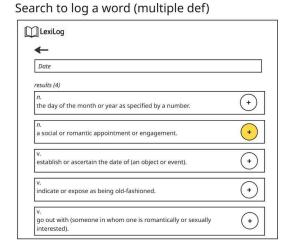


• The green, yellow, and red indicate how familiar the user is with the word, respectively.

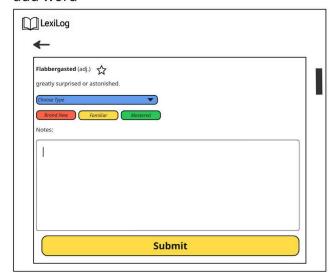


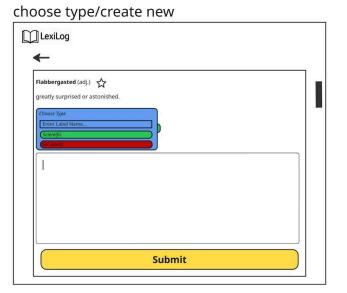


Search to log a word (1 def)



add word





Timeline

Week	Milestone
5/11-5/17	Define scope, set up GitHub and Firebase project; build base UI layout (Home, Add Word, Word Log)
5/18-5/24	Integrate dictionary API; enable word input and definition fetching; connect Firestore for saving words
5/25-5/31	Add user authentication with Firebase Auth; complete personal usage tracking and tagging features
6/1-6/5	Final polish: add filtering and search, refine UI/UX, and finalize submission materials