Toki Pona Learning App Business Requirements

Introduction

This will be an offline app, where users can search, view, learn, and track their progress in learning the Toki Pona language. It should offer a simple user interface in dictionary searches and when viewing hieroglyphs. It should also allow quizzes and upload of custom definitions.

Functional Requirements

Dictionary Search
Description: users should be able to search for Toki Pona words.
Input: space-delimited search terms entered in the search bar.
Output: a vertical list of word cards showing, symbol, and definition

View Hieroglyphs
Description: users should be able to view all Toki Pona hieroglyphs.
Input: click the "view" button
Output: grid of hieroglyphs in alphabetical order, show word card on click

Practice
Description: users can practice learning words and symbols
Input: click the "practice" button
Output: multiple-choice quiz, with summary at the end

Upload Custom Dictionary
Description: users can upload a csv file of their own definitions
Input: click the "upload CSV" button
Output: file browser to select CSV file

Non-Functional Requirements

Performance: load search results within 1 second for a 2 word query

Usability: minimise clicks, intuitive interface

Reliability: no online connection required

Technical Requirements

Flutter with be used to develop the app to support iOS and Android, windows stand-alone app and web app is out of scope. SQLite will be the used as the database. Word data will be imported from a csv file, and imported into the SQLite database. The database schema will include tables such as: words, parts of speech, definitions.

User Interface Requirements

Main Menu

- Search button
- View Hieroglyphs button
- Practice button
- Upload CSV button

Dictionary Search
- Search bar at the top
- Press <back to return to Main Menu
- Results displayed as a list of word cards

View
- Grid of Toki Pona hieroglyphs in alphabetical order
- Press <back to return to Main Menu
- Word card displayed when hieroglyph is clicked

Practice
- Filled progress bar at the top, displaying fraction of quiz completed
- Press <back to return to Main Menu
- Top half of screen, either word or symbol displayed
- Bottom half of screen shows a 2x2 grid of possible options
- Bottom bar is the "I don't know" button

Extensions
- Allow searching of English words, and find corresponding Toki Pona words
- Allow users to create, view, update, and delete new words without reupload of CSV