

How Do Children Search?

A tool to support researchers in understanding how children search for information online

Context

Why this matters

- Today's children spend more and more time online, at school and at home.
- Search Engines (SEs) and Large Language Models (LLMs) have User Interfaces (UIs) that kids find hard to read or navigate.
- More research is needed to understand how children use these tools, in order to build more child friendly interfaces.

The goal

- Build a web app that lets researchers log quantitative data on children's search behavior using a SE and an LLM, all while having the experience be enjoyable for the kids participating
- Create a tool that is reusable, extensible and maintainable. Build something useful that actually will be used in the future!

Problem & Limitations of SOTA

Researchers' needs

- Researchers need more tools to measure quantitative data on children's behavior as self-reports are often unreliable

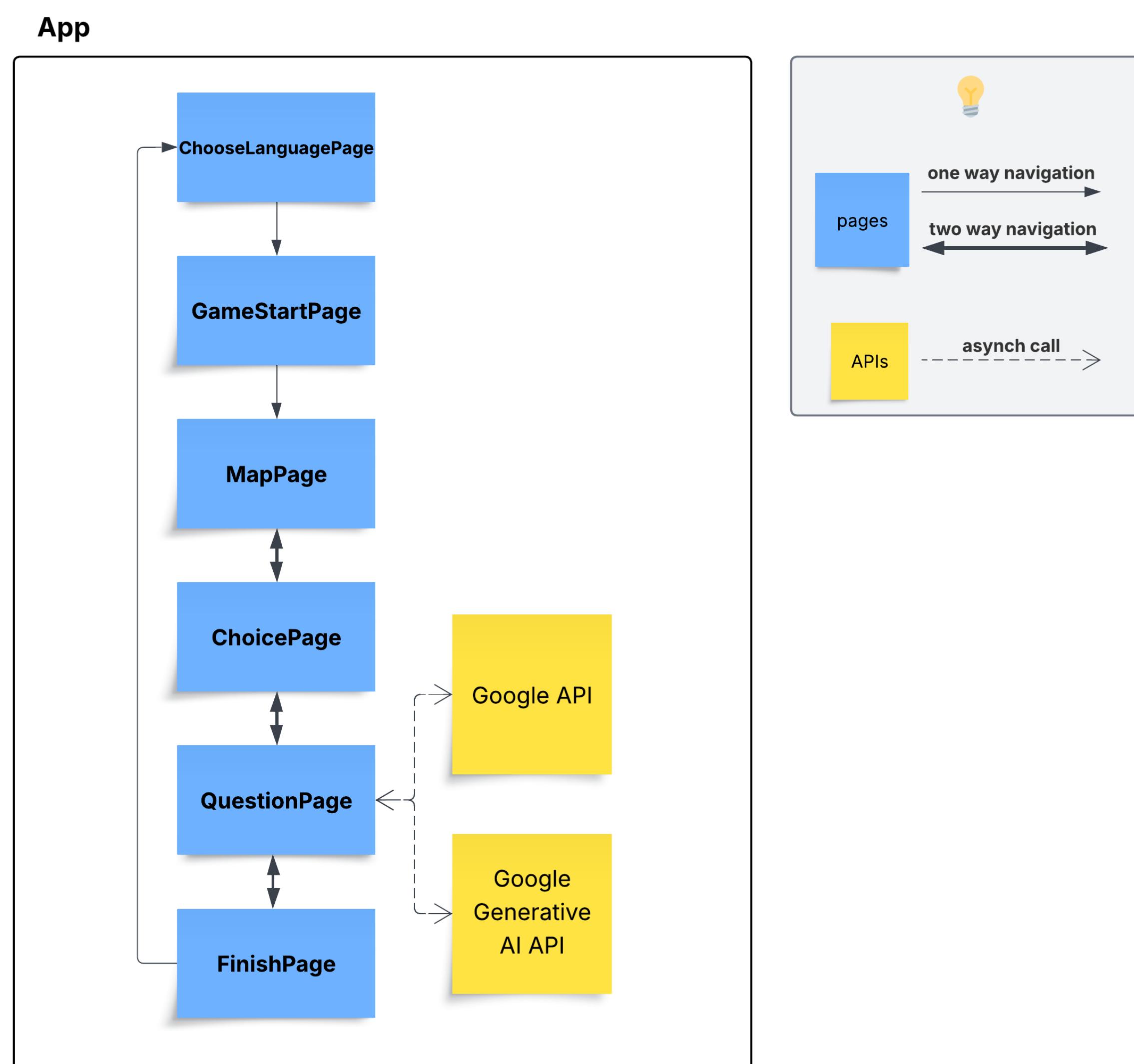
Existing child-search prototypes

- Previous work (Savoia 2025) showed promise with an "islands" game, but it was just a proof-of-concept and didn't collect usable data

System Design

Architecture

- Single-page React app (Create React App + Mantine UI + CSS) with a component for each screen.
- Global state via React Context, persisted in localStorage so that refreshing never loses data.



Data Flow and APIs

- Google Search API → returns top 10 links, snippets, click data.
- GoogleGenerativeAI (Gemini) API → returns a chatbot-style answer.
- All interactions (queries, time stamps, clicks, final answers, etc...) are stored locally and exportable as JSON.

