

Skills and resources audit

Team 3-CITS3200 Professional Computing-Documentation Identification Software

By Rania Khan, Hazel Wang, James Felstead, Peter Fang, Chunyu Zheng

Few technical skills needed for this project include:

1. Javascript (Reactjs) and HTML knowledge for the web app UI, nodejs and express to connect to the backend and sql skills for some relational database whether it's MySQL, SQLite or PostgreSQL. This is needed for the overall structure of the web app. This includes:
 - a. Reactjs, CSS and HTML for frontend design
 - b. Nodejs and express for backend
 - c. Knowledge of SQL queries
2. AI agent that is capable of taking the specified parameters eg. country name, year, state/province etc. and convert that into multiple search queries that have a high chance of locating the document in question, then crawling through the websites it finds to return the results - candidates include OpenAI's deep research, Perplexity research, Gemini deep research and others. The skills this could possibly require are:
 - a. Using the AI model's API key to send and receive requests - requires learning the AI model's documentation
 - b. Using specific prompt engineering to return data that fits all the given parameters in the form that we want it - requires multiple iterations and adjustments
3. Ability to use API to translation AI or software in order to use local languages for better search results
4. Use commands or similar to organise downloaded documents locally
5. Methods to efficiently transfer and store downloaded documents automatically to specified external cloud storage
6. Ability to utilise version control systems such as git to manage shared system documents and provide branching, committing and pull requests for simultaneous implementation of the software.

Resources available are:

1. Client is able to fund the subscription cost for the AI models, no limit is specified but around \$200 USD per month is the expectation.
2. Many models have a rate limit on the API as well as a monthly limit on the number of requests, however some such as perplexity AI does not have a hard cap, instead it charges a maximum of \$14 per request through API.
3. Free API documentation of each model is available for learning.
4. ~4TB external cloud storage for PDF document output with possible expansion/upgrade to ~9TB if required.