

Team Number: Group 016-4

Team Name: Team Polyglots

Team Members:

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Application Name: *LangLeap*

Slogan: Our mascot is better.

Application Description:

LangLeap is an intelligent language-learning flashcard tool that can tailor sets of words to learn to the user's goals. Most language-learning apps have the learning schedule pre-set. Course designers or app developers will create lists of words on subjects like "the city" or "the family" that are useful in general but are often irrelevant to a specific task. These are great for beginners wanting to learn for travel, but not great for intermediate professionals who need to get up to speed on specific subjects or desire more colloquial language learning.

Our product is different. Users can submit files, texts, or URLs to articles related to the subject matter they need or want to learn, in either language, and LangLeap will generate a list of immediately useful flashcards. Words, synonyms, and lexically similar words will be scraped from the input and used to generate a list.

If a businessperson needs to speak about "inflation in foreign currencies" or a traveller wants to speak about "baroque art," they can simply submit news, articles, manuals, or textbooks about their interests, and a course tailored to them will be created. No need to trudge through lists of words about "animals" when what you really need to know about is the language of the legal system you're being sued in. Our service has you covered.

Vision Statement:

LangLeap is a language app which caters towards students and busy individuals looking to learn another language. It allows user-input and users' interests to help them learn another language more efficiently and effectively. Unlike other apps and learning software, our product is both

portable and free of charge making it more accessible to any student or individual wanting to learn another language, and unlike most language-learning services available, it is tailored to the immediate needs of our users.

Version Control:

<https://github.com/cub-csci-3308-spring-2022/csci-3308-spring22-016-04>

Development Method:

As a group, we have decided to adopt the Agile/Scrum methodology, as we believe this will lead to us completing our application most efficiently and flexibly. Our reasoning for this is that we can collectively work on narrowed aspects of the project, so that we can build up our application in various stages, each of which will produce a working prototype that is more complex and complete than the last. Depending on the outcome of each sprint, we can add to and revise elements of our design without hassle or politics.

<https://csci-3308-spring22-016-4.atlassian.net/jira/software/projects/G4/boards/1>

Communication Plan:

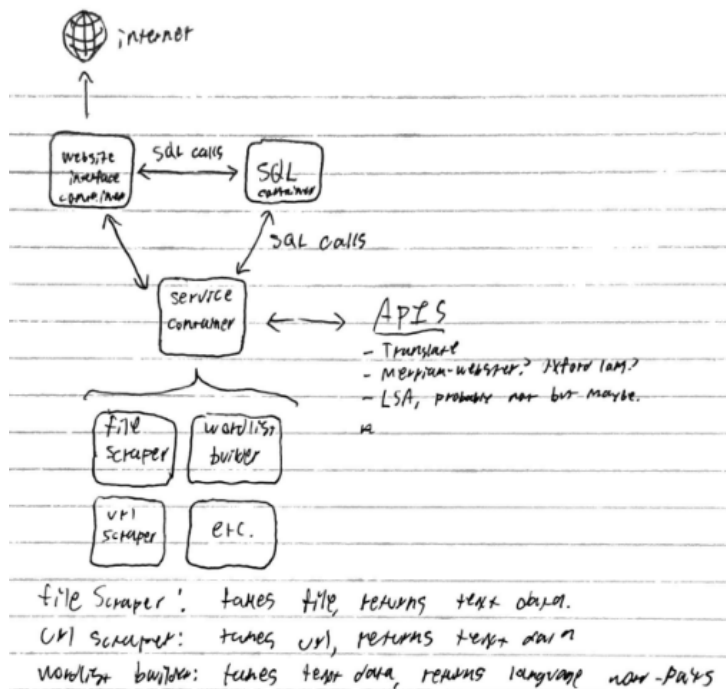
Our team has many avenues of communication. We will communicate during our weekly meetings and recitations face-to-face, but will also utilize Discord and Jira for online methods of organizing our project. Our Jira board will be the main focus for displaying and managing our tasks at hand, so our team can clearly see which stage of the development we are currently in. The Discord will serve as a more direct, informal place for team members to brainstorm, collaborate, and assist each other throughout the various sprints.

Meeting Plan:

Our team plans to meet for their weekly 2-hour meeting face-to-face every Tuesday from 2:15-4:15pm. We have booked a room in the engineering office tower during this timeframe for the rest of the semester. It is in this room where we plan to hold our stand-up meeting with our TA, Wyatt Rees. This meeting is scheduled for 4:00pm on Tuesdays using the Zoom link <https://cuboulder.zoom.us/j/91352791900>. If someone is unable to attend any of the meetings in person they can join the rest of the team over zoom.

Proposed Architecture Plan: Propose an architecture for your app. What technologies will you be using on the backend? What technologies on the front end? How will they communicate with each other? Which technologies will be responsible for which functionalities?

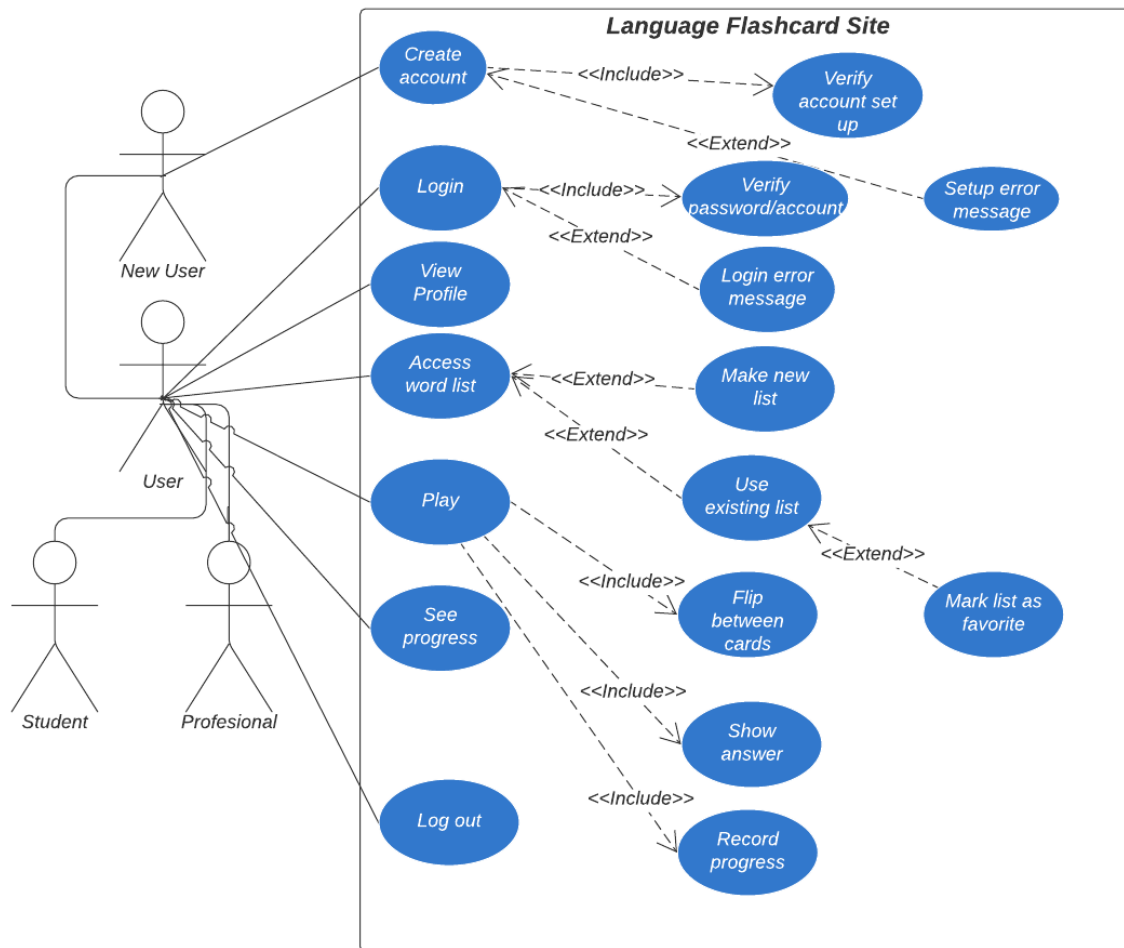
Sketch a preliminary architecture diagram. Use these resources to assist you: [Resource 1](#), [Resource 2](#).



Basic outline:

- Use Postgre on docker to communicate with website on docker
- Postgre stores user information and passwords and the lists each user owns
- Docker also runs a Node.js stateless service that runs the document-scraping, url-scraping, and translation services.
- That service communicates with outside APIs as needed to create lists.

Use Case Diagram:



https://lucid.app/lucidchart/c878a1bf-4a33-4317-9fe2-9f845bbf32cd/edit?invitationId=inv_9c6c1c42-d037-4129-8855-07985528aebc