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CS 410 Final Project Proposal

1. What are the names and NetIDs of all your team members? Who is the captain? The captain will have more administrative duties than team members.

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2. What topic have you chosen? Why is it a problem? How does it relate to the theme and to the class?

Topic - Intelligent Browsing

Specific Topic - Chrome Extension

Functionality - Extensions that keeps track of document search and the information found within for future reference when users search that topic again. Users can select the document that they would want to return to.

Users often tend to search for information repetitively, and with this extension we can easily find the same information again without scrolling through. Ultimately we're memoizing the text information found in documents, so users can go back and find what they previously searched. It related to the theme of the class because we would be performing text analysis on the documents that users select from when they first activate the extension.

3. Briefly describe any datasets, algorithms or techniques you plan to use

Text Analysis, so we can find keywords so the topic is recognized. We've used and learned several algorithms in class and we'll try to implement one of them. We could also gather data from the original Google Search Query and implement page rank on the marked documents in accordance to the repeated query of the user.

4. How will you demonstrate that your approach will work as expected?
We will make sure to build a detailed timeline and divide the work evenly to make sure we are making progress and going to office hours if we run into issues along the way.
5. Which programming language do you plan to use?
Mostly python to implement this, and potentially java

6. Please justify that the workload of your topic is at least $20 \cdot N$ hours, N being the total number of students in your team. You may list the main tasks to be completed, and the estimated time cost for each task.
- Setting up the environment for a chrome extension/learning where to start: ~5 hours
 - Being able to store data about the types of searches the user makes: ~15 hours
 - Being able to scrape documents and analyze what the main topics and keywords are: ~30 hours
 - Being able to recommend results connected to the users needs: ~15 hours
 - Being able to rank the documents recommended to the user: ~15 hours