Project Proposal and Outline

Teammates:

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Project Goals:

Create a visual representation for Computer Engineering/Computer Science students' course requirements and prerequisites. Our project aims to visualize the different classes/pathways required prior to taking the class inputted into the program. It will look similar to what Wade did with his website as seen here: https://waf.cs.illinois.edu/discovery/class_hierarchy_at_illinois/ . We will adjust the scope as needed.

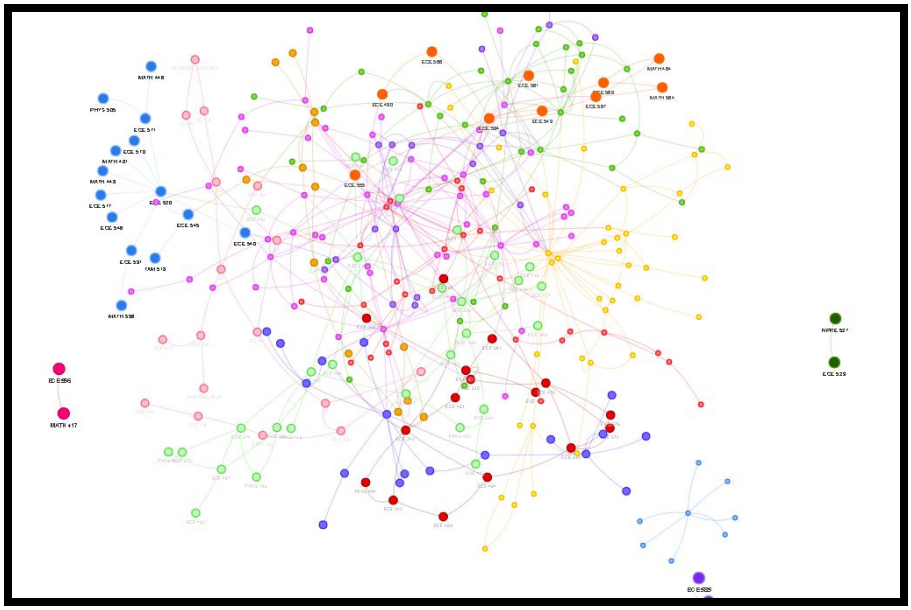
Datasets:

We will be using the course prerequisite csv file found here: https://github.com/illinois/prerequisites-dataset , possibly combining it with the course catalog and gened datasets found here: https://github.com/wadefagen/datasets . Both repos specify the format of the csv files within their README's.

Algorithms:

Sets! Graphs! Lots of them! We will need to figure out how to utilize multiple connection types so this web of different classes can actually be utilized well. From the specified options on the project goals doc, we'll likely end up using some sort of shortest path algorithm, and we'll be providing a graphic output of the graph.

It will look kind of like this, but more tailored to a specific input course:



Potential Features:

- Highlighting classes that are prerequisites for the selected class
- Different pathways for different majors
- Highlight prerequisites / corequisites