CAPP 30122
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Project Proposal

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OVERVIEW

Students may fail to register a course under such circumstance when there is time overlap with another course, or the course is not open for the current quarter, or there are course prerequisites not being met. For that matter, our project is aimed to create a software system that generates personal course schedule according to the student's academic plan. For example, if a freshman plans to graduate with Mathematics as major and Economics as minor, then, based on corresponding program requirements, our system would show a form that includes all the possible schedules of courses in MATH and ECON the student needs to complete, paired with the terms calculated from an algorithm that ensures each course valid time and sequence place.

GOALS

1. Provide a web page for users to input major, minor and interests, and select/fill out courses completed.
2. Generate an online form of all the possible course schedules that includes all the selected courses and their corresponding term(s).

SOURCE OF DATA

All our data will come from University of Chicago course catalog, which provides:
(1) prescribed and elective courses required by each program for major and minor
(2) terms offered for a course
(3) prerequisites of a course if there is any

BASIC SKETCH OF WORK

Course Info Collecting

Each program will list their requirements for students to fulfill within four years. First of all, we will develop an algorithm for crawling catalogue pages and grabbing course information. Specifically,

for each major or minor, we will collect prescribed and elective courses along with their opening term, prerequisites, sequence or follow up courses if any.

Data Storage

We will store these data information in a database.

User Data Collecting

We will use Dajango, a free and open source to implement our webpage. In our webpage, the users will be asked to fill out a form indicating their major, minor, interests, courses completed , and the number of courses they want to take for each quarter.

Schedule Showing

After users submit the information, they will be able to see a suggested schedule for their rest of school years, including the required courses and electives according to their interests.

TIMELINE

2017/01/23 - 2017/01/29 (4th week) Project proposal; Project proposal presentation; Start course info collecting

2017/01/30 - 2017/02/05 (5th week) Build course info database

2017/02/06 - 2017/02/12 (6th week) Project check-in #1; Build schedule suggestion algorithm

2017/02/13 - 2017/02/19 (7th week) Optimize schedule suggestion algorithm and build the user-filled webpage

2017/02/20 - 2017/02/26 (8th week) Project check-in #2; Build the user-filled webpage

2017/02/27 - 2017/03/05 (9th week) Build the schedule webpage

2017/03/06 - 2017/03/12 (10th week) User interface design; Final presentation

2017/03/14 (11th week) Project software due