Professor Plotka
Introduction to ITWS
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Team 13 Project Proposal

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Overview

We brainstormed an app that helps students study. It is an online collection of back exams, textbooks, and lecture material broken down by major, teacher, and year. This will give motivated students an immediate resource to better prepare themselves for exams.

Purpose and Application

Normally, students access back exam material via the APO office, through resources provided by teachers, or through friends. This organization of information is fragmented, which creates inefficiency when trying to study. The app fixes this by condensing this information into one place that is accessible by all of the student body. It is not reliant on operating hours or knowing the right people, and it isn't a victim of a teacher uploading a resource late.

The application for it is very straightforward. Say you are a biology major, and you have an organic chemistry exam coming up. You have Teacher A, but have heard rumors that Teacher B (who retired last year) made decent back exams. In our website's architecture, you would select your course, pick a teacher, a year, and then boom! Any back exam associated with that teacher from that year will appear. This empowers students to learn in 3 clicks.

Relevance

RPI is an infamously difficult school, which fosters students with obsessive study habits. One of the writers of this proposal completed twelve Physics I back exams before a test, and would've done more if there were any to find. In short, students always desire a new tool to improve their study methods. This app would be suited for the RPI community's passion for studying.

It would also succeed the three other sources of back exams in significant ways. The APO office has limited hours, many teachers don't post back exams, and it can just be hard to find someone who still has their old test questions. This website will overcome all of these obstacles by providing a digitized record of information; a 24-hour permanent repository of information.

How is it different? & Inspiration/Demand

Our application differs from other applications because it is designed specifically for university students, and built off of community and trust. Unlike other university platforms we have, this app creates a focused platform where students can share resources like textbooks, course materials, or back work specific to RPI classes (or other universities). There currently isn't an app yet that's dedicated to providing study material. Our inspiration for this app is the APO office's back exam service. We wanted to make this service more accessible and sustainable by making an app dedicated to study material . Considering how there's always someone at the APO office looking for back exams at all times, this app would be in really high demand.

Technical Breakdown

In broad terms, the website is composed of 4 features:

- A database that holds pdfs of back exams / notes (possibly links??)
- A website that can fetch this content and then display it
- Some ability to download the pdf to a client's laptop
- A search feature that works on category

Areas of Focus
- HTML/CSS => Carina Liu
- Databases, animations => Jacob Hebbel

While it could be possible to avoid using a database, the database provides better organizational capabilities, with the potential for easy upscaling in features and design. Using a database would be advantageous for the search feature, so using one is two-fold in benefits.

The website's Information architecture might look like this:

```
index.html (the landing page)
/landing-resources
        landing.css
        landing.js
/pages
        /search (search feature)
                search.html
                /search-resources
                        search.css
                        search.js
        /meta (meta page about the developers)
                meta.html
                /meta-resources
                        meta.css
                        meta.js
```