

Sycamore Scheduler

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What is Sycamore Scheduler?



- Browse through classes at USC and view relevant information, including RateMyProfessors data and course summaries
- Maintain a course plan with your favorite classes



Design and Development Decisions: Project Design



What worked: ✓

- Abstracting code into controller, model, driver, and socket packages
- Testing before programming

What didn't work: ✗

- Eclipse Dynamic Web Project
- Exporting to Google Calendar



Design and Development Decisions: Teamwork



What worked: ✓

- Dividing the work
- Slack for communication
- Pair programming
- Group meetings

What didn't work: ✗

- Code reviews on GitHub
- Keeping a consistent meeting schedule



Continuing Professional Development (Outside Topics)

- Scraping websites
- Python scripting
- Version control and Branching with Git
- Merge conflicts
- React
- Maven projects/build configuration
- Bash scripting



Skills and Tools



Python



- requests library to connect to websites
- BeautifulSoup HTML parsing library
- json library to parse JSON data

JavaScript

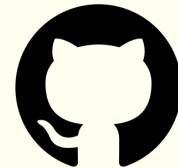
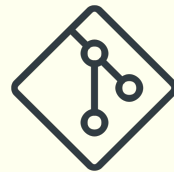


- React.js
- Grommet and styled-components
- react-router-dom for routing (instead of Java Servlets)



Skills and Tools (*cont.*)

- ObjectAid for UML diagrams
- Maven
- LucidChart for the site map
- Git and GitHub





Outside Courses

- CSCI 103 (Introduction to Programming)
- CSCI 104 (Data Structures and Object Oriented Design)
- ITP 357 (Enterprise Network Design)
- ITP 104 (Intro to Web Publishing)
- ITP 302 (Advanced Web Publishing)
- WRIT 340 (Advanced Writing)



Data Structures

- Set (HashSet)
- List (ArrayList)
- Map (HashMap)
 - `HashMap<String, ArrayList<Class>>`
- Vector
- Array
- String





User Login Functionality

Registered users can:

- Browse classes
- Customize and save course plans to profile/account
- Update their profile

Guests can:

- Browse classes
 - Similar to browsing USC Schedule of Classes



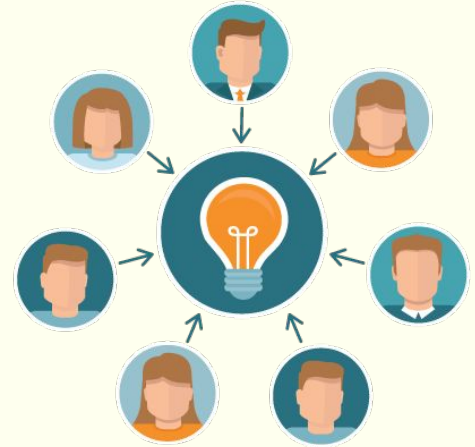
Networking

- Used Java Servlets as endpoints to connect the front-end and back-end
- Web sockets used for course plan editing



Multi-threading

- Edit and see live changes to your course plan across multiple clients
- Work on course plan simultaneously, with changes updated in real time on all clients' browsers



Demonstration

