

Release Plan

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Product Name: BSOE Course Scheduling Web App

Team Name: Team Team

Release Name 1.0

Release Date 10/27/2021

Revision Number: 1

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High Level Goals

Web Interface for constructing schedule for CS majors

Using student's information, display the courses that can be taken in the quarter. Indicate which courses should be prioritized (prerequisites for other courses, only available in that quarter)

Students use a drop-down menu to select courses taken.

Some sort of interface (figure this out) for the student to input their availability. App will list all classes available (based on prereqs, which is offered).

Each listing will include:

- Class number (CSE115A)
- Class name (Intro to Software Engineering)
- Instructor (R. Jullig)
- Time
- Flags/Icons:
 - Required to graduate (R)
 - Only offered this quarter out of the year (Q)
 - Has lab/ doesn't have lab (L)
 - Display section times?
 - Counts as elective (E)
 - Satisfies GE
 - Is a prerequisite for another course

After a "search", the student can select a class they want to take. Then, the app will conduct another search taking this new class into account, and display courses that don't overlap with the new class.

Search options/filters/sorting:

- Include classes that the student can't take because of prerequisites
- Include classes that the student can't take because of scheduling
- Flags/Icons
- Filter by days offered (MWF, TuTh, etc)
- Sort by time offered (early to late, late to early?)

Back End

Input class data into database

Pull data from database

Data structure for a class (time, title, teacher, prereqs, flags, etc)

- Have a flag that indicates whether to display the course in search results

Logic that uses student data to decide which classes to display

User Stories for release

Format: "As a {user role}, I want {goal} [so that {reason}]."

User stories should be independent, negotiable, valuable, estimable, sized appropriately, and testable

Sprint 1

(list user stories in order of priority)

Due date: 10/19/21

- As a developer, I want to define a data structure for a course
- As a developer, I want to have pseudocode for the logic that decides whether a class can be taken.
- As a developer, I want to create a database of classes, so that I can easily access, retrieve, and modify data.
- As a developer, I want a drop down menu showing me a list of courses for the student to select as taken, so that it can filter the data for classes still needed.
- As a student I want to be able to have a list of classes that I am able to take to fulfill my requirement.
- As a developer, I want to have pseudocode for the logic that decides whether a class can be taken.

Sprint 2

Due date: 11/02/21

- As a user, I want to be able to log in and have it save my information, so that it can remember my data next time I log in
- As a user, I want to be able to select which courses I have taken, so that it will show me what classes I still need .
- As a user, I want to be able to delete a class, so I can clear the table in a more convenient way

Sprint 3

Due date: 11/16/21

- As a user, I want to be able to access an about page, to read about the application, who made it, and how to use it. This should give the user a better understanding of how to use the software so they make the best use of it.
- As a user, I want to be able to press a button and have the program recommend 3 classes that I haven't taken yet based on my major. This is so that the user can have some helpful suggestions on what classes they should take.
- As a user, I want to go to the class selection page and only be able to select classes that I meet the prerequisites for, and only ones that are available that term, and ones I haven't taken yet. This should make planning the schedule more informative since the user will get feedback from the UI on what is a valid selection.
- As a user, I want to be able to press a button and see what requirements still need to be fulfilled for my major. This will make it easier for the user to have an idea of what courses they still need to take.
- As a user, I want to be able to see a longer description of each course when I click it in the course selection page.
- As a user, I want to be able to create an account and login as an admin. This would enable editing the database of classes offered without changing the code.

Sprint 4

Due date: 11/30/21

- As a student, I would like to know the unit of each course, so that I can plan my schedule accordingly.
- As an advisor, I would like to edit course information, so that I can keep all the information updated.

- As a student, I would like to see course suggestions, so that I know what courses I still need to take.
- As a student, I would like to see all features, so that I will have a perfect user experience. (Integrate all features)

Product Backlog

- Users are able to sign up and log in, so that the data selected can be saved and is unique to them.
- Students are able to select, edit and delete classes when putting information into the table.
- Students can press the “About” button at the bottom of the page to read about the application and understand how to use it. Provides general information about our application to the user.
- Students are also able to press the “Generate Schedule” button located at the bottom of the page to generate a recommendation of 3 classes for the next quarter based on what classes they have already selected for previous quarters.
- Students are able to select the “CS Requirements” button located at the bottom of the page to redirect to a different page listing all the CS requirements needed to graduate. This allows them the ability to cross reference with the classes they’ve already selected so that they don’t have to take time searching for it on the UCSC web page.
- Added Administrator functionality that allows special users like counselors/advisors to add classes and requirements to the database. They can edit courses in the database by naming the class, listing the units, as well as adding a description for the class. They can select what quarters the classes are offered as well as giving them requirement names so that they can list the prerequisites as well.
- Added feature to include units when selecting classes so students can see how many units it is. Made it so that it also shows the units in the table when selected.
- Added feature to include detailed description when selecting classes so students can understand what the class entails.
- Added feature to show whether the student has already selected the class or whether it is not offered for that quarter.
- Added feature on main page to keep track of running total of units from all classes selected.