

# Group 14 Sprint 2 Planning



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## Sprint Overview

During this sprint we hope to implement the more social part of our app, which is the forum, where people can share and download their plans with a lot of other users. Additionally, providing ways to export their plans to share directly without being on the forum is a social aspect we want to allow. We also would like to finish and clean a couple things that were not addressed in Sprint 1.

**Scrum Master:** Jack Roscoe

## Meeting Plan:

- Tuesday @ 8:30 PM on a voice call
- Thursday @ 6:30 PM with our Project Coordinator

**Risks and Challenges:** The most risky part this time around is interacting with code that we already wrote in sprint 1. While unlikely, it is possible that we run into an issue where our approach from sprint 1 does not inherently allow our new features, resulting in rewrites or drastic changes. Since sprint 1 was also hectic near the end, we might run into bugs where we need to polish that code before writing anything new. Additionally, we are all still learning the

frameworks but have become a lot more familiar with them. As always, there is always room for error when integrating the frontend with the API in its entirety.

## Current sprint detail

### User Story #1:

As a user, I would like to be able to see a list of forum posts.

#	Description	Time	Team	Owner
1	Create forum UI to list forum posts with information such as title of post, majors, minors (similar to plans page)	3hr	Frontend	Michael
2	Add search bar to filter posts by name	1hr	Frontend	Michael
3	Add multiselect component to filter posts by major or minor	2hr	Frontend	Michael
4	Add a button to toggle between sorting by ascending or descending difficulty.	1.5hr	Frontend	Michael
5	Frontend API requests to get posts by name, major, minor (API integration)	2hrs	Frontend	Michael
6	Frontend API requests to get recently posted posts (API integration)	2hrs	Frontend	Michael
7	Database migrations to support posts	3hr	Backend	Jack
8	API route to get posts and filter/search them as requested on the UI	4hr	Backend	Jack
9	Add unit tests for getting posts / filtering posts	3hr	Backend	Neil

### Acceptance Criteria:

- Given that a user is logged in, they can navigate to the posts page which displays cards that correspond to posts in a list.
- Given that a user is on the posts page, they can search for posts by name, which filters the displayed posts in the list.
- Given that a user is on the posts page, they can select majors and minors to filter the displayed posts to contain those selections.
- Given that a user is on the posts page, they can choose to sort the posts by ascending or descending difficulty.

**User Story #2:**

As a user, I would like to view a forum post containing a plan that another user has created.

#	Description	Time	Team	Owner
1	Create UI to view a forum post	2hr	Frontend	Cooper
2	Implement the plan preview component to show the plan that is associated with that forum post	4hr	Frontend	Cooper
3	Frontend logic to send API requests to get post information (API integration)	2hr	Frontend	Cooper
4	API route to fetch all content of a post (different from posts page since that doesn't show everything)	4hrs	Backend	Jack
5	Unit tests for fetching post content	3hrs	Backend	Neil

**Acceptance Criteria:**

- Given that a user is on the post page, they can see the post details, including comments and upvotes.
- Given that a user is on the post page, they can see the post's associated degree plan preview.
- Given that a user visits the post page without a valid post id in the url, they are shown an appropriate error message.

**User Story #3:**

As a user, I would like a page to allow me to create a forum post for other users to see.

#	Description	Time	Team	Owner
1	Add a button on a plan to open up the forum post creation page	1hr	Frontend	Cooper
2	Add a page for creating a forum post	3hr	Frontend	Cooper
3	Frontend logic to send the request to create a post with specified data (API integration)	2hr	Frontend	Cooper
4	API route to create a forum post	4hrs	Backend	Jack
5	Unit tests for forum post creation	3hrs	Backend	Neil

**Acceptance Criteria**

- Given that a user is logged in they can navigate to the form post creation page.
- Given that a user navigates to the post creation page while logged in, they have the option to specify a name and description for the post.
- Given that a user wants to post a plan while logged in, they can choose one of their plans to be the “subject” of the forum post.

**User Story #4:**

As a user, I would like to be able to share my forum posts with other people with a link and copy plans from posts into “My Plans”.

#	Description	Time	Team	Owner
1	Add a button that copies the post page url to the user's clipboard	1hr	Frontend	Michael
2	Add a button that copies the plan from a post into the user's plans, and redirects to their plans page	1.5hrs	Frontend	Michael
3	Frontend API request to add a post's plan into user's personal plans (API integration)	2hrs	Frontend	Michael
4	API route to copy a plan into the users stored plans	2hr	Backend	Neil
5	Unit tests for copying plans	3hr	Backend	Neil

**Acceptance Criteria**

- Given the user taps the “Copy URL” button on a post, the URL should be put in their clipboard.
- Given the user taps the button to copy a plan into their plans page, the plan should be added to their plans in the database.
- Given the user taps the button to copy a plan into their plans page, they should be redirected to the plans page which shows their newly copied plan.

**User Story #5:**

As a user, I would like to be able to interact with posts by commenting and upvoting.

#	Description	Time	Team	Owner
1	UI component to create a comment (text input, submit button)	3hr	Frontend	Cooper
2	UI component to add or remove an upvote	1hr	Frontend	Cooper
3	Frontend logic to send upvote and comment requests (API integration)	2hr	Frontend	Cooper
4	API endpoint to add or remove an upvote to/from a post or comment	3hr	Backend	Jack
5	Migrations to store the upvotes and downvotes for a comment or post.	3hr	Backend	Jack
6	Unit tests for adding comments and upvoting posts	3hr	Backend	Neil

**Acceptance Criteria**

- Given that the user is viewing a post, they should be able to create and post a comment about the post that they are viewing.
- Given that the user is viewing a post, they should be able to upvote the post, and remove their upvote if they want to.
- Given that the user is viewing a post, they can upvote a comment and remove their upvote if they want to.

**User Story #6:**

As a user, I would like to search for courses by name and difficulty rating.

#	Description	Time	Team	Owner
1	Create a page to search for courses by name	2hrs	Frontend	Michael
2	Create a page to show the course info of the selected course	2hrs	Frontend	Michael
3	Frontend logic to search/filter for courses and get specific courses (API integration)	3hrs	Frontend	Michael
4	API route to fetch and search for courses	3hrs	Backend	Jack
5	API route to fetch all details of a selected course	2hr	Backend	Jack
6	Unit tests for searching for courses by difficulty	3hrs	Backend	Jack

**Acceptance Criteria**

- Given the user is on the courses page, they should be able to search for courses by name and code.
- Given the user is on the courses page, they should be able to click on one of the results which navigates to the corresponding course page.
- Given the user's search does not return any results, the user should see an appropriate error message.

**User Story #7:**

As a user, I would like to rate a course by perceived difficulty, and see other ratings of it.

#	Description	Time	Team	Owner
1	On the course page add a field to rate the course on a numerical difficulty of 1-5.	2hrs	Frontend	Michael
2	Frontend API request to send the difficulty rating to the server	2hrs	Frontend	Michael
3	Store ratings in the database.	2hrs	Backend	Neil
4	Compute the average difficulty and return it with the course	1hrs	Backend	Neil
5	Unit tests for rating courses	3hrs	Backend	Neil

**Acceptance Criteria:**

- Given the user is on the course page, they can rate the course difficulty on a scale of 1-5.
- Given the user is on the course page, they can see the average difficulty rating of the course from different users.
- Given the user is not logged in, the course difficulty rating field will be disabled.



**User Story #8:**

As a user, I should be able to see statistics about the most popular and most difficult majors, minors, and courses.

#	Description	Time	Team	Owner
1	Create barchart, table, piechart, and other charts that can be used to display numerical data (for # plans using x plan or y course)	4hrs	Frontend	Cooper
2	Craft the statistics page that is easy to read to use the created components to show interesting data	3hrs	Frontend	Michael
3	Frontend API requests to get statistical data to show on the statistics page	2hrs	Frontend	Cooper/Michael
4	API logic to calculate all necessary statistics (most popular, most difficult, etc.)	4hrs	Backend	Neil
5	API logic to schedule the statistics calculations to run every two hours	3hr	Backend	Neil
6	Unit test for statistics calculations	2hr	Backend	Neil

**Acceptance Criteria:**

- Given that the user is on the statistics page, they should see a bar chart of the top 10 majors with the number of plans that use each major.
- Given that the user is on the statistics page, they should see a bar chart of the top 10 minors with the number of plans that use each minor.
- Given that the user is on the statistics page, they should see a bar chart of the top 10 courses with the number of plans that use each course.
- Given that the user is on the statistics page, they should see a bar chart of the top 10 most difficult majors along with their difficulty rating.
- Given that the user is on the statistics page, they should see a bar chart of the top 10 most difficult minors along with their difficulty rating.
- Given that the user is on the statistics page, they should see a bar chart of the top 10 most difficult courses along with their difficulty rating.

**User Story #9:**

As a user, I would like to be redirected to a page that I tried to access earlier without authentication after logging in.

#	Description	Time	Team	Owner
1	Store last accessed route in localStorage	2hr	Frontend	Cooper
2	After authentication redirect to last accessed route	1hr	Frontend	Cooper
3	Test that the application correctly stores the last route with testing library	1hr	Frontend	Cooper

**Acceptance Criteria:**

- Given that a user is logged out and they attempt to access an auth-protected page, they are redirected to the desired page after logging in.
- Given that a user is logged in, they should not be redirected, but the last accessed route is stored in local storage.
- Given that a user logs in or creates an account, they should be redirected to the forum page if they went to the base/home route ("/") first.

### User Story #10: Leftover from Sprint 1

As a user, I would like to be able to edit details about a plan that I created.

As a user, I would like to change my settings on a page that looks nice.

#	Description	Time	Team	Owner
1	Interface to change the name of a plan	1hr	Frontend	Cooper
2	Multiselect to edit majors and minors that were already selected	1hr	Frontend	Cooper
3	Frontend patch request to persist the changes	1hr	Frontend	Cooper
4	Fix styling on settings page	2hrs	Frontend	Michael
5	Fix Majors and Minors not updating on settings page	1hr	Frontend	Jack

### Acceptance Criteria:

- Given that the user is on the settings page, they will be able to update their major and minor.
- Given that the user is on the plans page, they can change the name of their plan.
- Given that the user is on the plans page, they can edit the majors and minors associated with the plan.

### Total Hours Per Person

Cooper	32
Michael	33
Neil	32
Jack	32

### Remaining Backlog

- ~~1. As a user, I would like to register my account and set my user type (student/advisor). In the case of an advisor account, I want my account creation request to be sent to the admin for approval.~~
- ~~2. As a user, I would like to login and logout with a username and password to access my account.~~

- ~~3. As a user, I would like to be able to have personal information such as my name and profile picture.~~
- ~~4. As a student, I would like to be able to create multiple plans of study.~~
- ~~5. As a student, I would like to be able to create and delete plans of study with confirmation before doing a dangerous action~~
- ~~6. As a student, I would like to be able to create plans by semester to accommodate graduating in less or more than 4 years.~~
7. As a student, I would like to be able to share my plans of study to other people by clicking a button to copy a link to send to other users.
8. As a student, I would like to be able to branch from a semester so that I don't have to create a bunch of plans with identical  $n$  semesters.
- ~~9. As a student, I would like to have the option to pick from existing classes to add to my plans.~~
- ~~10. As a student, I would like to be able to select majors and minors that a plan satisfies.~~
- ~~11. As a student, I would like to be able to drag and drop courses between semesters.~~
- ~~12. As a student, I would like to be able to post a plan of study to the forum for other people to see.~~
- ~~13. As a student, I would like to be able to view the forum to see other people's posted plans of study.~~
- ~~14. As a student, I would like to be able to filter plans of study on the forum by major and minor.~~
- ~~15. As a student, I would like to be able to rate a course based on perceived difficulty and see other ratings of it.~~
- ~~16. As a student, I would like to be able to sort plans of study on the forum by a difficulty score calculated by the system, and by upvotes.~~
- ~~17. As a student, I would like to be able to comment and see the comments on forum posts.~~
18. As a student, I would like to be able to "mention" a course in my comment, which highlights and links the course.
- ~~19. As a student, I would like to be able to copy a plan from the forum into my plans of study.~~
- ~~20. As a student, I would like to be able to see statistics about plans, including popular classes, majors/minors, and more.~~
- ~~21. As a student, I would like to know when a course cannot be taken because there is a missing prerequisite.~~
22. As a student, I would like to be able to see degree requirements as I plan for them.
23. As an admin, I would like to be able to review new classes.
24. As an admin, I would like to be able to add and remove new classes from the database.
25. As an admin, I would like to be able to delete comments on plans.
26. As an admin, I would like to delete obviously malformed plans.
27. As an admin, I would like to give popular plans a verified badge.

- 28. As an admin, I would like to give graduated students a graduated badge.
- 29. As an advisor, I would like to know when my account is approved via an email.
- 30. As an advisor, I would like to save a student's plan to recommend to others.
- 31. As an advisor, I would like to have students be able to send their degree plans for me.
- 32. As an advisor, I would like to give feedback on a student's degree plan.
- 33. As an advisor, I would like to recommend alternative classes for my students.
- 34. As an advisor, I would like to be able to categorize my students by major/minor
- 35. As an advisor, I would like to be able to send announcements to all students linked to me.
- 36. As an advisor, I would like to be able to easily share common plans with my students.
- ~~37. As a student, I would like to view information about a course.~~

## Non-Functional Requirements

As developers, we would like the following items:

### 1. Architecture and Performance

- a. I would like OurPurduePlan to operate without unexpected behavior.
- b. I would like OurPurduePlan to be responsive, with response times less than 2 seconds in the worst case.
- c. I would like errors to be handled elegantly and displayed to the user so they can correct them.

### 2. Security

- a. I would like data to be secure.
- b. I would like permission checking to ensure that users can only access data that they are allowed to see.

### 3. Usability

- a. I would like to create a user interface that is intuitive to use and caters to students of any familiarity with technology.
- b. I would like to create a user interface that looks visually appealing and displays the data in an effective manner.
- c. I would like to create a post creation page that makes it easy to create a post with your selected plan
- d. I would like to display branches in a way that makes it easy to change between them.

- e. I would like to have navigation that allows users to change between the creator, forum, and profile in one click.
- f. I would like to provide a set of courses that users can use out of the box in their plans.

#### **4. Hosting/Development**

- a. I would like to deploy the frontend and backend servers on DigitalOcean instances.

#### **5. Server**

- a. I would like to store information with the most efficient schema on the server.