

## CS 407 Fall 2024 | Team 4

### Course Clash | Sprint 1 Planning Document

#### Team Members

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#### Sprint Overview

Sprint 1 will start by getting the major components of the application up and running, like the backend API service, frontend React project, and cloud services we will need (RDS, S3, SES). Then we will begin implementing the core data models for the application, mainly Users, Courses, Study Terms, and Study Questions. These models will be the backbone on which the game portion of the app will be implemented (likely in Sprint 2), as the games will require all of these things to be in working order first.

**Scrum Master:** Thomas Carsello

#### Meeting Schedule:

Monday 3:00 - 3:30 pm

Wednesday: 4:30 - 5:00 pm

Thursday 10:30 - 11:00 am

#### Risks / Challenges

The biggest risks we face for this sprint is with regard to getting the cloud services set up and functioning properly. We have some minor experience working with AWS for other courses (namely CS 351), but have not created a large, integrated project with them before. Setting up S3 and RDS will be relatively straight forward, but SES could be the one that causes issues. We will need a mail system for things like email invites to courses and password resets. Emailing can be tricky due to most mail systems having aggressive spam filtering. That is why we want to use SES, as emails coming from AWS are much more likely to not get filtered out. We haven't used SES before, which is why it's most likely out of the services to cause an issue, but it will likely go smoothly as AWS has great online documentation.

Another risk is going to be building things out from the ground up while keeping in mind the ways in which we may interact with that code in the future, even though we have not gotten to that point yet. We need to ensure that we write code that is extensible in future sprints rather than simply doing what is necessary for the tasks specific to this sprint.

## Current Sprint Detail

### User Story #1

As a user, I would like to register for a Course Clash account with an email and password

#	Task Description	Owner	Time Estimate
1	Create POST route for /signup	Thomas	2
2	Create JWT signing middleware	Thomas	2
3	Create frontend Sign Up form page	Thomas	3
4	Manual Postman testing + Unit Tests	Thomas	1
Total Time Estimate			9

### Acceptance Criteria

- Given the signup POST route has been implemented correctly, when the user submits the signup form, their account should be created and notified on the frontend.
- Given the JWT authentication is implemented correctly, when a user tries to access a protected route before signing up, they should be redirected to the signup page.
- Given the frontend signup form is implemented correctly, when a user attempts to create an account with a taken email address, they should receive an error message.
- Given the frontend signup form is implemented correctly, when a user attempts to create an account with mis-matching passwords (password, re-type password fields), they should receive an error message.

### User Story #2

As a user, I would like be able to delete my account

#	Task Description	Owner	Time Estimate
1	Create DELETE route for users API	Thomas	1
2	Create Settings page, and "Delete Account" option	Thomas	2
3	Manual Postman testing + Unit Test	Thomas	1
Total Time Estimate			4

### Acceptance Criteria

- Given that the DELETE route has been implemented correctly, when the user deletes their account, they should be logged out, and unable to sign in using their old credentials.

- Given that the DELETE route is protected, when a user attempts to delete an account while not signed in, they should not be able to.
- Given that the Delete Account action is implemented correctly in the frontend, when a user attempts to delete their account, they should be prompted with a confirm/cancel dialog.

### User Story #3

As a user, I would like to be able to log in to my Course Clash account

#	Task Description	Owner	Time Estimate
1	Create POST route for /login in users API	Thomas	1
2	Create JWT validation middleware	Thomas	2
3	Create GET route for users API	Thomas	1
4	Create Sign In form on frontend UI	Thomas	2
5	Manual Postman testing + Unit Test	Thomas	1
Total Time Estimate			7

### Acceptance Criteria

- Given that the POST /login route is implemented correctly, when a user attempts to sign in with valid credentials, they should be redirected to the home page and their account should be displayed.
- Given that the POST /login route is implemented correctly, when a user attempts to sign in with invalid credentials, they should receive an error message.
- Given that the JWT validation is implemented correctly, when a user sends a request for another user's GET endpoint, the request is denied.
- Given that the sign in form is implemented correctly, when a user attempts to sign in with blank input fields, they should receive an error message.

### User Story #4

As a user, I would like to be able to log out of my Course Clash account

#	Task Description	Owner	Time Estimate
1	Create POST route to /logout in users API	Thomas	1
2	Create JWT token invalidation utility	Thomas	1
3	Create Log Out button on frontend UI	Thomas	1

4	Manual Postman testing + Unit Tests	Thomas	1
Total Time Estimate			4

#### Acceptance Criteria

- Given that the POST /logout route is implemented correctly, when a user attempts to log out of their account, they will be redirected to the sign in / sign up page
- Given that the JWT token invalidation utility is implemented correctly, when a user logs out, the user should not be able to access routes protected by token authentication
- Given that the Log out button on the frontend is implemented correctly, when a user is not signed into an account, the button should not be visible.

#### **User Story #5**

As a user, I would like to be able to view my Course Clash account and edit it

#	Task Description	Owner	Time Estimate
1	Create PATCH route for users API	Thomas	2
2	Create Update Information form within Settings page on frontend UI	Thomas	4
3	Manual Postman testing + Unit Tests	Thomas	1
Total Time Estimate			7

#### Acceptance Criteria

- Given that the PATCH route is implemented correctly, when a user attempts to update their account information with valid inputs, they are met with a “successful” response.
- Given that the PATCH route is implemented correctly, when a user attempts to update their account information with invalid inputs, they are met with an error message.
- Given that the PATCH route is protected correctly, when a user attempts to use the update information form without first signing in, they should be redirected to the sign in / sign up page.
- Given that the Update Information form is implemented correctly, when a user views the form, the input fields should be auto-populated with the current account information.

#### **User Story #6**

As a user, I would like to be able to change my password

#	Task Description	Owner	Time Estimate
1	Update PATCH route for users API to include password updating	Sergio	1

2	Create Password Change form within User Settings page on frontend UI	Sergio	3
3	Manual Postman Testing + Unit Tests	Sergio	1
Total Time Estimate			5

#### Acceptance Criteria

- Given that the PATCH route is implemented correctly, when a user attempts to update their account password with valid inputs, they are met with a “successful” response.
- Given that the PATCH route is implemented correctly, when a user attempts to update their password to something too short, they are met with an error response.
- Given that the Password Change form is implemented correctly, when the user attempts to update their account password with mis-matching inputs (new password, re-type new password), they are met with an error message.
- Given that the Password Change feature is protected correctly, when a user is not signed in and attempts to visit the Password Change form, they are redirected to the sign in / sign up page.

#### **User Story #7**

As a user, I would like to be able to recover my account if I forget my password

#	Task Description	Owner	Time Estimate
1	Create Email-sending backend utility	Thomas	5
2	Create POST /reset route for users API	Thomas	2
3	Create reset account page on frontend UI	Thomas	3
4	Manual Postman Testing	Thomas	2
Total Time Estimate			12

#### Acceptance Criteria

- Given that the Email-sending utility is implemented correctly, when a user resets their password, they should receive an email.
- Given that the POST route is implemented correctly, when a user resets their password, they should receive an email with a temporary password with which they can log in.
- Given that the POST route is implemented correctly, when a user requests to reset a password for an email that does not correspond to an existing account, no email should be sent.
- Given that the POST route is implemented correctly, when a user resets their password, they should not be able to log in with their old password anymore.

**User Story #8**

As a user, I would like to upload a profile picture to represent my account

#	Task Description	Owner	Time Estimate
1	Create AWS S3 Bucket	Jason	1
2	Create AWS S3 middleware	Jason	2
3	Create PUT/GET routes for users API for profile picture	Jason	3
4	Create Upload Profile Picture option on frontend Settings page	Jason	3
5	Manual Postman Testing + Unit Tests	Jason	1
Total Time Estimate			10

**Acceptance Criteria**

- Given that the PUT/GET routes for the users API are implemented correctly, when a user uploads a profile picture, it should be visible on the frontend.
- Given that the Upload Profile Picture feature is protected properly, when a user attempts to access the button while not signed in, they should be redirected to the sign in / sign up page.
- Given that the PUT/GET routes for the users API are implemented correctly, when a user uploads a profile picture, it should replace the previous profile picture.
- Given that the Upload Profile Picture feature is implemented properly, when a user attempts to upload an image, they will be prompted to select one from their file system.

**User Story #9**

As a user, I would like to customize how the website looks, like changing color themes.

#	Task Description	Owner	Time Estimate
1	Create UserPreferences table schema to include color preference column (and create associated ENUM options)	Jason	4
2	Create GET Route for user preferences on the user API	Jason	2
3	Create PATCH Route for user preferences on the user API	Jason	2
4	Create color scheme preference option in frontend Settings page	Jason	3

5	Create color scheme React context in frontend	Jason	2
6	Manual Postman Testing + Unit Tests	Jason	2
Total Time Estimate			15

#### Acceptance Criteria

- Given that the UserPreferences GET route is implemented correctly, when a user visits the settings page, they can view their currently selected color scheme.
- Given that the UserPreferences PATCH Route is implemented correctly, when a user changes their color scheme, the color scheme of the UI changes to the selected option.
- Given that the Color Scheme preference option is implemented correctly, when the user visits their settings page, they should see the option to change their color scheme
- Given that the Color Scheme preference option is implemented correctly, when the user signs into their account, their color scheme should remain the one they previously chose.

#### **User Story #12**

As a user, I would like to be able to create a course

#	Task Description	Owner	Time Estimate
1	Create Course table schema	Jason	1
2	Create POST route for course API	Jason	2
3	Create GET route for course API	Jason	2
4	Create "Create Course" form in frontend UI	Jason	3
5	Create Course List component on frontend UI homepage	Jason	5
6	Manual Postman Testing + Unit Tests	Jason	1
Total Time Estimate			14

#### Acceptance Criteria

- Given that the Course POST route is implemented correctly, when a user attempts to create a course with invalid parameters, they are met with an error message.
- Given that the Course GET route is implemented correctly, when a user views their homepage, they should see all courses they have created.
- Given that the Course GET route is implemented correctly, when a user clicks on a course from their course list, that course's information should be displayed.

- Given that the Create Course component is protected properly, when a user is not signed into an account, they should not be able to access the Create Course form.

### User Story #13

As a course creator, I would like to be able to delete my course

#	Task Description	Owner	Time Estimate
1	Create DELETE route for course API	Jason	1
2	Create Delete Course option on frontend UI	Jason	3
3	Manual Postman Testing + Unit Tests	Jason	1
Total Time Estimate			5

### Acceptance Criteria

- Given that the DELETE route is implemented correctly, when a user deletes a course, it should no longer be visible in their course list.
- Given that the Delete Course component is implemented correctly, when a user attempts to delete a course that he did not create, the option should not be available.
- Given that the Delete Course component is implemented correctly, when a user attempts to delete a course, he should be prompted with a confirm/cancel dialog.

### User Story #14

As a course creator, I would like to be able to invite other users to that course by email

#	Task Description	Owner	Time Estimate
1	Create CourseInvite schema on database	Zachary	2
2	Create POST and GET routes for CourseInvite model	Zachary	1
3	Create POST route for accepting/rejecting an invite	Zachary	2
4	Implement email message utility for sending email invites	Zachary	3
5	Create Invite Students form on frontend UI within a selected Course	Zachary	2
6	Create frontend component to view	Zachary	4



	existing invites within a selected Course		
7	Create frontend component on user homepage to view pending invites	Zachary	3
8	Manual Postman Testing + Unit Tests	Zachary	1
Total Time Estimate			19

#### Acceptance Criteria

- Given that the CourseInvite POST/GET routes are implemented correctly, when a user is signed in, he should be able to view all his pending invites.
- Given that the CourseInvite POST/GET routes are implemented correctly, when a user is signed in, he should be able to accept/reject invites.
- Given that the CourseInvite POST/GET routes are implemented correctly, when a user accepts an invite, he should see the corresponding course in his course list.
- Given that the CourseInvite POST/GET routes are implemented correctly, when a course coordinator selects a course, he should be able to view all invites within that course.
- Given that the CourseInvite POST/GET routes are implemented correctly, when a student selects a course, he should not be able to view all invites within the course.

#### **User Story #15**

As a course creator, I would like to be able to remove users from my course

#	Task Description	Owner	Time Estimate
1	Create DELETE route(s) for CourseMembers API	Zachary	2
2	Create frontend UI component for course coordinators to remove users from the course (View all in course, with a delete button next to each name)	Zachary	7
3	Manual Postman Testing + Unit Tests	Zachary	2
Total Time Estimate			11

#### Acceptance Criteria

- Given that the DELETE route is implemented correctly, when a coordinator removes a user from a course, that user's name is removed from the students list within the course
- Given that the DELETE route is implemented correctly, when a coordinator removes a user from a course, that course is removed from the user's course list on their homepage.
- Given that the DELETE route is implemented correctly, when a coordinator views the course member list, they should not be able to remove themselves from the course.

- Given that the frontend UI component is implemented correctly, when a student views the course member list, they should not be able to remove students from the course.

### User Story #16

As a course creator, I would like to be able to send a 'join' code for other users to join my created course

#	Task Description	Owner	Time Estimate
1	Create CourseSettings database schema	Zachary	1
2	Create GET/PATCH routes for CourseSettings schema	Zachary	5
4	Create Course Settings page on frontend UI within a course, for coordinator only	Zachary	4
7	Manual Postman Testing + Unit Tests	Zachary	2
Total Time Estimate			12

### Acceptance Criteria

- Given that the GET/PATCH routes for the CourseSettings model are implemented correctly, when a course coordinator selects a course, he should be able to view and update the course settings.
- Given that the Course Settings page on the frontend UI is implemented correctly, when a user selects a course, the Course Settings page should only be available to the course coordinator.
- Given that the GET/PATCH routes for the CourseSettings model are implemented correctly, when a course is switched from Join-Code mode to Invite-Only mode, the old join code will no longer work.

### User Story #17

As a course creator, I would like to set how many games one person can be in at once

#	Task Description	Owner	Time Estimate
1	Update the CourseSettings schema to include this option	Sergio	1
2	Update CourseSettings PATCH route to implement this option	Sergio	1
3	Create UI component within Course	Sergio	3

	Settings Page to implement this setting		
4	Manual Postman Testing + Unit Tests	Sergio	1
Total Time Estimate			6

#### Acceptance Criteria

- Given that the CourseSettings PATCH route is implemented correctly, when a course coordinator updates this setting, the user is met with a success message.
- Given that the CourseSettings PATCH route is implemented correctly, when a course coordinator updates this setting with an invalid value, the user is met with an error message.
- Given that the CourseSettings PATCH route is implemented correctly, when a student views a course in the course list, he should see the correct game limit associated with that course.

#### **User Story #18**

As a user, I would like to be able to use a 'join' code to join a course

#	Task Description	Owner	Time Estimate
1	Create POST route for joining a course via a join code	Sooha	3
2	Create "Join with Code" button on user homepage	Sooha	3
3	Manual Postman Testing + Unit Tests	Sooha	2
Total Time Estimate			8

#### Acceptance Criteria

- Given that the POST route for joining a course via code is implemented correctly, when a user enters a valid join code, the corresponding course is added to his course list.
- Given that the POST route for joining a course via code is implemented correctly, when a user enters an invalid join code, the user is met with an error message.
- Given that the POST route for joining a course via code is implemented correctly, when a user joins a course via this method, he is enrolled as a student and does not have access to coordinator tools such as the Course Settings page.

#### **User Story #19**

As a course creator, I would like to be able to add a profile image to my course

#	Task Description	Owner	Time Estimate
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1	Create PUT/GET routes for the course API	Sooha	4
2	Create Upload Photo component in Course Settings page	Sooha	3
3	Display Course Photo on course homepage and in Course List on user homepage	Sooha	3
4	Manual Postman Testing	Sooha	2
Total Time Estimate			12

#### Acceptance Criteria

- Given that the PUT/GET routes for the course photo feature are implemented correctly, when a coordinator uploads a course photo, that photo is displayed on the course home page and on a user's course list page.
- Given that the Upload Photo component is implemented correctly, when a student selects a course, he should not be able to interact with this feature as he does not have permission.
- Given that the Upload Photo component is implemented correctly, when a coordinator selects it, he should be prompted to select a file from his filesystem for upload.
- Given that the PUT/GET routes for the course photo feature are implemented correctly, when a coordinator uploads a file that is not an accepted image type (JPG, PNG, etc), then the user is met with an error message.

#### **User Story #20**

As a course creator, I would like to change the profile image to my course

#	Task Description	Owner	Time Estimate
1	At a PATCH request for the users API	Sooha	2
2	Create an edit photo component in the course settings page that is only visible to coordinators	Sooha	2
3	Display updated photo upon success	Sooha	3
4	Create an error component if the API returns unsuccessful edit	Sooha	2
Total Time Estimate			9

#### Acceptance Criteria

- Given the patch request in the users API is implemented correctly, upon uploading a new course picture, an updated photo will display on the screen
- Given the edit photo component is implemented, if a photo is already uploaded, a coordinator should see that component and be able to select it.
- Given the edit photo component is implemented, if a photo is already uploaded, a student should not see this component or be able to edit the course photo.

### User Story #21

As a course creator, I would like to create study terms manually through the web UI

#	Task Description	Owner	Time Estimate
1	Create a component for adding terms/definitions	Celia	4
2	Create a component to display a list of terms/definitions already existing	Celia	4
3	Allow for toggling between term and definition	Celia	1
4	Create a component to delete a term	Celia	1
5	Create a GET/POST endpoint to create and view terms on the game API	Celia	2
6	Manually test endpoints in postman	Celia	2
Total Time Estimate			14

### Acceptance Criteria

- Given there is a component for adding terms/definitions, as a coordinator, I should be able to modify the list of terms/definitions within the course.
- Given the GET/POST endpoints are implemented within the game API, as a course coordinator, I should be able to see a list of terms/definitions within the course.
- Given the GET/POST endpoints are implemented within the game API, as a course coordinator, I should be able to see terms I have added with the add terms button in the list of terms upon finishing adding them.

### User Story #25

As a course creator, I would like to create multiple game questions through the web UI.

#	Task Description	Owner	Time Estimate
1	Create component for adding questions	Celia	6

	and answers		
2	Create DB tables for Questions and Answers	Celia	2
3	Create POST route for creating questions and answers	Celia	4
4	Create GET route for questions and answers	Celia	2
5	Manual Testing on Postman, Unit Tests	Celia	1
Total Time Estimate			15

#### Acceptance Criteria

- Given that the POST routes for creating questions and answers are implemented correctly, when I submit questions and answers, a course coordinator should see that the upload was successful.
- Given that the GET route for questions and answers are implemented correctly, when a course coordinator views questions and answers, all of the questions in the course should be visible.
- Given that the Question and Answer data models / tables are configured correctly, when a course coordinator views questions and answers, corresponding answer options should appear with their questions.

#### **User Story #26**

As a course creator, I would like to add/change answer choices to each question I create.

#	Task Description	Owner	Time Estimate
1	Create PATCH routes for questions and answers	Sooha	3
2	Create frontend UI component for editing question and answers	Sooha	4
3	Manual Postman Testing, Unit Testing	Sooha	1
Total Time Estimate			8

#### Acceptance Criteria

- Given that the PATCH routes for questions and answers are implemented correctly, when a course coordinator updates a question and answer with invalid parameters (i.e blank answer, no answers), the user should see an error message.

- Given that the frontend UI component for editing question and answers is functioning, when a course coordinator updates a question, the user should see that change reflected on the question list component.
- Given that the frontend UI component for editing questions and answers is functioning, when a course coordinator adds an answer choice with blank text, the user should see an error message.

### User Story #27

As a course creator, I would like to add images to questions.

#	Task Description	Owner	Time Estimate
1	Create POST route for image upload	Celia	3
2	Implement image storage and reference/link logic	Celia	3
3	Add UI component for image uploads	Celia	3
4	Manual Testing via Frontend UI	Celia	2
Total Time Estimate			11

### Acceptance Criteria

- Given there is an endpoint created for images, the route should accept images and link it to the associated question
- Given there is logic for image storage and referencing, images should be correctly stored and referenced properly to the associated question.
- Given there is a UI component, question creators should be able to upload images through the web UI

### User Story #28

As a course creator, I would like to remove questions from my question set.

#	Task Description	Owner	Time Estimate
1	Create DELETE route for question API	Sergio	2
2	Create delete button for questions on frontend	Sergio	3
3	Manual Testing via Postman, Unit Tests	Sergio	1
Total Time Estimate			6

### Acceptance Criteria

- Given that the delete button on the UI is implemented, when a course coordinator views questions, the delete button should be visible.
- Given that the delete button on the UI is implemented, when a student views questions, the delete button should be invisible.
- Given that the delete button on the UI is implemented, when a course coordinator deletes a question, a confirmation prompt should appear.
- Given that the DELETE route for the Question API is implemented correctly, when a question is deleted by a course coordinator, it should be removed from the question list component

### User Story #29

As a course creator, I would like to organize terms/questions into topics/units.

#	Task Description	Owner	Time Estimate
1	Create DB schema for topics	Sergio	2
2	Create CRUD operation endpoints for Topics	Sergio	5
3	Include field in term creation form to select topic	Sergio	1
4	Include field in question creation form to select topic	Sergio	1
5	Create UI component to view topics	Sergio	1
6	Create UI form to Create, Edit, and Delete Topics	Sergio	5
7	Include field in question edit form to select topic	Sergio	1
8	Include field in term edit form to select topic	Sergio	1
9	Postman manual testing, unit testing	Sergio	1
Total Time Estimate			18

### Acceptance Criteria

- Given that the term creation form is implemented correctly, when a course coordinator creates a term, there should be an option to specify a topic.
- Given that the question creation form is implemented correctly, when a course coordinator creates a question, there should be an option to specify a topic.
- Given that the term edit form is implemented correctly, when a course coordinator edits a term, there should be an option to specify a topic.



- Given that the question edit form is implemented correctly, when a course coordinator edits a question, there should be an option to specify a topic.
- Given that the Topic CRUD operations are implemented correctly, when a course coordinator attempts to view all topics, all of the topics in that course are listed.
- Given that the Topic CRUD operations are implemented correctly, when a course coordinator visits the topics component, the create, edit, and delete options should update the topic list.

### User Story #30

As a course creator, I would like to add difficulty tags to the questions.

#	Task Description	Owner	Time Estimate
1	Update question schema, and enum	Sergio	1
2	Update patch route for question to include the difficulty	Sergio	1
3	Create field on UI to set difficulty when creating a question	Sergio	1
4	Create field on UI to edit difficulty when editing a question	Sergio	1
5	Unit Testing / Postman Manual Testing	Sergio	1
Total Time Estimate			5

### Acceptance Criteria

- Given that the question schema and enum are updated correctly, when a user views a question, it should be labeled as either: Easy, Regular (Default option), or Hard
- Given that the PATCH route for questions is implemented correctly, when a course coordinator updates the difficulty of a question, that change should be reflected in the question list.
- Given that the Create Question form is implemented correctly, when a course coordinator creates a question, there should be an option to select the difficulty.
- Given that the Create Question form is implemented correctly, when a course coordinator creates a question, the default selected difficulty should be "Regular".

### Sprint Totals

Name	Estimated Hours
Thomas Carsello	43
Jason Bodzy	44

Zachary Heskett	42
SooHa Park	39
Celia Patricio	40
Sergio Alvarez	40

## Backlog

1. ~~[10 hr] As a user, I would like to register for a Course Clash account with an email and password~~
2. ~~[2 hr] As a user, I would like be able to delete my account~~
3. ~~[10 hr] As a user, I would like to be able to log in to my Course Clash account~~
4. ~~[3 hr] As a user, I would like to be able to log out of my Course Clash account~~
5. ~~[5 hr] As a user, I would like to be able to view my Course Clash account and edit it~~
6. ~~[5 hr] As a user, I would like to be able to change my password~~
7. ~~[10 hr] As a user, I would like to be able to recover my account if I forget my password~~
8. ~~[10 hr] As a user, I would like to upload a profile picture to represent my account~~
9. ~~[15 hr] As a user, I would like to customize how the website looks, like changing color themes:~~
10. [10 hr] As a user, I would like to have a brief walkthrough of the app
11. [10 hr] As a user. I would like to keep consecutive streaks I have 'studied' in a course
12. ~~[10 hr] As a user, I would like to be able to create a course~~
13. ~~[3 hr] As a course creator, I would like to be able to delete my course~~
14. ~~[15 hr] As a course creator, I would like to be able to add other users to that course by email~~
15. ~~[10 hr] As a course creator, I would like to be able to remove users from my course~~
16. ~~[10 hr] As a course creator, I would like to be able to send a 'join' code for other users to join my created course~~
17. ~~[5 hr] As a course creator, I would like to set how many games one person can be in at once:~~
18. ~~[5 hr] As a course creator, I would like to be able to use a 'join' code to join a course~~
19. ~~[10 hr] As a course creator, I would like to be able to add a profile image to my course~~
20. ~~[5 hr] As a course creator, I would like to change the profile image to my course~~
21. ~~[10 hr] As a course creator, I would like to create study terms manually through the web UI~~
22. [15 hr] As a course creator, I would like to upload game questions via CSV
23. [10 hr] As a course creator, I would like to export game questions to a CSV
24. [10 hr] As a course creator, I would like to enter a question set creation session when I create a new question set or edit an existing set.
25. ~~[15 hr] As a course creator, I would like to create multiple game questions through the web UI:~~

- ~~26. [5 hr] As a course creator, I would like to add/change answer choices to each question I create.~~
- ~~27. [15 hr] As a course creator, I would like to add images to questions.~~
- ~~28. [5 hr] As a course creator, I would like to remove questions from my question set.~~
- ~~29. [10 hr] As a course creator, I would like to organize terms/questions into topics/units.~~
- ~~30. [5 hr] As a course creator, I would like to add difficulty tags to the questions.~~
31. [5 hr] As a course creator, I would like to adjust how many rounds it takes to win in my question set.
32. [5 hr] As a course creator, I would like to include reading/tips for questions I create
33. [10 hr] As a course creator, I would like to publish my question set for users to play in the course.
34. [2 hr] As a course creator, I would like to unpublish my question set.
35. [2 hr] As a course creator, I would like to delete my question set.
36. [10 hr] As a course creator, I would like to edit game questions and study terms through the Web UI after publishing.
37. [10 hr] As a user, I would like for the game to suggest readings/tips related to the question
38. [10 hr] As a user, I would like the option to study specific topics/units as opposed to the entire question/term bank
39. [5 hr] As a user, I would like to choose which question set the game uses
40. [10 hr] As a user, I would like to add feedback to the questions if I think the question needs editing.
41. [10 hr] As a course creator, I would like to be able to see feedback on questions that other users in the course submit
42. [10 hr] As a user, I would like to be able to invite my friends to sign up to the website via email invites
43. [10 hr] As a user. I would like to be able to view other users enrolled in the same course as me
44. [10 hr] As a user, I would like to be able to challenge other random users in my course to a game.
45. [5 hr] As a user, I would like to selectively choose someone not on my friends list to challenge in a game.
46. [15 hr] As a user, I would like to send requests to other people to add to my friends list.
47. [3 hr] As a user, I would like to challenge to a game someone on my friends list
48. [10 hr] As a user, I would like to have a list showcasing all my friends added.
49. [15 hr] As a user, I would like to see friends currently online on the website.
50. [15 hr] As a user, I would like to receive email notifications (if opted in) when I have been challenged to a game
51. [10 hr] As a user, I would like to be able to receive notifications via email (if opted in) when I am added to a course
52. [10 hr] As a user, I would like to be able to see a list of my current games
53. [10 hr] As a course creator, I would like to see an administrator panel that shows every game being played in my course.

54. [10 hr] As a course creator, I would like to see statistics of student usage of the study and game features (# of students playing, # of games played, etc)
55. [10 hr] As a course creator, I would like to see the accuracy statistics for each question I make.
56. [10 hr] As a user, I would like to be able to select any game from my list of active games to see the score/status of each game
57. [5 hr] As a user, I would like to be limited to a certain number of active games at once
58. [10 hr] As a user I would like to be randomly select a topic to start a game using a spinning wheel
59. [15 hr] As a user, I would like to be able to answer a question in a topic when it is my turn
60. [5 hr] As a user, I would like to see whether I get a question right or wrong after answering it, and what the correct answer is
61. [10 hr] As a user, I would like to be able to answer a round of questions when it is my turn and give my turn to my opponent
62. [5 hr] As a user, I would like to see whether I won or lost a round based on if I got more questions right in a round than my opponent
63. [5 hr] As a user, I would like to gain a point for a round if I won the round
64. [5 hr] As a user, I would like to win the game if I win a certain number of rounds before my opponent
65. [3 hr] As a user, if I win or lose a game, I would like to be able to see that I won or lost
66. [10 hr] As a user, I would like to win a game if my opponent does not play for a certain amount of time
67. [5 hr] As a user, I would like to be able to resign/surrender in a game
68. [3 hr] As a user, I would like to be able to rematch other users after a game
69. [10 hr] As a user, I would like to see my game statistics in terms of games won and games played
70. [10 hr] As a user, I would like to be able to see my accuracy for each topic for my course
71. [15 hr] As a user, I would like to see a leaderboard of players in a course
72. [10 hr] As a user, I would like to tab between the rankings of other players based on different statistics like games won, games played, questions answered correctly, etc.
73. [20 hr] As a user, I would like to be able to create and view public posts on a course's discussion board
74. [5 hr] As a user, I would like to be able to upvote posts on a course's discussion board
75. [10 hr] As a user, I would like to be able to comment on posts on a course's discussion board
76. [10 hr] As a course creator, I would like to moderate a course discussion board by removing posts.
77. [5 hr] As a user, when posting to the discussion board, I would like to tag the post as either a Question, PSA, or General post type.
78. [15 hr] As a user, I would like to see detailed progress reports on my performance in different topics and games.
79. [15 hr] As a course creator, I would like to create private courses that can only be accessed by invited users.
80. [15 hr] As a user, I would like to search for courses or users within Course Clash.

81. [10 hr] As a course creator, I would like to add a description to my course to provide more information to potential students.