CS 407 Fall 2024 | Team 4

Course Clash | Sprint 2 Planning Document

Team Members

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Sprint Overview

This sprint will have two main goals. The first and more simple goal is to implement the discussion board component of the course page. This will consist of posts, comments, and the ability to upvote posts, and moderate them. The more complex goal of this sprint is to implement at least the skeleton of the game mechanism available within a course. The ability to create games, play games, and view current/past games is the primary focus. More robust details of the game and analysis features will likely be added in Sprint 3, so we must be mindful of those future requirements as we build out the gameplay functionality. There are also some minor one-off features such as CSV upload/export of questions and friend requests, but the majority of the sprint revolves around the gameplay and the discussion board.

Scrum Master: Sooha Park

Meeting Schedule:
Monday 3:00 - 3:30 pm
Wednesday: 4:30 - 5:00 pm
Thursday 10:30 - 11:00 am

Risks / Challenges
The biggest risk/challenge we face for this sprint is a potential to create a flawed design for the data model of the game, which makes it difficult/impossible to implement the things we need to implement for the user stories related to the game. We must spend a significant amount of time ensuring that our concept of how to schema our data models within the relational database lends itself well to the types of operations that we will be doing on the models. This will require a lot of upfront planning.

Another potential risk we face is having different visions of how the game will end up being played and ultimately look with regard to the flow, and details of gameplay. We will have to create a well-defined sequence of events that everybody on the team understands perfectly in order to ensure that everyone is designing components of the project that are based on the

same assumptions. This way, everyone's work can be integrated together as opposed to having different components that cannot be joined up in the way they are meant to.

Current Sprint Detail

User Story #22
As a course creator, I would like to upload game questions via CSV

#	Task Description	Owner	Time Estimate
1	Create backend API endpoint for uploading several questions at once	Thomas	2
2	Create frontend component for selecting CSV file for upload	Thomas	2
3	Create frontend logic for parsing CSV into JSON for the API request	Thomas	10
4	Manual testing of frontend and postman testing of API endpoint	Thomas	1
Total Time Estimate			15

Acceptance Criteria
- Given that the backend endpoint is implemented correctly, when a coordinator uploads several valid questions at once, the user should see them reflected in the question list component.
- Given that the CSV conversion is implemented correctly, when a coordinator uploads a CSV file with question data, the user should be notified if there is an error parsing the contents.
- Given that the CSV conversion is implemented correctly, if a question is submitted with invalid parameters (blank answer, no correct answer, etc) the user should be prompted with an error message.

User Story #23
As a course creator, I would like to export game questions to a CSV

#	Task Description	Owner	Time Estimate
1	Create API endpoint for getting CSV of questions	Thomas	1
2	Create backend function to convert question list into CSV	Thomas	6

#	Task Description	Owner	Time Estimate
3	Create frontend component to download the CSV	Thomas	2
4	Manual frontend testing, postman API testing	Thomas	1
Total Time Estimate			10

Acceptance Criteria
- Given that the export API endpoint is implemented, when a user clicks on the download CSV button, a .csv file should be downloaded.
- Given that the export functionality is implemented correctly, a user should be able to upload a generated CSV into another course without issue.
- Given that the frontend is implemented correctly, only a course coordinator should be able to export a course's question content.

User Story #42
As a user, I would like to be able to invite my friends to sign up to the website via email invites

#	Task Description	Owner	Time Estimate
1	Create API endpoint	Thomas	4
2	Use mail service to send email	Thomas	2
3	Create frontend component	Thomas	3
4	Test manually	Thomas	1
Total Time Estimate			10

Acceptance Criteria
- Given that the mail service is configured correctly, an email invite should be sent to the specified address when provided by a user.
- Given that the mail service is configured correctly, an email should only be sent to an address that does not already have an associated account
- Given that the frontend is implemented correctly, when an email is sent or fails to send, the user should be notified of the status on the frontend.

User Story #38
As a user, I would like the option to study specific topics/units as opposed to the entire question/term bank

#	Task Description	Owner	Time Estimate

1	Create API endpoint to get questions via topic filter	Thomas	3
2	Create API endpoint to get terms via topic filter	Thomas	2
3	Frontend component to select question topic	Thomas	2
4	Frontend component to select term topic	Thomas	2
5	Manual frontend testing, postman API testing	Thomas	1
Total Time Estimate			10

Acceptance Criteria
- Given that the topic filter for terms is implemented correctly, when a student filters by a topic, only terms associated with that topic should be visible.
- Given that the topic filter for questions is implemented correctly, when a student filters by a topic, only questions associated with that topic should be visible.
- Given that the topic filters are implemented correctly, a student should be able to remove the topic filter and return to viewing the entire set of terms/questions.

User Story #73
As a user, I would like to be able to create and view public posts on a course's discussion board

#	Task Description	Owner	Time Estimate
	Create Post database table	Jason	2
1	Create CRUD endpoints for posts API	Jason	3
2	Create frontend components to CRUD posts	Jason	3
3	Test manually in frontend and with Postman for API	Jason	2
Total Time Estimate			10

Acceptance Criteria
- Given that the post table is configured correctly, when a user creates a post in a course, it should only be visible from within that course
- Given that the post CRUD operations are implemented correctly, when a user views the discussion page of a course, all posts associated with that course should be visible, sorted by posting date.

- Given that the CRUD operations are implemented correctly, when a student creates a post, it should be immediately visible on the discussion page.

User Story #74
As a user, I would like to be able to upvote posts on a course's discussion board

#	Task Description	Owner	Time Estimate
1	Create post_upvotes database table	Jason	1
2	Create PUT/DELETE API endpoints for upvoting and un-upvoting posts	Jason	2
3	Create frontend button to toggle upvote status on post	Jason	1
4	Manually test in frontend and over Postman	Jason	1
Total Time Estimate			5

Acceptance Criteria
- Given that the post_upvotes database table is implemented correctly, when a user upvotes a post, that upvote should persist over time between logins and page visits.
- Given that the post_upvotes database is implemented correctly, the frontend should display the number of upvotes a post has
- Given that the PUT/DELETE routes are implemented correctly, when a user removes an upvote from a post, that change should be made visible on the frontend.

User Story #75
As a user, I would like to be able to comment on posts on a course's discussion board

#	Task Description	Owner	Time Estimate
1	Create comments table on database	Jason	1
2	Create CRUD endpoints on comments API	Jason	4
3	Create frontend component to render post comments	Jason	3
4	Create frontend component to create comments	Jason	1
5	Test manually in frontend and with Postman for API	Jason	1

Total Time Estimate	10

Acceptance Criteria
- Given that the comments table has been implemented correctly, when a user views the comments on a post, only the comments under that post should be visible.
- Given that the frontend component has been implemented correctly, when a user creates a comment, it will appear under the post it was commented to.
- Given that the comments API is implemented correctly, when the user views a comment that is not theirs, they should not be able to edit or delete the comment.

User Story #76
As a course creator, I would like to moderate a course discussion board by removing posts.

#	Task Description	Owner	Time Estimate
1	Create DELETE route for posts	Jason	3
2	Create frontend component to delete posts	Jason	2
3	Create backend logic to delete all comments related to the deleted post	Jason	4
4	Add secure logic to ensure only coordinators can use the delete post button on posts that are not their own	Jason	5
5	Test manually in the frontend	Jason	1
Total Time Estimate			15

Acceptance Criteria
- Given the delete route works correctly, when an admin selects the delete button, the post is deleted from the db and is no longer visible.
- Given the delete route works correctly, when an admin selects the delete button, the post's comments are deleted from the db and are no longer visible.
- Given the delete route works correctly, when an admin selects the delete button, the post and post's comments are deleted from the db and are no longer visible upon refreshing/reloading the page.

User Story #77
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.

#	Task Description	Owner	Time Estimate

1	Add post type column to post database table	Sooha	1
2	Update create and update API endpoints for posts to handle post type	Sooha	2
3	Create frontend components to view and create post type	Sooha	1
4	Test manually in frontend	Sooha	1
Total Time Estimate			5

Acceptance Criteria
- Given the tag feature works correctly, when a user creates a post, they should see an option to tag the post.
- Given the tag feature works correctly, when a user creates a post and tags it, they should see the tag on the post after posting.
- Given the tag feature works correctly, when a user creates a post and does not tag it, they should be notified that they need to tag the post.

User Story #44
As a user, I would like to be able to challenge other random users in my course to a game.

#	Task Description	Owner	Time Estimate
1	Create a game challenges database table	Sooha	1
2	Create CRUD operations on API endpoints for challenges table	Sooha	5
3	Create a randomize endpoint to create a challenge to a random user within the course	Sooha	2
4	Create frontend UI component to create a random challenge	Sooha	1
5	Test manually and with Postman	Sooha	1
Total Time Estimate			10

Acceptance Criteria
- Given that the UI component is implemented correctly, when a user requests a random challenge, the user is only matched up with other users within their same course.

- Given that the UI component is implemented correctly, if there are no users available for matchmaking, then the user should receive an error message.
- Given that the challenges API is implemented correctly, a user should not be assigned a challenge against a user with whom an existing challenge already exists.

User Story #45
As a user, I would like to selectively choose someone not on my friends list to challenge in a game.

#	Task Description	Owner	Time Estimate
1	Create frontend component to select from user list within a course to create a challenge with a specific person	Sooha	2
2	Implement backend functionality through POST to game challenges API	Sooha	2
3	Test manually and via Postman	Sooha	1
Total Time Estimate			5

Acceptance Criteria
- Given that the frontend component is implemented correctly, a student should be able to select any available user in the course regardless of their friendship status
- Given that the frontend component is implemented correctly, when a student attempts to create a challenge, the site should only list students with whom there does not already exist a challenge/active game.
- Given that the API functionality is implemented correctly, a user should not be able to create game challenges if they are already in the course's specified maximum number of games.

User Story #46
As a user, I would like to add users to my friends list.

#	Task Description	Owner	Time Estimate
1	Create friends table	Sooha	1
2	Create CRUD operations for friends	Sooha	5
3	Create frontend component to add friend	Sooha	1
4	Test with Postman for API endpoints, and manually in frontend for	Sooha	2

	components		
Total Time Estimate			8

Acceptance Criteria
- Given the add friends feature is implemented correctly, when a user wants to add a friend, a component to add a friend them should be visible on the friends list
- Given the add friend feature works correctly, when a user presses uses the add friend component, they should see that friend appear in their friend list after adding them.
- Given the add friend feature works correctly, when a user presses uses the add friend component, they shouldn't be able to add a friend that is already in their friends list

User Story #47
As a user, I would like to challenge to a game someone on my friends list

#	Task Description	Owner	Time Estimate
1	Create frontend component within friends list inside of a course to challenge them to a game	Sooha	2
2	Test manually in the frontend to ensure functionality	Sooha	1
Total Time Estimate			3

Acceptance Criteria
- Given the friends list challenge feature is implemented correctly, when a user wants to challenge someone on their friends list to a game, a button to challenge them should be visible on the friends list
- Given the friends list challenge feature is implemented correctly, when a user presses the challenge friend button, a game between the user and their friend begins
- Given the friends list challenge feature is implemented correctly, when a user wants to challenge their friends, they should only be able to challenge friends who are on their current course page.

User Story #48
As a user, I would like to have a list showcasing all my friends added.

#	Task Description	Owner	Time Estimate
1	Create GET endpoints to query friends by user	Zach	1
2	Create GET endpoint to query friends by user, filtered by course	Zach	1

#	Task Description	Owner	Time Estimate
4	Create frontend component to view all friends on home page	Zach	3
5	Create frontend component to view all friends within a course	Zach	3
4	Test functionality manually in frontend	Zach	1
Total Time Estimate			11

Acceptance Criteria
- Given the friends list feature works correctly, when a user accesses the home page, they should be able to see a list of all their current friends.
- Given the friends list feature works correctly, when a user accesses the course friends page, they should be able to see a list of all their current friends only in the course.
- Given the friends list feature works correctly, when a user accesses the course friends page, they should not see any friends they have not in the course.
- Given the friends list feature works correctly, the friends should update to reflect changes in friends for the user.

User Story #50
As a user, I would like to receive email notifications (if opted in) when I have been challenged to a game

#	Task Description	Owner	Time Estimate
1	Create opt-in setting on user table	Zach	1
2	Update patch api endpoint on user API to handle changing the setting	Zach	1
3	Create an async function to run on the event a user is challenged that sends an email if necessary	Zach	4
4	Create frontend component to change challenge notification setting	Zach	3
5	Create frontend email settings page to house this and all future email opt-in settings	Zach	5
6	Test manually via the frontend	Zach	1
Total Time Estimate			15

Acceptance Criteria

- Given the email notification feature is implemented correctly, if a user has opted in to receive email notifications, when they are challenged to a game, they should receive an email notification.
- Given the email notification feature is implemented correctly, if a user has not opted in to receive email notifications, when they are challenged to a game, they should not receive an email notification.
- Given the email notification feature is implemented correctly, when a user wants to change their notification preferences, they should be able to do so from the settings page.
- Given the email notification feature is implemented correctly, when a user receives an email notification, the notification email should contain information such as the course, the players, and a link.

User Story #52
As a user, I would like to be able to see a list of my current games

#	Task Description	Owner	Time Estimate
1	Create a GET endpoint on the games API to get games filtered by user and course ids	Zach	4
2	Create frontend component in homepage to show all games a user is playing	Zach	2
3	Create frontend component in course page to show all games a user is playing within that course	Zach	3
4	Test manually in frontend and via Postman API calls	Zach	1
Total Time Estimate			10

Acceptance Criteria
- Given that a game has been created and the user is a player in said game, the user should be able to view that game and its status from within the course it belongs
- Given that a game has been created and the user is a player in said game, the user should be able to view that game and its status from their home page
- Given that the UI component is implemented correctly, when a user views games within a course, only games specific to that course should be visible.
- Given that the UI component is implemented correctly, when a user views games from their homepage, all of their games should be visible from across courses.

User Story #53

As a course creator, I would like to see an administrator panel that shows every game being played in my course.

#	Task Description	Owner	Time Estimate
1	Create GET route that gets all games being played within a specific course	Zach	3
2	Create Frontend component to show all games being played within the course page	Zach	4
3	Add security validation to ensure frontend only displays all games to the course coordinator, and not to regular students	Zach	2
4	Test manually in frontend and API calls via Postman	Zach	1
Total Time Estimate			10

Acceptance Criteria
- Given that the user is an administrator, the user will be able to view ongoing games in the course through web UI
- Given that the user is an administrator and the UI is implemented correctly, the user will be able to view which course members are currently playing against one another
- Given that the user is not an administrator, they will not be able to view any games that are not their own in a given course

User Story #58
As a user, I would like to randomly select the topic for the next round of a game, with a visual animation.

#	Task Description	Owner	Time Estimate
1	Create round table in database	Sergio	1
2	Create CRUD operations for rounds	Sergio	4
3	Create Game logic API endpoints for rounds	Sergio	5
4	Create frontend component for round generation at random	Sergio	4
5	Test manually to ensure component animation works	Sergio	1

Total Time Estimate	15

Acceptance Criteria
- Given that the API endpoints are implemented correctly, when a user starts a new round of a game, a topic should be assigned in an unpredictable way by the server.
- Given that the UI component is implemented correctly, when a user starts a new round of a game, the topic selection should come with a short animation to reveal the choice.
- Given that the game logic endpoints are created, the selection of a new topic should happen at the beginning of every round that is played within a game.
- Given that the game logic is implemented correctly, o

User Story #59
As a user, I would like to be able to answer a question in a topic when it is my turn

#	Task Description	Owner	Time Estimate
1	Create API endpoint to get all games for a user and course where it is their turn	Sergio	3
2	Create frontend component to enter play mode on a game if it is the current user's turn	Sergio	2
3	Create playmode page for a game	Sergio	5
4	Create API call to get current state of a game and data associated with that state	Sergio	5
5	Create frontend component to render the state of the game, with questions and answer options	Sergio	5
Total Time Estimate			20

Acceptance Criteria
- Given that the API endpoints are implemented correctly, when it is a user's turn in a round of a game, a question from the topic should be assigned by the server.
- Given that it is a user's turn, the user should be able to view the question and answer choices through the web UI
- Given that the UI is implemented correctly, the user should be able to choose an answer to the question and submit their choice

User Story #60
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

#	Task Description	Owner	Time Estimate
1	Create API call to submit answers to questions, which returns in its response body the correct answer	Sergio	2
2	Implement the frontend component to display the correct answers when a question is submitted during a game	Sergio	2
3	Test manually in frontend and via Postman	Sergio	1
Total Time Estimate			5

Acceptance Criteria
- Given that the API is implemented correctly, when a user enters a correct answer, they should be notified on the front end.
- Given that the API is implemented correctly, when a user enters an incorrect answer, they should be notified on the front end, and the correct answer should appear as well.
- Given that the UI components are implemented correctly, when a user submits a question, that submission is final and cannot be changed.

User Story #61
As a user, I would like to be able to answer a round of questions when it is my turn in a game

#	Task Description	Owner	Time Estimate
1	Modify game state API call to return a list of several questions that must be answered on submit of the round	Celia	3
2	Create frontend ability to cycle forward through questions on their submission, until reaching the last question	Celia	6
3	Test manually in the frontend to ensure the gameplay is smooth and as expected	Celia	1
Total Time Estimate			10

Acceptance Criteria
- Given that the user has answered a question and they see whether they have gotten the right answer or not, they should see the next question for them to answer for that round

- Given that the user is successfully shown the next question, they should be able to answer the next question and continue until all questions for that round have been answered
- Given that the user is answering questions, the user should be able to see how many questions they currently have correct and incorrect through the web UI

User Story #62
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

#	Task Description	Owner	Time Estimate
1	Modify the game state API endpoint to return information about the other player's ply for that round (if it exists).	Celia	3
2	Incorporate other play's ply information into the frontend component describing the status	Celia	1
3	Test manually in the frontend to validate functionality	Celia	1
Total Time Estimate			5

Acceptance Criteria
- Given that the game state API is implemented correctly, when a user views the game inside of the game list component, the current player whose turn it is, and the score of the game should be visible.
- Given that the game state API is implemented correctly, when a user views a game inside of the game list component, there should be an indication of what round number is active, and the score of each player for that round
- Given that the UI component is implemented correctly, when a user makes a turn in the game, the component should immediately update to reflect the new state of the game

User Story #63
As a user, I would like to gain a point for a round if I won the round

#	Task Description	Owner	Time Estimate
1	Create API endpoint to calculate and return a game's score	Celia	3
2	Modify game display frontend component to display the score, which should reflect the round played	Celia	1

3	Test manually in frontend and validate accuracy through DB queries	Celia	1
Total Time Estimate			5

Acceptance Criteria
- Given that the user has won a round, they should see a UI indicator that shows how that they have a point for the round win against their opponent
- Given that the game API is implemented correctly, the score should be kept dynamically updated in the backend to reflect the changes when a user wins a round
- Given that the user has lost a round, they should see a UI indicator that shows that why have failed to obtain a point for the round loss against their opponent

User Story #64
As a user, I would like to win the game if I win a certain number of rounds before my opponent

#	Task Description	Owner	Time Estimate
1	Modify the game state API endpoint to identify winning condition based on the number of rounds won	Celia	3
2	Modify game details frontend component to reflect a completed game state	Celia	1
3	Test manually in frontend	Celia	1
Total Time Estimate			5

Acceptance Criteria
- Given that the API is implemented correctly, the frontend should be correctly notified when a user hits the score to win the game
- Given that a user wins a game, they should be able to see a UI indicating they have won
- Given that a user loses a game, they should be able to see a UI indicating they have lost
- Given that a game is over, both users should be able to see how many questions they got correct and incorrect for that game

User Story #65
As a user, if I win or lose a game, I would like to be able to see that I won or lost

#	Task Description	Owner	Time Estimate
1	Create game history page on the frontend within a course	Celia	2

2	Create game history API endpoint for a user within a specific course to return completed games and their status	Celia	2
3	Test manually in the frontend	Celia	1
Total Time Estimate			5

Acceptance Criteria
- Given that the game history UI component is implemented correctly, a user should be able to view the games he played in the past and their outcomes from within a course
- Given that the game history UI component is implemented correctly, when a user visits the home page, he should be able to see the history of all his games from all courses
- Given that the game history API is implemented correctly, only games should be displayed that are completed when a user views the game history page

User Story #67
As a user, I would like to be able to resign/surrender in a game

#	Task Description	Owner	Time Estimate
1	Create resign/surrender endpoint within the game API	Celia	2
2	Create resign/surrender frontend button within the gameplay page	Celia	2
3	Test manually to ensure functionality on frontend	Celia	1
Total Time Estimate			5

Acceptance Criteria
- Given that the resign/surrender endpoint is created correctly, when a user resigns from a game, the game is over and that status should be reflected on the game components for both players
- Given that the UI component to surrender is implemented correctly, when a user is playing a game round he should be able to see and use the button to surrender immediately.
- Given that the UI component to surrender is implemented correctly, when a user clicks the surrender button, he is prompted with a confirmation message to ensure he really wants to surrender.

Sprint Totals

Name	**Estimated Hours**

Thomas Carsello	45
Jason Bodzy	40
Zachary Heskett	40
Sooha Park	38
Celia Patricio	35
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. [10 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.