

Project Summary

csci205_final_project

Project Details

Members

- Casey King
- Jonas Scott
- Owen Reilly
- mam110

Project Retrospective

What was your initial goal?

To build a Connections clone with multiple levels.

What did you achieve?

We created a Connections clone with multiple levels of difficulty, and a special level with images.

What went well in the project?

We worked very well together, pick up each others work when people were struggling, and all had the same goal. Overall, our cohesiveness was very good, and we are all super happy with our final product.

What could be improved?

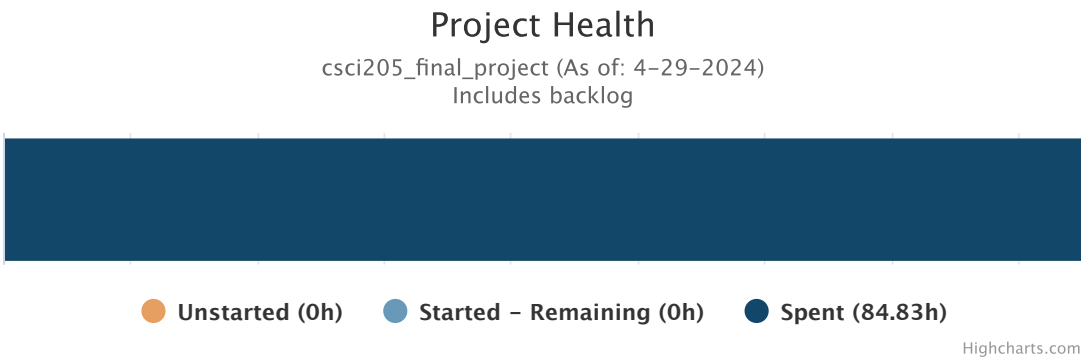
We could have planned ahead a little bit more. Our final classes looked very different from our initial design.

What would you change if you did the project again?

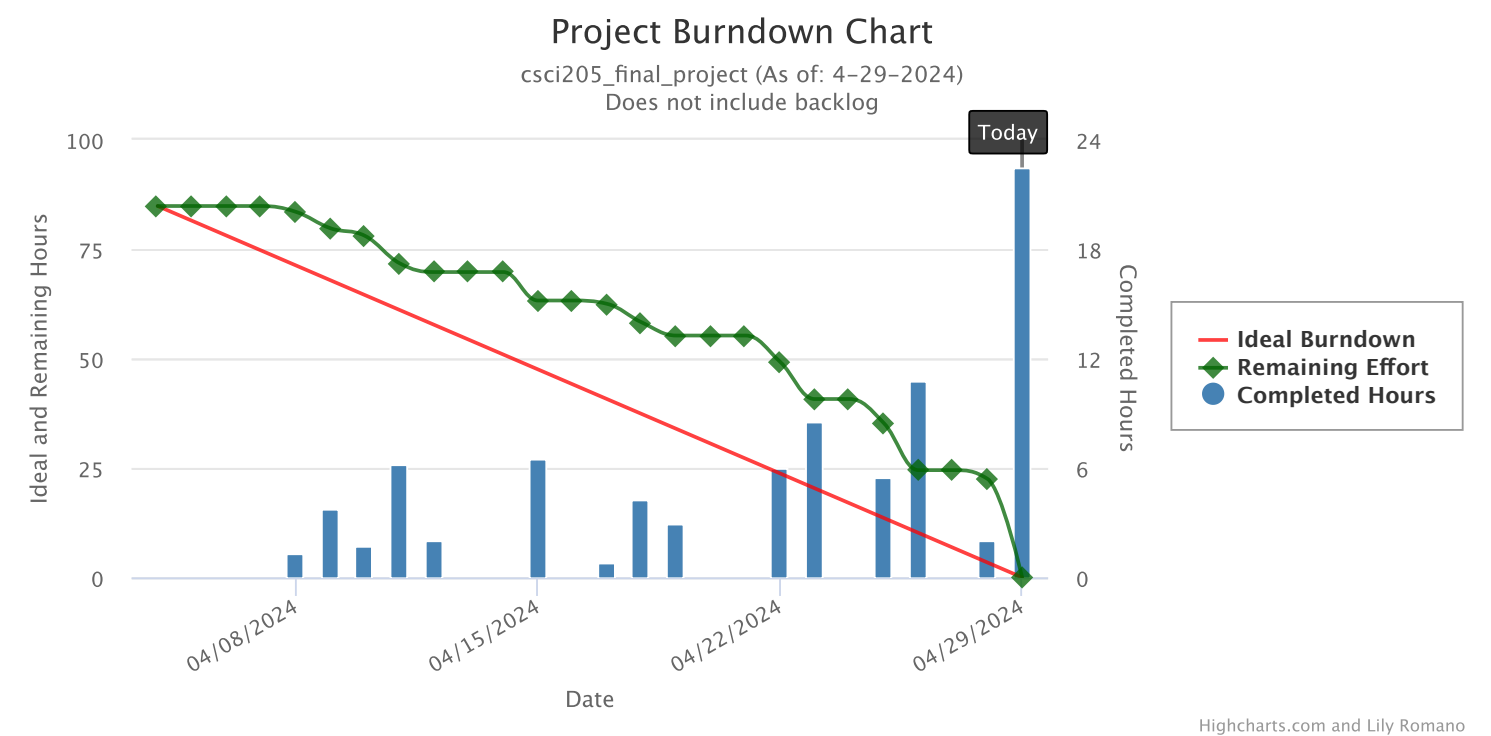
We would have considered how Model classes work with the View and Controller ahead of time, most of the redesigning came from failing to anticipate their relationship.

Charts

Health Bar

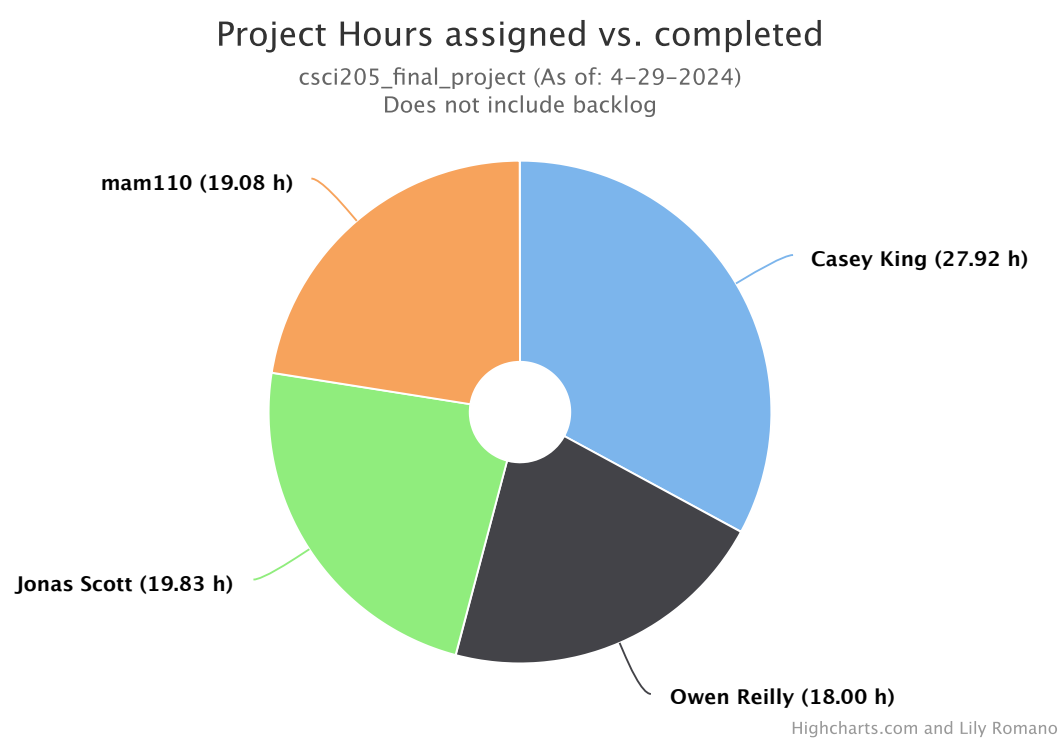


Burndown Chart



Although it appears that our work was behind schedule for the entire project, this is an inaccurate representation of our progress. We completely all work in a timely fashion, but due to initial work not being assigned during the first scrum, and delays in logging hours, it appeared as if we were rushing to complete everything at the last second. In reality, we were very time-efficient.

Assignee Chart



Our work distribution was very even. Although every persons apparent work is not 25 percent of the whole project, we, as a group, agreed that it was almost exactly even. Due to unexpected things taking longer, the hours are not completely even.

| Name | User Stories | Bugs | Tech. Tasks | Design Tasks | Spikes | Doc. |
|-------------|--------------|------|-------------|--------------|--------|------|
| Casey King | 0 | 0 | 18 | 4.42 | 2 | 3.5 |
| Jonas Scott | 0 | 0 | 7.5 | 7.5 | 1 | 3.83 |
| mam110 | 2 | 0 | 10.5 | 3.58 | 1 | 2 |
| Owen Reilly | 3 | 0 | 13 | 1 | 0 | 1 |

Sprints

Sprint 1

Dates:

4-4-2024 to 4-10-2024

Review:**What went well in the sprint?**

We communicated very well, and split the work up evenly.

What could be improved?

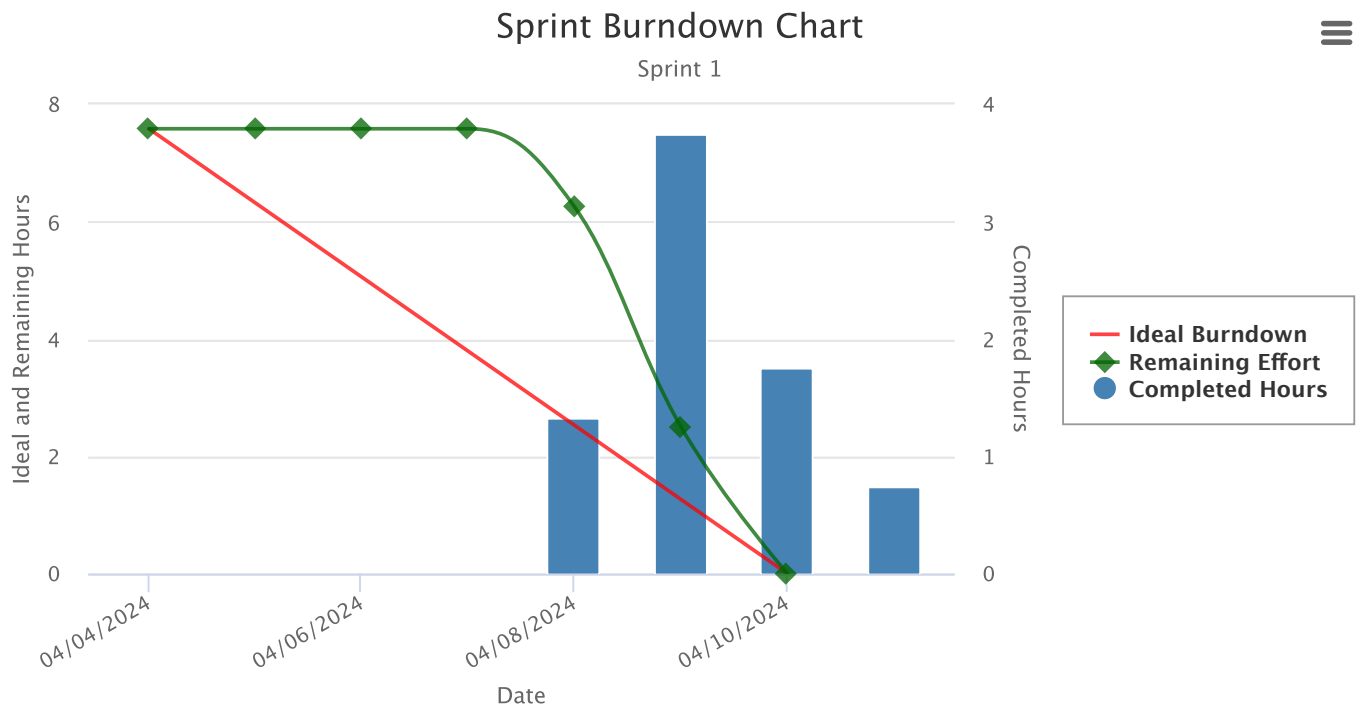
We all agree that we could been more ambitious with the work, we were able to easily complete everything.

Are you on track? What is your plan if not?

Yes we are making adequate progress. Everything is set up for coding.

What will you improve on in the next sprint?

We will assign more to the sprint and try to get more done.



Sprint 2

Dates:

4-10-2024 to 4-15-2024

Goal:

We will finish the model portion of the code, and write unit tests.

Review:

What went well in the sprint?

We achieved all of our goals, and even started working on the view classes for the next sprint.

What could be improved?

We still all think that we can bite off a little bit more for the next sprint. We aim to have a playable - but not perfectly refined game by the end of sprint 3.

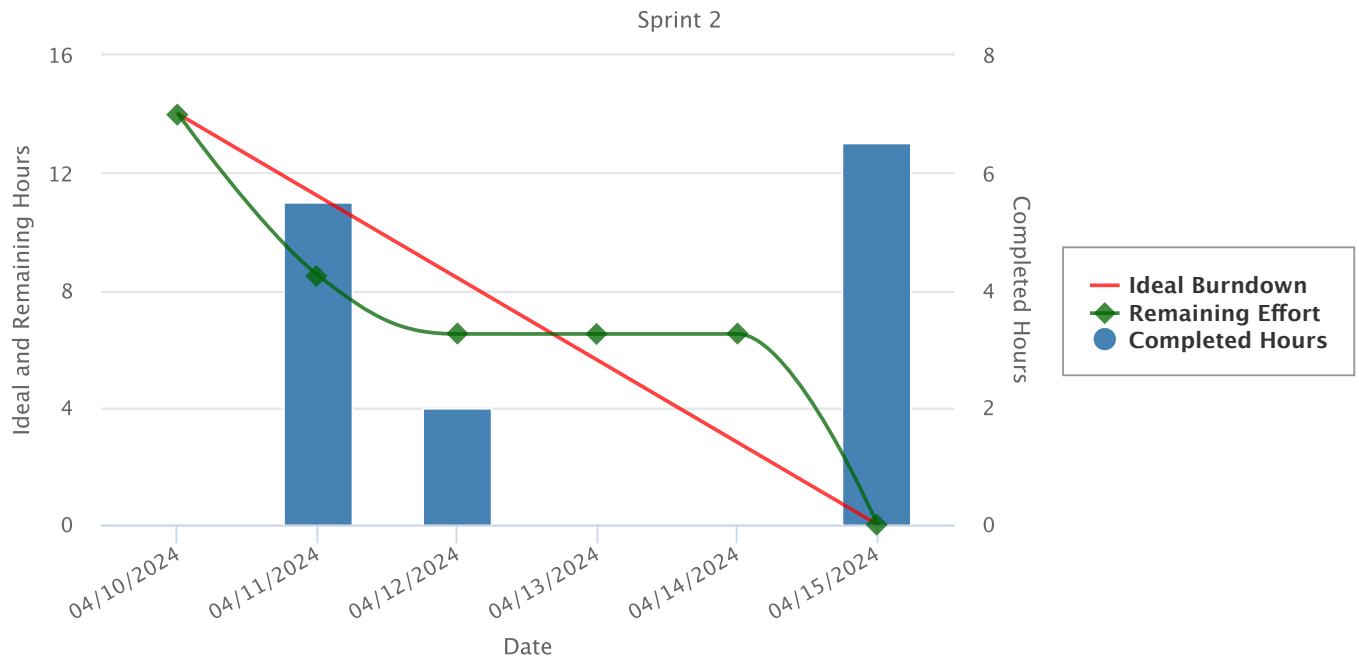
Are you on track? What is your plan if not?

Yes we are on track to finish on time.

What will you improve on in the next sprint?

We will focus on dividing the large of coding in the next sprint up.

Sprint Burndown Chart



Sprint 3

Dates:

4-15-2024 to 4-22-2024

Goal:

Our goal is to have a functional game by the end of the sprint.

Review:**What went well in the sprint?**

We accomplished vaguely what we wanted in this sprint, but the game is only barely playable. We are gonna have more work to do in terms of playability for the game.

What could be improved?

We could have been more consistent with work over the sprint, but we all had a lot of conflicts.

Are you on track? What is your plan if not?

Yes we are on track still.

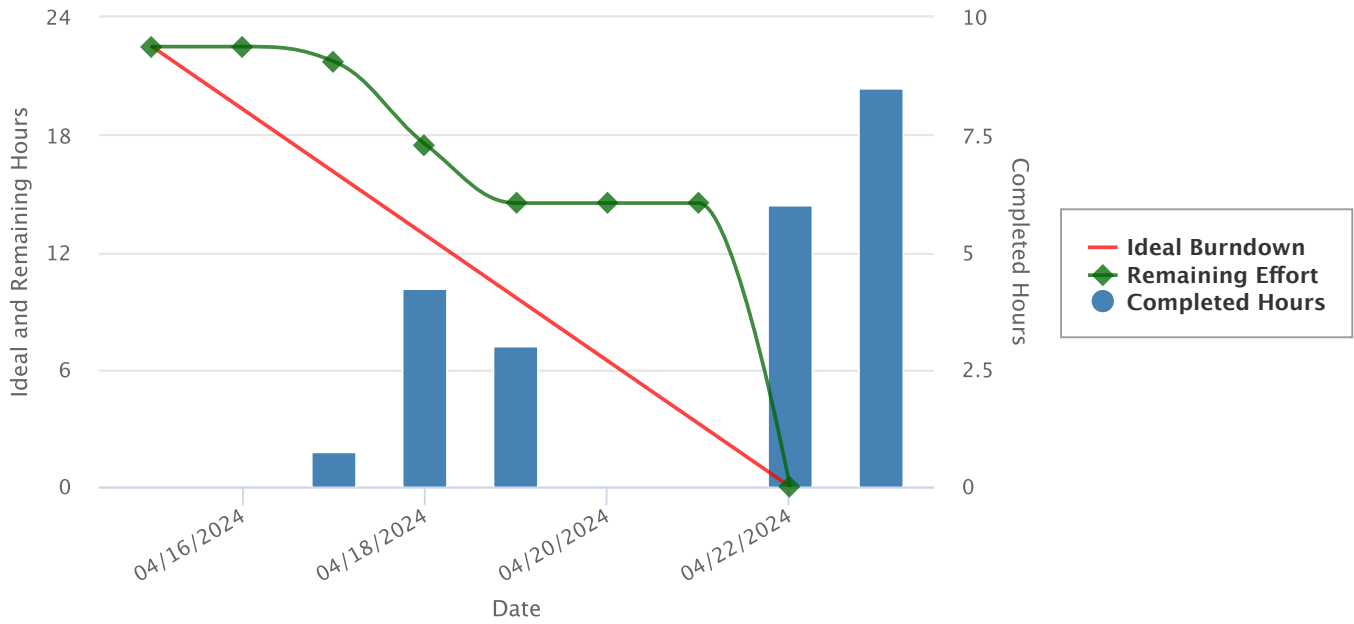
What will you improve on in the next sprint?

We will be more cohesive as a unit, and lay out the work more evenly across the sprint.



Sprint Burndown Chart

Sprint 3



Highcharts.com and Lily Romano

Sprint 4

Dates:

4-22-2024 to 4-29-2024

Goal:

We aim to finish the games functionality midway through this sprint, then focus on style and user stories.

Review:

What went well in the sprint?

We successfully finished our game, and added all of the icing that we wanted to. Our game and GUI is fully functional and cohesive. In addition, we added a special Hollywood mode that uses images instead of words. We are all very satisfied with our final project.

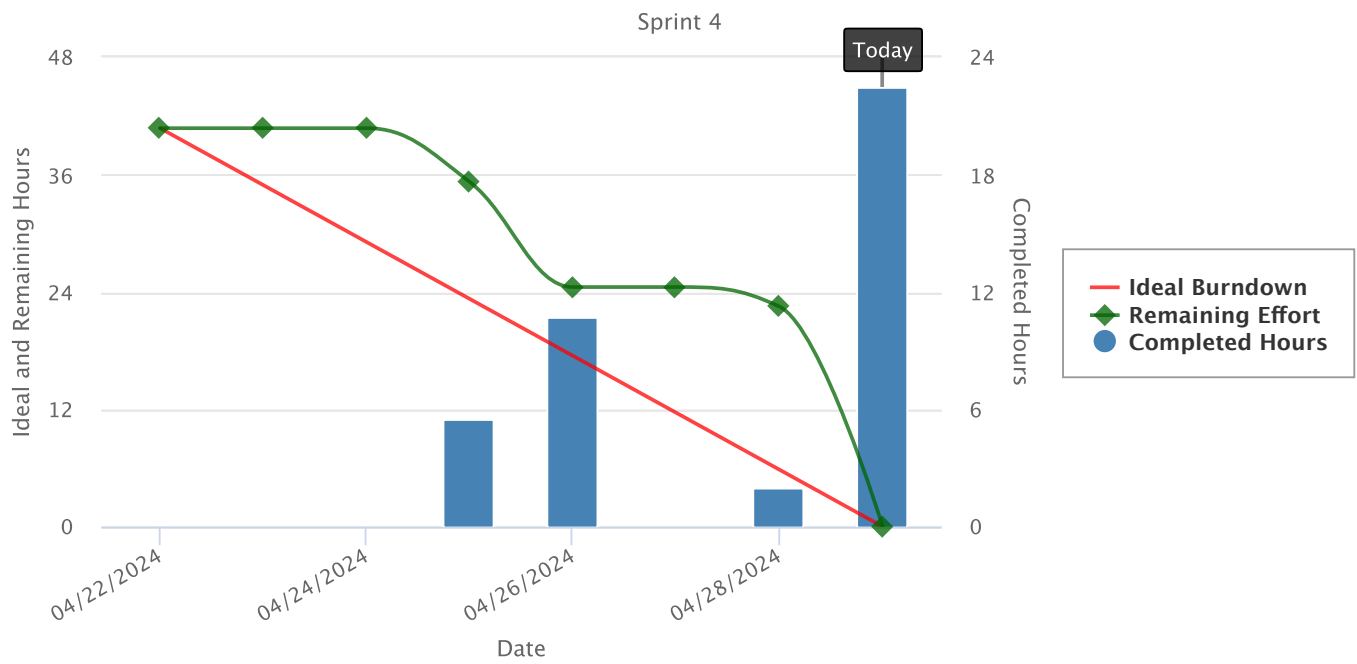
What could be improved?

We could possibly add more games of Connections. Given our set up, all this would take is some additional brainstorming.

If you were to continue the project, what would you improve on in the next sprint?

In our next sprint we would look for addition User Stories that could improve gameplay.

Sprint Burndown Chart



Personas



Armando Nelson

Quote

I love brain teasers and online word games that are challenging and make me think!

Narrative

Armando is a middle-aged father. He enjoys starting his morning with puzzles such as the crossword in his local newspaper. Armando is moderately tech-savvy, fully capable of using simple websites. He doesn't play many games on his computer, but isn't opposed to it.



Raphaël Robin

Quote

Back in my day, the crossword was on paper! Phones are rotting everyone's brain!

Narrative

Raphaël is not very tech-savvy; his computer skills are limited to clicking on websites. He doesn't mind the idea of computer games, but finds it frustrating when the interface is not obvious.



Alf Bendixen

Quote

like playing phone games, and spend lots of time on social media.

Narrative

Alf is young and grew up with the internet and phones. Lots of his friends play games such as the NYT mini crossword, and the Wordle. He isn't crazy about these types of games, but plays them everyday out of habit.

Table of Work

Showing 1 to 42 of 42 entries

Search:

| Title | Type | Est. | Spent |
|---|----------------|------------|-----------|
| Closed (42) | | 84 h, 50 m | 0 |
| Sprint 1 (6) | | 7 h, 35 m | 7 h, 35 m |
| Brainstorm Connections (categories in different difficulties) | Design Need | 2 h | 2 h |
| Class Diagrams | Documentation | 2 h, 30 m | 2 h, 30 m |
| Create Basic Java Files Following MVC Framework | Technical Task | 1 h | 1 h |
| Create CRC Cards | Documentation | 45 m | 45 m |
| Mock Up User Interface | Design Need | 1 h | 1 h |
| Set up README | Documentation | 20 m | 20 m |
| Sprint 2 (9) | | 14 h | 14 h |
| Create UML State diagram | Design Need | 1 h | 1 h |
| Create use case diagram | Design Need | 30 m | 30 m |

| Title | Type | Est. | Spent |
|---|----------------|------------|------------|
| Create View class and set up Home Screen window | Technical Task | 2 h | 2 h |
| Set up the ConnectionsMain class to initialize the windows | Technical Task | 1 h | 1 h |
| Shuffle method implemented | Technical Task | 30 m | 30 m |
| Write and Test Board Class | Technical Task | 3 h | 3 h |
| Write and Test ConnectionsGridMaker | Technical Task | 1 h | 1 h |
| Write and Test ConnectionsModel class | Technical Task | 4 h | 4 h |
| Write and Test Tile Class | Technical Task | 1 h | 1 h |
| Sprint 3 (11) | | 22 h, 30 m | 22 h, 30 m |
| Add buttons and labels to View class for home screen | Technical Task | 2 h | 2 h |
| Controller class: make bindings for home screen | Technical Task | 1 h | 1 h |
| Controller class: Make controls for actual Connections game | Technical Task | 3 h | 3 h |
| Edit Board test class | Technical Task | 30 m | 30 m |
| Edit Logic According to View and Controller | Technical Task | 3 h | 3 h |
| Highlight Words When Selected | User Story | 2 h | 2 h |
| Learn how to incorporate two screens in JavaFx | Spike | 4 h | 4 h |
| Make Connections View | Technical Task | 2 h | 2 h |
| Make Levels Clickable | User Story | 2 h | 2 h |
| Quick feedback after guess | User Story | 1 h | 1 h |
| Styling for the game screen | Design Need | 2 h | 2 h |
| Sprint 4 (15) | | 40 h, 45 m | 40 h, 45 m |
| Add go back button | Technical Task | 1 h | 1 h |
| Add Guesses remaining | Technical Task | 1 h | 1 h |
| Add losing screen | Design Need | 1 h | 1 h |
| Add shuffle method | Technical Task | 2 h | 2 h |
| Clean up all code | Technical Task | 6 h | 6 h |
| Create Design Manual | Design Need | 4 h | 4 h |
| Create User Manual | Documentation | 4 h | 4 h |
| Debugging and commenting | Technical Task | 1 h | 1 h |
| Finalize Unit Tests | Technical Task | 2 h | 2 h |

| Title | Type | Est. | Spent |
|--|----------------|------|-------|
| Finish README | Documentation | 45 m | 45 m |
| Finish User Manual | Documentation | 2 h | 2 h |
| Refactor for efficiency | Technical Task | 5 h | 5 h |
| Reformat category when guessed correctly | Technical Task | 2 h | 2 h |
| Simplify Board class to fit more cohesively with GUI | Technical Task | 4 h | 4 h |
| Styling and formatting | Design Need | 5 h | 5 h |
| Backlog (1) | | 0 | 0 |
| XXX | Technical Task | 0 | 0 |

Daily Scrum

Daily Scrum Notes

4/8/24 Jonas updated the ReadME file, Mikey, Casey and Owen have brainstormed and developed some of the connections categories we will use.

Casey is going to begin developing our UML Class diagram, Jonas is going to work on CRC cards and Mikey is going to make more connections categories so they are ready to go when we are going to start coding. Owen is going to set up basic java packages and set up the infrastructure.

No huge challenges so far, at first we had trouble finding times to meet but we have figured it out for the most part and feel that we have made progress and are getting the plan down.

4/9/24

Jonas made the CRC cards and Casey made the UML class diagram and also made the mock-up user interface, Mikey and Owen continued brainstorming the connections ideas

Mikey is going to continue brainstorming the connections games, Casey is going to now make the packages and basic Java classes and infrastructure

No huge challenges since yesterday everything is going smoothly, just getting the groove of waiting for someone to complete a task so that you can move on and work off that and get used to the work flow has been interesting but it is going well

4/10/24

Mikey is finalizing connections games, Owen made the package structure in IntelliJ, Casey created the mockup user interface and began planning out the coding

Casey is going to start coding, Jonas is going to make the Use Case diagram and Owen is going to make a state diagram, Mikey will begin planning out and coding our tile class

No huge challenges, communication has been going well

4/11/24

Jonas made the use case diagram and Owen made the state diagram as well as creating the classes and skeleton methods for a lot of our other classes. Casey made the Board, Tile, and GridMaker classes. Mikey began planning the level difficulties and the intricacies of the connections games.

Jonas is going to work on creating the initial window and GUI to display something, Owen is going to work on the shuffle method for the tiles on the connections game board, Casey is going to finish the ConnectionsModel class

No big challenges, just understanding everyones code and seeing what other people did but team members are good about commenting

4/12/24

Jonas worked on the ConnectionsMain and ConnectionsView classes, now there is an initial window that is displayed showing the home screen and has buttons for choosing difficulty, also a CSS file was set up for styling, Owen completed the shuffle method for shuffling tiles on the connections board upon user requests. Casey finished the ConnectionsModel class. Mikey finished all connections games that will be playable.

4/13/24

We all begun to work on the buttons and had to write unit tests. Casey wrote unit tests for Tile, Owen wrote unit tests for Board, Mikey wrote unit tests for the interface. Jonas continued to work on the view class. We are pretty much all finished with work for this sprint.

4/14/24

Casey and Owen rewrote adjustBoard method because it did not work as we intended. Mikey and Jonas continued working on View class. We planned out the style of the game. This meeting was relatively short because we had completed all assigned work for the Sprint.

4/15/24

We all completed the Sprint review and planned out our next Sprint. We decided that we want a functional game by the end of the Sprint. The immediate goal was to figure out how to introduce a new screen when clicking on a specific game mode. Jonas decided he would spearhead that effort. Everyone else decided to keep working on the View class.

4/16/24

Jonas continued looking into ways we could have two screens. Mikey and Owen continued working on View class, Casey rewrote a adjustBoard again. We all started working on the controller class. Casey decided he wants to work on the bindings next class.

4/17/24

Owen rewrote checkSelected to give feedback based on whether the user was one off or not. Jonas and Mikey figured out how to make the buttons link to new screens. Casey rewrote unit tests based on changed methods. We all discussed changing the model to better fit playing the game.

4/18/24

Jonas worked on style and View class. Casey worked on Bindings for Controller class. Owen and Mikey implemented the buttons on the new screens. We all discussed figuring out how to play the game and gave adequate feedback.

4/19/24

Casey worked on bindings for the controller class again. Jonas worked on the style and View class again. Owen worked on the main class. Mikey began writing more unit tests for the changed methods to ensure they work for edge cases we didn't consider.

4/20/24

We now have a functional game where you can go to a new screen with new buttons, unfortunately pressing the buttons is not working very well right now. We all debugged and made progress in the buttons.

4/21/24

We all worked on how to make the game playable for the user. We are a little bit behind right now but we expect to make a very large push today and tomorrow on functionality since Casey has been sick, Mikey had a big week of baseball, and Jonas and Owen have been busy with other work. We will continue to work on the playability today.

4/22/24 Made all categories appear on the screen once guessed correctly. Casey and Mikey worked on this. Jonas and Owen continued to work on styling and fixing formatting. Next we are going to account for bugs when losing or guessing in different orders, as well as adding other functional buttons to the game play screen

4/23/24 The shuffle method was finished, working correctly just needing to be implemented in all aspects of the game. Owen and Jonas began working on refactoring and cleaning up some of the view class. Mikey focused on debugging. Next we are going to finish implementing the working buttons and creating a go back feature so a player can continue to play the game over and over in the same window.

4/24/24 Jonas and Mikey began to work on the final documentation like the Design Manual and User Manual and mapping it out. Casey successfully made the go back button and got it to take us back to the home screen, there is a slight snag in that you cannot go back into the game once you go back to the main menu. Owen worked on potentially adding an image category to our connections game.

4/25/24 Casey fixed the go back button so that it now works, there was an issue with the size of the window when you first went back but Jonas was able to help him figure it out. Owen successfully implemented a picture version of our connections game, adding another option for the user to play. Mikey refactored some code and consolidated some repeated code into new methods.

4/26/24 The game was finished today by everybody, The go-back and shuffle button both fully work thanks to Casey and Owen added red balls on the screen to show how many guesses the user has left. Owen also added text to the game-play screen to tell the user when they won or lost and to also tell them if they were one away from getting a category right just like real connections. Jonas moved all possible styling out of the view class and into a CSS file. He also solved our spacing problem on the grid when one of our columns was much wider than another. Mikey fixed the formatting problem specific with the balls, the balls were too large and Mikey shrunk them and changed the column span on a few things to make it look good. The team finalized the winning and losing screens, deciding to not show the user all the answers when they lost to keep playability so they can go back and try again.