

# Project Summary

## csci205\_final\_project

### Project Details

#### Members

- Jason Chung
- Mateo Herrera
- Miguel Romero
- Mike Merola

#### Project Retrospective

##### What was your initial goal?

To create the base game 2048

##### What did you achieve?

we create a game similar to the game 2048

##### What went well in the project?

time management, each sprint goal was achievable

##### What could be improved?

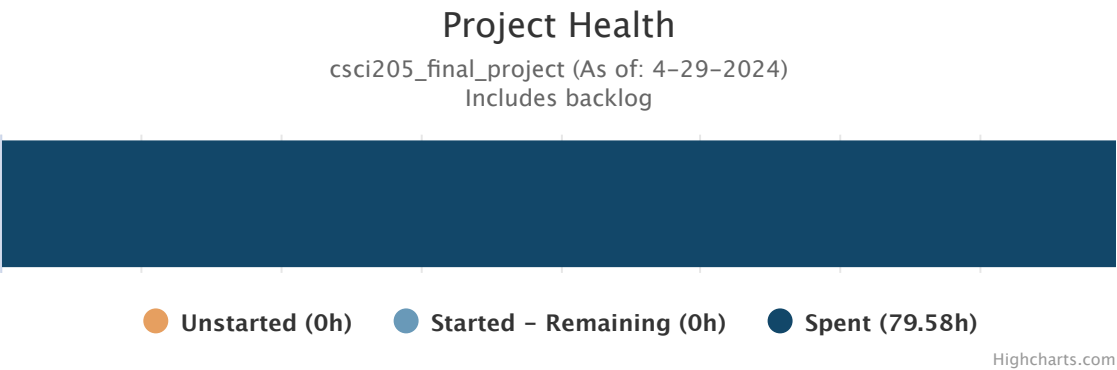
Thought we had enough time to add more features from user personas

##### What would you change if you did the project again?

put more time into sprint one

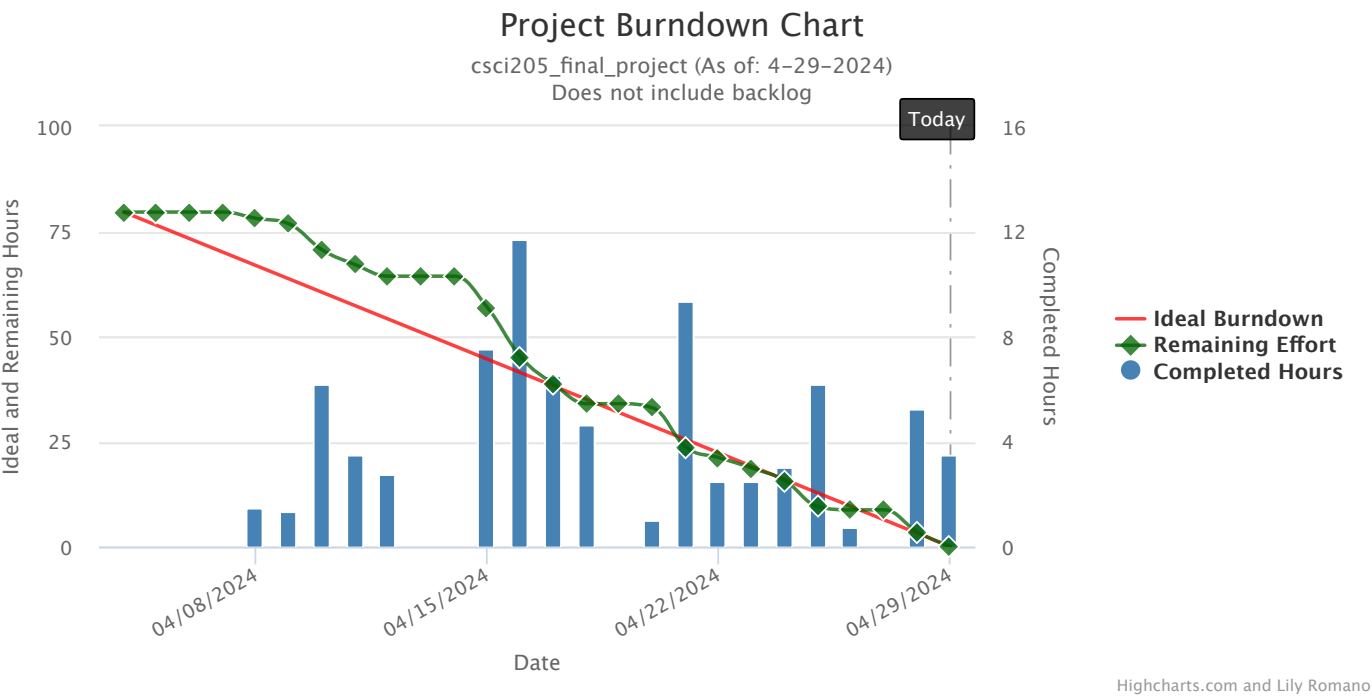
# Charts

## Health Bar



We were able to complete all of our tasks in the end. We did have to split work between sprints but eventually achieved our goal

## Burndown Chart

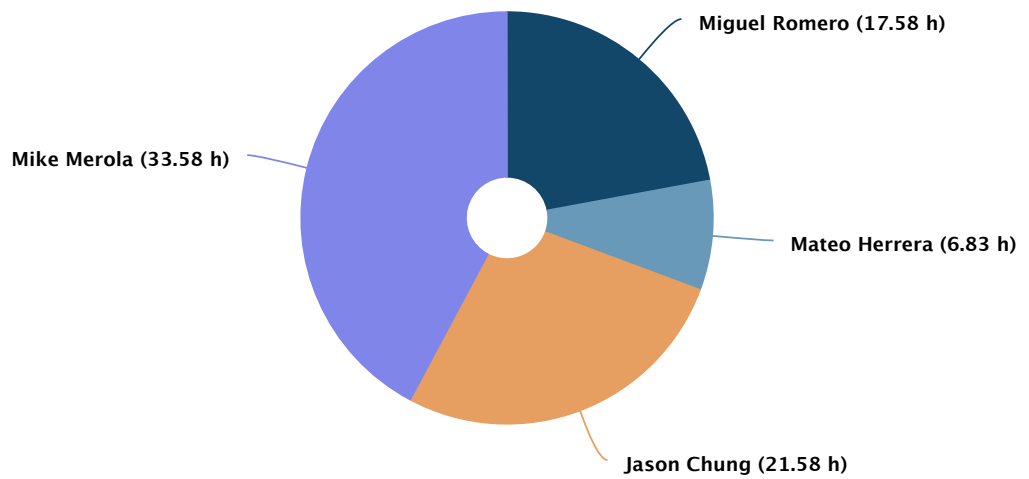


The chart shows how we didn't spend enough time at the beginning of the project but towards the end we were on track and dedicated more time to our project.

## Assignee Chart

Project Hours assigned vs. completed

csci205\_final\_project (As of: 4-29-2024)  
Does not include backlog



Highcharts.com and Lily Romano

The above chart shows our logged time, some team members forgot to log time so it isn't fully accurate of time spent.

Name	User Stories	Bugs	Tech. Tasks	Design Tasks	Spikes	Doc.
Jason Chung	0	0	13	0	5.75	2.83
Mateo Herrera	0	0	0	0	4.67	2.17
Miguel Romero	0	0	15.75	0	0	1.83
Mike Merola	0	0	22.75	0	3.67	7.17

Sprints

Sprint 1

Dates: 4-4-2024 to 4-10-2024

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

We got our CRC and UML and one of us was able to finish lab 11.

**What could be improved?**

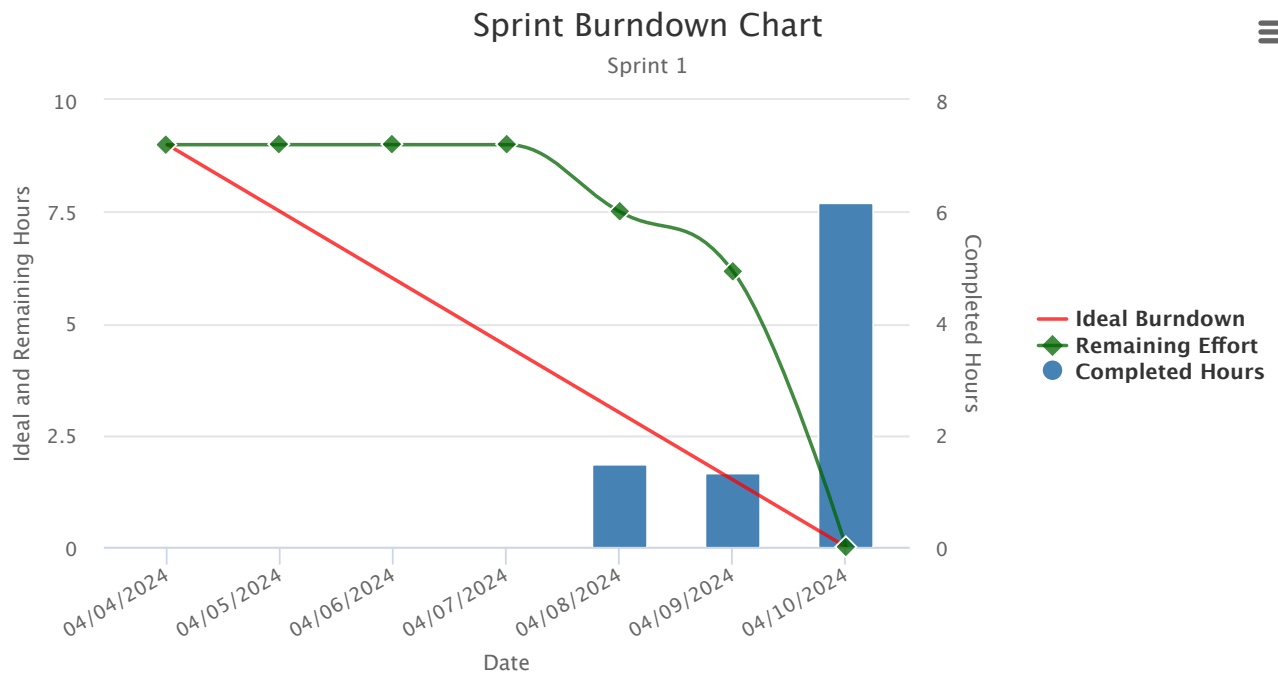
Jason could spend more time on lab 11

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

We are not currently on track. We will continue and implement the logic as soon as possible.

**What will you improve on in the next sprint?**

Work on the logic behind the 2048 game and be able to finish all the task before the next sprint



## Sprint 2

**Dates:** 4-10-2024 to 4-15-2024

**Goal:** Complete the logic behind the 2048 game

Review:

What went well in the sprint?

Able to start coding

What could be improved?

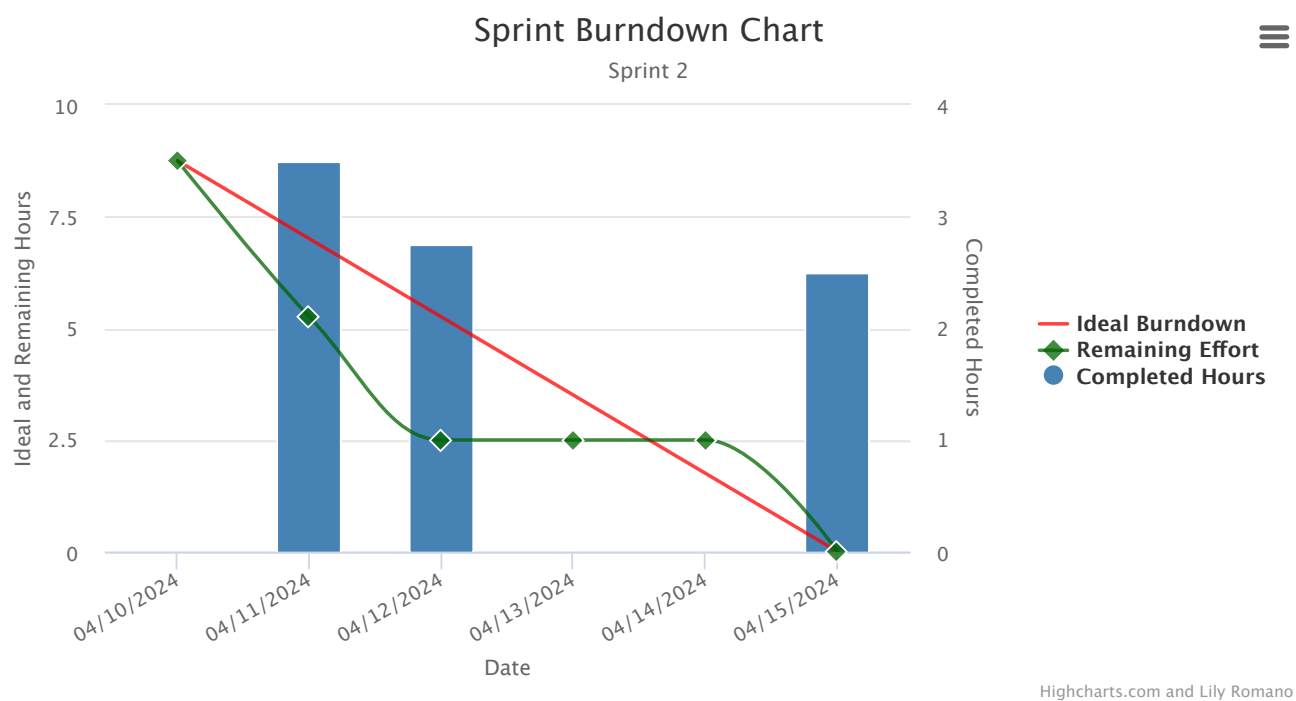
Time spent efficiently

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

We are a little behind but should catch up this sprint

What will you improve on in the next sprint?

delegation of tasks and creating more tasks



## Sprint 3

Dates:

4-15-2024 to 4-22-2024

Goal:

Our goal is to finish the logic behind the game and have a semi-functional model developed

Review:

What went well in the sprint?  
We got most of the base game on the console done.

What could be improved?

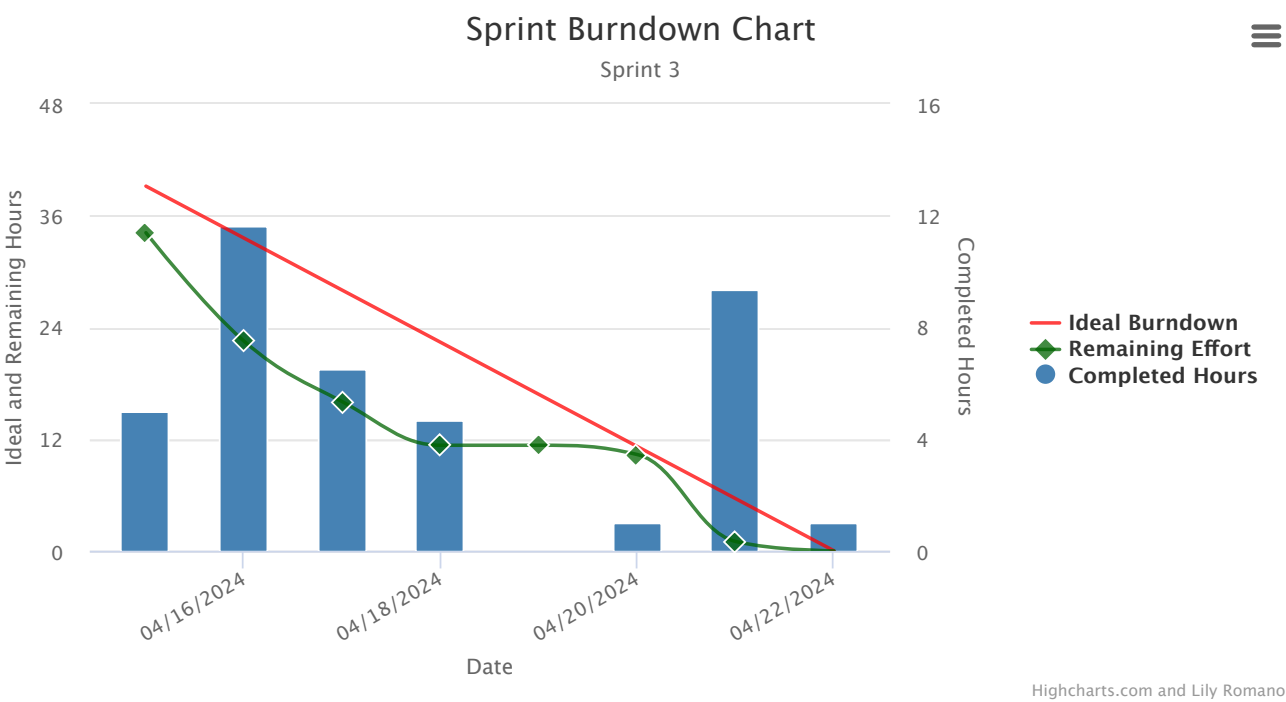
We need to do JavaFX/Scenebuilder and JavaDocs, Refactoring, and updating UML Diagram

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

We are on track. We just need to do Scenebuilder.

What will you improve on in the next sprint?

Distributing more work out.



Sprint 4

Dates:

4-22-2024 to 4-29-2024

Goal:

We want to implement the game to Scenebuilder

Review:

What went well in the sprint?

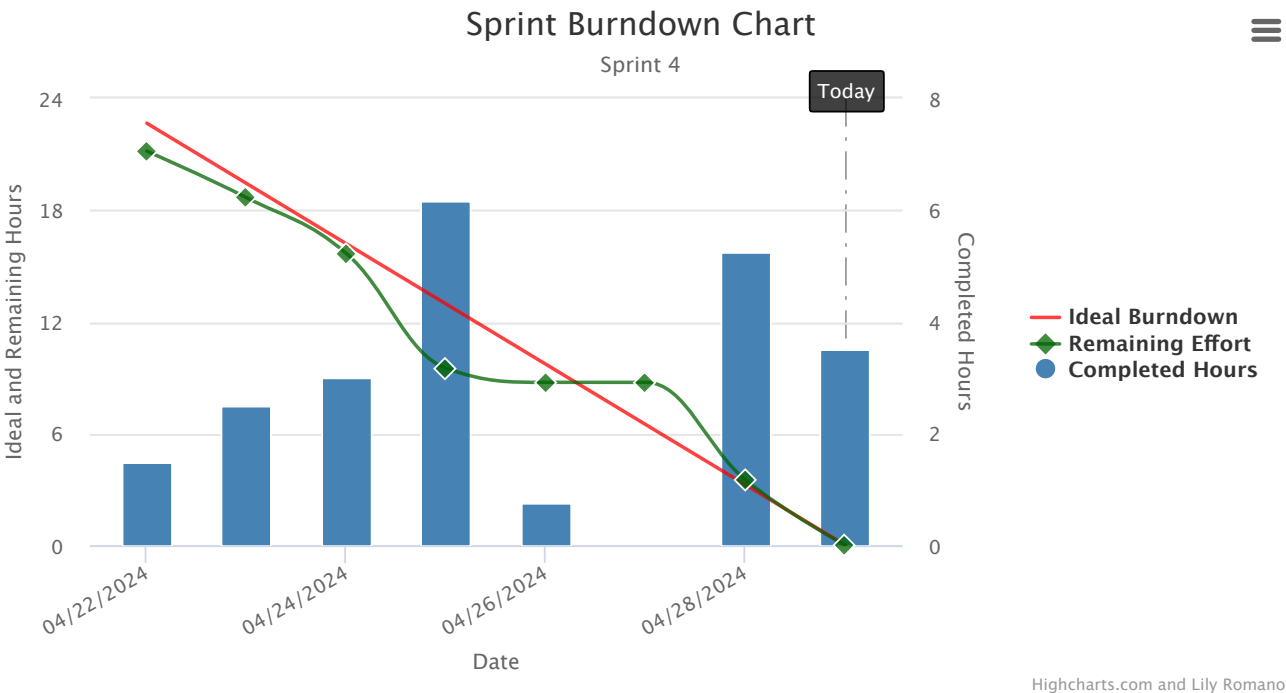
Achieved our goals and completed the game

What could be improved?

N/A

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

Add more features



# Personas



Mason White



William

## Quote

My favorite games to play are number games such as Sudoku.

## Narrative

Mason likes to play games that challenge him by allowing for him to minimize the number of errors in order to win. Each game has a score which indicates the number of moves taken to solve for 2048.

## Mortensen

### Quote

I want to play with a bigger board

### Narrative

Some users would like an easier version of the game



## Jayden Brar

### Quote

I want to play a harder version of 2048

### Narrative

Jayden wants to play a version of 2048 that only wins if it's 4096 or other powers of 2.





Froukje Regeling

Quote

I love to compete with my friends in puzzle games.

Narrative

Froukje has competitive personality when playing games against her friends. 2048 allows for the user to save their best score(number of moves) in solving for 2048.

Table of Work

Showing 1 to 42 of 42 entries

Search:

Title	Type	Est.	Spent
Closed (40)		79 h, 35 m	0
Sprint 1 (3)		9 h	9 h
Do Lab 11	Spike	6 h, 10 m	6 h, 10 m
Finish Class Diagrams	Documentation	1 h, 20 m	1 h, 20 m
Finish CRC Cards	Documentation	1 h, 30 m	1 h, 30 m
Sprint 2 (5)		8 h, 45 m	8 h, 45 m

Combining	Technical Task	30 m	30 m
Complete Board	Technical Task	1 h, 30 m	1 h, 30 m
Do Lab 11	Spike	2 h, 45 m	2 h, 45 m
Generate Number Squares	Technical Task	1 h	1 h
Movement	Technical Task	3 h	3 h
Sprint 3 (15)		39 h, 10 m	0
Add Java Docs	Documentation	1 h, 50 m	1 h, 50 m
Combining	Technical Task	0	0
Combining	Technical Task	3 h	3 h
Create Game Manager	Technical Task	3 h, 40 m	3 h, 40 m
Do Lab 11	Spike	5 h, 10 m	5 h, 10 m
Event handlers	Technical Task	2 h, 30 m	2 h, 30 m
JavaFX Controller	Technical Task	10 h	10 h
JavaFX model	Technical Task	30 m	30 m
JavaFX View	Technical Task	0	0
Key listeners	Technical Task	0	0
Scene builder	Technical Task	2 h, 30 m	2 h, 30 m
Unit test Movement	Technical Task	3 h	3 h
Unit tests Combining	Technical Task	6 h	6 h
Unit tests Generate Tile	Technical Task	1 h	1 h
Update UML Diagram	Documentation	0	0
Sprint 4 (13)		22 h, 40 m	0
Add Java Docs	Documentation	1 h	1 h
Add Movement to Event Handler	Technical Task	0	0
Add Scrum Report to Branch (DO LAST)	Documentation	0	0
Add When to Generate New Tiles in GameManager	Technical Task	1 h, 50 m	1 h, 50 m

Event handlers	Technical Task	7 h, 30 m	7 h, 30 m
Finish ReadMe	Documentation	1 h, 30 m	1 h, 30 m
JavaFX model	Technical Task	2 h	2 h
Make Design Manual	Documentation	2 h, 30 m	2 h, 30 m
Make Gradlew work	Technical Task	30 m	30 m
Make User Manual	Documentation	1 h, 30 m	1 h, 30 m
Refactoring, Clean Up, Documentation	Technical Task	30 m	30 m
Unit tests Generate Tile	Technical Task	1 h	1 h
Update UML Diagram	Documentation	2 h, 50 m	2 h, 50 m
Backlog (4)		0	0
Bug fixes	Technical Task	0	0
Combining	Technical Task	0	0
Move Movement and Combining to Board class	Technical Task	0	0
Refactoring	Technical Task	0	0
Opened (2)		0	0
Backlog (2)		0	0
Design Manual	Documentation	0	0
User Manual	Documentation	0	0

Daily Scrum

# Daily Scrum Notes

4/26/2024

Jason

- N/A
- ReadMe
- What to talk about for what the project is Mateo

- N/A
- updating UML
- Figuring out the type of relationship the classes have to each other Mike -Wrote most of the user manual and popups for winning and losing -finishing the user manual -N/a Miguel
- n/A
- combining game manager and FXXMLMain
- trying to figure out how to combine with good software development

4/25/2024

Jason

- Added Java docs
- Maybe do some Documentations
- N/A Miguel
- Binded tiles to be observable
- Connect GameManager and JavaFXML
- Deciding where to place it Mike
- Binded tiles to be observable
- JavaFXML Controller
- N/A

4/24/2024

Jason

- FXXML Controller
- Updating GameManager
- N/A Miguel
- FXXML Controller
- Allow Controller read key inputs
- N/A Mike
- FXXML Controller
- Update score
- N/A

4/22/2024

Jason

- Sprint Ceremony
- Updating GameManager and Refactoring, Cleaning Up, and Documentation
- N/A Mike

- Sprint Ceremony
- Event Handler
- Implementing Movement to Event Handler Miguel
- Sprint Ceremony
- Event Handler with Mike
- Implementing Movement to Event Handler Mateo
- Sprint Ceremony
- Updating UML Diagram
- N/A

4/19/2024

Jason

- Thought of a way to check when the player lost
- Implementing the lost checker
- N/A Mike
- Beginning to understand observable values
- binding values to labels
- implementing observable values

4/18/2024

Jason

- GameManager win check
- GameManager lose check
- Finding a way to check for no more movements possible Miguel
- Started learning scene builder
- Learning scene builder through lab 11
- Trying to help the scene builder with no knowledge on it Mike -Initializing bindings - Getting bindings to work Getting bindings to bind to the correct array value

4/12/2025

Miguel -Worked on merging all work together and consolidating code -Logic for the game -git merge Mike -Worked on merging all work together and consolidating code - Logic for the game -git merge Jason

- Lab 11 Exercise 2 -Lab 11 Exercise 3
- Organizing buttons in a VBox

4/10/2024

Miguel -Worked on UML diagram implementing a MVC approach

- N/A
- visualizing how the MVC would work in the UML diagram Jason
- Part of lab 11
- Lab 11
- N/A Mike
- Worked on UML diagram and lab 11
- Lab 11
- Catching up Mateo -Started Lab 11 -Lab 11 -N/A

#### 4/11/2024

Mateo -Finished half of lab 11 -lab 11 -N/A Miguel -Completed spring ceremony -Working on sprint 2 -Figuring out what needs to get done for sprint 2 Jason

- Completed sprint ceremony
- Working on lab 11
- Getting through lab 11 details Mike -Completed sprint ceremony -finished lab 11 -figuring out how to start the new classes

#### 4/15/2024

Mateo -finished lab 11 -sprint 2 -understanding the how the particle works in animations Jason

- Sprint ceremony
- Lab 11
- Figuring out how to add buttons next to each other in VBox Mike
- Sprint ceremony
- Setting up Scenebuilder
- N/A

#### 4/17/2024

Jason

- Finished lab 11
- Combining Movement and Combining to Board class
- Understanding the logic Mike
- Worked on the Scene builder
- Setting up the controller and adding values to the gridpane
- understanding gridpane Mateo -Finalized lab 11 -working on event handler - understanding all the events