

Project Summary

csci205_final_project

Project Details

Members

- Alexa Andron
- Charlie Zukauskas
- Trevor Lamb
- William Chastain

Project Retrospective

What was your initial goal?

To recreate the DoodleJump game to the best of our ability.

What did you achieve?

We did this, minus a couple a minor features (including sound cues and fully accurate physics, although we came close).

What went well in the project?

Our team worked well together and we organized ourselves well and accomplished our stated goals.

What could be improved?

We can improve the physics and level generation to better and more accurately recreate the game.

What would you change if you did the project again?

We would make it look better.

Charts

Health Bar

Project Health

csci205_final_project (As of: 5-5-2025)
Includes backlog

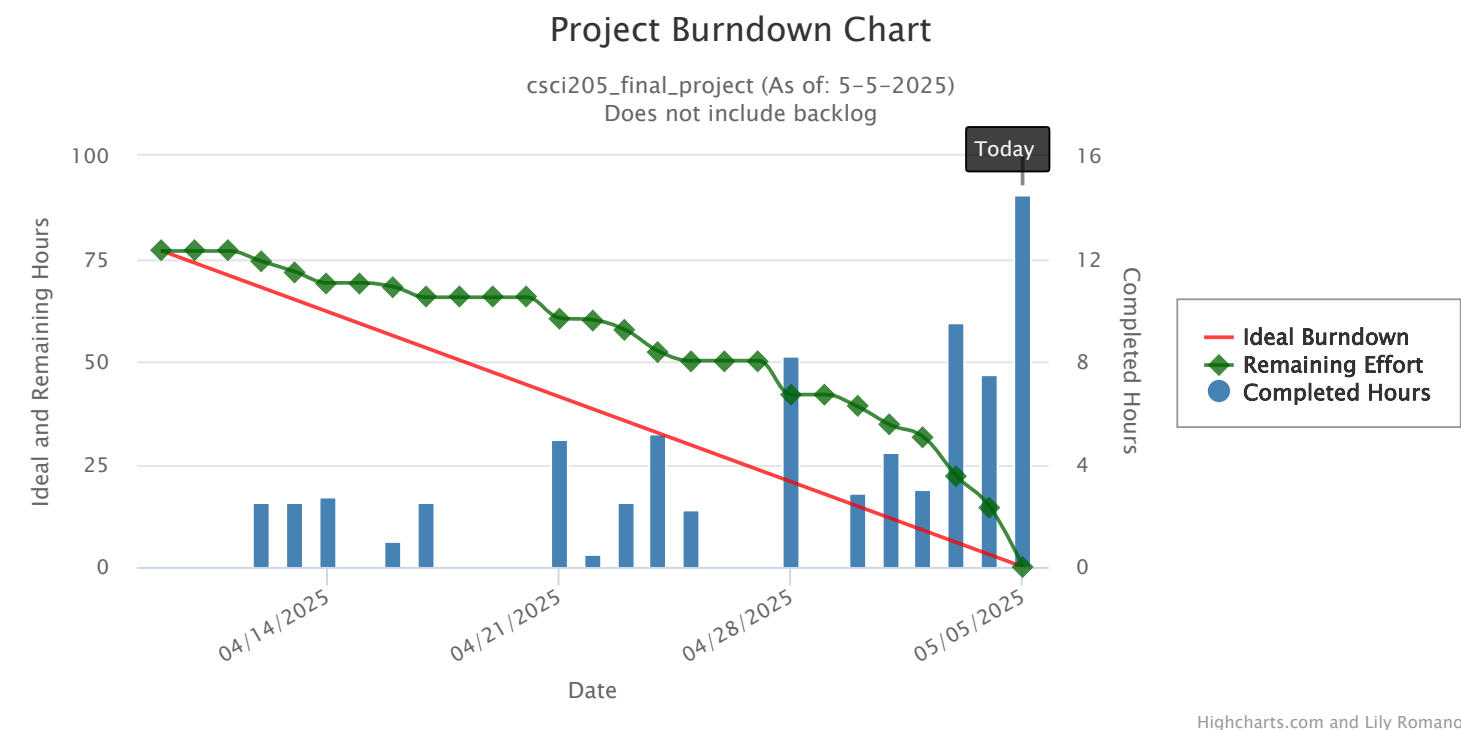


● Unstarted (0h) ● Started - Remaining (0h) ● Spent (76.83h)

Highcharts.com

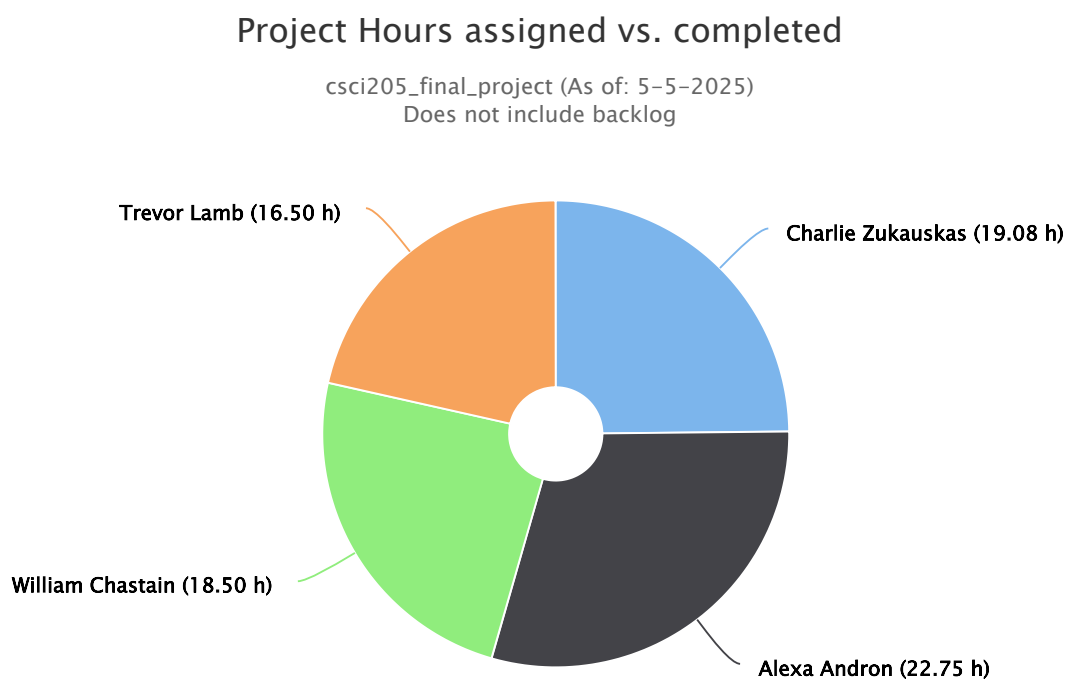
This chart demonstrates that we collectively put in roughly 80 hours of work towards this project. We may not have hit 12 hours a week, but we were honest about our time.

Burndown Chart



Our burndown chart reflects that we completed this project in chunks instead of continuously working on it. This results in large drops, but an overall downward trend that still follows the general direction of the ideal line.

Assignee Chart



This chart demonstrates the cohesive effort of our group. No one did substantially more work than anyone else, and that reflects our team's attitude towards accountability and fairness.

| Name | User Stories | Bugs | Tech. Tasks | Design Tasks | Spikes | Doc. |
|-------------------|--------------|------|-------------|--------------|--------|------|
| Alexa Andron | 0 | 0 | 11.75 | 5 | 0 | 6 |
| Charlie Zukauskas | 0 | 0 | 11.58 | 2 | 0 | 5.5 |
| Trevor Lamb | 0 | 0 | 10.75 | 2.25 | 0 | 3.5 |
| William Chastain | 0 | 0 | 11 | 1 | 0 | 6.5 |

Sprints

Sprint 1

Dates:

4-9-2025 to 4-14-2025

Review:

What went well in the sprint?

During this first sprint, we were able to meet multiple times as a group and complete a first draft Class Diagram, State Diagram, Sequence Diagram, and CRC Cards. We were also able to collect our image files.

What could be improved?

We feel that we are in a good spot, however, we can improve on creating a weekly schedule prior to the start of the week, as compared to a day-by-day basis.

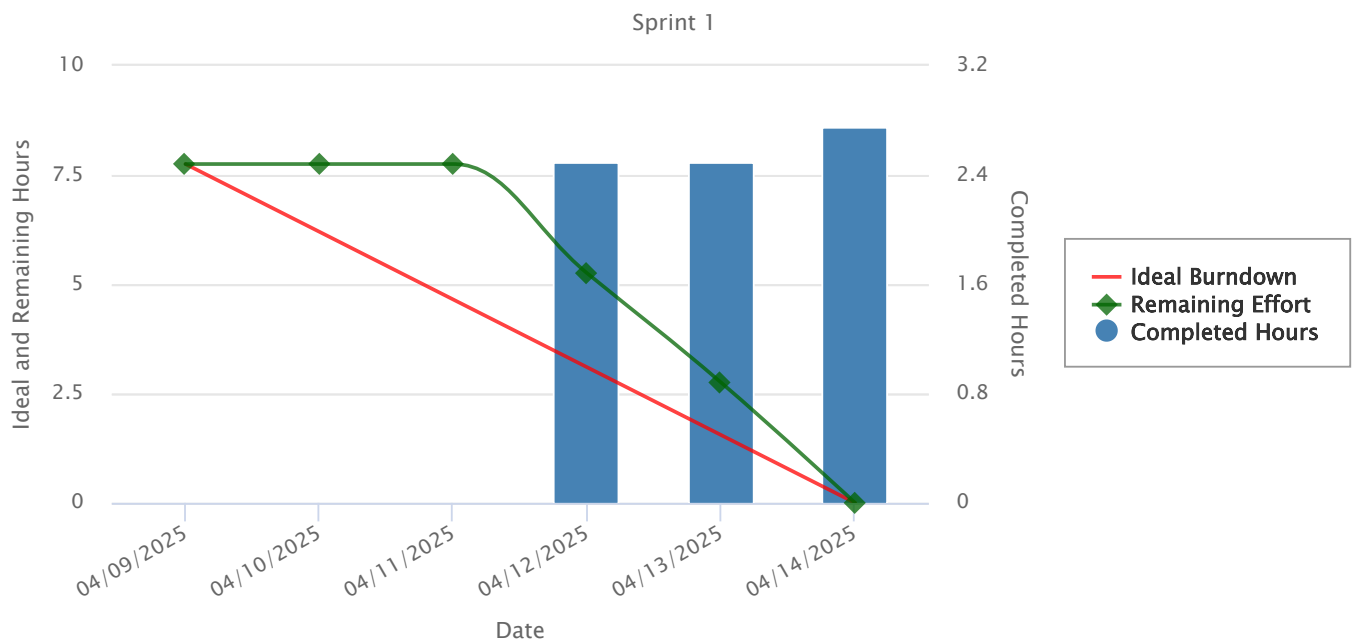
Are you on track? What is your plan if not?

Yes, we feel that we are in a good spot; we have created a layout for how we want our game to work and now we just need to build it!

What will you improve on in the next sprint?

In this next sprint, we would like to be more efficient with our time and meet more often.

Sprint Burndown Chart



Sprint 2

Dates:

4-14-2025 to 4-21-2025

Goal:

For this next sprint, we plan on building a functional game window and learning how to generate a chunk.

Review:

What went well in the sprint?

We divided up tasks well according to group members workloads, and we were able to get core functions of the game (gravity, bouncing, character movement) which sets us up well for our next sprint.

What could be improved?

Our schedules don't align well/don't allow us to meet up in person very often which could be improved.

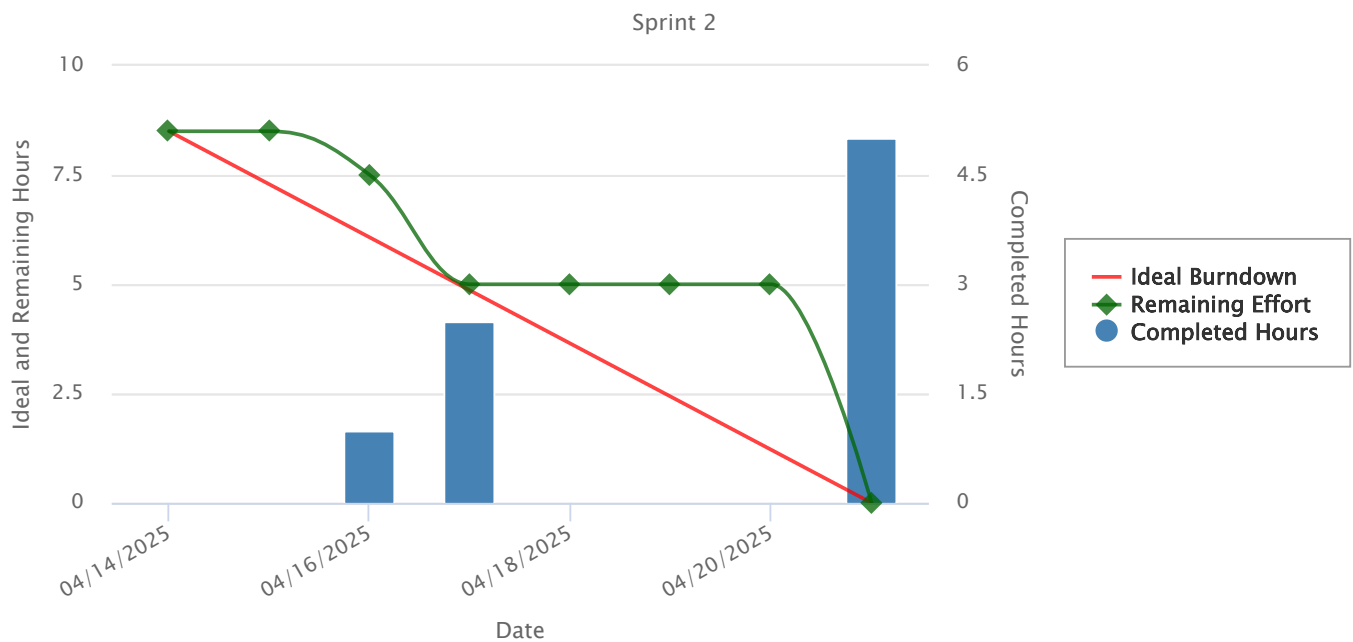
Are you on track? What is your plan if not?

Yes we are on track.

What will you improve on in the next sprint?

We will improve our communication and try to meet more often as a group.

Sprint Burndown Chart



Sprint 3

Dates:

4-21-2025 to 4-28-2025

Goal:

During this sprint we hope to integrate our Chunk and Platform classes in order to have the Doodle character interact with the background and move upward, generating new screens as it moves.

Review:

What went well in the sprint?

We made a lot of progress on the graphical interface and we finished the physics involved in the game motion. We also made progress on UI and implementation of the game's menu features and buttons.

What could be improved?

Communication on who is to complete what task could be improved.

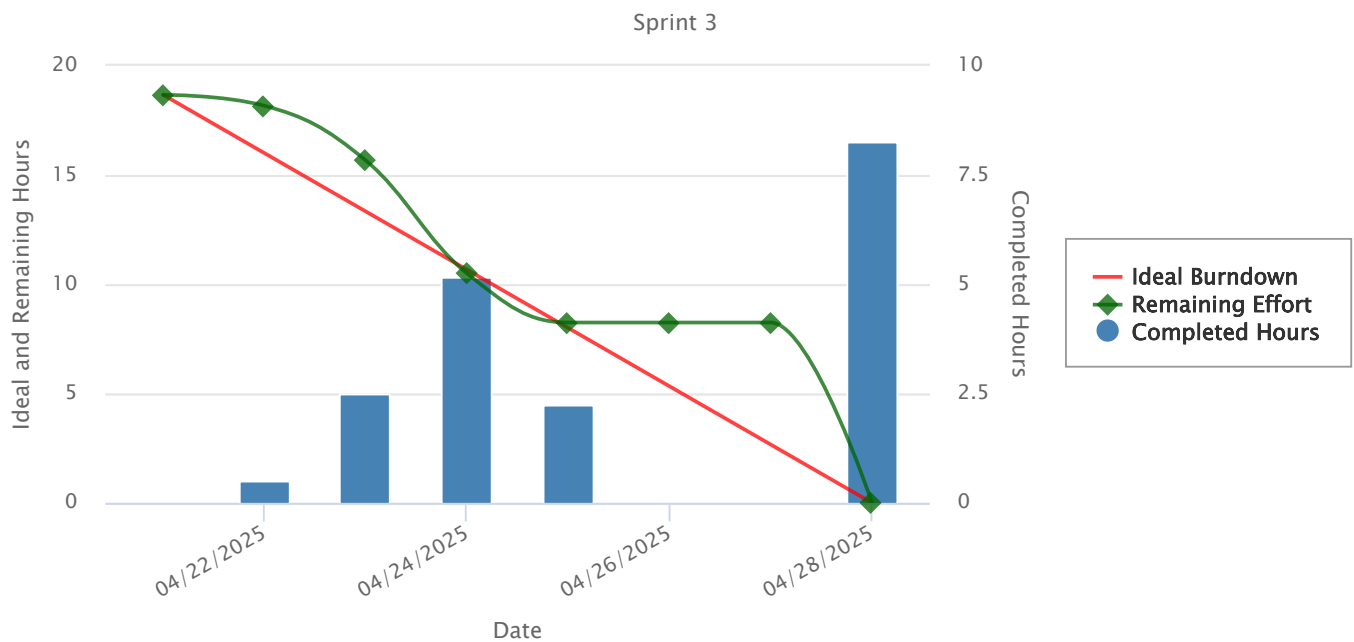
Are you on track? What is your plan if not?

Yes we are on track.

What will you improve on in the next sprint?

We will improve on consistent documentation.

Sprint Burndown Chart



Sprint 4

Dates:

4-28-2025 to 5-5-2025

Goal:

Our goal is to ensure our UMLs match what exists in the code and make sure all of our files are warning and error free.

Review:

What went well in the sprint?

The development of our project went really well. We worked well as a team and our organizational skills this sprint were on full display.

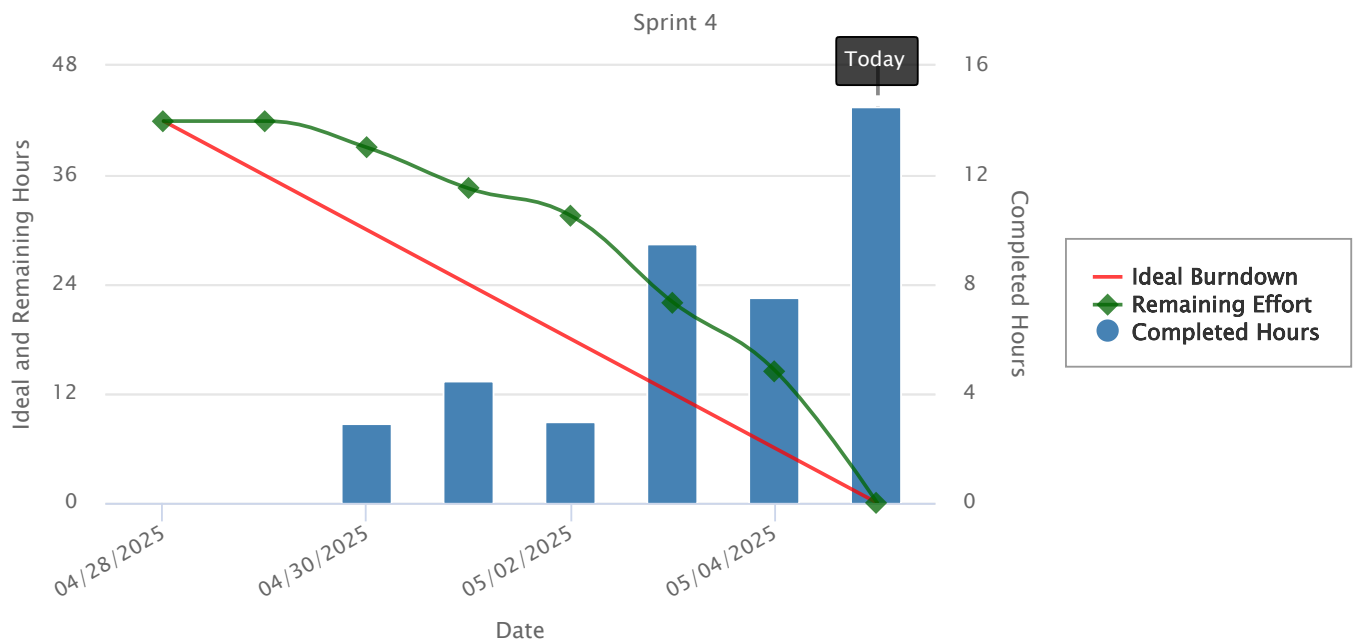
What could be improved?

Our time management was iffy, we did most of our work in massive chunks.

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

Scorekeeping and movement physics.

Sprint Burndown Chart



Personas



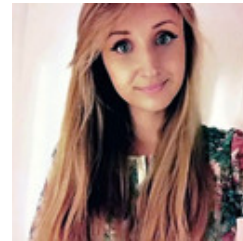
Nathaniel Mason

Quote

"To game is to be calm"

Narrative

enjoy playing video games casually that have an enjoyable user experience.



Isabella Wheeler

Quote

"I'm at the top of every leaderboard"

Narrative

I'm a competitive gamer but I also enjoy simple mobile games.

Table of Work

Showing 1 to 49 of 49 entries

Search:

| Title | Type | Est. | Spent |
|---|----------------|------------|------------|
| Closed (46) | | 76 h, 50 m | 76 h, 50 m |
| Sprint 1 (6) | | 7 h, 45 m | 7 h, 45 m |
| Add UMLs and CRCs to GitLab | Design Need | 15 m | 15 m |
| Collect Image Files | Design Need | 30 m | 30 m |
| Create a Class Diagram UML | Design Need | 3 h, 30 m | 3 h, 30 m |
| Create a State Diagram | Design Need | 1 h | 1 h |
| Create CRC cards | Design Need | 30 m | 30 m |
| Create Sequence Diagram UML | Design Need | 2 h | 2 h |
| Sprint 2 (10) | | 8 h, 30 m | 8 h, 30 m |
| Add start screen | Technical Task | 1 h | 1 h |
| Bouncing Logic | Technical Task | 30 m | 30 m |
| Character Movement | Technical Task | 1 h, 30 m | 1 h, 30 m |
| Create Chunkloader Class | Technical Task | 1 h | 1 h |
| Create Platform Class | Technical Task | 1 h, 30 m | 1 h, 30 m |
| Create User Window | Technical Task | 1 h | 1 h |
| Get character on screen | Technical Task | 30 m | 30 m |
| Get remaining image files | Design Need | 30 m | 30 m |
| Gravity Logic | Technical Task | 30 m | 30 m |
| Screen Wrapping Logic | Technical Task | 30 m | 30 m |
| Sprint 3 (16) | | 18 h, 40 m | 18 h, 40 m |
| Add obstacles and monsters to game screen | Design Need | 2 h | 2 h |
| Add score and make it show | Technical Task | 1 h | 1 h |
| Add start screen | Technical Task | 45 m | 45 m |
| Add stat screen | Technical Task | 45 m | 45 m |
| Create and implement SceneManager | Technical Task | 2 h, 30 m | 2 h, 30 m |
| Create ENUM | Technical Task | 45 m | 45 m |

| Title | Type | Est. | Spent |
|--|----------------|------------|------------|
| Create functioning buttons and death sequence | Technical Task | 1 h, 30 m | 1 h, 30 m |
| Create Obstacle and related classes | Technical Task | 1 h | 1 h |
| Drop chunks as they fall off the screen | Technical Task | 45 m | 45 m |
| Implement basic stat screen | Technical Task | 1 h | 1 h |
| Implement extra bounce platforms | Technical Task | 45 m | 45 m |
| Implement UI elements (background, buttons, etc.) | Technical Task | 1 h | 1 h |
| Implementing chunkloader smoothly | Technical Task | 2 h | 2 h |
| Incorporate Game States in game screen | Technical Task | 30 m | 30 m |
| Make doodle jump in front of platforms | Technical Task | 25 m | 25 m |
| Work on ending game when character falls out off of screen | Technical Task | 2 h | 2 h |
| Sprint 4 (14) | | 41 h, 55 m | 41 h, 55 m |
| Add Javadocs and Comments to all Code | Technical Task | 6 h | 6 h |
| Create Test Files | Technical Task | 3 h | 3 h |
| End game if doodle collides with monster | Technical Task | 25 m | 25 m |
| Finish write-up | Documentation | 3 h, 30 m | 3 h, 30 m |
| Fix doodle key press handler | Technical Task | 30 m | 30 m |
| Have doodle bounce on top of monsters | Technical Task | 30 m | 30 m |
| Have score show on stat screen | Technical Task | 4 h | 4 h |
| Make a difficulty stage system | Technical Task | 3 h | 3 h |
| Make Doodle Character Shoot Up At Start | Technical Task | 30 m | 30 m |
| Make User Manual | Documentation | 3 h | 3 h |
| Refactor collisions and start actions | Technical Task | 2 h | 2 h |
| Score Formatting | Technical Task | 30 m | 30 m |
| Update All UMLs | Documentation | 3 h | 3 h |
| Working on refactoring | Documentation | 12 h | 12 h |
| Trashed (3) | | 0 | 0 |

| Title | Type | Est. | Spent |
|---|----------------|------|-------|
| Backlog (3) | | 0 | 0 |
| Add obstacles and monsters to game screen | Design Need | 0 | 0 |
| Create User window | Technical Task | 0 | 0 |
| Refactoring setup in gameScreen | Technical Task | 0 | 0 |

Daily Scrum

Daily Scrum Notes

Monday, April 28, 2025 The team has gotten all the physics of the game working properly. All calculations (jumping, movement, key presses, etc.) that goes towards game functionality is now working great. The UI elements are coming together as well, with a main menu and stat screen, which has added a nice way to interact with the game. We're still working on getting the game deaths to work properly, and switch between the various screens in the game efficiently. We hope to have that all implemented by tonight, allowing for a nice spot to close out our 3rd sprint. Some challenges the team has noted is that our code is a bit messy. There's a lot of documentation that has been slipping the cracks, which we will need to include by the final deadline to keep everything in clear and logical order. Overall, we are in a good spot right now, and we are looking forward to finalizing our project during the next sprint.

Tuesday, April 29, 2025 The team has gotten the death screens to start working and is flipping between the menu screens. As such, the UI is starting to come together very nicely. Although these features have been implemented, we are looking to plan out the remaining features we'd like to add, and then figure out how much time to devote to refactoring and cleaning up all the code. One big challenge we will have to face is our busy upcoming weekend, which might be hard for all of us to navigate in order to get everything done.

Wednesday, April 30, 2025 The team has gotten rudimentary collisions with monsters, the score to be display on the main screen after the death, and difficulty tiers to occur. We've decided that tomorrow's lab will be the last attempt to get any loose ends in terms of functionality to get completed. This basically leaves the score on the main screen, and the generation of platforms/monsters in terms of difficulty to be completed by tomorrow. After that, we must work the rest of our time on refactoring and upholding good OOP.

Thursday, May 1, 2025 The team has finalized the generation of all items in the actual game, and the functionality of the game is now off limits. There are some more features and minor bugs that we would like to fix, but we are at a stage where we are more focused on having good OOP than a perfected game. The game now properly gets more difficult as the Doodle advances upwards, which generates more spaced out and less platforms, lowers the chance of bouncing platforms to appear, and raises the chance of encountering a monster. We are now focused on major refactoring, especially of the GameScreen class, as it is quite large (near 500 lines of code). Once we have the code error/warning free and really strong in terms of OOP, we will flip back to updating our UML diagrams, and finishing our overall documentation of the project.