Project Summary

csci205_final_project

Project Details

Members

- Aleena Sultan
- Khanh Cao
- Radley Le
- Sebastian Stewart

Project Retrospective

What was your initial goal?

To create a dungeon exploration type game where the user could fight enemies and find cool loot with the end goal being to fight a final boss

What did you achieve?

We achieved what we set out to do, to have a simple combat system that has enemies and boss to fight. We also achieved creating items for the player to interact with as well having multiple levels for the player to keep the game interesting.

What went well in the project?

We got all the work done. We also made sure to have an efficient system where we had people integrating other people's code into the larger system. We all had people working on different things to avoid too much overlap

What could be improved?

Following good scrum and agile practices. Since we were still new to this, we kept messing it up. We could also improve our time management since we spent a little too much time planning which caused us to be stressed going forward

What would you change if you did the project again?

How much time we spent planning since half of our time was spent on that. We would also change how big our scope is. Our original game was a bit too large for our scope. With more experience, it would have been a little easier.

Charts

Health Bar

Project Health
csci205_final_project (As of: 5-4-2025)
Includes backlog

🟠 Unstarted (0h)   🔵 Started – Remaining (0h)   🔵 Spent (138.5h)

Highcharts.com

Beautiful. This is what we hoped for, a full completed set of work which aligns with good Agile practices. We didn't have much work overlapping into the next sprints and we made sure to complete our scope in time. We have a fully functioning game at the end of the day. We didn't have any tasks that were unstarted or started but not complete. We somehow managed to finish out everything in time which is a relief.

Burndown Chart

Project Burndown Chart
csci205_final_project (As of: 5-4-2025)
Does not include backlog
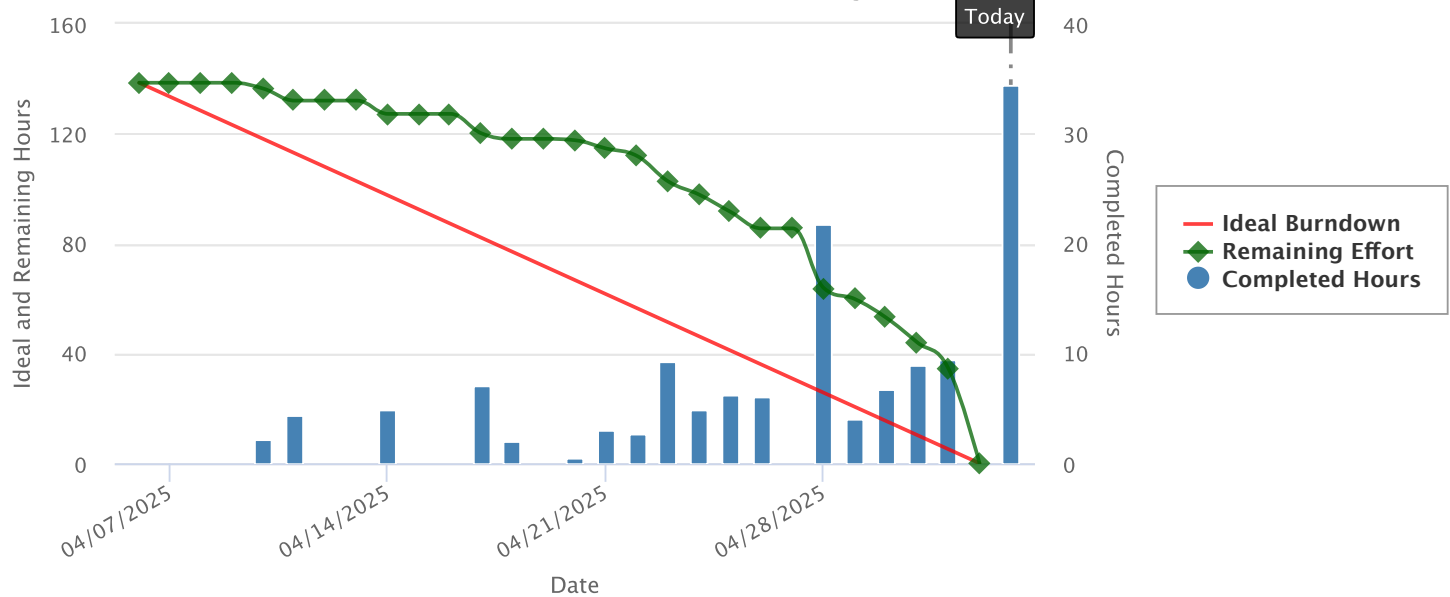
Highcharts.com and Lily Romano

We probably should have kept updating our time periodically. We kept waiting until the new week to update time and as you can see, there was a lot of remaining time at the end which we forgot to log. This is NOT good Agile practice and is something we should definitely improve upon. It would be best to continuously update our time. There are also some days where it seems like no work occurred. Again, this is an issue with us not logging our time for that day. Ideally, all the time would be spread out evenly over the whole project and not condensed into one day.

Assignee Chart

Project Hours assigned vs. completed

csci205_final_project (As of: 5-4-2025)
Does not include backlog
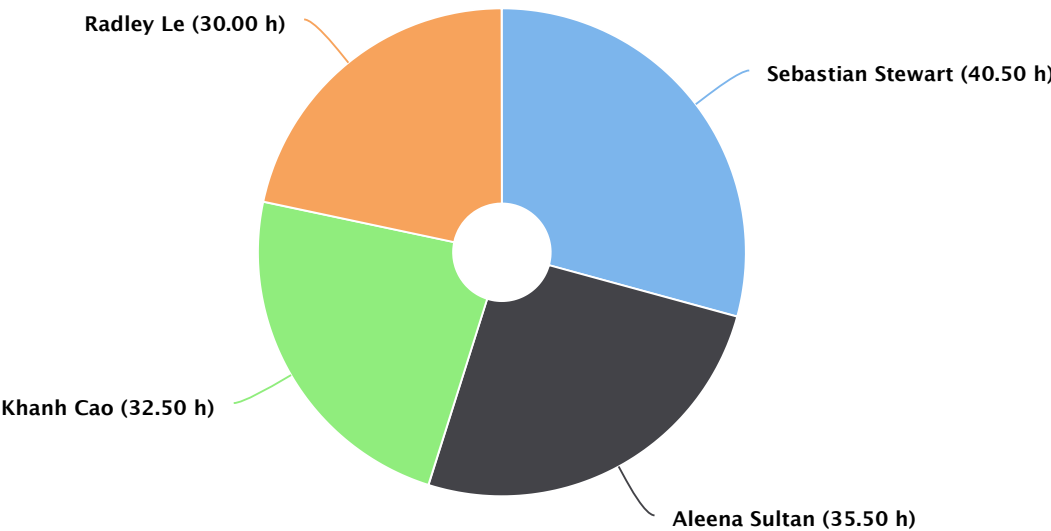
Highcharts.com and Lily Romano

We think the work was, for the most part, evenly distributed. Everyone had mostly worked on design tasks with all the other ones appearing as we continued the project. We were all committed to working together to ensure that everyone was fair and even. Some of the tasks were mixed up by type like technical tasks and design tasks.

Name	User Stories	Bugs	Tech. Tasks	Design Tasks	Spikes	Doc.
Aleena Sultan	2	0	17.25	12.5	1	2.75
Khanh Cao	3	0	6.5	20	0	3
Radley Le	0	0	5	11.67	5.33	8
Sebastian Stewart	1	1.83	7	23.17	3.42	4.08

Sprints

Sprint 1: Project Setup and Brainstorm

Dates:

4-6-2025 to 4-12-2025

Review:

What went well in the sprint?

A lot of planning for the project structure. Realized our scope was a little too big and have downsized the project's scope. We are beginning to work on basic game functionality

What could be improved?

UML diagrams, project/game structure, improve teamwork (more efficient communication and division of labor)

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

Yes

What will you improve on in the next sprint?

Better accountability. Time logging. Distribution of tasks

Sprint Burndown Chart
Sprint 1: Project Setup and Brainstorm

Highcharts.com and Lily Romano
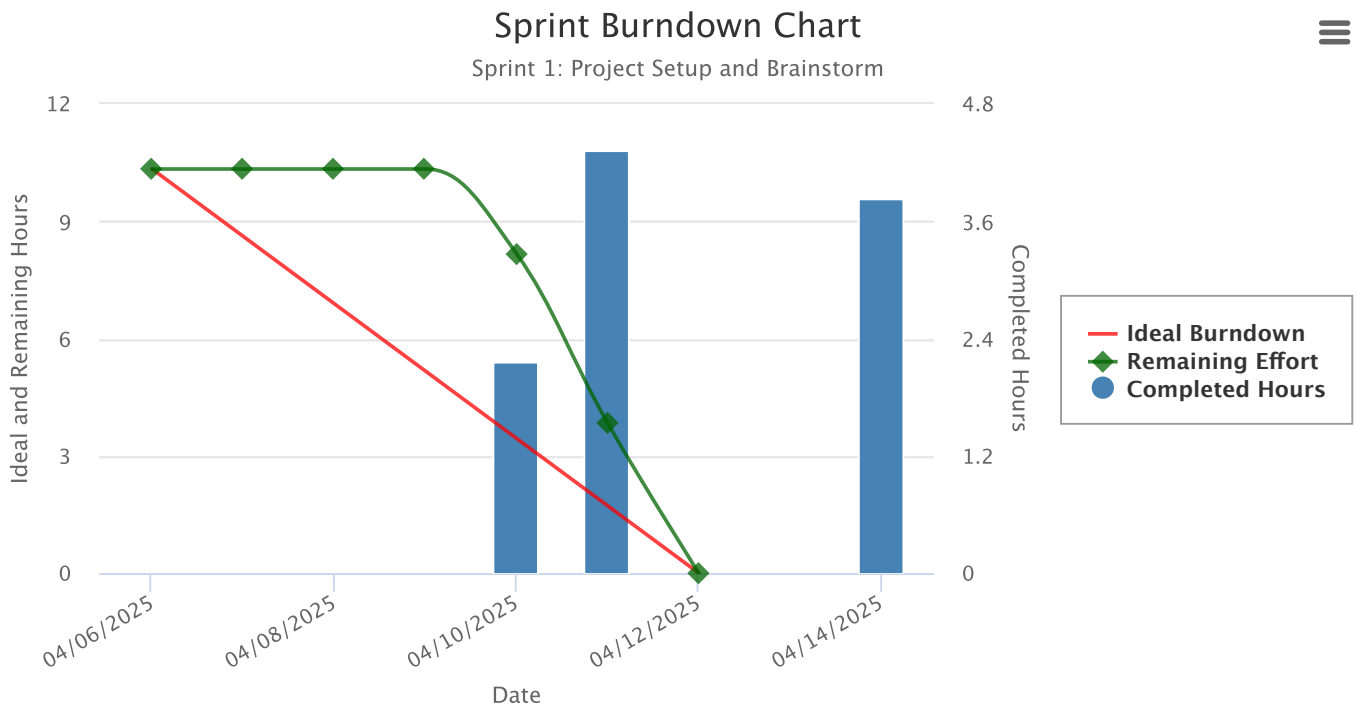
Sprint 2: UML Diagrams and Basic Class Implementation

Dates:

4-13-2025 to 4-19-2025

Goal:

Finalize game structure, implement basic classes in Intellij, continue long term project planning, better documentation

Review:

What went well in the sprint?

Finished planning and are planning on coding everything

What could be improved?

Time management, perhaps we spent a little too long planning

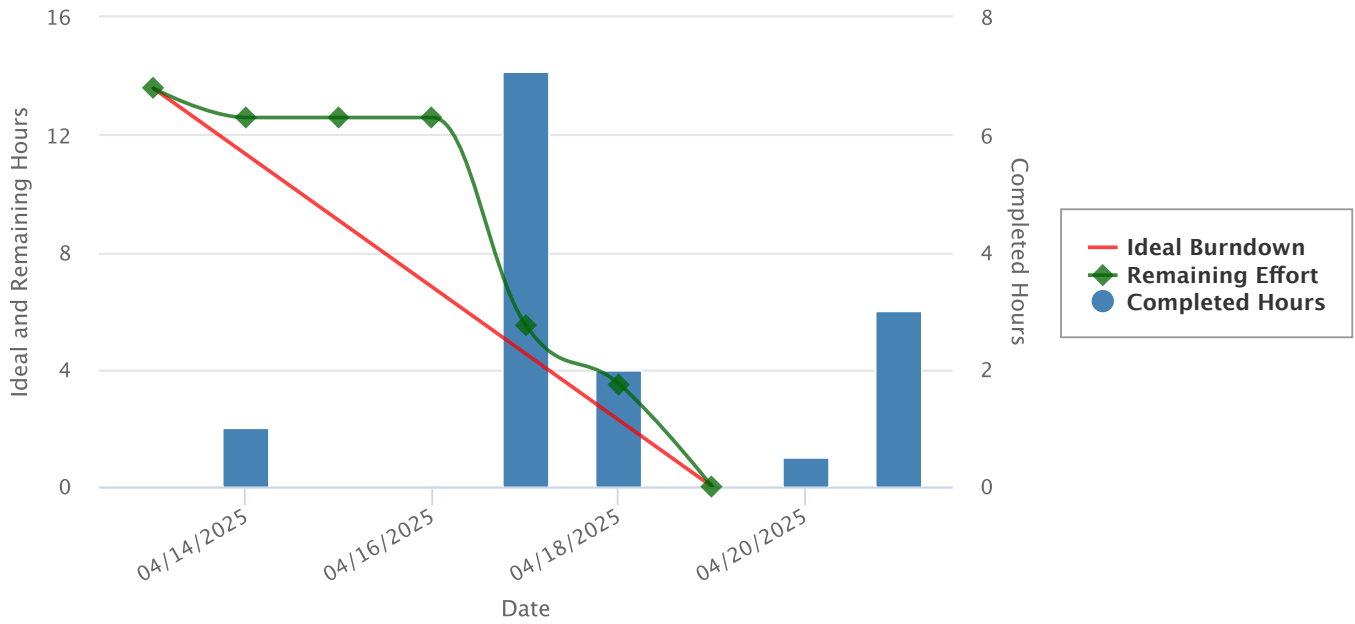**Are you on track? What is your plan if not?**

At the moment.

What will you improve on in the next sprint?

Actually coding/implementing it in intellij

Sprint Burndown Chart
Sprint 2: UML Diagrams and Basic Class Implementation

Highcharts.com and Lily Romano

Sprint 3

Dates:

4-20-2025 to 4-26-2025

Goal:

Code the basic functions of our game

Review:

What went well in the sprint?

We refactored all the code, followed OOP principles by calling upon other classes, communicated issues.

What could be improved?

Better communication to avoid inefficient coding, better documentation is required to better help other project members fix the code, version control could be more optimized to handle git merges and working with other people's code
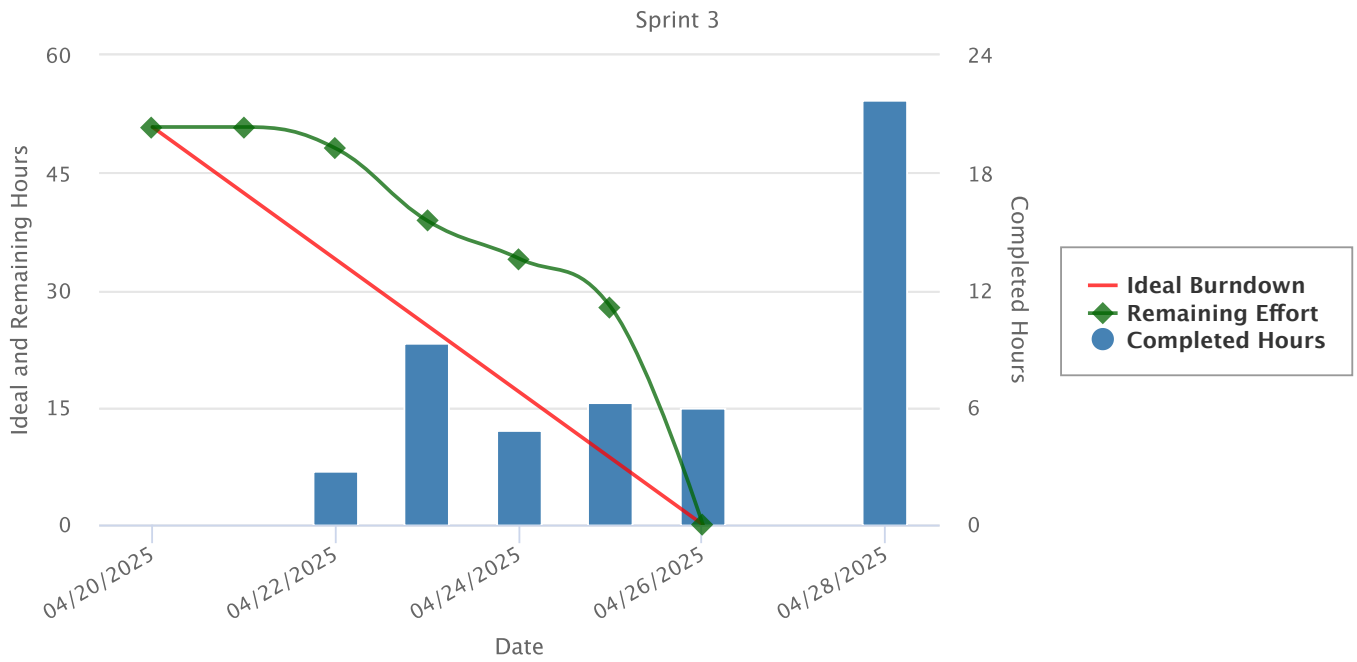

Are you on track? What is your plan if not?

We could work a little faster. We are a little off our schedule. We hope to get back on track on this sprint

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What will you improve on in the next sprint?

Since this is the last sprint, there is nothing left to improve on.

Sprint Burndown Chart
Sprint 3

Highcharts.com and Lily Romano

Sprint 4

Dates:

4-27-2025 to 5-3-2025

Goal:

Finish the core game functionality, finish interactions within the game

Review:

What went well in the sprint?

We completed all the functionality of the project, including the combat system and exploration system. We were able to integrate all our code in the end to create the final game. We were able to complete the riddle chest system along with handling enemies and enemy collision. Merging and Pushing code to the main branch also went well without much a hitch. Testing and debugging the code also went well as we were able to find small errors and bugs in our code


What could be improved?

Perhaps the visuals with the sprites and graphics to make it look a little nicer. A more robust logic system for the map rendering for different levels could be improved. We have our map as one big map instead of a bunch of smaller ones which would probably be easier to render. Magic numbers do make an appearance and it would be better to not have them exist. We also hardcoded our map along with entities and items. We could probably find a way to randomly spawn things in as well as items. This would make the game more dynamic since not every single game is the same.


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

Adding more weapon types, more enemies, a more dynamic combat system where the enemy can swing a weapon, a better boss fight that has unique attacks, phases, and sprites. Updated sprites would probably be a good investment as well.

Sprint Burndown Chart

Sprint 4

Highcharts.com and Lily Romano
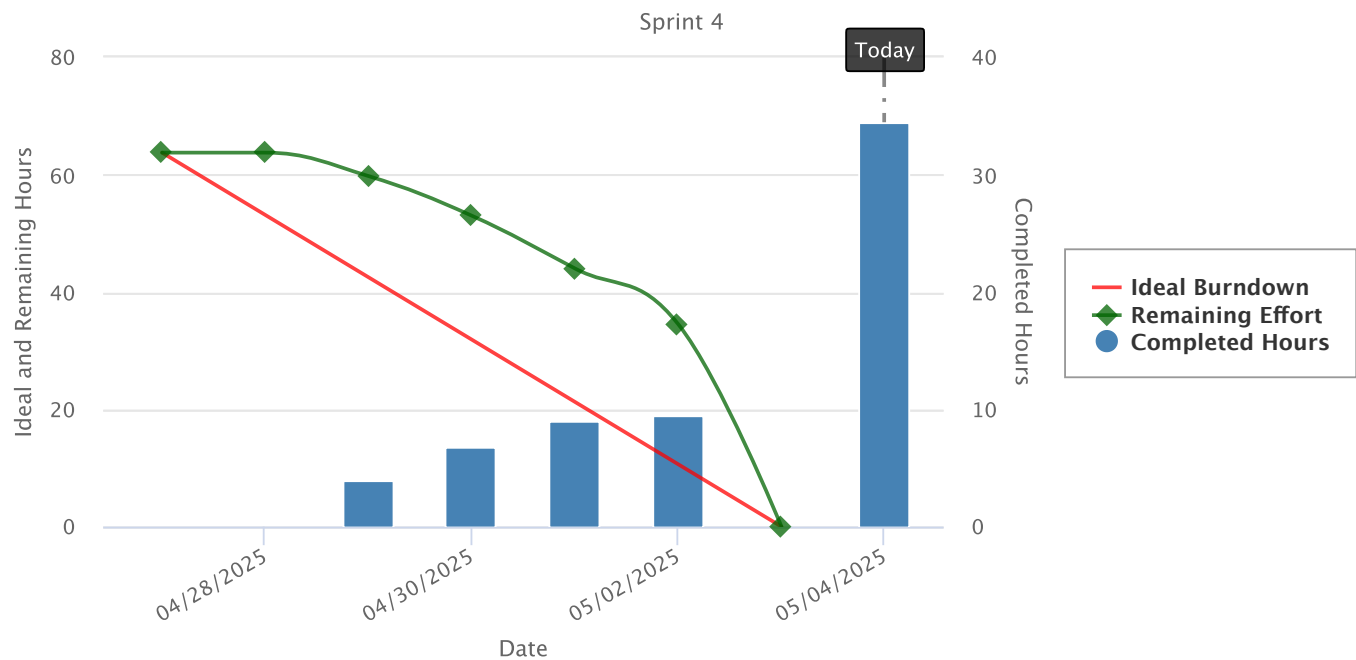
Personas
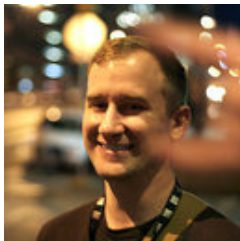
Franjo Matheis

Quote

"I'm here to slay the deadly monsters. I'm an avid enjoyer of destroying everything in my path with the best builds. I'm a min-maxxer at heart."

Narrative

Franjo is a fan of combat, no matter the complexity. He doesn't pay too much attention to the environment unless it provides him with any type of benefit. He likes to get the best gear and find the best strategy to destroy anything in his path.
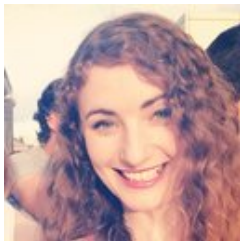
Ann-Kathrin Holl

Quote

No stone is left unturned, whatever Easter eggs there are, I will find it.

Narrative

Ann enjoys taking time to find all smallest details. Whether its intricate lore or subtle environment changes, Ann is always looking for those. They are rather detail oriented and love to freely roam around the map, encountering things along the way.

Aiden Remmers

Quote

love seeing that big gold star whenever I 100% a game. No matter how big the task is, I plan finishing even the toughest tasks.

Narrative

Aiden meticulously goes through every area, exploring everything and hunting for even the smallest clues. He hunt all the monsters, explore all the areas, and fulfill every achievement or task he can before he continues on.

Bernard Miles

Quote

I'm going to break it, somehow

Narrative

Bernard will try to exploit all the bugs he can to just get the most fun out of his time. He was no care for any rules and just wants to create the wackiest, funniest moments with his friends. He actively seeks out flaws because the bigger they are, the funnier it is for him to mess with

Cássio da Mata

Quote

'm a big fan of non-violence. I'm here to hang out and to not take it too seriously. I'm usually chilling with all my friends in games.

Narrative

Cássio doesn't have any drive to complete anything other than to interact with all the lovely NPCs. Cássio sn't a combat person and prefers to just hang out.

They are a fan of seeing how NPCs interact with them
and love exploring all the dialogue options

Table of Work

Showing 1 to 70 of 70 entries

Search:

Title	Type	Est.	Spent
Closed (70)		138 h, 30 m	0
Sprint 1: Project Setup And Brainstorm (9)		10 h, 20 m	0
Brainstorm Project Structure	Technical Task	6 h, 30 m	6 h, 30 m
Draft UML Class Diagrams	Documentation	0	0
Draft UML Sequence Diagrams	Documentation	0	0
Implement Classes/MVC Structure within Intellij	Technical Task	0	0
Initial Client Meeting	Design Need	20 m	20 m
Project Owner: Team12 Final Project Proposal	Technical Task	1 h	1 h
Research Game Structure	Spike	40 m	40 m
Research Other Project Structures	Spike	20 m	20 m
Setup: Initialize Gitlab, Intellij Environment, AIE Code	Technical Task	1 h, 30 m	1 h, 30 m
Sprint 2: UML Diagrams And Basic Class Implementation (6)		13 h, 35 m	13 h, 35 m
Create a basic UI Window	Design Need	30 m	30 m
Draft UML Class Diagrams	Documentation	4 h, 50 m	4 h, 50 m
Draft UML Sequence Diagrams	Documentation	1 h, 15 m	1 h, 15 m
Draft UML State Diagrams	Documentation	2 h	2 h
Draft UML Use Case Diagram	Documentation	1 h	1 h
Implement Classes/Game Structure within Intellij	Technical Task	4 h	4 h
Sprint 3 (26)		50 h, 50 m	50 h, 50 m
Add enemies to the map	Design Need	3 h	3 h
Create Player Walking Animation Sprites	Design Need	1 h	1 h
Create sprites for items	Design Need	15 m	15 m
Create wall and floor sprites for map	Design Need	15 m	15 m

Title	Type	Est.	Spent
Displaying Map and Tile Classes to GUI	Design Need	1 h	1 h
Ensured Team Completed Daily Sprint Documentation	Documentation	45 m	45 m
Fix Map Generation	Bug	1 h, 20 m	1 h, 20 m
Have map spawn items	Design Need	1 h	1 h
Implement a Basic test map for the game	Design Need	2 h, 30 m	2 h, 30 m
Implement basic Game Controller Functionality	Technical Task	3 h	3 h
Implement Entity, Enemy, EnemyState	Design Need	5 h	5 h
Implement hit boxes/collisions for map tiles	Design Need	2 h	2 h
Implement Lily Final Boss	Design Need	2 h	2 h
Implement Player interaction with items	Design Need	1 h	1 h
Implement riddle chest logic	Spike	2 h	2 h
Implement State Change Methods	Technical Task	1 h, 30 m	1 h, 30 m
Implement the Items Class and classes that inherit it	Technical Task	2 h	2 h
Initializing Map and Tile structures	Design Need	4 h	4 h
Refactor CollisionController	Design Need	3 h	3 h
Refactor Game UI	Technical Task	1 h, 30 m	1 h, 30 m
Refactor UI tasks into Render classes	Technical Task	6 h	6 h
Research game ui implementations	Spike	1 h, 30 m	1 h, 30 m
Research how to implement the Entity and Enemy class	Spike	2 h	2 h
Research how to make animations in the GUI	Spike	1 h, 15 m	1 h, 15 m
Research on attacking actions	Spike	1 h	1 h
Research on how to implement Lily Final Boss	Spike	1 h	1 h
Sprint 4 (28)		63 h, 45 m	0
Add Junit test	Technical Task	4 h	4 h
Added and Updated Player Inventory	Technical Task	45 m	45 m
Combat system	User Story	1 h	1 h
Combat with the goons	User Story	1 h	1 h
Create GameStates in code to switch between screen	Design Need	2 h	2 h
Create New Attack Sprites and Updated Object Sprites	Design Need	1 h	1 h

Title	Type	Est.	Spent
Debugging Title Screen	Bug	30 m	30 m
Documentation: Creating Design Manual and other necessary docs	Documentation	6 h	6 h
Handle Enemy States and Interactions	Design Need	4 h	4 h
House Keeping Tasks	Technical Task	0	0
Implement Enemy To Player Collision	Design Need	3 h	3 h
Implement Game Menu	Design Need	4 h	4 h
Implement Lily Final Boss	Design Need	2 h	2 h
Implement Menu	Design Need	2 h	2 h
Implement Player interaction with items	Design Need	2 h	2 h
Implemented Interaction Control	Technical Task	2 h	2 h
Integrate PlayerHud Class along with menu options into code	Design Need	2 h	2 h
Player Attacking Feature	Design Need	8 h	8 h
Player movement	User Story	2 h	2 h
Re-Implement CollisionController for wall tiles	Design Need	4 h	4 h
Redesigned the map with all items and enemies	Design Need	2 h	2 h
Refactor CollisionController	Design Need	1 h	1 h
Renormalizing Enemy movement	Technical Task	2 h	2 h
Riddle Solving	User Story	1 h	1 h
Save Lily	User Story	1 h	1 h
Split the Map into different levels	Design Need	3 h	3 h
Update Sprites	Design Need	30 m	30 m
UserManual Document and UML Case Diagram	Documentation	2 h	2 h
Backlog (1)		0	0
Implement Classes/MVC Structure within Intellij	Technical Task	0	0

Daily Scrum

Daily Scrum Notes

Sprint 1: April 6-12 Accomplished: Discussed the game architecture and how we might divide the game into classes. Created the Git reposiory and connected to AIE code. Setup AIE code with stories, personas, and

sprints Working On: UML diagrams for the classes we discussed Challenges: Researching implementations for a 2D game and how to display it on a screen. We originally did not want to deal with JavaFX again because we didn't have much experience with it.

Sprint 2: April 13-19 Accomplished: Created UML diagrams and finalized project setup. Began slowly implementing a screen using JFrame instead of JavaFX since that one was more in line with what we were more comfortable with. Created a Main Game Loop that draws 60 frames per second and updates all logic. Working On: Implementing Map loading/generation, Player creation and movement Challenges: Map implementation, how do we want to store map data and how do we want to create a map? Items, how are we going to create objects that are interactable by the player

Spring 3: April 20-26 Accomplished: Reimplemented the map class to also load enemies and items in the same txt file. Created a sword item for the player to pick up. Completed displaying the map, player, and items onto the screen. Working On: Worked on all collisions (objects) so that the player can interact with items and not be able to pass through walls, refined current collision logic. Challenges: Implementing enemies and attacking features for the player

Sprint 4: April 27-May 4

**APRIL 28 **

Radley: I have implemented and refined Enemy class. I also refactored the CollisionController class following Seb's logic. Eventhough the code run without error after adding CollisionController, the game is frozen and I'm still finding a way to fix that issue. After that, my plan is to implement the dialogue feature and the combat system with Seb. The only challenge I'm having right now is in the Coliisioncontroller.

Seb: Accomplished: Refactored GameUI class to better align with the uml digrams and MVC structure along with working to implement item interactions, hitboxes, and collision areas Working On: Enemy Logic and hitboxes Challenges: Collision/hitboxes

Aleena Sultan: I implemented the Items class and all inherited classes – and passed them to the gameUI so that they could be drawn on the map. I also updated the Map such that I can store the location of all interactable objects to create the hitbox. I implemented state changes for the enemy and item classes, to regulate their interactability with the Game Controller, and then implemented basic functionality for the Game Controller. I plan to work on the Game Controller more to deal with more complex object interactions such as attack and update entity HP etc. A challenge I anticipate is making the GameController work with other classes like Input Controller.

Khanh

- I refactored multiple draw() methods in Model classes that were handling their own UI per frame into 2 main Render classes in View, this way Model classes only handle their own attributes and logic.
- I am working on having the Map update dynamically as the game logic runs
- A challenge I anticipate is working with collisons and updating it along with interactions, since our collision is not running is reliant on GameUI.

APRIL 30 Aleena: Accomplished: Finished player interaction with the items – the player is able to pick up the items and store them in their inventory and the item, once picked up disappears from the map. Working On: Player interactions with enemy; enabling enemy and player attack and updating attack range area. Challenges: Finding it difficult to get the enemy hitbox from the enemy class, to enable player attack, and removing enemies from map once dead.

Seb: Accomplished: Finished collision between enemy and player. Neither can pass through each other. Enemies can pass through each other however which is part of our design Working On: Enemy to Player Interaction, player attacking methods, player attacking sprites. Researching how to do an attack action for the player. Challenges: Finding difficulty working with enemy to player interactions (ex: getting hit and taking damage)

Radley: Accomplished: Finished spawning Lily Final Boss on the map and updated map structure Working on: Game menu and game state with Aleena. Challenges: Refactoring GameController

Khanh: Accomplished: Finished refactoring GameCollison between entities, cleaned up and updated the architecture between classes. Working on: Implementing the Player attacking Enemies as well as Chest/Laptop display Challenges: Getting the chest UI to pause the game, and keep running

May 1 Aleena: Accomplished: Finished player interaction with the enemies – player is now able to get attacked by and attack the enemy, using Game Controller and Enemy class. Working on: Updating Game state, and defining game levels, and merging code progress. Challenges: Merging updated code, and refactoring Game controller methods, and debugging existing code.

Seb: Accomplished: Finished Title Screen and play states. Also implemented a pause feature using the button p that stops the game and all entities Working On: Implementing my code into the larger game architecture Challenges: Finding a way to integrate the current code and mine. There are a few differences between the two that give me trouble

May 3 Seb: Accomplished: Finished User Manual and final Case UML diagram Working On: Finishing other important documentation like Design Manual and cleaning up code Challenges: None

Aleena: Accomplished: Merging the updated code, rendering the different game levels and fixing player enemy interactions, and collisions. Working On: Finishing documentation and testing Challenges: None