Collaborative Learning and Challenges in Unity Game Development: Reflections on Sprint 1

Team Background: Our team working on Unity consists of five members, including three developers, one tester, and a project manager. We are responsible for developing a Metroidvania game using Unity software. Our objective is to create high-quality games within tight deadlines while maintaining a high level of quality and attention to detail.

During Sprint 1, our team members experienced working on a Unity project in a collaborative environment for the first time in their lives. Throughout this process, we contributed numerous excellent ideas and suggestions, which were crucial to our group's success. Our primary focus was learning the C# programming language and the essential aspects of communication and coordination to keep track of everyone's progress. Due to the varying pace of each individual and the inherent difficulties of game development, we encountered multiple challenges, such as numerous code conflicts during content allocation and the difficulty of reducing code coupling, which necessitated further optimization in modularization.

In the Retrospective Process, we held a meeting to reflect on the previous sprint, inviting all team members to participate. During the meeting, we discussed what we did, what went well during the previous sprint, what did not go well during the previous sprint, and what changes we can make to improve our processes in the future. After discussing these questions, we identified several areas of improvement and created an action plan to address them.

The Action Plan includes meeting management, technical skills, and scope management. We will schedule regular check-ins to monitor our progress and adjust our timelines as necessary. We will also break down tasks into smaller chunks to make them more manageable and set realistic deadlines for each task. In addition, we will invest time learning new technologies and tools in Unity and sharing our knowledge with the team. We will also seek external resources such as online tutorials to improve our skills. Furthermore, we will focus on the primary goal of the project and avoid adding new features unless they align with the project's overall goals. We will also set clear guidelines for scope management and prioritize tasks accordingly.

In terms of areas of improvement, we need to enhance our time management skills to ensure that we meet our deadlines and avoid delays in the future. This includes setting realistic timelines for each task and monitoring our progress regularly. We also worked effectively as a team, supporting each other when necessary and sharing knowledge and skills to improve the overall quality of the project.

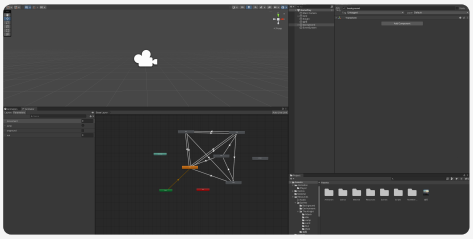
We still have puzzles about asset creation and UI/UX design. We have questions about creating game assets, such as how to optimize textures for different platforms and how to create more complex animations. We also have questions about designing the game's user interface and user experience to create a more immersive gameplay experience.

In the next sprint, we will consider revising our workload distribution methods to address the issues encountered during distribution, such as code placement, implementation dependencies, and conflicts. Furthermore, since our team members are all proactive, we have experienced conflicting ideas. Resolving these conflicts will be one of the main areas we will focus on moving forward as a team.

Our accomplishments include learning how to use Unity to create games, using Visual Studio to write C# code, collaborating on code through different branches on GitHub, and adding new user stories because we believed that certain features were necessary, such as functionalities or characteristics upon which other features depended. As we were all new to Unity, each of us learned a lot and deepened our understanding while working together.

What we've done:

We learned how to use Unity to create games. As we were all new to Unity, each of us learned a lot and deepened our understanding while working together.

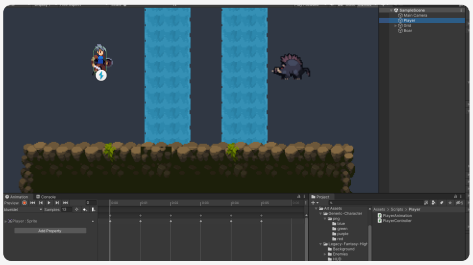


Unity template 1

Penelope's Unity template project

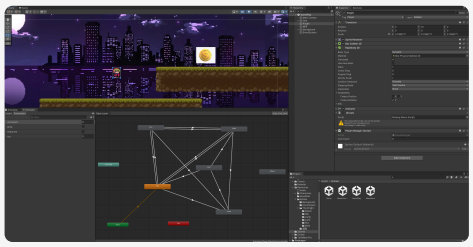
Unity branch 2.a (test)

Chenhao & Jiahao's Unity project



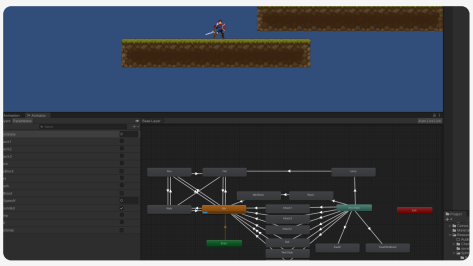
Unity branch 2.b (exp)

Jiahao & Chenhao's Unity project



Unity branch 1.b (dev)

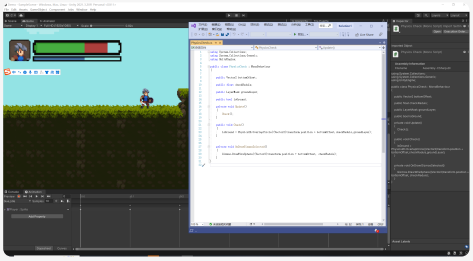
Penelope & Winter & Becky's Unity project



Unity branch 1.a (dev)

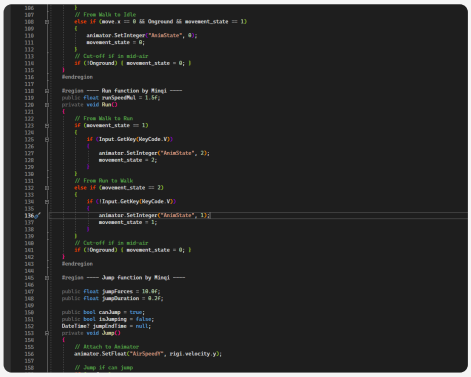
Winter & Penelope & Becky's Unity project

We learned how to use Visual Studio to write C# code.



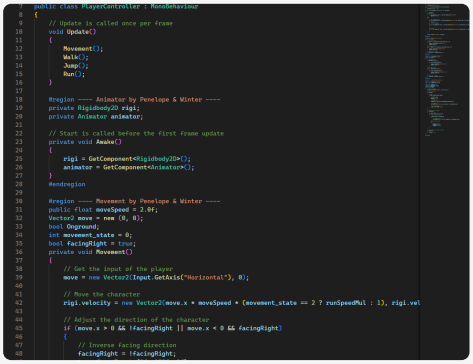
C# in Unity [1]

Provided by Chenhao & Jiahao



C# in Visual Studio

Provided by Minqi



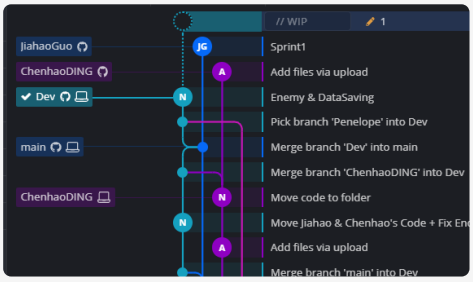
C# in Visual Studio Code [1]

Provided by Winter

C# in Visual Studio Code [2]

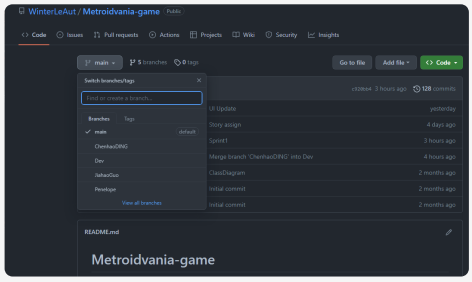
Jiahao & Chenhao's C# code

We learned how to use GitHub to collaborate on code through different branches.



Github collaborate

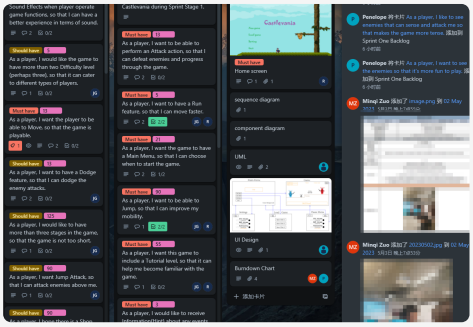
All members are contributing to our project



Github Branches

All members are contributing to our project

We added new user stories because we believed that certain features were necessary, such as functionalities or characteristics upon which other features depended.



Trello update

Adding features from backlog to sprint 1

Videos:

[Video 1]

[Video 2]