Sprint 2 Retrospective: Profpocalypse: Purdue Edition

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What went well?

This sprint went well because we were all able to finish out acceptance criteria and we received a good score on the grading. Each of us have continued to work together in order to make our project a more polished product. Specifically, the fighting interface now works together with the inventory so that players are able to use items they have collected to battle against the bosses around the map. Items are also able to be found throughout the map so that players can collect new items that they have not had access to before. Also, the system for players leveling up now works so that they are able to become stronger in the aforementioned boss fights. Next, the music that plays throughout the game is now matched to what the player is doing and how they are interacting with the game. This includes special music for boss fights and music specific to certain areas of the map that matches with the buildings in that area. The map has also had significant improvements with players being able to enter into buildings and with new items being added to it like the trivia collectables that are spread throughout campus. Overall, the sprint has been a success and has set us up nicely to put the finishing touches on the game in Sprint 3.

User Story #1
#16: As a player, I would like to experience different music /audio depending on where I am on the map

#	Description	Estimated Time	Owner
1	Brainstorm different game states / areas that should have different music	1 Hr	Jonah
2	Research/find/create music for different locations	5 Hrs	Jonah
3	Add appropriate audio tracks for each area of the game	3 Hrs	Jonah
4	Add transitions for tracks, adjust levels, fade, etc	2 Hr	Jonah

Completed:

All acceptance criteria for this user story were completed. The game has different sections of the map that play different music depending on which section the user is in. These tracks have a smooth fade transition, with balanced levels. When the settings menu is open, the music in the background lowers, and when the user exits the settings the audio level is restored.

User Story #2
#17: As a player, I would like to experience different music/audio depending on who I am battling / whether I am in combat or not.

#	Description	Estimated Time	Owner
1	Brainstorm different enemy types / interactions that require different music	2 Hrs	Jonah
2	Add audio track to play while in a battle state	2 Hrs	Jonah
3	Make other audio stop while in a battle state	1 Hr	Jonah

Completed:

All acceptance criteria for this user story were completed. When the user enters battle, a new battle theme smoothly transitions in, and when the battle is exited, this battle music fades out and

the original music from the corresponding map section is restored. These transitions are smooth and the levels are balanced.

User Story #3
#18: As a player, I would like to experience SFX on different actions, player-specific or UI interaction-based.

#	Description	Estimated Time	Owner
1	Brainstorm what actions in the game require SFX	1 Hr	Jonah
2	Find / create SFX for corresponding in-game actions	1 Hr	Jonah
3	Add SFX to different actions	3 Hrs	Jonah

Completed:

All acceptance criteria for this user story were completed. Differing sound effects were implemented depending on the game interaction that is occurring. When the menu is interacted with (i.e. opening the settings or inventory), a corresponding sound effect is played. Similarly, there are sound effects for player manipulation (i.e. walking sounds and sounds of attacks/battle interactions). The SFX audio levels can be manipulated via the volume slider in the settings.

User Story #4
#30: As a player, I would like to battle random enemies as I travel through the map

#	Description	Estimated Time	Owner
1	Design a few enemies with different battle sequences	3 Hrs	Jonah
2	Add player models to game in varying locations around the map	2 Hrs	Jonah
3	Integrate battle sequence for each enemy	4 Hrs	Jonah
4	Debug battle interaction and completion	2 Hrs	Jonah

Completed:

All acceptance criteria for this user story were completed. There are multiple enemies located on the map in different areas, and all of them are fully implemented - this means that approaching

any of these enemies initiates a battle sequence, unique to that enemy. After an enemy has been defeated, they cannot be battled on that save again. This means if the user saves the game and exits, then when they load the game again, the enemy will not spawn.

User Story #5
#10: As a player and Purdue, I would like to go into classrooms and into other buildings. (Programming)

#	Description	Estimated Time	Owner
1	Figure out logic to switch map view to another map when entering building	4 Hr	Jennifer
2	Make label pop up when player is close to a building and clicks it, asking player if they want to enter	3 Hr	Jennifer
3	Playtest and debug	2 Hr	Jennifer

Completed:

All acceptance criteria for this user story were completed. When the player is exploring the world and comes across a building on their playing screen, they're able to click on the building to decide whether to enter. After choosing to enter, they're taken to a building interior map that they can exit at any time by going back to the main entrance. While they're inside the building interior, there are proper collisions in place that prevent the player from phasing through walls and desks.

User Story #6
#11: As a player and Purdue, I would like to go into classrooms and into other buildings. (Design)

#	Description	Estimated Time	Owner
1	Design simple building interior layout	3 Hr	Jennifer
2	Brainstorm color scheme and make tilemap	3 Hr	Jennifer
3	Playtest and debug	1 Hr	Jennifer

Completed:

All acceptance criteria for this user story were completed. When the players enter a building interior, they see a simple building layout map with three classrooms and a main “hallway” that they can explore and walk around in. The map has a tileset with a consistent color palette and theme with the outside map tileset.

User Story #7
#12: As a player and Purdue student, I would like to be able to learn about Purdue trivia by interacting with the environment and NPCs.

#	Description	Estimated Time	Owner
1	Brainstorm trivia questions	3 Hr	Jennifer
2	Create interactable objects on map	4 Hr	Jennifer
3	Make “notebook” that stores new trivia facts the player encounters	3 Hr	Jennifer
4	Add notebook icon on main HUD that player clicks to access anytime	3 Hr	Jennifer
5	Add sparkle icon on things that contain trivia	2 Hr	Jennifer
6	Playtest and debug	2 Hr	Jennifer

Completed:

All acceptance criteria for this user story were completed. When the player walks around the map, they will occasionally come across sparkle icons that they click on to learn Purdue trivia. Some of these also have accompanying images, such as Purdue Pete or the Engineering Fountain. When the player learns trivia, they’re filled in their corresponding spot in the trivia book, which initially starts completely empty with question marks and a counter that indicates the player hasn’t learned any trivia yet. This counter is also updated as the player learns more new trivia. If the player clicks on the same trivia after already learning it, the pop-up tells them so and displays the entry number again. To access and put away the book, players can click the button on the upper left of the screen or press T.

User Story #8
#29: As a player, I would like to have a class system for my characters (e.g. general fighter, hard hitter, healer, etc.).

#	Description	Estimated Time	Owner
1	Research and define the class system, determining the available classes and their roles.	2 Hr	Mohana
2	Implement a system to assign a class to a character within the customization menu.	2 Hr	Mohana
3	Add a visual icon that appears on the character's body representing their selected class.	2 Hr	Mohana
4	Ensure that the selected class and corresponding icon are stored along with other character customizations.	2 Hr	Mohana
5	Debug and test the system to ensure proper functionality and persistence of class selection.	2 Hr	Mohana

Completed:

The character class system is fully functional and all acceptance criteria have been completed. Rather than using generic RPG classes, we implemented unique Purdue-themed class archetypes such as The Coffee Addict, The Business Bro, The STEM Zombie, and more. Players can now assign a class to their character within the customization screen. Upon selection, the chosen class icon (e.g., coffee mug for Coffee Addict) appears directly on the character's body. Class data, including the selected icon, is saved with other customizations and is correctly reloaded when the player revisits their character. This not only enhances gameplay personalization but adds a layer of humor and relatability through the lens of campus culture.

User Story #9
#59: As a player and Purdue student, I would like to see the difficulty level of courses in specific majors.

#	Description	Estimated Time	Owner
1	Research Purdue's website to identify which courses are known to be more complex.	4 Hr	Mohana

2	Organize and categorize the courses by difficulty level.	2 Hr	Mohana
3	Implement a UI feature that displays course difficulty levels.	2 Hr	Mohana
4	Ensure difficulty ratings are displayed consistently across all courses.	1 Hr	Mohana
5	Test the feature to confirm accurate difficulty representation.	1 Hr	Mohana

Completed:

All features for this story were implemented, and all acceptance criteria are fully met. Difficulty levels were thoroughly researched and assigned to each course using multiple student-trusted sources including RateMyProfessor, Reddit, and BoilerGrades. These ratings are clearly shown in the UI when players view course information. Difficulty is visually represented using a star-based system (⭐), and for notoriously hard classes, a playful "💀 RIP" tag is included to add humor and emphasis. Difficulty ratings are consistent and persist as players navigate between menus, helping students make informed and entertaining academic choices.

User Story #10

#61: As a player and Purdue student, I would like to see which professors teach specific courses, their difficulty ratings, and where their offices are.

#	Description	Estimated Time	Owner
1	Research Purdue's website to gather information on professors, their courses, and office locations.	4 Hr	Mohana
2	Organize and structure the professor-course data in a way that is easy to navigate.	2 Hr	Mohana
3	Implement a UI screen displaying professor names alongside their courses	2 Hr	Mohana
4	Ensure the UI allows players to click on a professor to view additional details (office location, difficulty rating, etc.).	1 Hr	Mohana

5	Test the feature to confirm professor details display correctly.	1 Hr	Mohana

Completed:

This story is complete with all acceptance criteria met. We built a dedicated Professors tab that displays all professors teaching courses in the game, each represented with witty nicknames (e.g., Prof. KernelComer for Operating Systems, Prof. Doomsmore for CS 180). When the player hovers over a professor's name, they see the associated course, the professor's office location, and a difficulty rating displayed directly on the button for a clean and interactive experience. All data persists correctly across game sessions and updates dynamically as different professors are viewed.

User Story #11

#31: As a player, I would like a Battle UI to show up when I get near an enemy.

#	Description	Estimated Time	Owner
1	Create a design for the Battle UI.	1 Hrs	Trey
2	Implement the Battle UI for the user	5 Hr	Trey
3	Implement custom Resource classes for items	2 Hrs	Trey
4	Create different weapons to use in battle	2 Hrs	Trey
4	Debug and test the program to make sure all UIs work together	2 Hrs	Trey

Completed:

The Battle UI on the player's side is complete with all acceptance criteria finished. Throughout this UI, we wanted to build something that is easy to use and entertaining for fights, so with this, we built a fight scene that allows you to create different backgrounds. The player can attack enemies and enter fights by walking near the enemy. All of this together creates a seamless design for our Battle UI.

User Story #12

#33: As a player, I would like to be able to switch between character items during battle as well

as ability to use potions during battle.

#	Description	Estimated Time	Owner
1	Create different potions that can be used during battle.	1 Hr	Trey
2	Implement functionality for all potions and weapons in battle.	3 Hrs	Trey
3	Program the ability to use different weapons during a fight (along with using a turn to switch a weapon from the item bar to inventory)	3 Hrs	Trey
4	Debug and test response time with the HUD	3 Hrs	Trey

Completed:

During a battle in the Battle UI you are able to use different weapons as well as potions, with all acceptance criteria being finished. When you use a weapon, the screen locks you out forcing you to wait for the enemy to attack, creating a turn-based battle. This is also true with potions, when used will stop you from attacking or doing anything, so you have to let the enemy attack. Finally this is complete with moving items into your hotbar or into your inventory, where you will again be locked out and lose your turn, where the enemy can then attack.

User Story #13

#32: As a player, I would like to be able to use different attacks in battle.

#	Description	Estimated Time	Owner
1	Design an attack system	1 Hr	Trey
2	Implement the attack system for the user	3 Hrs	Trey
3	Create a way to use different weapons and they do different damage	3 Hrs	Trey
4	Debug and test the program	2 Hrs	Trey

Completed:

While in the Battle UI, there are a lot of different types of attacks and possibilities a weapon can do, which complete all acceptance criteria for this user story. This allows for stunning, weapons breaking, critical chance, and more damage depending on the weapon. This can create a whole

bunch of weapon tactics and choices for the player to decide if they want a weapon that is easy to break but has a high critical chance or a lower chance but can't break.

User Story #14
#36: As a player, I would like to be able to view my character's abilities.

#	Description	Estimated Time	Owner
1	Brainstorm abilities to add.	1 Hr	Helen
2	Create a preview on hud that shows simplified abilities.	3 Hrs	Helen
3	Create button that pulls up detailed view of abilities	2 Hrs	Helen
4	Develop a detailed view of abilities.	3 Hrs	Helen
6	Test and debug.	1 Hr	Helen

Completed:
All functions and acceptance criteria for this user story have been completed and met. Players now have abilities/statistics that they can use to improve their gameplay. Players are able to view their abilities in a couple of different views. On the main gameplay screen they can view the first 3 abilities in a preview window on the HUD. Further more players can now hit a button to view all of their abilities and increase them as they are allowed and desired.

User Story #15
#44: As a player, I would like to get stronger or more abilities based on my level.

#	Description	Estimated Time	Owner
1	Hook abilities up to multipliers.	2 Hr	Helen
2	Create functions to increase and decrease abilities whenever needed	2 Hrs	Helen
3	Develop increase in abilities based on level	3 Hrs	Helen
4	Create ability for new abilities to appear based on level.	2 Hrs	Helen
5	Test and debug.	1 Hr	Helen

Completed:
All functions and acceptance criteria for this user story have been completed and met. Players now get rewarded “study tokens” which allow them to improve their abilities/statistics when their level increases. In addition, increasing their level beyond a certain number allows the player to unlock new abilities. Temporary buttons were created for ease of use that should be deleted in the final rendition.

User Story #16
#55: As a player, I would like to talk to my academic advisor when I need new classes.

#	Description	Estimated Time	Owner
1	Learn how to create a spot on the map to make the advisor accessible.	1 Hrs	Helen
2	Create a screen to talk to the advisor.	2 Hrs	Helen
3	Create advisor character and dialog.	2 Hrs	Helen
4	Create buttons to talk to advisor and schedule classes/ start new ones.	2 Hrs	Helen
5	Attach advisor to updating new classes in the major information.	2 Hrs	Helen
6	Test and debug	1 Hr	Helen

Completed:
All functions and acceptance criteria for this user story have been completed and met. Players are now able to visit a location on the map and click it to “visit” with their advisor and begin the next semester. The meeting with the advisor gives the player more information about what the classes they will be taking will be. The advisor also gives them the option to start or to not start the next semester. Following the player choosing to start the next semester, the current course information in the phone is now updated as well.

User Story #17
#23: As a player, I would like to be able to see a calender of the major events that occur on campus

#	Description	Estimated Time	Owner
1	Find a list of events the occur at Purdue	2 Hr	Austin
2	Create a new method for the user to access calendar	3 Hr	Austin
3	Create calendar UI with all events on the list	5 Hr	Austin

Completed:

All functions and acceptance criteria for this user story have been completed and met. Users are now able to access the calendar through the menu using a button on the main screen. The calendar will appear and have buttons that allow users to scroll through the months of the year. The months will have markers for major events at Purdue that the users are able to view and check on as they progress through the game.

User Story #18

#37: As a player, I'd like to be able to collect items I encounter while roaming around the game.

#	Description	Estimated Time	Owner
1	Create an object item that is able to be picked up	4 Hr	Austin
2	Turn the current list of items in the game into the new "Object" item giving them more functionality	3 Hr	Austin
3	Create a new button that allows users to pick up items that they discover within the map	3 Hr	Austin

Completed:

All functions and acceptance criteria for this user story have been completed and met. The object item class is in the game file and adds functionality to all the objects within it. All the objects in the game have been added to the object class and have the added functionality. There is also a button implemented to be right click that allows users to pick up and drop items that can be found

within the map.

User Story #19
#38: As a player, I would like to see all of the items I am able to collect and which ones I have collected.

#	Description	Estimated Time	Owner
1	Create new items and add them to a list along with previously existing items	3 Hr	Austin
2	Add an in-game UI so that users are able to see all of the items on a list that are able to be collected	4 Hr	Austin
3	Add to the item UI the functionality to see which items have been previously collected	3 Hr	Austin

Completed:

All functions and acceptance criteria for this user story have been completed and met. There were five new items added to the game that are able to be collected and used by the user. The items have also been compiled into a list that includes metadata about each one of them. There is now a UI within the main screen of the game that allows users to see which items they have collected. The UI also allows the user to see which items are in the game but have not been collected by them so that they are able to focus on getting those items if they so choose.

What did not go well?

We occasionally ran into issues with our work interfering with each other, but we were able to quickly communicate and solve these before they spiralled out of control. For example, one of the pushes caused the entire main map to stop working, but it was quickly resolved within an hour by immediately communicating about this issue and reverting the commit.

We were able to complete all of our user stories. This meant we were able to complete all the features we planned to as well as create strong manual tests to be sure about each user story. A few things we did not think about when we started but may need to be reworked later include: how the player progresses a main storyline, how we save and use the player's customized character, and how to flesh out our world more. First, we currently have most if not all of our

main individual elements, but we need to figure out how to combine everything into an actual game with a goal and storyline. Second, we haven't properly integrated the player's custom character into the game. Currently, there's just a keybind that takes the character to and from the character customizer. The custom character saves properly when the player switches between these two screens, but we need to properly integrate the character into the sprite on the main playing screen, which is still currently a white square. Lastly, although our game has all of its main functionalities, we need to flesh out the world more to more accurately represent a post apocalyptic world overrun by cyborg professors.

Overall, our team did a great job implementing the main functionalities and features of our game. We just need to flesh everything out more to make it a proper playable game.

How should you improve?

Overall, this was a successful sprint, and the team worked well together to make sure we achieved what we set out to do in our Sprint 2 planning. Additionally, we were very open about any issues we were having, and worked to resolve them quickly when we discovered the issue.

For something our group needs to improve on, I would say that we need to be more efficient / on top of our work. For the most part, we got our work done fine, but there were times where it felt like we were a little behind on the sprint. We got all of our work done on time, but it was down to the last minute. Part of this is inevitable, as we all have other classes with responsibilities every week, but part of this is also on us for lack of planning and foresight to work on our work early.

I also believe that the integration of our work may need some work. In a game like this, integrating our work with other people's work is vital, as most of our work depends on everyone else. We communicate about integration when necessary, but we could solve issues much quicker if we would communicate more about how to integrate our work with each other. If we have more conversations regarding how different parts of the project works, it will make everyone's work easier to manage, as well as higher quality, with less clutter. Improving on this line of communication will be a great step up for our next sprint.