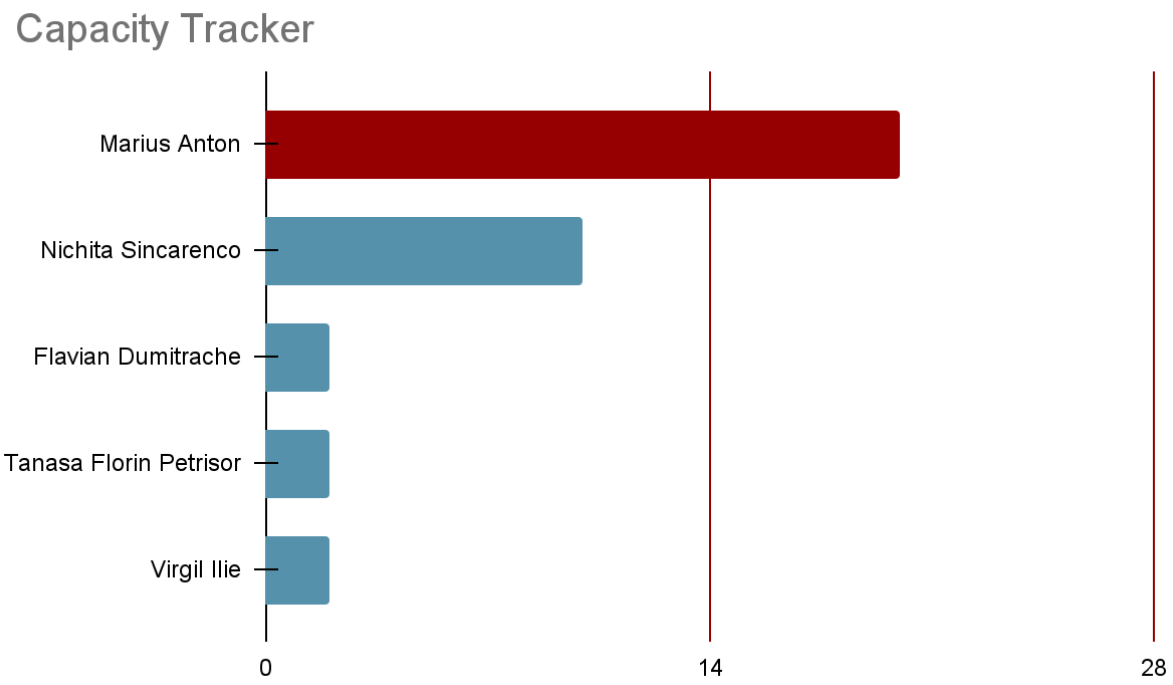
Sprint 3 Report [03/01/2024 - 21/01/2024]

1. Proposed tasks vs Completed Tasks:
    - **Proposed**:
      1.1. Completing the two remaining states in which an enemy NPC could be (chasing, attacking).
      1.2. Change the NPC asset so it would be more fitting for our needs, also adding a first person view details for the player.
      1.3. Complete players HUD to display health status.
      1.4. Inserting civilian NPCs and their dialogues.
      1.5. Create a main menu with the possibilities for the user to create a new game, continue where he left from, quit the game, or change games settings.
      1.6. Finished the portal functionality, so the player can go through it, completing different levels of the mission, transported from one part of the map to the other.
      1.7. Introduce the lore to the user by playing a cutscene before the first mission of the game.
    - **Removed before the sprint end**
      1.1. Implement the second mission of the game.
      1.2. Create a lobby for the player.
    - **Completed**
      1.1. Completing the two remaining states in which an enemy NPC could be (chasing, attacking).
      1.2. Change the NPC asset so it would be more fitting for our needs
      1.3. Complete players HUD to display health status.
      1.4. Inserting civilian NPCs and their dialogues.
      1.5. Create a main menu with the possibilities for the user to create a new game, continue where he left from, quit the game, or change games settings.
      1.6. Finished the portal functionality, so the player can go through it, completing different levels of the mission, transported from one part of the map to the other.
      1.7. Introduce the lore to the user by playing a cutscene before the first mission of the game.
      1.8. Some bug fixes, where the player was teleported in the skies, a lighting bug, and also the enemy NPC now can die from the attacks.
2. Unrealized Tasks:
    - The improvement of our player detection system by the enemy NPC, switching from distance based to Raycasting. - will be pushed to future sprint

- Finding and implementing models of hands and weapons for first person view. - will be pushed to future sprint
- Some settings in the main menu may not work properly.

3. Difficulties Encountered:
    - Shadows were rendered really dark and textures couldn't be seen when loading a scene from another scene. Solution was to bake the lights in the main scene.
    - Initially portals would not work. Solution was to disable player character controller when entering portal and re-enabled it a few milliseconds after exiting.
    - Player could get stuck in an invisible collider in the sky when crouching. Solution was to change colliders for environment from box collider to mesh collider.
    - NPC could throw you in the sky when attacking. Solution was to make sure the colliders on the sword are triggers, so they don't interact with the player collider and only check for collisions.
    - Portal positions did not reset at the end when entering new game. Solution was to add default values as the first position to the portal's position.
4. Collaboration and Team Performance:
    - **Overall Teamwork**: Our team demonstrated exceptional collaboration and communication, fostering a positive and productive work environment. The team engaged in brainstorming sessions, where each member contributed unique and valuable ideas for problem-solving and debugging. These sessions not only facilitated the resolution of immediate issues but also sparked innovative suggestions for enhancing and refining our game. Overall, our team's collaborative spirit and effective communication were pivotal in achieving our objectives during this sprint.
    - **Marius's Contribution**: Despite facing tight deadlines, Marius demonstrated remarkable dedication and skill in completing multiple tasks. His contributions were particularly crucial in finalizing the overall functionality of the game portals. Marius went above and beyond by not only meeting deadlines but also enhancing the player experience through the creation of a seamless gameplay flow for the first mission of the game. He also contributed to solving multiple game issues that we had.
5. Conclusion:
    In summary, this sprint showcased our team's flexibility to change and collaboration in overcoming challenges. Our brainstorming sessions generated great ideas, contributing to a functional flow for the first level. We are proud to have included features like the Color Filter for Individuals with

Color Vision Deficiency, emphasizing our commitment to inclusivity. Moving forward, we will build on this success, maintaining our collaborative spirit for an exceptional gaming experience **for players made by players**.



Retrospective Outcome

1. **Reflection on Sprint Achievements:**

Through accomplished tasks, our sprint achievements are significant. We've successfully crafted the foundation of our game, from NPC behaviour to immersive storytelling elements. With bug fixes enhancing player experience, we've not only met but exceeded our objectives. This sprint marks a pivotal step, as we've materialized the inaugural mission, providing players with an engaging introduction to our game.

2. **Addressing Unrealized Tasks:**

We aim to incorporate an immersive first-person view, allowing players to observe hands and weapons. Additionally, a more sophisticated player detection system is on our radar to elevate realism in the gameplay experience and a more functional main menu with all the working settings. These considerations will enrich our project in subsequent iterations.

3. **What doesn’t work well:**

The increasing complexity of the game is having a toll on some of our developers' systems, having long load times to build the project for testing it. We recognize this

issue and are actively exploring optimizations to streamline the development process and enhance efficiency.

4. **What was easier than expected:**

We were facing some critical bugs which were affecting our gameplay. We had no idea what it could be and thought we might need to rewrite some of the code and change the prefabs we were using for our first level. Turns out it was a simple mistake and all we needed to do was to switch the collider type on some objects.

5. **Actionable Steps for Improvement in the Next Sprints**:

- Be more careful with the assets and prefabs imported from the Unity Store as they may not be as qualitative as it seems to be.
- Explore optimizations techniques and see what can be done to reduce build times.
- Address Capacity Imbalance by identifying tasks that cause capacity disparities, utilising capacity tracker to maintain balanced work load, foster open communication to adjust assignments based on individual capacities and ensure that each team member operates within a reasonable workload threshold.

Sprint Review 3 Recording Link