12/6 – Sprint 5/Final Reflection

A screenshot of a computer

Description automatically generated

The team took a different approach to Sprint 5 than the other sprints: due to schedule constraints and the open-ended nature of the sprint, team members worked mostly independently throughout the sprint rather than having multiple people work on the same functionality. This worked surprisingly well but faced a few expected difficulties with merge conflicts. On the whole, the approach worked thanks to the effort that the team had made to make the code base modular and extendable throughout the project. Each additional feature added for Sprint 5 was simple to create and include in this project thanks to certain past design choices, such as using an abstract class in between several of our interfaces and concrete classes. Merging was slightly easier than previous sprints as no two group members needed to work on overlapping files.

Code metric analysis shows the expected level of increase in cyclomatic complexity and decrease in maintainability for the final sprint; much of this change can be attributed to the addition of multiple new Players and a new Dungeon, which act as a multiplicative factor for such attributes. The decision to implement additional player characters as Player States also negatively impacted code metrics, as those states are landmark low-maintainability files; a refactor to improve those would be recommended for future work.

The general opinion of the team is that the project went well overall and that its success was especially visible during Sprint 5. Over the course of the project, the team’s ability to work as a unit and utilize the required tools drastically improved and project organization/management stayed at a high level. Though code maintainability decreased over the project, as evidenced by the code metrics, the team believes that code quality largely did not suffer and that metric decreases were due to the inherent level of complexity of a project of this size. This is supported by the efficiency of Sprint 5; each team member reports that adding new content that fit within the developed framework was as easy as possible and that each segment of the project appeared to be easily extensible, which fits the project goals. Overall, the project was a success, and each team member is leaving with valuable group work experience and a nice gem to add to our programming history.