# Team Report

#### **TEAM RETROSPECTIVE**

The team worked well in the second stage of the project. Jordon was the Implementation lead, Mackenzie was the QA lead, Scott was the floater, and Cassandra was the librarian. The team met quite frequently following the plan of 3 meetings per week, which allowed the team to complete work quickly and discuss progress, problems and any changes that needed to be made. Communication within the team was better overall, with more frequent meetings and letting other members know what they were working on. A meeting format was also discussed and agreed upon, to allow subsequent meetings to flow smoothly. The team realized early on, that some major changes were needed regarding the design, as the classes were too heavily dependent on each other, resulting in circular dependency. The design also didn't meet the requirements, particularly for 3 separate areas. This resulted in taking more time to redesign the game, but it allowed for a little better and easier implementation, as well as giving the team a better understanding of the design. Some of the classes started as pure virtual and were inherited, but Mackenzie realized that we were violating the DRY principle, as many of the functions were identical. Now the classes are abstract with some methods implemented while others remained pure virtual.

During this phase, Jordan decided to drop the course, and we lost the team lead. The team ended up following a democratic style discussion in order to complete the implementation. Our risk assessment described losing a team member and how the member in the floater position would take over the vacant position. The team did not follow this, as we did not officially recognize Jordan's leaving, and therefore did not replace his position. Implementation was still completed however, with the remaining members working hard, and deciding together what needed to be done. As there was no formal team lead, workload became more uneven as tasks were not clear or divided well. There were times when members did not meet deadlines set, and this caused a delay in progress as others would have to wait until the necessary part was completed. As well, the team decided to use 'cin' to get user input throughout the game, and this resulted in lower code coverage than we had wanted because the tests aren't possible. At the very end, the team had a little bit of time to test the game and fix a few major bugs.

In future projects, having frequent meetings would be continued, as it allows the team to remain accountable and 'on the same page'. Starting early and working incrementally, would help avoid a rush at the end. With more experience, design patterns and SOLID principles would also be implemented to a higher degree. Working in branches would be continued, to allow members to work independently. Implementing user input in a different way so that it would support unit testing would also be helpful in getting higher code coverage. Finally, overall project planning and organization would be discussed and planned early on, to set clear tasks, deadlines and an even workload.

Overall, the team worked well together in this phase and having frequent meetings and discussions about the project allowed the implementation phase to be completed fairly smoothly, even with the loss of the team lead.

#### TEAM MEMBER CONTRIBUTIONS

#### <Jordon Harris>

Created class .h and .cpp files to start implementation

Unit Testing and implementation for Coordinate, PlayerStats, Item

Contributed to the discussions regarding the implementation of the project

### <Mackenzie Kure>

Asked questions from Dr Anvik regarding the team's design, Project re-design

Unit testing: Room, Area, Game, PlayerStat, Object, NPC, Game, Inventory

Implementation: Room, Inventory, PuzzleA, PuzzleC, Object, NPC, Game, few functions in playerStat

Destructors: All classes

Cout statements throughout the whole program/string initializations for all Objects, NPC's, and Puzzles

Revised/updated tests for Coordinate

Contributed to the discussions regarding the implementation of the project

Deleted unused functions/code

Changed classes from being an Interface to an abstract class.

Debugging Project: dealt w/ bug reports/fixed bugs from reports

#### <Cassandra Olfert>

Wrote the Team Report and User Manual

Unit testing and implementation for Puzzle, the setup and basics of Game, and some of Player (which was later deleted)

Revised, updated and added some functions and unit tests for Room and Area constructors - for game setup

Source Code documentation for all files

Updated the Design Report

Contributed to the discussions regarding the implementation of the project and took all notes for everyone to look back on during implementation

## <Scott Sonnleitner>

Unit testing and implementation for Area, Puzzle, some function bodies for Coordinate

Keeping track of what is done and needs to be done

Assessing state of code (code tracing/review) and planning next steps

Initial runGame loop and playtesting, bug fix

Contributed to the discussions regarding the implementation of the project