## Conclusion

This project aimed to realize an object-oriented approach towards text-based computer games, using several architectural and object design patterns, with UML as the primary language to visualize this approach. To make a true analysis of the system so that it is easily maintained and functions correctly and consistently, several models containing use cases were developed. Then, the system was decomposed to a number of subsystems, where each subsystem would maintain a unique architectural style. After the stage of object design, finally the portion of implementing the project using Java was completed.

There were many challenges faced when developing this project. Object design patterns were difficult to apply; finding the right pattern for each subsystem required a good knowledge of object design and a detailed visualization of the software to be developed. Working as a team and putting time and effort into research, we were able to manage each subsystem and apply the most appropriate patterns. Similarly, architectural patterns were not easy to implement, as it required outside-the-box thinking to fully comprehend the implications of each pattern. Again, a good deal of research made it possible to select and apply only one pattern that we deemed fit. Other obstacles such as time constraint and technical issues were always present, as is in all software development projects, and only pushed us even further to accomplish our goals.

The true triumph of building object-oriented software is to have accomplished a goal that applies to a computer, using real world solutions to solve real world problems. We believe that with the knowledge that we have gained out of this project, we are ready to explore further challenges to help solve real world problems through a fundamental understanding of the core concepts of object-oriented software engineering. As far as future work goes, it is almost a certainty that the principles that we have acquired in this project will be of guidance in many of our personal or corporate projects.