Project: C++ Capstone Project

README (All Rubric Points REQUIRED)

A README with instructions is included with the project	Done!
The README indicates the new features you added to the game.	Done!
The README includes information about each rubric point addressed.	Done!

Compiling and Testing (All Rubric Points REQUIRED)

The submission must compile and run without errors on the Udacity project workspace.	Done!

Loops, Functions, I/O - meet at least 2 criteria

The project demonstrates an understanding of C++ functions and control structures.	Done!
The project reads data from a file and process the data, or the program writes data to a file.	Done!
The project accepts user input and processes the input.	Done!
The project uses data structures and immutable variables.	Done!

Object Oriented Programming - meet at least 3 criteria

One or more classes are added to the project with appropriate access specifiers for class members.	Done!
Class constructors utilize member initialization lists.	Done!
Classes abstract implementation details from their interfaces.	Done!
Overloaded functions allow the same function to operate on different parameters.	
Classes follow an appropriate inheritance hierarchy with virtual and override functions.	
Templates generalize functions or classes in the project.	

Memory Management - meet at least 3 criteria

The project makes use of references in function declarations.	Done!
The project uses destructors appropriately.	Done!
The project uses scope / Resource Acquisition Is Initialization (RAII) where appropriate.	Done!
The project follows the Rule of 5.	
The project uses move semantics to move data instead of copying it, where possible.	
The project uses smart pointers instead of raw pointers.	

Concurrency - meet at least 2 criteria

The project uses multithreading.	Done!
A promise and future is used in the project.	
A mutex or lock is used in the project.	Done!
A condition variable is used in the project.	