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Final Project Reflection

## **Final Project Reflection**

### **Introduction**

The program ran an adventure game. The user was a pirate in search of a buried treasure. The objective of the game was to find three pieces to a key, which would later be used to open the treasure chest. Throughout the game, the ship would encounter mines that would damage the ship.

### **Program**

Once the program began, the objective of the game and the map of the game were displayed. Additionally, the spaces throughout the game were created. The user was prompted for a direction which was used to move the ship either north, east, south, or west. If a space was available, the ship would move to the space. If the space was null, the user would receive the following message: The wind is too rough to travel in that direction. The game continued until the three keys were found and the treasure was opened, the ship was completely destroyed, or the user quit the program.

My program contains the following seven files.

- main.cpp - Contains main for program.
- ship.hpp - header file for ship class.
- ship.cpp - contains functions for ship.
- space.hpp - header file to space class.
- space.cpp - contains constructor and getter functions used for space class.
  - mine.hpp
  - mine.cpp
  - regular.hpp
  - regular.cpp
  - key.hpp

- key.cpp
- treasure.hpp
- treasure.cpp.
- makefile

### Program Design

- Program begins
- Players are prompted for direction choice.
- While loop runs until objective is met, ship is destroyed, or player quits.

### Program Input Validation

Test Case	Input Values	Driver Functions	Expected Outcomes	Observed Outcomes
Direction is not an allowed option.	Value other than 'n/N' 'e/E' 's/S' 'w/W'	main()	Loopback question prompting user for appropriate input	Loopback question prompting user for appropriate input
Quit option not available	Value other than 'p/Q'	main()	Program continues	Program continues

### Program Reflections

The most difficult part of the program was connecting the space pointers together. This took a few days to complete and got increasingly difficult as the different rooms were incorporated. However, once this was completed, the rest of the program was straightforward and relatively simple to complete.