

Software Engineering -- Homework 3 Reflection

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The Homework 3 program uses the following classes: OceanExplorer, OceanMap, Ship and PirateShip. In the OceanExplorer class the application stage and scene are set, the images are loaded and keyboard events are handled. The OceanMap class is responsible for keeping track of the grid and the locations of the ship and pirate ship. The Ship and PirateShip classes implement a Observable and Observer pattern. Therefore, whenever the ship object moves, the pirate ship is notified and it moves accordingly. One thing I liked about this design is how each class handled one specific part of the program. As for instance, all things related to the actual application GUI were handled by the OceanExplorer class. The other classes were responsible for the logic of each object and communicating this information to the GUI in the OceanExplorer class.

Because of the program's design, it wouldn't be too hard to extend the functionality of the program. As for instance, if we wanted to add an ocean image for each rectangle in the grid, we could simply iterate through the oceanGrid object in the OceanExplorer class and load an image for each element of the array that represents the ocean. If we wanted to implement a restart button, we could add a function in the OceanExplorer class that recreates every object in the scene and resets the objects from other classes.