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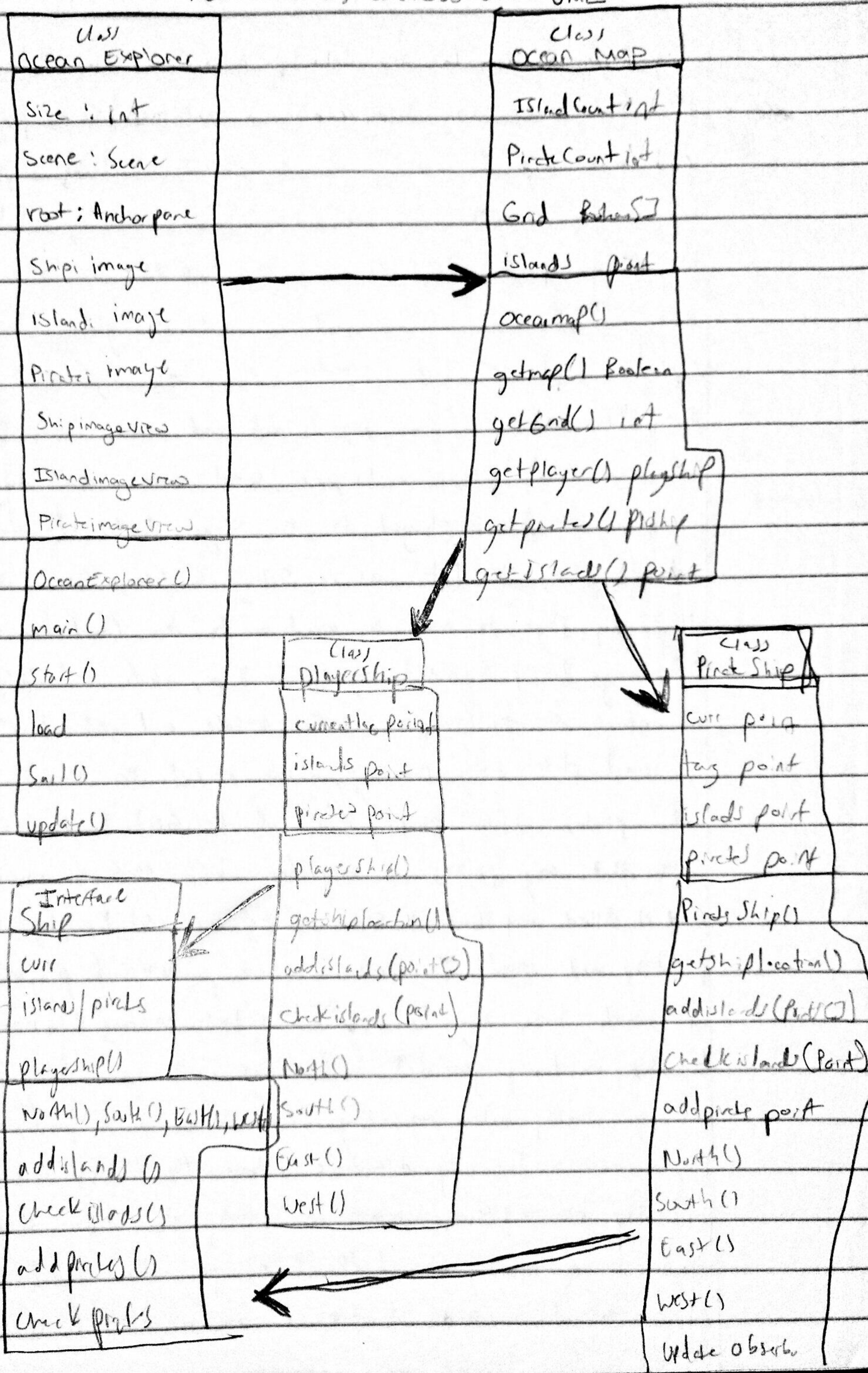
Object Oriented programming

Homework 2; Columbus Game UML



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Analysis Paragraph on my Columbus Game

My design thinking for the Columbus game has five classes, the first one being Ocean explorer, Oceanmap, Ship, playership and pirateship. I will have one interface being "Ship", and will be using an observer. I need one because the program has to be modular, and permit multiple views of the same scene for this game to work effectively. Moving back to my first class, Ocean Explorer which extended application, this being my gui hub, so to say. In this class, I have my launch and main functions, as well as my stages, anchorpane, Grid, ocean, and images, allowing everything to be displayed to the stage. Another attribute I added after the fact was my sailing function, this is used to allow my player to move in accordance to the coordinance and the image. Lastly I added my updateShips, which both displayed the movements of the ships on the console and updated there postions. The second class being Oceanmap, which created the amount of islands and pirates, as well as the size of the Grid. In here it was made sure that my pirates or mainship won't start on an island, and it called my functions such as my map, Grid, player (mainship), pirates, and islands. The next two were pirateship & playership, both of which have very similar functions, both creating the origin spot of the ship, randomly generated postion, as well as function for checking islands, making sure they aren't on the same spot, and lastly the movement. The only differentce between the two classes is that pirateship has a different movement system, where rather than allowing it to move, it checks if the player has moved in the column or row and it follows according to those Coordinates.

The last class was my interface class, Ship, which was tied to both pirateShip and playerShip. The interface would call movement, location, and check functions from these different classes. With everything connected, the classes worked together and performed flawlessly! Fun project, had a lot of fun with it!