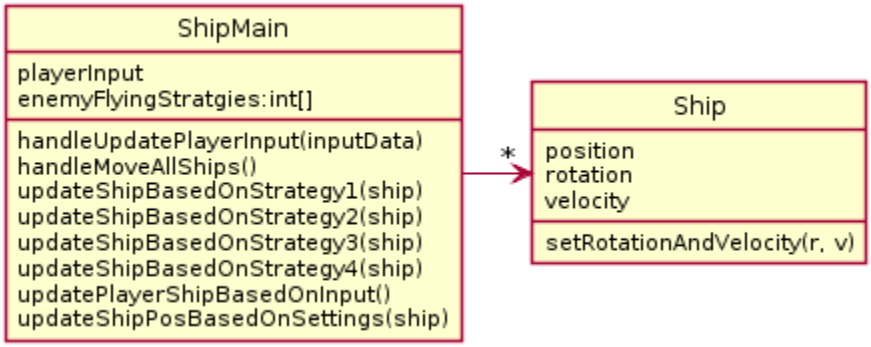
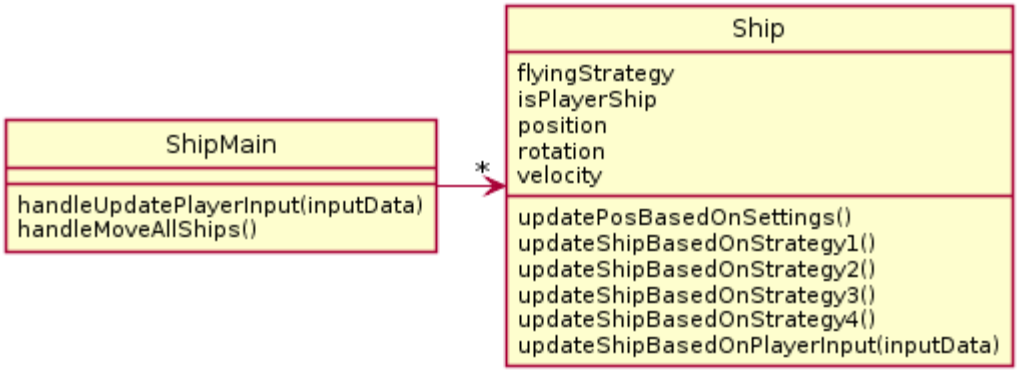
Design Problems, Part 2 **Name: _____ CM: _____**

***Spaceship*:** In a single player spaceship racing application, the physics mechanics that apply to ships are particularly important. Each ship has a current position, rotation, and velocity. Rotation and velocity can be increased or decreased by the player's handheld controller - this is how the ship is steered by the player, so the app must take player input from this controller. One or more ships are app-controlled and each ship has a single flying strategy. The app can choose from 4 different flying strategies for each app-controlled ship, these strategies are used to compute ship movement. There are two operations to consider: *handleUpdatePlayerInput* which is called when a player activates the game controller and *handleMoveAllShips* which updates the position of all ships in the game based on their current settings.

Solution A



Solution B



First, for each *Solution A* and *Solution B* give the number of the OO Principles violated and an explanation.

Problems with A

1) Principle(s):
2) Explanation:

Problems with B

1) Principle(s):
2) Explanation:

Second, attach a UML design that captures your solution to all the problems.