

Larry Wong, Richard Wong, Stefan Tan

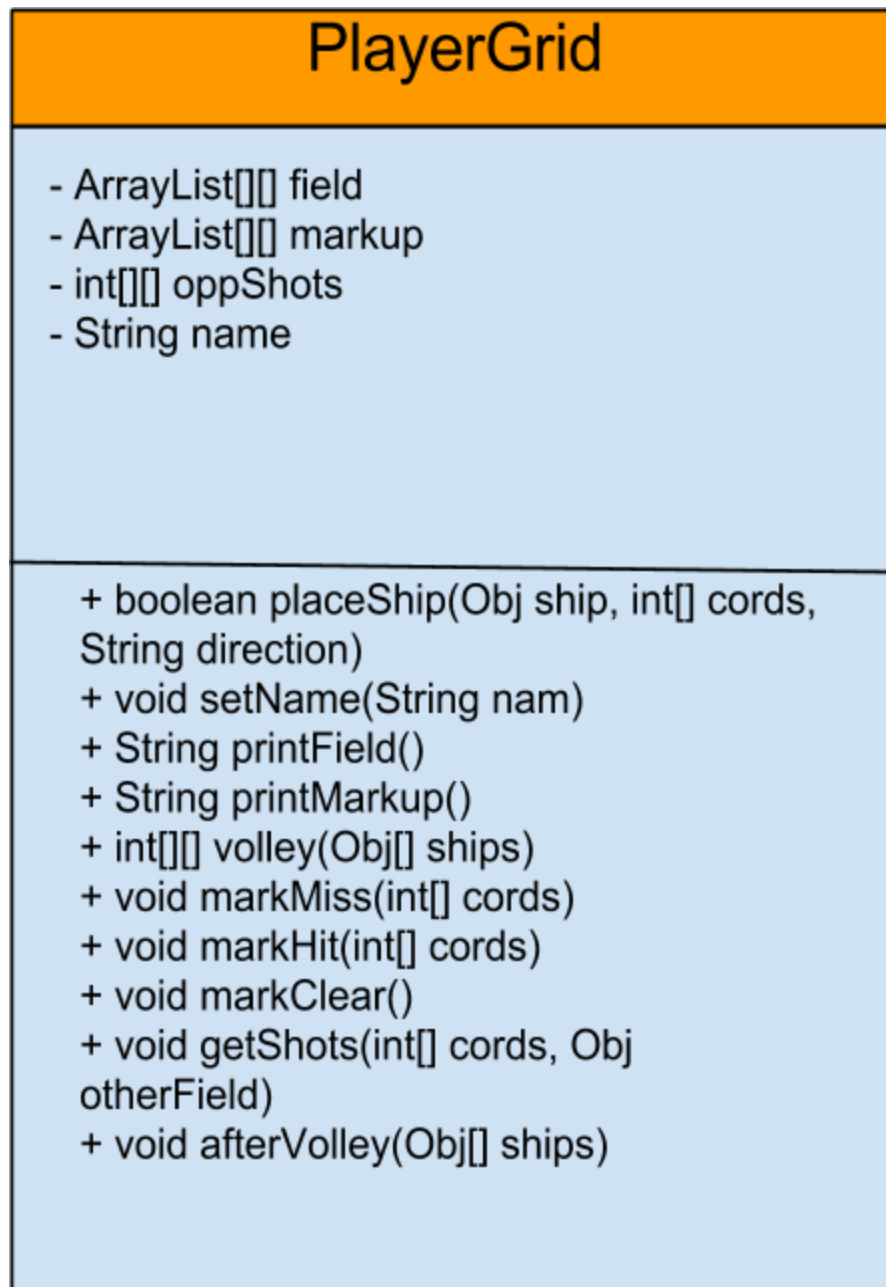
2018-1-3

Abstract Class Ship is the superclass of class Submarine, Destroyer, Cruiser, Battleship, and Aircraft Carrier

abstract Ship
<ul style="list-style-type: none"> - boolean isAlive = true - double health - int attack - int defense - int movement - int size - boolean recharging - int abtCr - int board, last shot
<ul style="list-style-type: none"> + double getHealth() + int getAttack() + int getDefense() + int getMovement() + int[] getSize() + void shoot(int[] cords) + abstract ability() + void updateHealth(int damage)

The subclasses of class Ships inherit the instance variables and methods of class Ship. The abstract method is different for each subclass of Ship.

Submarine	Destroyer	Cruiser	Battleship	Aircraft Carrier
<ul style="list-style-type: none"> - double health = 50 - int attack = 60 - int defense = 5 - int movement = 6 - int size = 3 	<ul style="list-style-type: none"> - double health = 60 - int attack = 30 - int defense = 30 - int movement = 8 - int size = 2 	<ul style="list-style-type: none"> - double health = 100 - int attack = 50 - int defense = 20 - int movement = 5 - int size = 3 	<ul style="list-style-type: none"> - double health = 125 - int attack = 50 - int defense = 40 - int movement = 4 - int size = 4 	<ul style="list-style-type: none"> - double health = 150 - int attack = 40 - int defense = 10 - int movement = 4 - int size = 5
<ul style="list-style-type: none"> + void ability() <p>⇒ The Submarine has no abilities.</p>	<ul style="list-style-type: none"> + void ability(Obj opposingGrid) <p>The destroyer can shoot twice once every game. Use it wisely.</p>	<ul style="list-style-type: none"> + void ability() <p>⇒ The Cruiser increases its attack.</p>	<ul style="list-style-type: none"> + void ability() <p>⇒ The Battleship increases defense</p>	<ul style="list-style-type: none"> + int ability(Obj opposingGrid) <p>⇒ returns a row number with one or more opponent vessel on it</p>



Class PlayerGrid determines the changes of the variables of the subclasses of Ship such as whether or not a shot hit a ship.