I implement this game following the MVC design model, which is model, view and controller. The model here is composed of Ship, Player and Game. Game is a whole logic control of how the player and AI play the game, when it's win, and judge if the click on the view is a hit or miss. Ship class stores everything about a ship including its size, type and the state of hit. Player class does the same thing as ship class, it stores a player type and what ships he owns.
As for views, I choose to implement a customized Game View to display our ship state and use "long press" gesture to rotate the ship and "pan" gesture to move the ship to locations we want. This is controlled by the game view controller. But to make every view looks better and could respond to our operations, I use customized view for ships.
In the GameView controller, it controls each parts' logic for display (tons of code for transitions) and some very trivial logic to do the computing parts. I choose to use protocol which is defined in Game model, in this way, the game control is much more scalable. Also, I use the "delegate" to invoke some methods which is not defined in the class. Delegate is much safer way to make a class functional without having to change the internal structure.
To keep the view interaction part simple, I use the segment to slice the view into small grids. In this way, whenever you click on the board, it would be mapped to a certain segment, and we don't need to worry about calculating the points each time.
Finally, I add an AI part for the computer, I implement the random AI described in the requirement. But I also find some much stronger ones, either using dynamic programming or probability strategies. The link below is very good source to read, I modify some parts of the AI according to this:
http://stackoverflow.com/questions/1631414/what-is-the-best-battleship-ai

For the flaws in this app, I sometimes find it's a little bit hard to place a ship, it may be caused by the accuracy is too high, which may need some tweak later.

Li Zeng 433519 April 1st 6:03PM