

THE MISSION

Battleship

You are going to create your own small version of the classic board game Battleship.

If you don't know how to play Battleship then watch

<https://youtu.be/4gHJIYLomrs>

This project will significantly increase your coding skills and help you master fundamental data structures and algorithms.

REQUIREMENTS

1. When the application loads print the text, "Press any key to start the game."
2. When the user presses the key, your code will randomly place two different ships in two separate locations on the board. Each ship is only 1 unit long (In the real game ships are 2+ in length).
3. The prompt will then say, "Enter a location to strike ie 'A2' "
4. The user will then enter a location. If there is a ship at that location the prompt will read, "Hit. You have sunk a battleship. 1 ship remaining."
5. If there is not a ship at that location the prompt will read, "You have missed!"
6. If you enter a location you have already guessed the prompt will read, «You have already picked this location. Miss!»

Skill Level: **Impossible**



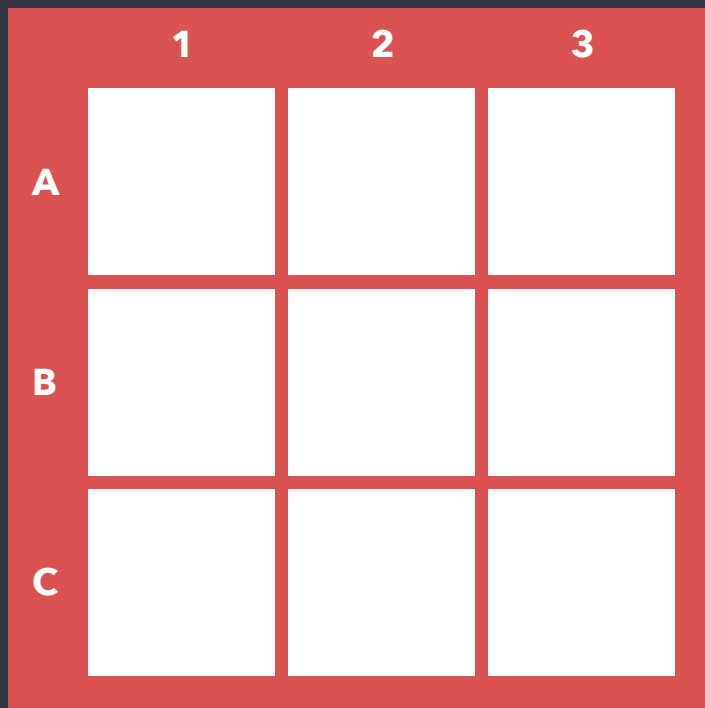
DAY 29

This is your last mission and it's gonna be a doozy. Prepare your cannons for all out war as we build Battleship!

— Post your solution to the **#missions** channel of the chatroom.



7. When both of the battleships have been destroyed the prompt will read, "You have destroyed all battleships. Would you like to play again? Y/N"
8. If "Y" is selected the game starts over. If "N" then the application ends itself.



Skill Level: **Impossible**



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Advanced: More Battleship!

PART 1

Now we are going to make the game a little more realistic.

1. Re-write the code so that we use letters A-J and numbers 1-10. This will create a 100 unit grid.
2. The computer will now place multiple ships in this format:
 - One two-unit ship
 - Two three-unit ships
 - One four-unit ship
 - One five-unit ship
3. Keep in mind that your code cannot place two ships on intersecting paths
4. Ship placement should be random and not manually placed by you in the code
5. The game works as before, except now all ships must be destroyed to win

Skill Level: **Impossible**



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Post a screenshot of your final code to the **#advanced-missions** channel

PART 2

Instead of just printing "hit" or "miss" when you take a turn, have a GUI-based grid appear in the terminal. Use O for your misses and use X for your hits. After every turn, the grid will re-print with the proper data.

	1	2	3	4	5	6	7	8	9	10
A		○								
B		○						○		
C										
D		×	×							
E										
F										
G										
H										
I								×		
J										

Skill Level: **Impossible**



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— PART 3

Modify the game so you can play against the computer. When the game starts it will automatically position your ships. The computer will then position its own ships.

After you attack and the regular printouts appear, the computer will then attack. It will tell you if you have been hit or missed. The game continues on until someone wins.

Only print the grid for your team on each turn.

Skill Level: **Impossible**



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