

## CECS 174 – Project 4

### Warship

Create a program that allows the user to input coordinates onto a 5x5 2-D array in order to locate and destroy a hidden enemy ship. Make a game board similar to the one below:

	A	B	C	D	E
1	-	-	-	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-

The game begins with a blank board. Randomly assign the location of a 2x2 enemy ship but do not display it on the board (Hint: you can create a separate array to hold the location of the ship).

The user fires a shot by specifying the row (1-5) and column (A-E) values. Check to make sure that the input is a valid entry, within the bounds of the array, and that it is not a location that has already been chosen. If the shot hits the ship then display a '\*' symbol in that location to designate a 'hit'. If the shot does not hit the ship, then display an 'x' in that location to designate a 'miss'.

When the user has hit all four spots that the ship is located on then the user has won. Reset the board so that the user can play again.

Give the user the option to give up, which will reveal the location of the enemy ship. Once the user has seen the solution, you must reset the game.

Allow the user to quit at any time during the game. Check all user inputs for validity and use any necessary methods to create your program.

#### Example Output of a game in progress:

	A	B	C	D	E
1	-	-	-	x	-
2	-	-	*	-	-
3	-	x	*	*	-
4	-	-	x	-	-
5	x	-	-	-	-

Menu:

1. Fire Shot
2. Show Solution
3. Quit

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Enter a Column Letter: D

Enter a Row Number: 2

	A	B	C	D	E
1	-	-	-	x	-
2	-	-	*	*	-
3	-	x	*	*	-
4	-	-	x	-	-
5	x	-	-	-	-

You Won!

Menu:

1. Fire Shot
2. Show Solution
3. Quit