

Test sheet 5

by Josh Willis

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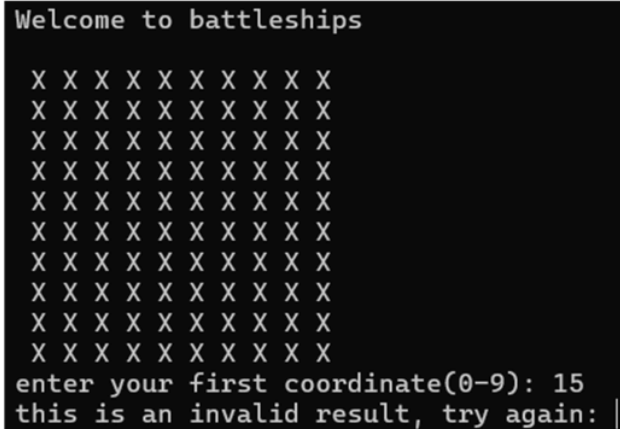
File name: 58111_Josh_Willis_Test_sheet_5_703116_154628.docx (178.73K)

Word count: 684

Character count: 3919

Test:
C1 – 15

Screenshot(s) of output:



```
Welcome to battleships

X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X

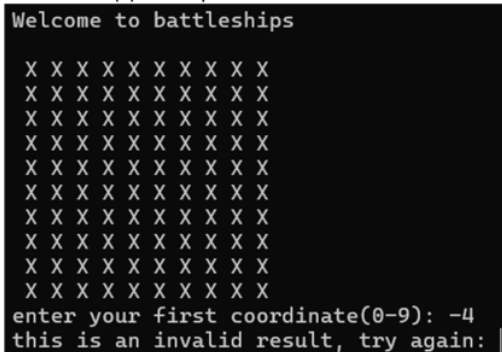
enter your first coordinate(0-9): 15
this is an invalid result, try again: |
```

Result: Did the programme behave as expected ie syntactically and logically correct?
YES

Inputting a coordinate that is out of the range worked how it was meant to by prompting a retry to fit within the boundaries of the first coordinate

Test:
C1 – -4

Screenshot(s) of output:



```
Welcome to battleships

X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X

enter your first coordinate(0-9): -4
this is an invalid result, try again: |
```

Result: Did the programme behave as expected ie syntactically and logically correct?
YES

The input of -4 also prompted a message that this coordinate is an invalid option, and the user will have to reenter their choice until a valid coordinate is inputted

Test:

C2 -11

Screenshot(s) of output:

```
Welcome to battleships

X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
enter your first coordinate(0-9): 2
enter your second coordinate(0-9): 11
this is an invalid result, try again:
```

Result: Did the programme behave as expected ie syntactically and logically correct?

YES

The programme behaves correctly after the input for the second coordinate is invalid being over the limit of choice, the layout of the programme is exactly how it should be formatted

Test:

C2 --2

Screenshot(s) of output:

```
Welcome to battleships

X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
enter your first coordinate(0-9): 3
enter your second coordinate(0-9): -2
this is an invalid result, try again: |
```

Result: Did the programme behave as expected ie syntactically and logically correct?

YES

After offering the coordinate of -2 into the second choice which isn't a valid option for the input the programme follows by showing an error message for the user to retry with a new number and this will continue until a valid number is entered before continuing to the next round in the game

Enter a letter

[illegible]

NO

This test did not behave how expected after inputting a letter instead of a number the programme began to loop continuously until it way close. Needing to add validation to prevent users from inputting characters to stop this error

Hits and misses

YES

The board updates per round and displays the hits with H and the misses with O all the inputted coordinates relating to a corresponding space on the board changes as meant to following the programme and working correctly

```
#define _CRT_SECURE_NO_WARNINGS
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <ctype.h>
#include <windows.h>
char board[10][10] =
{ {'X','S','S','S','S','S','X','X','X','X'},{'X','X','X','X','X','X','X','X','X','X'},{'X','X','X','X','S','S','S','X','X','X'},{'X',
'S','X','X','X','X','X','X','X','X'},{'X','S','X','X','X','X','X','X','S'},{'X','X','X','X','X','X','X','X','S'},{'X','X','X',
'S','S','X','X','X','X','S'},{'X','X','X','X','X','X','X','X','X'},{'X','X','X','X','S','S','S','S','X','X'},{'X','X','X','X','X',
',','X','X','X','X','X'} };
#include "josh.h"

void main()
{
    int c1, c2;
    int found = 0;
    char choice;

    printf("Welcome to battleships\n\n");

    printboard();

    while (found < 19)
    {
        printf("enter your first coordinate(0-9): ");
        scanf("%d", &c1);

        while (c1 > 9 || c1 < 0)
        {
            if (c1 > 9 || c1 < 0)
            {
                printf("this is an invalid result, try again: ");
                scanf("%d", &c1);
            }
        }

        printf("enter your second coordinate(0-9): ");
        scanf("%d", &c2);

        while (c2 > 9 || c2 < 0)
        {
            if (c2 > 9 || c2 > 0)
            {
                printf("this is an invalid result, try again: ");
                scanf("%d", &c2);
            }
        }
    }
}
```

```

if (board[c1][c2] == 'X')
{
printf("\nmissed\n\n");
board[c1][c2] = 'O';
system("color 4c");
}
else if (board[c1][c2] == 'S')
{
printf("\nthats a hit\n\n");
board[c1][c2] = 'H';
found = found + 1;
system("color 2f");
}

Sleep(750);

system("color 0f");

printf("Current board:\n\n");

printboard();
}

printf("WELL DONE, YOU WIN\n");

printf("thank you for playing");
}

void printboard()
{
for (int j = 0; j < 10; j++)
{
for (int i = 0; i < 10; i++)
{
if (board[j][i] == 'S')
{
printf(" X");
}
else
{
printf(" %c", board[j][i]);
}
}
}

printf("\n");
}
}

```


Test sheet 5

GRADEMARK REPORT

FINAL GRADE

20/0

GENERAL COMMENTS

WORKSHEET 5

Coding- You have created a reasonable battleships game with ability to sink ships and end the game once all have been sunk.

You are missing more advanced features such as randomising the game (this in turn brings problems to solve, such as boats not overlapping on the grid)

Good use of validation for the coordinates

Good use of function for print board, possibly could extend this to a function to enter the coordinates to streamline things.

As with a previous worksheet, you don't really need the if statement below, the while covers it (it's more efficient without it)

```
while (c1 > 9 || c1 < 0)

{

if (c1 > 9 || c1 < 0)

{

printf("this is an invalid result, try again: ");

scanf("%d", &c1);

}
```

}

I like the colours for the miss!

9.5/15

Testing - For the features produced, a good discussion
10/15

Overall mark Worksheet 5: 19.5/30

Ogranisation of report, writing style, presentation of
work

Good writing style overall-sometimes it is a little on the
colloquial side eg "worked how it was meant to".
"functioned appropriately" sounds more academic!
9/10

Overall mark for assignment (5 worksheets) -
77.5%

Test mark - 80%

Overall mark for module: 78.25%

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