Program 5: BattleShip III

Level Attempted: 100

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CpS 209

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# Program Report

Time Designing, Writing, and Debugging: 15 hours

## Requirements Implementation Summary

The following requirements have been implemented:

* All requirements for 80 Level except for what is documented below
* All requirements for 90 Level
* All requirements for 100 Level

The following requirements have not been implemented:

* Start with a demo game in progress

## Bug Summary

1. When a game ends, it does not transmit the results of the final attack to the Server (See My Test Case 1)

## Academic Integrity Report

By affixing my signature below, I certify that the accompanying work represents my own intellectual effort. Furthermore, I have received no outside help other than what is documented below and/or in program source code comments.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Signature

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Name / Email / URL** | **Nature of help** | **Time spent** |
| 3/28/19 | Jason French | Showed me what a carriage symbol was | 10 seconds |
|  |  |  |  |

## Other Remarks

I had thought for the demo we needed to show only string demonstration of what the GameState should look like. I simply made a demo command that returned the example given in the Protocol (See My Test Case 2) . I did not realize that there was a mistake until I was writing the report.

# Official Test Results

## Session 1 Output

|  |
| --- |
| Welcome to Battleship. What game do you wish to join?  demo  GameStateResponse active  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~XX~~~  ~~~~~~~~~~  ~~~XXXX~~~  ~~~~~~~~~~  X~~~~~~~~~  X~~~~~~~~~  ~X~~~~~~~~  ---  ~~~~~~~~~~  ~~~~~~X~~~  XXXX~~X~~~  ~~~~~XX~XX  ~~~~~X~~~~  ~~~~~~~~X~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  Attack 2 2  AttackResponse hit 6 2  Attack 3 1  AttackResponse missed 1 0  Attack 4 5  AttackResponse hit 8 3  Attack 7 1  AttackResponse missed 2 0 |

## Session 2 Output

|  |
| --- |
| Welcome to Battleship. What game do you wish to join?  alpha  GameStateResponse active  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~X~~  X~~~~~~~~~  ~~X~~~~X~~  ~~~~~~~~~~  ~~~~~~X~~~  ---  ~~~~~~~~~X  ~~~X~~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~XX  ~~~~~~~~~~  ~~~~XXXX~~  Attack 0 9  AttackResponse hit 1 5  Attack 1 3  AttackResponse hit 4 9 |

## Session 3 Output

|  |
| --- |
| Welcome to Battleship. What game do you wish to join?  alpha  GameStateResponse active  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~X~~  X~~~~~~~~~  ~~X~~~~X~~  ~~~~~~~~~~  ~~~~~~X~~~  ---  ~~~~~~~~~X  ~~~X~~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~XX  ~~~~~~~~~~  ~~~~XXXX~~  GameState  GameStateResponse active  ~~~~~~~~~~  ~~~~~O~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~O  ~~~~~~~X~~  X~~~~~~~~~  ~~X~~~~X~~  ~~~~~~~~~~  ~~~~~~X~~~  ---  ~~~~~~~~~\*  ~~~\*~~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~XX  ~~~~~~~~~~  ~~~~XXXX~~ |

## My Test Case 1

|  |
| --- |
| Welcome to Battleship. What game do you wish to join?  alpha  GameStateResponse active  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~X~~  X~~~~~~~~~  ~~X~~~~X~~  ~~~~~~~~~~  ~~~~~~X~~~  ---  ~~~~~~~~~X  ~~~X~~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~XX  ~~~~~~~~~~  ~~~~XXXX~~  GameState  GameStateResponse active  ~~~~~~~~~~  ~~~~~O~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~O  ~~~~~~~X~~  X~~~~~~~~~  ~~X~~~~X~~  ~~~~~~~~~~  ~~~~~~X~~~  ---  ~~~~~~~~~\*  ~~~\*~~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~X~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~XX  ~~~~~~~~~~  ~~~~XXXX~~  Attack 7 9  AttackResponse hit 9 7  Attack 7 8  AttackResponse hit 1 4  Attack 9 7  AttackResponse hit 9 4  Attack 9 6  AttackResponse hit 3 6  Attack 9 5  AttackResponse hit 6 0  Attack 9 4  AttackResponse hit 6 1  Attack 2 4  AttackResponse hit 4 9  Attack 3 4  AttackResponse hit 8 8  Attack 4 4  AttackResponse invalid  GameState  GameStateResponse ended Human  ~~~~~~~~~~  ~~~~OO~~~~  ~~~~~~~~~~  ~~~~~~O~~~  ~~~~~~~~~O  O~~~~~~X~~  \*O~~~~~~~~  ~~X~~~~X~~  ~~~~~~~~O~  ~~~~O~XO~~  ---  ~~~~~~~~~\*  ~~~\*~~~~~~  ~~~~\*~~~~~  ~~~~\*~~~~~  ~~~~\*~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~\*\*  ~~~~~~~~~~  ~~~~\*\*\*\*~~ |

## My Test Case 2

|  |
| --- |
| Welcome to Battleship. What game do you wish to join?  demo  GameStateResponse active  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~XX~~~  ~~~~~~~~~~  ~~~XXXX~~~  ~~~~~~~~~~  X~~~~~~~~~  X~~~~~~~~~  ~X~~~~~~~~  ---  ~~~~~~~~~~  ~~~~~~X~~~  XXXX~~X~~~  ~~~~~XX~XX  ~~~~~X~~~~  ~~~~~~~~X~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  demo  GameStateResponse active  ~~~~~X~~~~  ~~X~~\*~~~~  ~O~~~~~~~~  ~~~~~~~~~~  ~~~~\*~~~~~  ~X~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ---  ~~~~~~~~~~  ~~~~~~~~~~  ~~X~~\*~~~~  ~O~~~~~~~~  ~~~~~X~~~~  ~~~~~~~~~~  ~~~~\*~~~~~  ~X~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  demo  GameStateResponse active  ~~~~~X~~~~  ~~X~~\*~~~~  ~O~~~~~~~~  ~~~~~~~~~~  ~~~~\*~~~~~  ~X~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~  ---  ~~~~~~~~~~  ~~~~~~~~~~  ~~X~~\*~~~~  ~O~~~~~~~~  ~~~~~X~~~~  ~~~~~~~~~~  ~~~~\*~~~~~  ~X~~~~~~~~  ~~~~~~~~~~  ~~~~~~~~~~ |