

Black-box Test Cases

Use your notes from above to complete the black-box test plan section of the formal documentation by writing black box test cases (other than actual results since no program currently exists). Remember to test each equivalence class, boundary value, and requirement. For example, if you have 6 requirements, you should have at least 6 black-box test cases. **Make sure your test cases are non-redundant, specific, and repeatable!**

| Test ID | Description | Expected Results | Actual Results |
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| testGameEnds4Connect Player1 Author - team 2 | \$ java ConnectFourGUI Enter a in the text box when prompted for player 1 name. Enter b in the text box when prompted for player 2 name. Enter 4 when prompted for the number of pieces to necessary to win Player 1 connects 4 pieces. | a Won! a Wins: 1 b Wins: 0 Replay button appears | a Won! a Wins: 1 b Wins: 0 Replay button appears |
| testGameEnds4Connect Player2UpdateWins Author - team 2 | Click the Replay button after testGameEnds4Connect Player1 Enter a in the text box when prompted for player 1 name. Enter b in the text box when prompted for player 2 name. Enter 4 when prompted for the number of pieces to necessary to win Player 2 connects 4 pieces. | b Won! a Wins: 1 b Wins: 1 Replay button appears | b Won! a Wins: 1 b Wins: 1 Replay button appears |

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| <p>testGameEndsNoWinner</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces to necessary to win</p> <p>Enter all 64 tokens without ever connecting four.</p> | <p>Tie</p> <p>a Wins: 0</p> <p>b Wins: 0</p> <p>Replay button appears</p> | <p>Tie</p> <p>a Wins: 0</p> <p>b Wins: 0</p> <p>Replay button appears</p> |
| <p>testGameEndsOnLastMoveWinner</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces to necessary to win</p> <p>Enter all 64 tokens with player B winning on the last token.</p> | <p>b Won!</p> <p>a Wins: 0</p> <p>b Wins: 1</p> <p>Replay button appears</p> | <p>b Won!</p> <p>a Wins: 0</p> <p>b Wins: 1</p> <p>Replay button appears</p> |
| <p>testGameEnds4ConnectPlayer1Hor</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted</p> | <p>a Won!</p> <p>a Wins: 1</p> <p>b Wins: 0</p> <p>Replay button appears</p> | <p>a Won!</p> <p>a Wins: 1</p> <p>b Wins: 0</p> <p>Replay button appears</p> |

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| | <p>for the number of pieces to necessary to win</p> <p>Player 1 connects 4 pieces horizontally from right to left.</p> | | |
| <p>testGameEnds4ConnectPlayer2Hor</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces necessary to win.</p> <p>Player 2 connects 4 pieces from left to right.</p> | <p>b Won! a Wins: 0</p> <p>b Wins: 1</p> <p>Replay button appears</p> | <p>b Won! a Wins: 0</p> <p>b Wins: 1</p> <p>Replay button appears</p> |
| <p>testGameEnds4ConnectPlayer1DiagonallyLr</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces to necessary to win</p> <p>Player 1 connects pieces diagonally from left to right.</p> | <p>a Won! a Wins: 1</p> <p>b Wins: 0</p> <p>Replay button appears</p> | <p>a Won! a Wins: 1</p> <p>b Wins: 0</p> <p>Replay button appears</p> |
| <p>testGameEnds4ConnectPlayer2DiagonallyRl</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box</p> | <p>b Won! a Wins: 0</p> <p>b Wins: 1</p> | <p>b Won! a Wins: 0</p> <p>b Wins: 1</p> |

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| | <p>when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces to necessary to win</p> <p>Player 2 connects pieces diagonally from right to left.</p> | Replay button appears | Replay button appears |
| <p>testGameEndsVertically</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces to necessary to win</p> <p>Player 1 connects 4 pieces vertically.</p> | <p>a Won!</p> <p>a Wins: 1</p> <p>b Wins: 0</p> <p>Replay button appears</p> | <p>a Won!</p> <p>a Wins: 1</p> <p>b Wins: 0</p> <p>Replay button appears</p> |
| <p>testBlankName</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Click ok without entering anything when prompted for the player 1 name.</p> | Name cannot be blank. | Name cannot be blank. |
| <p>testDuplicateName</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter "a" when prompted for Player 1 name.</p> <p>Enter "a" when prompted for Player 2 name.</p> | Player 2 name must be different from Player 1. | Player 2 name must be different from Player 1. |

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| testDecimalPieces Author - team 2 | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4.5 when prompted for the number of pieces to necessary to win</p> | Re-prompted to enter the number of consecutive pieces to win (between 4 - 10 and a whole number. | Re-prompted to enter the number of consecutive pieces to win (between 4 - 10 and a whole number. |
| testNonIntegerPiecesLetter Author - team 2 | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter "S" when prompted for the number of pieces to necessary to win</p> | Re-prompted to enter the number of consecutive pieces to win (between 4 - 10 and a whole number. | Re-prompted to enter the number of consecutive pieces to win (between 4 - 10 and a whole number. |
| testNonIntegerPiecesSymbol Author - team 2 | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter "!" when prompted for the number of pieces to necessary to win</p> | Re-prompted to enter the number of consecutive pieces to win (between 4 - 10 and a whole number. | Re-prompted to enter the number of consecutive pieces to win (between 4 - 10 and a whole number. |
| testLowBoundary3Pieces Author - team 2 | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for</p> | Please enter a value in the valid range of 4-10. | Please enter a value in the valid range of 4-10. |

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| | <p>player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 3 when prompted for the number of pieces to necessary to win</p> | | |
| <p>testlowBoundary4Pieces</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 4 when prompted for the number of pieces to necessary to win</p> | 8 x 8 Grid appears | 8 x 8 Grid appears |
| <p>testlowBoundary5Pieces</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> <p>Enter 5 when prompted for the number of pieces to necessary to win</p> | 10 x 10 Grid appears | 10 x 10 Grid appears |
| <p>testHighBoundary10Pieces</p> <p>Author - team 2</p> | <p>\$ java ConnectFourGUI</p> <p>Enter a in the text box when prompted for player 1 name.</p> <p>Enter b in the text box when prompted for player 2 name.</p> | 20 x 20 Grid appears | 20 x 20 Grid appears |

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| | Enter 10 when prompted for the number of pieces to necessary to win | | |
| testHighBoundary11Pieces Author - team 2 | \$ java ConnectFourGUI Enter a in the text box when prompted for player 1 name. Enter b in the text box when prompted for player 2 name. Enter 11 when prompted for the number of pieces to necessary to win | Please enter a value in the valid range of 4-10. | Please enter a value in the valid range of 4-10. |
| testPlayer1Win5pieces Author - team 2 | \$ java ConnectFourGUI Enter a in the text box when prompted for player 1 name. Enter b in the text box when prompted for player 2 name. Enter 5 when prompted for the number of pieces to necessary to win Player 1 (a) connects 5 pieces to win. | a Won! a Wins: 1 b Wins: 0 Replay button appears | a Won! a Wins: 1 b Wins: 0 Replay button appears |
| testFullColumn Author - team 2 | \$ java ConnectFourGUI Enter a in the text box when prompted for player 1 name. Enter b in the text box when prompted for player 2 name. Enter 4 when prompted | Column is full. Choose another column. | Column is full. Choose another column. |

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| | <p>for the number of pieces to necessary to win</p> <p>Both players place pieces in column 1 continuously.</p> | | |
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