|  |  |  |  |
| --- | --- | --- | --- |
| Estado inicial | Ação | Estado final | Índex |
| numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  posição da peça preta -> (0, 0)  índex do turno = 0 | processaJogada(0, 0, 0, 2) | numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 1  posição da peça preta -> (0, 0)  índex do turno = 0 | 0 |
| numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  posição da peça preta -> (0, 0)  índex do turno = 0 | processaJogada(0, 0, 0, 1) | numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 1  numberOfValidPlaysByBlackTeam = 0  posição da peça preta -> (0, 1)  índex do turno = 1 | 1 |
| numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  posição da peça branca -> (0, 0)  índex do turno = 0 | processaJogada(0, 0, 0, 1) | numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 1  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  posição da peça preta -> (0, 0)  índex do turno = 0 | 2 |
| numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  posição da peça preta -> (0, 0)  índex do turno = 0 | processaJogada(0, 0, 0, 0) | numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 1  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  posição da peça preta -> (0, 0)  índex do turno = 0 | 3 |
| numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0 firstCapture = false  posição da peça preta -> (0, 0)  posição da peça branca -> (0, 1)  índex do turno = 0 | processaJogada(0, 0, 0, 1) | numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 1  firstCapture = true  posição da peça preta -> (0, 1)  posição da peça branca -> (-100, -100)  índex do turno = 0 | 4 |
| numberOfInvalidPlaysByWhiteTeam = 0 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  firstCapture = false  posição da peça preta -> (0, 0)  posição da peça branca -> (0, 1)  índex do turno = 1 | processaJogada(0, 0, 0, 1) | numberOfInvalidPlaysByWhiteTeam = 1 numberOfInvalidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfValidPlaysByBlackTeam = 0  firstCapture = false  posição da peça preta -> (0, 0)  posição da peça branca -> (0, 1)  índex do turno = 1 | 5 |

|  |  |  |  |
| --- | --- | --- | --- |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo(“test-files/FILE\_TEST\_EMPTY.txt”) | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 6 |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_MISSING\_BOARD\_SIZE.txt") | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 7 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_HIGHER\_BOARD\_SIZE.txt") | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 8 |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_MISSING\_PIECES\_LINE.txt") | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 9 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_MISSING\_BOARD\_SIZE.txt") | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 10 |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_MISSING\_BOARD\_COLUMN.txt") | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 11 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_2\_PIECES\_WITH\_THE\_SAME\_ID.txt") | boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 12 |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/FILE\_TEST\_GAME\_SAVED.txt") | boardSize = 8  numberOfBlackPiecesCaptured = 2  numberOfWhitePiecesCaptured = 2  numberOfValidPlaysByBlackTeam = 15  numberOfValidPlaysByWhiteTeam = 15  numberOfInvalidPlaysByBlackTeam = 1  numberOfInvalidPlaysByWhiteTeam = 3  crazyPiecesInGame size = 7  allCrazyPieces size = 7  authors size = 0  suggestedPlay size = 0  scores size = 11  shift size = 1  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 13 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| boardSize = 0  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 0  allCrazyPieces size = 0  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 0  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | iniciaJogo("test-files/RUN\_FILE.txt") | boardSize = 8  numberOfBlackPiecesCaptured = 0  numberOfWhitePiecesCaptured = 0  numberOfValidPlaysByBlackTeam = 0  numberOfValidPlaysByWhiteTeam = 0  numberOfInvalidPlaysByBlackTeam = 0  numberOfInvalidPlaysByWhiteTeam = 0  crazyPiecesInGame size = 7  allCrazyPieces size = 7  authors size = 0  suggestedPlay size = 0  scores size = 0  shift size = 1  firstCapture = false  previousPosition = null  previousCrazyPiece = null  crazyPieceRemovedFromTheGame = null  crazyPieceRemovedFromTheGameAux size = 0  hasCaughtAPiece = 0  previousCountNoCapture = -1  hasMadeUndo = false  s = "EMPATE" | 14 |

|  |  |  |
| --- | --- | --- |
| Índex | Tipo de teste | Resultado do teste |
| 0 | Tentativa de mover uma peça da mesma equipa mais do que é possível | False |
| 1 | Tentativa de mover uma peça da mesma equipa dentro do que é possível se mover | True |
| 2 | Tentativa de mover uma peça da equipa adversária dentro do que é possível se mover | False |
| 3 | Tentativa de mover uma peça da mesma equipa para a mesma posição | False |
| 4 | Tentativa de mover uma peça da mesma equipa para a posição de uma peça do adversário | True |
| 5 | Tentativa de mover uma peça da equipa adversária como as brancas dentro do que é possível se mover | False |
| 6 | Tentativa de iniciar um jogo com um ficheiro vazio | False |
| 7 | Tentativa de iniciar um jogo com um ficheiro que não contém o tamanho do tabuleiro | False |
| 8 | Tentativa de iniciar um jogo com um ficheiro que contém o tamanho do tabuleiro maior que a informação do mesmo | False |
| 9 | Tentativa de iniciar um jogo com um ficheiro que não contém o tamanho do tabuleiro | False |
| 10 | Tentativa de iniciar um jogo com um ficheiro que não contém o tamanho do tabuleiro | False |
| 11 | Tentativa de iniciar um jogo com um ficheiro que não contém o tamanho do tabuleiro | False |
| 12 | Tentativa de iniciar um jogo com um ficheiro que não contém o tamanho do tabuleiro | False |
| 13 | Tentativa de iniciar um jogo com um ficheiro que contém informação | True |
| 14 | Tentativa de iniciar um jogo gravado com um ficheiro que contém informação | True |