

## FAILED

displayBoard()

```
21
22= void Board::displayBoard()
23 {
24
25 //      std::ofstream outfile ("boards.txt");
26 //      outfile << "--b---b-\n-----\n-----\n-----\n-----\n-----\n-r---r-\n" <<
27 //
28 //      string name;
29 //      std::ifstream dataFile("boards.txt");
30 //      int count = 0;
31 //      while(!dataFile.fail() && !dataFile.eof() && count < 8){
32 //          dataFile >> name;
33 //          cout<< name << endl;
34 //          count++;
35 //      }
36 //
37 //      outfile.close();
38
39 }
40= void Board::printToFile(char* filename)
41 {
42     //TODO
43 }
44
```

Problems Tasks Console Properties Debug

<terminated> (exit value: 0) SystemsHW5 Debug [C/C++ Application] C:\Users\jake1\OneDrive\Desktop\Algorithms 2223\SystemHW5\Debug\SystemHW5.exe (10/8/21, 1:49 PM)

-----  
-r---r--

Did the CPU correctly MOVE? (y/n):y

testCanMoveCPU did pass

starting testDisplayBoard

Does the displayBoard look right? (y/n):n

testDisplayBoard did not pass.

canMove()

```
25
26 string CheckerMove::canMove(Checker* checker, string myArray[8][8]) {
27     std::string possibleMoves;
28     // Pawn
29     //
30     if (checker->pawn && checker->dead == false) {
31         // RIGHT WALL PAWN
32         if (checker->col == 7){
33             if (myArray[0][checker->row-1][checker->col-1] == '-'){
34                 //
35                 printf("(%d, %d)", (checker->row-1), (checker->col-1));
36                 fflush(stdout);
37                 possibleMoves.append(std::to_string(checker->row-1));
38                 possibleMoves.append(std::to_string(checker->col-1));
39                 //
40             }
41             else {
42                 // JUMP OVER THE CHECKER
43                 if (myArray[0][checker->row-2][checker->col-2] == '-' && myArray[0][checker->row-1][c
44                     printf("(%d, %d)", (checker->row-2), (checker->col-2));
45                     fflush(stdout);
46                     possibleMoves.append(std::to_string(checker->row-2));
47                     possibleMoves.append(std::to_string(checker->col-2));

```

Problems Tasks Console Properties Debug

SystemsHWS Debug [C/C++ Application]

DISPLAYING BOARD...

--b--b-

-----

-----

-----

-----

-----

-----

-r--r--

CHECKER 1 MOVES:

DO THE MOVES LOOK CORRECT? y/n ?

(y/n):n

testCanMove did not pass.

canMoveCPU()

```
391 bool CheckerMove::canMoveCPU(Checker* checker, string myArray[8][8]) {
392     bool finished = true;
393     // //Pawn
394     // if (checker->pawn) {
395     //     //RIGHT WALL PAWN
396     //     if (checker->col == 7){
397     //         if (myArray[0][checker->row+1][checker->col-1] == '-' && finished){
398     //             printf("(%d, %d)",(checker->row+1), (checker->col-1));
399     //             fflush(stdout);
400     //             myArray[0][checker->row+1][checker->col-1] = 'b';
401     //             myArray[0][checker->row][checker->col] = '-';
402     //             checker->row = checker->row+1;
403     //             checker->col = checker->col+1;
404     //             finished = false;
405     //
406     //             FILE* fr = fopen("boardPlay.txt", "a");
407     //             fprintf(fr, "CPU moved a checker to row %d column %d\n", checker
408     //             fclose(fr);
409     //
410     //         }
411     //     } else {
412     //         //JUMP OVER THE CHECKER
413     //         if (myArray[0][checker->row+2][checker->col-2] == '-' && finishe
414     //             printf("(%d, %d)",(checker->row+2), (checker->col-2));
415     //             fflush(stdout);
```

Problems Tasks Console Properties Debug

SystemsHW5 Debug [C/C++ Application]

DISPLAYING BOARD...

--b---b-

-----

-----

-----

-----

-----

-----

-----

-r---r--

Did the CPU correctly MOVE? (y/n):n

testCanMoveCPU did not pass.

move()

```
341
342= bool CheckerMove::move(Checker* checker, string xCoord, string yCoord, string possibleMoves, string myArray[8][8]) {
343     bool ok = false;
344 //     std::string coordinates = "";
345 //     coordinates = coordinates.append(xCoord);
346 //     coordinates = coordinates.append(yCoord);
347 //     int length = possibleMoves.length();
348 //     for (int i = 0; i <= length - 2; i = i + 2) {
349 //         if (possibleMoves.substr(i,2) == coordinates) {
350 //             ok = true;
351 //             // BLACK CHECKER DEAD HERE
352 //             if (checker->row + 2 <= 7 && checker->col + 2 <= 7) {
353 //                 if (checker->row + 2 == std::stoi(xCoord) && checker->col + 2 == std::stoi(yCoord)) {
354 //                     myArray[0][checker->row + 1][checker->col + 1] = '-';
355 //                 }
356 //             }
357 //             if (checker->row + 2 <= 7 && checker->col - 2 >= 0) {
358 //                 if (checker->row + 2 == std::stoi(xCoord) && checker->col - 2 == std::stoi(yCoord)) {
359 //                     myArray[0][checker->row + 1][checker->col - 1] = '-';
360 //                 }
361             }
362         }
363     }
364     return ok;
365 }
```

Problems Tasks Console Properties Debug  
SystemsHWS Debug [C/C++ Application]

DISPLAYING BOARD...

--b--b-

-----

-----

-----

-----

-----

-r---r--

Did the Checker correctly MOVE? (y/n):n

testMove did not pass.

**PASSED**

displayBoard()

```
21
22 void Board::displayBoard()
23 {
24
25     std::ofstream outfile ("boards.txt");
26     outfile << "--b---b-\n-----\n-----\n-----\n-----\n-----\n-----\n-r---r-\n" << endl;
27
28     string name;
29     std::ifstream dataFile("boards.txt");
30     int count = 0;
31     while(!dataFile.fail() && !dataFile.eof() && count < 8){
32         dataFile >> name;
33         cout<< name << endl;
34         count++;
35     }
36
37     outfile.close();
38
39 }
40 void Board::printToFile(char* filename)
41 {
42     //TODO
43 }
44
```

Problems Tasks Console Properties Debug

SystemsHW5 Debug [C/C++ Application]

starting testDisplayBoard

--b---b-

-----

-----

-----

-----

-----

-----

-r---r--

Does the displayBoard look right? (y/n):y

testDisplayBoard did pass

canMove()

```
25
26 string CheckerMove::canMove(Checker* checker, string myArray[8][8]) {
27     std::string possibleMoves;
28     //Pawn
29
30     if (checker->pawn && checker->dead == false) {
31         //RIGHT WALL PAWN
32         if (checker->col == 7){
33             if (myArray[0][checker->row-1][checker->col-1] == '-'){
34
35                 printf("(%d, %d)", (checker->row-1), (checker->col-1));
36                 fflush(stdout);
37                 possibleMoves.append(std::to_string(checker->row-1));
38                 possibleMoves.append(std::to_string(checker->col-1));
39
40             }
41             else {
42                 //JUMP OVER THE CHECKER
43                 if (myArray[0][checker->row-2][checker->col-2] == '-' && myArray[0][checker->row-1][checker->col-1] == '-'){
44                     printf("(%d, %d)", (checker->row-2), (checker->col-2));
45                     fflush(stdout);
46                     possibleMoves.append(std::to_string(checker->row-2));
47                     possibleMoves.append(std::to_string(checker->col-2));
48                 }
49             }
50         }
51     }
52 }
```

Problems Tasks Console Properties Debug

SystemsHW5 Debug [C/C++ Application]

DISPLAYING BOARD...

--b---b-

-----

-----

-----

-----

-----

-----

-----

-r---r--

CHECKER 1 MOVES:

(6, 0) (6, 2)

DO THE MOVES LOOK CORRECT? y/n ?

(y/n):y

testCanMove did pass

canMoveCPU()

```
391 bool CheckerMove::canMoveCPU(Checker* checker, string myArray[8][8]) {
392     bool finished = true;
393     //Pawn
394     if (checker->pawn) {
395         //RIGHT WALL PAWN
396         if (checker->col == 7){
397             if (myArray[0][checker->row+1][checker->col-1] == '-' && finished){
398                 printf("(%d, %d)",(checker->row+1), (checker->col-1));
399                 fflush(stdout);
400                 myArray[0][checker->row+1][checker->col-1] = 'b';
401                 myArray[0][checker->row][checker->col] = '-';
402                 checker->row = checker->row+1;
403                 checker->col = checker->col+1;
404                 finished = false;
405             }
406             FILE* fr = fopen("boardPlay.txt", "a");
407             fprintf(fr, "CPU moved a checker to row %d column %d\n", checker->row, checker->col);
408             fclose(fr);
409         }
410         else {
411             //JUMP OVER THE CHECKER
412             if (myArray[0][checker->row+2][checker->col-2] == '-' && finished) {
413                 printf("(%d, %d)",(checker->row+2), (checker->col-2));
414                 fflush(stdout);
415             }
416         }
417     }
418 }
```

Problems Tasks Console Properties Debug  
<terminated> (exit value: -1) SystemsHW5 Debug [C/C++ Application] C:\Users\jake1\OneDrive\Desktop\Algorithms 2223\SystemHW5\Debug\SystemHW5.exe (10/7/21, 4:10)

DISPLAYING BOARD...

```
-----b-
-b-----
-----
-----
-----
-----
-r---r--
```



Did the CPU correctly MOVE? (y/n):y  
testCanMoveCPU did pass

move()

```
341
342= bool CheckerMove::move(Checker* checker, string xCoord, string yCoord, string possibleMoves, string myArray[8][8])
343     bool ok = false;
344     std::string coordinates = "";
345     coordinates = coordinates.append(xCoord);
346     coordinates = coordinates.append(yCoord);
347     int length = possibleMoves.length();
348     for (int i = 0; i <= length - 2; i = i + 2) {
349         if (possibleMoves.substr(i,2) == coordinates) {
350             ok = true;
351             // BLACK CHECKER DEAD HERE
352             if (checker->row + 2 <= 7 && checker->col + 2 <= 7) {
353                 if (checker->row + 2 == std::stoi(xCoord) && checker->col + 2 == std::stoi(yCoord)) {
354                     myArray[0][checker->row + 1][checker->col + 1] = '-';
355                 }
356             }
357             if (checker->row + 2 <= 7 && checker->col - 2 >= 0) {
358                 if (checker->row + 2 == std::stoi(xCoord) && checker->col - 2 == std::stoi(yCoord)) {
359                     myArray[0][checker->row + 1][checker->col - 1] = '-';
360                 }
361             }
362             if (checker->row - 2 >= 0 && checker->col + 2 <= 7) {
```

Problems Tasks Console Properties Debug  
SystemHW5 Debug [C/C++ Application]

DISPLAYING BOARD...

```
--b---b-
-----
-----
-----
-----
r-----
-----r--
```

Did the Checker correctly MOVE? (y/n):y

testMove did pass