Rough Notes

* Throw in an IOE expectation so that the file can be read
* Store the file into the array
* Create strings for each piece and assign them values
* (Black , White)
* Pawn = 1 (P,p)
* Knight = 3 (K,k)
* Bishop = 3 (B,b)
* Rook = 5 (R,r)
* Queen = 9 (Q,q)
* King = 0 (Z,z)
* Create a separate method for each colour
* Use if statements to equate each character

|  |  |  |
| --- | --- | --- |
| Input | Processing | Output |
| * The file will be inputted from its directory | * The program will first go to the white method * Each char will be stored in the array * Using for loops and if statements each piece will be checked against all the chess pieces to see if they are equal * Every time they are equal they will be assigned a value depending on the piece * These values will all be added up * The result for white will be determined (upper case letter will be assigned a value of zero in this case) * The program will then go to the black method * Each char will be stored in the array * Using for loops and if statements each piece will be checked against all the chess pieces to see if they are equal * Every time they are equal they will be assigned a value depending on the piece * These values will all be added up * The result for black will be determined (lower case letter will be assigned a value of zero in this case) | * The results for white will be displayed * The results for black will be displayed |

|  |  |
| --- | --- |
| Variable | Type |
| * Row * Column * Score * Score\_white * Score\_black * Chessboard | * Int * Int * Int * Int * Int * Array |

Algorithm

for ( row = 0; row < chessboard.length; row++)

{

(hasNext ())

for ( column = 0; column < chessboard.length; column++)

{

}

}

close();

score\_white = white ();

score\_black = black ();

print ("White score" + score\_white );

print ("Black score " + score\_black );

if (score\_white > score\_black)

{

print ("White won ");

}

if (score\_white < score\_black)

{

print ("Black won ");

}

if (score\_white == score\_black)

{

print ("tie");

}

print ("Goodbye ");

white & black ()

{

int score = 0

for ( row = 0; row < 8; row ++ ) {

for ( column = 0; column < 8; column ++)

{

if (chessboard [row][column] == 'p' || ‘P’)

{

score= score + 1;

}

(Keep doing the above for all combinations)

return score;

}

Test Cases

1.

\* \* Z Q \* \* \* R

\* \* P P \* \* \* \*

\* \* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

p p \* \* \* \* \* \*

z r \* \* \* \* \* \*

White has a score of 7

Black has a score of 16

Black won the game

2.

R K B Q Z B K R

P P P P P P P P

\* \* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

p p p p p p p p

r k b q z b k r

White has a score of 39

Black has a score of 39

The game is a tie

3.

R \* B \* Z B K \*

P P P \* P \* P P

\* \* \* \* \* \* \* \*

\* P \* \* \* p \* \*

\* \* \* \* \* P \* \*

\* q \* \* \* \* \* \*

p p \* Q \* \* p p

r k b \* z b \* r

White has a score of 33

Black has a score of 31

White won the game