King, Queen and Pawn Test

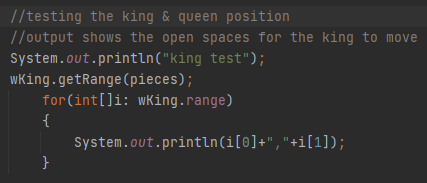
Syed Raza

Summary:

* King is still able to move into invalid positions ex. (5,-1),(4,-1),(3,-1)

Code used to test the movement of the pieces:

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**King Test**

Starting Position: (4,0)

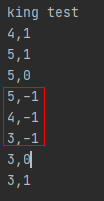


Adding to the pieces array list:



Output Given:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |
| 0 |  |  |  |  | K |  |  |  |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |



The same problem remains King is still able to move into invalid positions

**Queen Test**

Starting Position: (3,0)



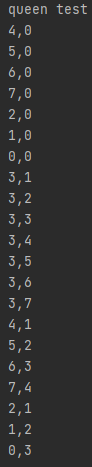
Adding to the pieces array list:



Positions available to move:

Output Given:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |
| 0 |  |  |  | Q |  |  |  |  |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |



The Queen does not have the problem of error checking like the king does.

\*Note: In the code provided the King and Queen cannot move into each other positions, which is correct

**Pawn Test**

Starting Position: (4,1)

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Adding to the pieces array list:

****

Positions available to move:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  | P |  |  |  |
| 0 |  |  |  |  |  |  |  |  |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Output Given:

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From the Pawns original position, it will be allowed to move either one or two spots forward

The output shown is correct

Testing Pawn after moving from its original position:

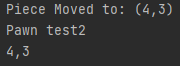
Moving the pawn



Positions available to move:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  | P |  |  |  |
| 1 |  |  |  |  |  |  |  |  |
| 0 |  |  |  |  |  |  |  |  |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Output Given:



Pawn successfully moved from its original position and is now ONLY able to move one spot forward