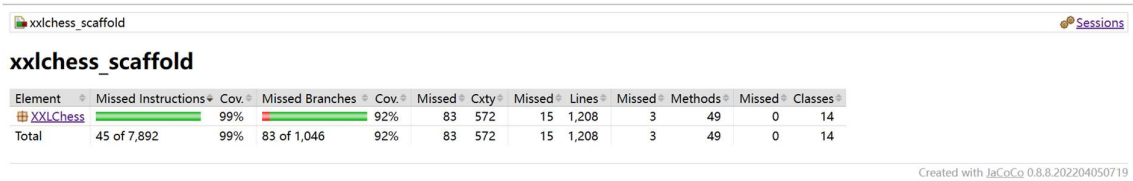


SID: 520622188

My game uses an abstract class called Piece and another 12 subclasses that extends from it. The 12 subclasses are white pawn, black pawn, bishop, rook, knight, king, queen, amazon, guard, chancellor, archbishop and camel. Each subclass uses the abstract method validMove() to store the valid move at the specified position without considering check condition and blocking, each subclass has its image stored as static variables. since black pawn moves towards the opposite direction of white pawn’s move, I separated pawns into white and black (the lower one and the upper one).

The extension I made is two player mode, the play can turn on the AI whenever they want by pressing “a”, the AI is set to be inactive initially, I think this could be more useful than having a menu before the game start to turn on/off the AI in some scenario (e.g. one of the players has to quit the game temporarily). The AI moves randomly but it is more likely for it to capture a piece if there is a piece to capture, each non-capturing valid move has a chance of 10% to be executed. The bar on the right side shows the status of the AI, whether it is turned on or not.

The test has a coverage of 99% on instructions and 92% on branches. Here’s a screenshot of the test result.



XXLChess

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
App	<div><div></div></div>	99%	<div><div></div></div>	94%	48	429	15	963	3	24	0	1
Guard	<div><div></div></div>	100%	<div><div></div></div>	70%	12	22	0	42	0	2	0	1
Amazon	<div><div></div></div>	100%	<div><div></div></div>	100%	0	20	0	32	0	2	0	1
Archbishop	<div><div></div></div>	100%	<div><div></div></div>	81%	6	18	0	28	0	2	0	1
Chancellor	<div><div></div></div>	100%	<div><div></div></div>	81%	6	18	0	30	0	2	0	1
Camel	<div><div></div></div>	100%	<div><div></div></div>	75%	6	14	0	24	0	2	0	1
Knight	<div><div></div></div>	100%	<div><div></div></div>	100%	0	14	0	24	0	2	0	1
King	<div><div></div></div>	100%	<div><div></div></div>	81%	3	10	0	22	0	2	0	1
Queen	<div><div></div></div>	100%	<div><div></div></div>	100%	0	8	0	12	0	2	0	1
Bishop	<div><div></div></div>	100%	<div><div></div></div>	100%	0	6	0	8	0	2	0	1
Rook	<div><div></div></div>	100%	<div><div></div></div>	100%	0	6	0	10	0	2	0	1
BlackPawn	<div><div></div></div>	100%	<div><div></div></div>	50%	1	3	0	6	0	2	0	1
WhitePawn	<div><div></div></div>	100%	<div><div></div></div>	50%	1	3	0	6	0	2	0	1
Piece	<div><div></div></div>	100%	<div><div></div></div>	n/a	0	1	0	1	0	1	0	1
Total	45 of 7,892	99%	83 of 1,046	92%	83	572	15	1,208	3	49	0	14

Created with JaCoCo 0.8.8.202204050719

Test Summary

1

0

0

1m43.61s

testsfailuresignoreduration

100%
successful

Packages

Classes

Package	Tests	Failures	Ignored	Duration	Success rate
XXLChess	1	0	0	1m43.61s	100%