

I did a unit test for the method that checks if a move is valid. I had to install the unittest.mock python package. This is a mockup package that runs the tests as mock objects of your original objects. The bugs found in my Chess game project can be seen in the picture below. I am unable to fix them now because I have to finish developing those methods in the Chess Main file. Also, my board still will not show but I am working on fixing it.

The screenshot shows a code editor with three tabs: ChessMain.py, ChessEngine.py, and ChessUnitTests.py. The left sidebar shows the project structure. The main editor area displays the ChessUnitTests.py file. The top part of the file shows a unit test for the isMoveValid method in ChessMain. The test is failing with a TypeError. The error message is: "TypeError: \_\_init\_\_() takes 1 positional argument but 2 were given". The traceback shows the error occurred in the test\_MoveValid method. The code for the test is as follows:

```
1 from Chess.ChessEngine import Game_Board
2 import ChessMain
3 import unittest, mock
4 class CheckMoveValidity(unittest.TestCase):
5     @mock.patch('ChessMain.isMoveValid')
6     def test_MoveValid(self, mockisMoveValid):
7         """Unit Test for isMoveValid method in ChessMain"""
8         gs = Game_Board(8)
9         chess_game_obj = ChessMain()
10        chess_game_obj.isMoveValid(gs.drawStateOfGame(), "black")
11
12        expected_arg_calls = []
13        for rows in range(0,2):
14            for cols in range(0,8):
15                expected_arg_calls.append(mock.call(gs.drawStateOfGame(), 'black', (rows, cols)))
16        self.assertEqual(mockisMoveValid.call_args_list, expected_arg_calls)
17
18        if __name__ == "__main__":
19            unittest.main()
20            ...
21            This method will tell if the game is done or not.
22            ...
23
24            #def isGameDone():
25                #pass
26            ...
27            This method will show if a king is in check or not.
28            ...
29
30
31
```

The right part of the file shows the ChessMain.py file. The code is as follows:

```
1 from Chess.ChessEngine import Game_Board
2 import ChessMain
3 import unittest, mock
4 class CheckMoveValidity(unittest.TestCase):
5     @mock.patch('ChessMain.isMoveValid')
6     def test_MoveValid(self, mockisMoveValid):
7         """Unit Test for isMoveValid method in ChessMain"""
8         gs = Game_Board(8)
9         chess_game_obj = ChessMain()
10        chess_game_obj.isMoveValid(gs.drawStateOfGame(), "black")
11
12        expected_arg_calls = []
13        for rows in range(0,2):
14            for cols in range(0,8):
15                expected_arg_calls.append(mock.call(gs.drawStateOfGame(), 'black', (rows, cols)))
16        self.assertEqual(mockisMoveValid.call_args_list, expected_arg_calls)
17
18        if __name__ == "__main__":
19            unittest.main()
20            ...
21            This method will tell if the game is done or not.
22            ...
23
24            #def isGameDone():
25                #pass
26            ...
27            This method will show if a king is in check or not.
28            ...
29
30
31
```

UPDATE: BOARD IS SHOWING AND CODE RUNS JUST FINE.