Lingyan Dou

205139086

In the beginning I tried to finish the program according to the comments only without understanding what it actually does. Soon I realized it wouldn’t work and I started over to read the description. Honestly I feel that there are way too much functions than necessary and I had a hard time figuring out what each of them does but I have to admit, after finishing this program I now have a much better understanding of classes and the syntax.

I spent over an hour working on the last assert about when the game ends. There are just so many different functions and I missed one of them. I had to be extra careful. Then I tripped over the scenario when the amount == 1, which means the score should be 0. I wrote that in the roll function and assumed it would also be fine in other functions. Yet if I setHumanScore directly, the value would still be 1. It took me a long time to figure out where I got wrong and went back and changed it.

Test cases

Die d;

Player p;

Board board, b1;

Pig game;

**for** (**int** i = 1; i <= 100; i++ )

{

d.roll();

**int** value = d.getValue();

assert( value >=1 && value <= 6 );

}

assert(p.getScore( ) == 0 );

assert(p.getTotal( ) == 0 );

assert( p.roll( 4 ) == 4);

assert( p.getScore() == 4 );

assert( p.roll( 1 ) == 1 );

assert( p.getScore() == 0 );

p.endTurn();

assert( p.getScore() == 0 );

assert( p.getTotal() == 0 );

assert( p.roll( 3 ) == 3 );

assert( p.getScore() == 3 );

assert( p.roll( 4 ) == 4 );

assert( p.getScore() == 7 );

assert( p.roll( 2 ) == 2 );

assert( p.getScore() == 9 );

assert( p.roll( 6 ) == 6 );

assert( p.getScore() == 15 );

p.endTurn();

assert( p.getScore() == 0 );

assert( p.getTotal() == 15 );

assert( board.getComputerTotal() == 0 );

assert( board.getHumanTotal() == 0);

assert( board.getRolledValue() == 0);

assert( board.getComputerScore() == 0 );

assert( board.getHumanScore() == 0);

assert( board.isHumanWinner() == **false** );

assert( board.isHumanTurn() == **true** );

assert( board.isGameOver() == **false** );

board.setComputerTurn();

board.setComputerTotal(6);

board.setComputerScore(5);

board.setHumanTurn();

board.setHumanScore(3);

board.setHumanTotal(19);

board.setRolledValue(3);

assert( board.getComputerTotal() == 6 );

assert( board.getHumanTotal() == 19);

assert( board.getRolledValue() == 3);

assert( board.getComputerScore() == 5 );

assert( board.getHumanScore() == 3);

assert( board.isHumanWinner() == **false** );

assert( board.isHumanTurn() == **true** );

assert( board.isGameOver() == **false** );

b1.setComputerTurn();

b1.setComputerTotal(21);

b1.setComputerScore(1);

b1.setHumanTurn();

b1.setComputerTotal( 50 );

b1.setComputerScore( 50 );

assert( b1.getComputerTotal() == 21 );

assert( b1.getComputerScore() == 0 );

b1.setHumanScore(23);

b1.setHumanTotal(24);

b1.setRolledValue(27);

b1.setRolledValue(250);

b1.setGameOver(**true**);

*b1.setComputerTurn();*

b1.setComputerTotal( 1000);

b1.setComputerScore( 50000 );

b1.setRolledValue( 8000 );

assert( b1.getComputerTotal( ) == 21 );

assert( b1.getRolledValue( ) == 250 );