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1. Perhaps the most challenging part of this project was to make sure that 1 wasn’t added when the human or computer to either of their total scores and that the previous rolls were discarded if a 1 was rolled on the same turn. I eventually succeeded by adding an if statement that returned the score as 0, when 1 was rolled in the same turn, thereby eliminating the problem.
2. Possible Test Cases Using assert:

test code for Player:

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

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

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

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

             assert( p.roll( 5 )  == 5 );

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

             p.endTurn();

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

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

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

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

             assert( p.roll( 5 ) == 5 );

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

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

             assert( p.getScore() == 14 );

            p.endTurn();

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

             assert( p.getTotal() == 23 );

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

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

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

             assert( p.getScore() == 8 );

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

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

assert( p.getTotal() == 23 );

test code for Board:

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(1);

            board.setComputerScore(2);

             board.setHumanTurn();

            board.setHumanScore(5);

             board.setHumanTotal(4);

            board.setRolledValue(7);

             assert( board.getComputerTotal() == 1 );

             assert( board.getHumanTotal() == 4);

             assert( board.getRolledValue() == 7);

             assert( board.getComputerScore() == 2 );

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

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

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

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

test code for b1:

b1.setComputerTurn();

             b1.setComputerTotal(20);

             b1.setComputerScore(21);

             b1.setHumanTurn();

making sure there are no changes if it is you turn:

b1.setComputerTotal( 50 );

b1.setComputerScore( 50 );

assert( b1.getComputerTotal() == 20 );

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

             b1.setHumanScore(23);

             b1.setHumanTotal(24);

             b1.setRolledValue(27);

            b1.setRolledValue(250);

            b1.setGameOver(true);

             b1.markComputerAsWinner();

             assert( b1.getComputerTotal() == 20 );

             assert( b1.getHumanTotal() == 24);

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

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

             assert( b1.getHumanScore() == 23);

             assert( b1.isHumanWinner() == false );

             assert( b1.isHumanTurn() == true );

             assert( b1.isGameOver() == true );

// no board changes allowed if the game is over...

            b1.setComputerTurn();

            b1.setComputerTotal( 50 );

             b1.setComputerScore( 50 );

            b1.setRolledValue( 50 );

assert( b1.getComputerTotal( ) == 20 );

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

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

// test code for Game

assert( game.isGameOver() == false );

assert( game.determineGameOutcome() == Pig::GAMEOUTCOME::GAMENOTOVER );

game.humanPlay( 5 );

game.humanEndTurn( );

game.computerPlay( 5 );

game.computerEndTurn( );

assert( game.isGameOver() == false );

assert( game.determineGameOutcome() == Pig::GAMEOUTCOME::GAMENOTOVER );

game.humanPlay( 5 );

game.humanPlay( 5 );

game.humanPlay( 5 );

game.humanEndTurn( );

assert( game.isGameOver() == false );

assert( game.determineGameOutcome() == Pig::GAMEOUTCOME::GAMENOTOVER );

game.computerPlay( 5 );

game.computerPlay( 5 );

game.computerPlay( 5 );

**game.computerEndTurn( );**

assert( game.isGameOver() == false );

assert( game.determineGameOutcome() == Pig::GAMEOUTCOME::GAMENOTOVER );

game.humanPlay( 5 );

game.humanPlay( 6 );

game.humanEndTurn( );

assert( game.isGameOver() == true );

assert( game.determineGameOutcome() == Pig::GAMEOUTCOME::HUMANWONGAME );

game.computerPlay( 6 );

game.computerPlay( 6 );

game.computerPlay( 6 );

game.computerEndTurn( );

assert(game.isGameOver() == true ); assert(game.determineGameOutcome() == Pig::GAMEOUTCOME::HUMANWONGAME );