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Notable Obstacles:

The most difficult part of this project was trying to digest the spec and understand the role that each class played in the projects overall design. In regards to the coding process, project 5 gave us good preparation for working with object oriented design making project 6 quite more straightforward. The most time consuming part of this project was implementing the scoring calculator.

Example Test Data:

// Test that bank setters properly adjust balance

Bank b;

assert(b.balance() == 0);

assert(b.getWager() == 0);

assert(!b.canWager(100));

b.deposit(50);

assert(b.balance() == 50);

assert(!b.canWager(100));

assert(b.canWager(50));

b.deposit(50);

// Test that multiplier enumeration is properly implemented

PayTable p('A', 'A', 'A');

PayTable::Multiplier m = p.calculateMultiplier(); // 3 Aces is a 10-1 winner

assert(m == PayTable::Multiplier::TENTIME);

// FOR THE REST: Test that the play method properly calculates winnings

// CASE: Losing Roll

SlotMachine testSlot("ABCDEFG987");

testSlot.noDisplay();

Bank testBank(100);

testBank.setWager(100);

testSlot.play(testBank, '7', '9', 'Q'); // cheating...

assert(testBank.balance() == 0); // the wager is lost

// CASE: Ace Pair

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, 'A', 'A', 'Q'); // cheating...

assert(testBank.balance() == 60);

testBank.cashOut();

// CASE: Normal Pair

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, 'Q', '9', 'Q'); // cheating...

assert(testBank.balance() == 40);

testBank.cashOut();

// CASE: Pair With Ace

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, 'Q', 'A', 'Q'); // cheating...

assert(testBank.balance() == 50);

testBank.cashOut();

// CASE: Single Ace

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, 'Q', 'A', '7'); // cheating...

assert(testBank.balance() == 20);

testBank.cashOut();

// CASE: AKQ

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, 'Q', 'A', 'K'); // cheating...

assert(testBank.balance() == 60);

testBank.cashOut();

// CASE: 3 of a Kind

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, '7', '7', '7'); // cheating...

assert(testBank.balance() == 80);

testBank.cashOut();

// CASE: Triple Aces

testBank.deposit(10);

testBank.setWager(10);

testSlot.play(testBank, 'A', 'A', 'A'); // cheating...

assert(testBank.balance() == 110);

testBank.cashOut();

cout << "all tests passed!" << endl;