William Leslie

CS 362

Test Report 1 - Buy Card

The approach was to run the tests using the Random() function in order to pick random cards to test. These cards are passed into the function and the postconditions are compared to what they should be in an actual game of dominion. I employed the use of other functions given in the skeleton code such as whoseTurn, updateCoins, and getCost. For example before = updateCoins(who, state, 0), where before is the starting amount of money. The same function, variable named after, was run after running the buyCard in order to compare the amount of money before and after a buy. assert (state->discard[who][state->discardCount[who]] == card); is another comparison made in this test, that compares the card the player wants to buy and the top of the discard pile. Unfortunately, this idea has a problem where the skeleton code is incorrect.

for(i=0; i<5;i++){

state->hand[who][i] = copper;

}

The code above was used in order to fill the player’s hand with copper cards in order to test whether it will buy. Unfortunately, this will not test particular cards or a lack of necessary funds to buy the card.

I ran a test on my own code. Unfortunately the code fails on the comparison between before and after amount of money and the program states that the amount of money before the test is 0. This may indicate that the updateCoins function does not work. Since it fails before the other comparisons, it is hard to tell what the program may be doing or which functions are incorrectly implemented.

After this, I decided to review my code by hand. The problems in my code may be the same problems in my test. The entire buyCard function is completely dependent on other functions that may also be incorrectly implemented. Functions used within include gainCard and updateCoins. Another problem I noticed in the code was that when the player pays for a card with the coins in his hand. Instead of removing the exact amount, the program will start with the lowest value coins first. Another problem I found was that the cards are removed from the front of the hand rather than the back, which may cause problems for other functions.

Before testing again, I will have to fix some of the problems just found in the code review. Future testing will also be done after the other functions in the program are fixed. As soon as it does not fail all the tests, I will be able to do more random testing and adjust to include more corner cases.