Lingyan Dou

205139086

I had trouble dealing with the ShiftRight function. I had to create two different scenarios where the size is larger and where the amount is larger. When the size is larger, I need to move all the things in this array starting from the last one which is (size-1-amount), since staring from the first one would erase the later one’s value. For the second scenario, it is much easier. I only need to change everything in this array to the assigned value.

I also tripped over the name of variables. Each function contains at least two size\_t type variables, and I first named them randomly, soon I messed them up and successfully confused myself. I went back and changed all of them so I could remember.

Test cases:

string folks[8] = {

"samwell", "jon", "margaery", "daenerys",

"tyrion", "sansa", "howard123", "jon"

};

string people[5] = { "samwell", "jon", "margaery", "daenerys", "tyrion" };

assert(hasDuplicates(folks, 3 ) == false);

assert(hasDuplicates(folks, 8 ) == true);

assert(hasDuplicates(folks, -1) == false);

assert(hasDuplicates(folks, 0) == false);

assert(countAllDigits(folks, 8) == 3);

assert(countAllDigits(folks, 6) == 0);

assert(countAllDigits(folks, 0) == -1);

assert(countAllDigits(folks, -223) == -1);

string aaa[9] = { "ddd", "ccc", "bbb", "aaa", "BBB", "AAA" , "zzz", "aaa", "aaa"};

assert(isInDecreasingOrder(aaa, 3) == true);

assert(isInDecreasingOrder(aaa, 6) == true);

assert(isInDecreasingOrder(aaa, -1) == false);

assert(isInDecreasingOrder(aaa, 0) == true);

assert(isInDecreasingOrder(aaa, 1) == true);

assert(isInDecreasingOrder(aaa, 7) == false);

string people2[5] = { "samwell", "jon", "margaery", "daenerys", "tyrion" };

assert(shiftRight(people2, 5, 3, "foo") == 3 && people2[0] == "foo"&& people2[1]=="foo"&& people2[2]=="foo"&& people2[3]=="samwell"&& people2[4]=="jon");

assert(shiftRight(people2, -5, 3, "foo" ) == -1);

assert(shiftRight(people2, 5, 25, "foo" ) == 5 && people2[0] == "foo" && people2[1]=="foo" && people2[2]=="foo" && people2[3]=="foo"&& people2[4]=="foo");

assert(find( folks, 5, "foo") == -1);

assert(find( folks, -90, "foo") == -1);

assert(find( folks, 0, "foo") == -1);

assert(find( folks, 8, "jon" ) == 1);

assert(find( aaa, 9, "aaa") == 3);

assert(replaceAllCharacters( people, -5, 'z', 'a' )==-1);

assert(replaceAllCharacters( people, 0, 'z', 'a' )==-1);

assert(replaceAllCharacters( people, 5, 'a', '\_' )==4 && (people[0] == "s\_mwell")&& (people[1] == "jon") && (people[2] == "m\_rg\_ery")&& (people[3] == "d\_enerys" )&& (people[4] == "tyrion" )) ;

assert(replaceAllCharacters( people, 5, 'z', 'a' )==0);