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| **CS1101 Lab 14 – Testing** |

**Released on: Monday November, 13**   
**Due on: Monday November, 20**  
**How:** submit on Piazza in folder lab14  
**What:** a zipped folder named after you as LastNameFirstName-Lab14.zip, which contains the file lab14.java completed as requested and a word document named LastNameFirstName-Lab14.docx

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| In this lab, you will practice **testing: white box and black box testing**. The java file and functionalities you will work on are provided to you. |

You are given one java file: **lab14.java**. Your job is to test the methods of lab14.java in such a way that if there is any flaw in the methods, we will find them. Note that we, on purpose did not include comments in the code.

**1/ Black Box testing:** You will design a **black box testing strategy** for the following methods:

* print1D: prints a 1D array of integers
* maxElement: identifies and returns the largest element in a 2D array of integers
* reverse: return the reverse of its String parameter
* isPalindromeN: checks if an integer is a palindrome

**2/ White Box testing:** You will design a **white box testing strategy** for the following methods:

* addsOne: adds 1 to each of the elements of its parameter 1D array
* rowCombinations
* createsNumberPalindrome

**What do you have to turn in?**

Your java file lab14.java in which you have

A word document containing:

1/ A full description of your **black box testing strategies** for each of the above methods.

Each test suite should contain at least 4 test cases.

The description should include the test cases you chose and a clear justification of why you chose each test case, what you were expecting and what you got. Finally a conclusion on each method: are they correct or not?

2/ A full description of your **white box testing strategies** for each of the above methods.

Each test suite should contain at least 4 test cases.

The description should include the test cases you chose and a clear justification of why you chose each test case, what you were expecting and what you got. Finally a conclusion on each method: are they correct or not?

**How do I turn it in?**

On piazza, under folder lab14.