**CSCI 3110 Fall 2016 Open Lab Assignment 3**

Due: **Oct 4, midnight**

**Objectives**

1. Recursion

Implement recursive solution (no iteration or use STL algorithm) to solve:

1. Permutation : Read string of any length and print all permutation. Assume that string contains no duplicate letter. example input: ABC output: ABC ACB BAC BCA CBA CAB
2. Prime function that determine an integer is a prime number
3. Find a path on a given maze (maximum size 100 x 100). Print the path if there is a solution.

**(sample) input file ola3data.txt ( input data does not contain //---- )**

2 // 2 test data for problem 1

QUICK

FOX

5 //5 test data for problem 2

17

567

757

761

979

10 16 //10 x 16 Maze data for problem 3

1 1 //starting row, column

8 10 //Goal row, column

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**How to submit the program**

Submit your VS project on D2L dropbox “Maze project”

Read **Howto\_Submit\_Visual Studio Project** page for details.