CS 201: Problem Solving & Programming II

Summer 2013

Lab #2

There are three exercises below. Complete them and create a “lab#2” folder in your github “CS-201L” repository and put them there. You must have to finish all the exercises before the lab ends and show it to the lab instructor.

**Exercise 1: Reading from and writing in the file**

Task 1

Consider that, there is a file named “student.txt” which contains student’s name, id and course name. Read from this file and put them in a 2D array (The file is provided in blackboard). The file won’t contain more than 20 entries, so you may initialize your array with size 20.

Task 2

Take a number from user and write from one to that number in a file.

Sample input:

Write a number: 10

Output file:

1 2 3 4 5 6 7 8 9 10

**Exercise 2: Function overloading**

Write a program that takes a person’s first, middle and last names as input and gives full name as output. Some person may have only first and last name, whereas others have three or more names. Your program should have at least three functions to deal with this situation. As this is an exercise of function overloading so the functions should have same name.

A sample function can be:

string ConcatenateName( string firstName, string lastName )

{

return firstName + " " + lastName;

}

For this program you don’t have to take input or provide output.

**Exercise 3: Random number**

Suppose there is a small game that takes a number (integer) as input and randomly generates another number (integer) and match them. If the numbers are same the user wins!

You may define a range to the user to guess to increase the chance of winning. Also to avoid same number be appeared as random number, you can seed the random function with current time value.

srand(time(NULL)); // time() function return the current time in milliseconds

**Sample input:**

Guess a number between 1 to 23: 12

**Sample output:**

The random number is: 12

Congrats! You won.

**Sample input:**

Guess a number between 1 to 23: 5

**Sample output:**

The random number is: 21

Sorry, wish you good luck next time!