Shiv Nadar University

CSD101: Introduction to Computing and Programming

Lab #1

Max marks: 100. Not counted. But must be submitted by the due date.
Due on/before:23.59, 28-Aug-2021. 21-Aug-2021

1. First ensure that you have created an account on Github and can access and use CS50 IDE. To login to CS50 IDE you need a Github account.

   Write, compile and run the simple C program that we discussed in the first class. A version is reproduced below. You can make minor changes in it and try to compile and run the program. Make some errors (e.g. leave out a semi-colon or misspell a keyword or library function name like `printf`) and see how you get compilation errors. Don't worry if you do not understand the program. You will soon learn all the details.

   ```
   #include<stdio.h>
   #include<stdlib.h>

   int main() {
       printf("Welcome to CSD101\nThis is your first CSD101 lab.\n");
       exit(0);
   }
   ```

   [15]

2. Practice the Linux commands by typing them in at the CLI (command line interface) in the CS50 IDE and understand what they do. Use the `man` command (e.g. `man ls`) to find out more about a command and the various flags that it can take. To get a list of simple Linux commands see the file `ShellIntro.pdf` in the online repository. A link to this repository has already been sent to all of you. *Remember to login with your SNU login ID.*

   [25]

3. Write VSC language programs to do the following for the Very Simple Computer (VSC). Notice how you have to reuse programs that you have already written or that were discussed in class.
   (a) Read two non-negative numbers m and n and output the product of the two numbers.
   (b) Read two positive integers m and n and output m^n.
   (c) Read two positive integers m and n and output the largest number that divides both m and n - that is GCD (greatest common divisor) of m and n. For example, if $m = 36,\ n = 64$ then the GCD is 4.

   [15,20,25=60]