

COL100 Lab 2  
Semester I, 2016-17  
Week 2, 2016

**Objective:** To be able to write simple C programs, involving input-output and arithmetic operations.

Sample program to add two numbers

```
#include<stdio.h>

int main()
{
    int a, b, c;

    printf("Enter two numbers to add\n");
    scanf("%d%d",&a,&b);

    c = a + b;

    printf("Sum of the entered numbers = %d\n",c);

    return 0;
}
```

Commands to compile & run

Copy and paste the above code in a file named **myfile.c**. To compile and run your code, use the following commands:

```
$ gcc myfile.c          # to compile
$ ./a.out              # to run
```

## Programs

1) Write a program to print your details in the format given below.

```
Name: xyz
Entry Number: 2016CSxxxxxx
Branch: Compter Science and Engineering
Group-number: zzz
```

You should not take any input from the user. To get the output above, simply use 4 *printf*'s.

2) Write a program to perform the following operations on two numbers:

- a) addition
- b) subtraction
- c) multiplication
- d) division
- e) modulus.

Your program should prompt the user to enter the two numbers.

3) Write a program to calculate the hypotenuse of a right angled triangle, given its base and height. Your program should prompt the user to enter the base and the height of the triangle.

4) Write a program to print the sum of first **100** terms of a given arithmetic progression. Your program should prompt the user to input the first two terms of an arithmetic progression. Then in return your program should print the sum of the first 100 terms of the sequence.

[Hint: Let the first two numbers of the sequence are **a** and **b**, the difference between **a** and **b** is **d** and **n** is 100. Sum of the first 100 terms,  $S = (n(2a + (n-1)d)/2)$  ]

## Optional : Use vim editor

1. Open a file: ***vim filename.txt***
2. Insert in a file: ***i*** (insert mode)  
(Use ***Esc*** to come out of the insert mode)
3. Navigation: arrow keys
4. Undo ***u***
5. Redo ***Ctrl+R***
6. Saving a file ***:w***
7. Closing a file without saving ***:q!***
8. Saving and closing a file ***:wq***
9. Deleting a line ***dd***
10. Copying a line ***yy***
11. Pasting a line ***p***