

(CL1002) Programming Fundamentals Lab

Lab 7 Task:

- Before doing the task, I recommend you all to go through the lab manual. It will make it easy for you all to understand this.
- Copied task will be awarded **zero** marks.
- Upload only a MS word and PDF file including all tasks source code and its output (screen shot).
- You have to copy the source code in your word file. Don't take the screen shot of source code.
- Use the following format for naming the word file Rollno_name (21P-1234_zain).
- Comments your Code Properly

1. Write a function that takes one number as an argument and return their factorial.

Sample Output:

```
Enter a no 5
The factorial of 5 is 120
```

2. Write a Python program to create the multiplication table (from 1 to 10) of a number.

Expected Output:

```
Enter a no 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50
```

3. Modify a calculator you made in the last lab. This time your function ask **user to enter the number** and the **operation you want to perform** (+,-,*,/) after the operation is performed your program should ask the user **whether you want to continue (Y/N)?** your program will exit only when user enter “N”

Hint: use while loop.

```
enter number: 1
enter number: 2
For Addition press 1
For Subtraction press 2
For Multiplication press 3
For Division press 4
enter operation: 1
Addition: 3
you want to continue (y/n)? y
enter number: 3
enter number: 2
For Addition press 1
For Subtraction press 2
For Multiplication press 3
For Division press 4
enter operation: 3
Multiplication: 6
you want to continue (y/n)? n
```

4. Write a function that takes two numbers as an argument and return their LCM.

Sample Output:

```
Enter a no 12
Enter a no 6
The LCM of 12 and 6 is 12

Enter a no 5
Enter a no 4
The LCM of 5 and 4 is 20
```

5. Write a function that takes two numbers as an argument and return their HCF (Highest Common Factor) /GCD (Greatest Common Divisor).

Sample Output:

```
Enter a no 12
Enter a no 16
The GCD of 12 and 16 is 4
```