

Lab Task Week 12

- Plagiarized tasks will be awarded zero marks.
- There will be deduction for late submission.
- Use meaningful variable names instead of a, b, c, x, y, z.
- Use proper indentation.
- Your programs should satisfy all the requirements mentioned in the description or discussed in lab.

Note: You must submit the .c files of all tasks plus the picture of hand written logic/ dry run practice on paper too (logic not the code as it is).

- Write a program in which user will enter a no of his choice and the program will display the following series.

Means if the user enters 5, the program should calculate the following

$1/1! + 2/2! + 3/3! + 4/4! + 5/5!$

And display the output in the following manner.

Sample Output:

```
Enter a no: 5
i: 1  sum: 1.000000
i: 2  sum: 2.000000
i: 3  sum: 2.500000
i: 4  sum: 2.666667
i: 5  sum: 2.708333
Final Sum: 2.708333
-----
```

- Write a C program to construct the following pattern, using a nested loop.

```
How many rows? 5
  *
 * *
* * *
* * * *
* * * * *
```

- Write a C program to construct the following pattern, using a nested loop. Take the no of rows from user.

```
How many rows? 5
12345
 2345
   345
    45
     5
```

- Write a C function to construct the following pattern, using a nested for loop. User should enter a symbol e.g *, ^, @, - etc, and your function should a pattern like this of that symbol

```
Enter a char: @
How many rows? 5
@ @ @ @ @
 @ @ @ @
  @ @ @
   @ @
    @
```