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# Programming Fundamentals

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BS (CS) \_Fall\_2025

## Lab\_04 Tasks



### Learning Objectives:

1. Basic Programming
2. Insertion / extraction operators

# Lab Tasks

## Submission Instructions

1. Create a new folder with name *ROLLNO\_SEC\_LAB04* e.g. **i25XXXX\_A\_LAB04**
2. Compress your files directly into a **.zip file**.
3. Now you have to submit this zipped file on Google Classroom.
4. If you don't follow the above-mentioned submission instruction, you will be marked **zero**.
5. Plagiarism in the Lab Task will result in **zero** marks in the whole category.

## Zero Tasks

- Q1. Write a program to print the following using just COUT statement & setw( ) function but you have to store the number in variables.

```
1
1 2
1  2
1   2
1    2
1     2
1      2
1 2
1
```

**Note:** Use **setw** function instead of space character.

- Q2. Write a program to input your name as first name and last name, last 4 digits of roll number and CGPA and print that information.

# Lab Tasks

- Q3. Write a program that prints your first name (i.e. my first name is Zille ) using COUT & setw statement.

```
Pattern for ZILLE:

*****      *****      *      *      *****
      *      *      *      *      *
      *      *      *      *      *****
      *      *      *      *      *
*****      *****      *      *      *****
```

**Note:** Use setw function instead of space character.

- Q4. Write a C++ program that prints a calendar layout for September 2025, starting on Monday. Use setw for alignment.

```
September 2025
Sun Mon Tue Wed Thu Fri Sat
      1   2   3   4   5   6
  7   8   9  10  11  12  13
 14  15  16  17  18  19  20
 21  22  23  24  25  26  27
 28  29  30
```

Q5. Write a C++ program that prints a smiley face:

```
Round Smiley Face:

      *****
    *           *
  *       0 0       *
  *       ^         *
  *   \   /         *
  *   _/             *
    *           *
      *****
```

Q6. Show multiples of  $\pi$  with `setprecision(4)`.

```
Multiple of Pi

      n      n * pi
      1      3.1416
      2      6.2832
      3      9.4248
      4     12.5664
      5     15.7080
      6     18.8496
```