Understanding the Basics - Week 1

This is the first week of your learning journey. This week you are given some very basic questions that have to be solved by you. You can pick any language from these three: CPP, JAVA and Python. We suggest you to pick only one language(so that you can focus on the concepts rather than the syntax),otherwise you are free to choose.

The answers of the problems will be uploaded every Monday into the GitHub repository of NFSU-PC club.

To do the coding problems you are also given some youtube videos, please watch do solve this questions.

Coding Problems on Input/Output:

1. Write a program that takes user input and displays it on the screen.
2. Create a program that prints a message containing a user's name and a greeting, such as "Hello, [Name]!"
3. Develop a program that asks the user to enter their city and state, and then prints them together as an address.

4. Design a program that prints a pattern of asterisks in the form of a square or rectangle. The dimensions of the shape should be specified by the user.

Coding Problems on If-Else Statements:

1. Write a program that checks whether a given number is positive, negative, or zero, and then prints the result.
2. Create a program that asks the user to input their age and determines if they are old enough to purchase a ticket for an event, providing an appropriate message.
3. Develop a program that calculates the absolute value of a user-entered number and prints the result.

4. Write a program that checks if a user-entered year is a leap year and provides a response accordingly.

Coding Problems on Loops:

1. Create a program that calculates the sum of all numbers from 1 to a user-specified positive integer using a loop.
2. Write a program that prints the first 'n' terms of the times tables for a user-specified number 'x,' where 'n' and 'x' are both entered by the user.
3. Develop a program that generates a simple multiplication table for a user-specified number, from 1 to 10.

4. Design a program that prints a pattern of numbers or symbols in the shape of a right-angled triangle. The number of rows in the triangle should be specified by the user.

Playlists:

CPP:

English: <https://youtu.be/McojvctVsUs?si=V9mVGmvZR5EVsfo4> from 00:00 to 09:40

Hindi:

<https://www.youtube.com/watch?v=j8nAHeVKL08&list=PLu0W_9lII9agpFUAlPFe_VNSlXW5uE0YL> This is a youtube playlist. Watch videos from 1 to 11.

JAVA:

English: <https://youtu.be/A74TOX803D0?si=BhNeGcRrwHa14FsL>

Watch these video stamps(00:00 to 47:42, 1:17:01 to 1:56:58, 2:09:04 to 2:50:40)

Hindi:

<https://youtube.com/playlist?list=PLu0W_9lII9agS67Uits0UnJyrYiXhDS6q&si=g2qyC_wTW55gjqMi> This is a playlist. Watch from 1 to 25 except 13,14 and 15.

PYTHON:

English: <https://youtu.be/1gEZi0uJ3sw?si=6hle6qRxr0xTl0-U>

<https://youtu.be/wIXfXYf17ok?si=kUqwsaCzHE-Vfqmz>

<https://youtu.be/M0RsvJnaGYg?si=oYYr3x9Q7KTan98e>

Hindi:

<https://youtube.com/playlist?list=PLu0W_9lII9agwh1XjRt242xIpHhPT2llg&si=FwJau-qqYHIM1w1n>

This is a playlist. Watch from 1 to 19 except 11,12 and 13.