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| **Lab 09** | |
| **Topic** | **Decision Making (Control structures) in C++** |
| **Objective** | Practice of solving problems through while, do …. While and for loops. |

## Task 1

## Write c++ Program to print number from 5-250 **(using while loop).**

## Task 2

## Write c++ Program to print number from 5-250 **(using for loop).**

## Task 3

## Write c++ Program to print number from 5-250 **(using do … while loop).**

## Task 4

Write c++ Program to find the positive and negative numbers between -100 to 100. If a number is positive print “The entered number is a positive number” or if the number is negative print/cout “The entered number is a negative number” (**using while loop**)

**Logic:**

4 > 0, so 4 is a positive number

else

The number is negative

## Task 5

Write a C++ program in which, print multiple of 9 from 100 to 250. (**using for while loop)**.

Example Output:

Multiple of 9: 108, 117, 126, 135, 144, 153, 162, 171, 180, 189, 198, 207, 216, 225, 234, 243.

## Task 6

## Write a C++ program that prompts the user to input integers until user enters 0 then display sum of all numbers entered by the user.

## (**using loops and condition** e.g, **While(condition)**/ **For (i=0; condition; i++)**)

## Task 7

Write a C++ program to find sum of first ten positive numbers from 100 to 250. By taking input of starting number from user.

## (**using loops and condition** e.g, **While(condition)**/ **For (i=0; condition; i++)**)

## Task 8

Write a C++ program that displays all even integers in the range from 1 to n, where n is taken from the user.

(**using loops and condition** e.g, **While(condition)**/ **For (i=0; condition; i++)**)

**Sample Execution:**

Enter the upper limit for range: 8

Below is a list of all even numbers from 1 to 8:

2 4 6

## Task 9

Write a C++ Program to Find the Number of Digits. **(Using for loop)**

## Task 10

Write a C++ program which will show first 10 members of **“series of square numbers”**. Rule for series of square number is **xn = n2.** 1, 4, 9, 16…

## Task 11

Write a C++ program that prompts the user to input positive integers, if user enters a negative number display an error message: “**Wrong Attempt! You have entered a negative number”** and ask the user to enter a positive number again. Do this until user enters 0. At the end display the count of wrong attempts.

(**using loops and condition** e.g, **While(condition)**/ **For (i=0; condition; i++)**)