

## Lab 04 – Loops

1. Write a program to reverse a given number and check if it's a palindrome.
2. Generate prime numbers between 2 given limits.
3. Write a program to demonstrate the working on **Amstrong Number**.
4. Generate a multiplication table for **n** numbers upto **k** terms.

[ Hint:    1 2 3 4 5 .... k  
           2 4 6 8 10 ....2\*k  
           .....  
           n..... n\*k ]

5. Compare **Do-While** and **While** loops.
6. Check if a number is **perfect** or not.

Ex:  $28 = 1 + 2 + 4 + 7 + 14 = 28$  is a perfect number.

7. Check if a number is **strong** or not.

Ex:  $145 = 1! + 4! + 5! = 1 + 24 + 120 = 145$

8. Find out the **generic root** of any number.

Ex:  $456 = 4 + 5 + 6 = 15 = 1 + 5 = 6$

9. Generate **Floyd's triangle** using natural numbers for a given number limit N.

Ex: Input: N = 4

Output:

```
1
2 3
4 5 6
7 8 9 10
```