Week 3 Lecture : 4 Practice Sheet Based on While Loop

Tuesday, 12 August 2025 8:25 AM

SHEET - 2: Control Statement (Loops)

1. Write a program that takes a positive integer N as input from the user and prints all natural numbers numbers from 1 to N, with each number followed by a space.
Input:- N = 5
Output:- 1 2 3 4 5

2. Write a program to print all Natural numbers from N to 1, where you have to take N as input from the user.
Input:- N = 5
Output:- 5 4 3 2 1

3. Write a program to print all even numbers from 1 to N, where you have to take N as input from the user.
Input:- N = 10
Output:- 2 4 6 8 10

4. Write a program to print all odd numbers from 1 to N, where you have to take N as input from user.
Input:- N = 10**Output:-** 1 3 5 7 9

5. Write a program to find the sum of all Natural numbers from 1 to N, where you have to take N as input from user
Input:- N = 10
Output:- 55

6. You are given an integer A, you need to find and return the sum of all the even numbers between 1 and A. Even numbers are those numbers that are divisible by 2.
Input:- A = 5
Output:- 6
Explanation:- Even numbers between [1, 5] are (2, 4).
7. Take an integer A as input. You have to print the sum of all odd numbers in the range [1, A].
Input:- A= 4
Output:- 4
Explanation:- For A = 4, Odd numbers 1 and 3 lie in the range [1, 4]. Sum = 1 + 3 = 4.

8. Take an integer N as input and print the count of digits of that number.

Input:- N = 10101
Output:- 5
Explanation:- 10101 has 5 digits

9. Take an integer N as input. Your task is to calculate and print the sum of the digits of the given number N.
Input:- N = 1589
Output:- 23
Explanation:- For the number 1589, the digits are 1,5,8,9. The Sum(1589) = 1+5+8+9 = 23.
10. You are given an integer A as input, and you need to determine whether it is a palindrome or not. A palindrome integer is one whose digits, when reversed, result in the same number. For example, 121 is a palindrome because its reverse is also 121, but 123 is not a palindrome because its reverse is 321.Note: The given integer will not have any leading zeros.
Input:- A = 131
Output:- Yes
Explanation:- For A = 131, reverse(A) = reverse(131) = 131, which is the same as A.

11. Take a number A as input, print its multiplication table having the first 10 multiples.
Input:-3
Output:-
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
3 * 7 = 21
3 * 8 = 24
3 * 9 = 27
3 * 10 = 30

12. You are given two integers A and B. You have to find the value of A^B.
Input:- A = 2 , B = 3
Output:- 8
Explanation:- For A=2 and B=3, the value of 2^3 = 2 * 2 * 2 = 8.