

Home Task – 1

Control Statement related Problems ()

1. Read a **String** as input. Convert each character into its **next character**.

Sample Input	Output Sample
Input: dhaka	eiblb

2. Check whether the input is an **Alphabet** or a **digit** or a **Special Character**. If Alphabet then check whether it is **Vowel** or **Consonant**.

Sample Input	Output Sample
Test Case = 3 6 A @	6 is a Digit A is an Alphabet : It is an Vowel @ is a special character

LOOP related Problems ()

1. Write a program that takes a number as input and prints its **multiplication table** upto 10.

Sample Input	Output Sample
Input a number: 8	8 x 1 = 8 8 x 2 = 16 8 x 3 = 24 ... 8 x 10 = 80

2. Write a program to check whether an Input is a **Prime** number or not.

Sample Input	Output Sample
Test Case =2 5 6	5 is a prime number 6 is not a prim number

Array related Problems ()

1. Find the **smallest** and **largest** value of the array.
2. You have an Array of N numbers. Now write a code to **Search** an element from an array **input** from user. [**Linear Search**]

Input Samples	Output Samples
Total Case = 2 How many Numbers you want to insert? 5 Enter 5 array elements 10 220 303 140 50 Case:1 Enter Data You want to search 220 Case:2 Enter Data You want to search 120	220 is found at Index 1 120 is not found in the Array

3. Take some **integer** numbers as input in an **array**. Then display all the **positive** and **negative** numbers **separately**.
4. write a program to check whether a number is palindrome or not .Apply both recursive and simple methods and compare their time and space complexity.