**Logic Building Assignment: 4**

**Complete Below Code Snippets**

Write separate application program in separate file and execute it practically.

Write each program in the class notebook with description.

***Calculate Time complexity of each program***

1. **Write a program which accept one number from user and display its multiplication of factors**

**Input: 12**

**Output: 144 (1\*2\*3\*4\*6)**

**Input: 13**

**Output: 1 (1)**

**Input: 10**

**Output: 10 (1\*2\*5)**

#include<stdio.h>

int multFact(int iNo)

{

    //logic

}

int main()

{

    int iValue = 0;

    int iRet =0;

    printf("Enter  number :\n")

    scanf("%d",&iValue);

    iRet = multFact(iValue);

    printf("%d",iRet);

    return 0;

}

1. **Write a program which accept one number from user and display its factors in decreasing order.**

**Input : 12**

**Output: 6 4 3 2 1**

**Input : 13**

**Output: 1**

**Input : 10**

**Output: 5 2 1**

#include<stdio.h>

int FactRev(int iNo)

{

    //logic

}

int main()

{

    int iValue = 0;

    printf("Enter  number :\n")

    scanf("%d",&iValue);

    FactRev(iValue);

    return 0;

}

1. **Write a program which accept one number from user and display all its non factors.**

**Input: 12**

**Output: 5 7 8 9 10 11**

**Input: 13**

**Output: 2 3 4 5 6 7 8 9 10 11 12**

**Input: 10**

**Output: 3 4 6 7 8 9**

#include<stdio.h>

int NonFact(int iNo)

{

    //logic

}

int main()

{

    int iValue = 0;

    printf("Enter  number :\n")

    scanf("%d",&iValue);

    NonFact(iValue);

    return 0;

}

1. **Write a program which accept one number from user and return addition of all its non factors**

**Input: 12**

**Output: 50**

**Input: 10**

**Output: 37**

#include<stdio.h>

int SumNonFact(int iNo)

{

    //logic

}

int main()

{

    int iValue = 0;

    int iRet = 0;

    printf("Enter  number :\n")

    scanf("%d",&iValue);

    iRet = SumNonFact(iValue);

    printf("%d",iRet);

    return 0;

}

1. **Write a program which accept one number from user and return difference between**

**addition of all its factors and non factors.**

**Input: 12**

**Output: -34 (16-50)**

**Input: 10**

**Output: -29 (8-37)**

#include<stdio.h>

int FactDiff(int iNo)

{

    //logic

}

int main()

{

    int iValue = 0;

    int iRet = 0;

    printf("Enter  number :\n")

    scanf("%d",&iValue);

    iRet = FactDiff(iValue);

    printf("%d",iRet);

    return 0;

}