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)

```c
#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;
}
```

2. **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

```c
#include<stdio.h>
int FactRev(int iNo)
{
    //logic
}

int main()
{
    int iValue = 0;
    printf("Enter  number :\n")
    scanf("%d",&iValue);
    FactRev(iValue);
    return 0;
}
```

3. **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

```c
#include<stdio.h>
int NonFact(int iNo)
{
    //logic
}

int main()
{
    int iValue = 0;
    printf("Enter  number :\n")
    scanf("%d",&iValue);
    NonFact(iValue);
    return 0;
}
```

4. **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

```c
#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;
}
```

5. **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;
}
```