Assignment-3

1.Write a program which accept number from user and display its Multiplication of Factors.

```c
#include<stdio.h>

int MultFact(int iNo)
{
    int iCnt = 0;

    int iMul = 1;

    for(iCnt = 1; iCnt <= (iNo/2); iCnt++)
    {
        if((iNo % iCnt) == 0)
        {
            iMul = iMul * iCnt;
        }
    }

    return iMul;
}

int main()
{
    int iValue = 0;
    int iRet = 0;

    printf("Enter Number : \n");
    scanf("%d",&iValue);

    iRet = MultFact(iValue);


    printf("%d \n",iRet);

    return 0;
}
```

OUTPUT :

gcc A3Program1.c -o Myexe

1 ./Myexe
Enter Number :
12
144
2 ./Myexe
Enter Number :
13
1
3 ./Myexe
Enter Number :
10
10

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

```c
#include<stdio.h>

void FactRev(int iNo)
{
   int iCnt = 0;

   for(iCnt = (iNo/2); iCnt >= 1; iCnt--)
   {
      if((iNo % iCnt) == 0)
      {
         printf("%d\t",iCnt);
      }
   }
     printf("\n");
}
 int main()

{
   int iValue = 0;

   printf("Enter Number : \n");
   scanf("%d",&iValue);


   FactRev(iValue);

   return 0;
}
```

OUTPUT :
gcc A3Program2.c -o Myexe

1 ./Myexe
Enter Number :
12
6   4   3   2   1
2 ./Myexe
Enter Number :
13
1
3./Myexe
Enter Number :
10
5   2   1

3. Write a program which accept number from user and display all its non factors.

```c
#include<stdio.h>

void NonFact(int iNo)
{
    int iCnt = 0;

    for(iCnt = 1; iCnt <= iNo; iCnt++)
    {
      if((iNo % iCnt) != 0)
      {
        printf("%d \t",iCnt);
      }
    }

    printf("\n");
}

int main()
{
    int iValue = 0;

    printf("Enter Number : \n");
    scanf("%d",&iValue);

    NonFact(iValue);


    return 0;
}
```

OUTPUT :
gcc A3Program3.c -o Myexe

1 ./Myexe
Enter Number :
12
5   7   8   9   10   11
2 ./Myexe
Enter Number :
13
2   3   4   5   6   7   8 9   10   11   12
3 ./Myexe
Enter Number :
10
3   4   6   7   8   9

4. Write a program which accept number from user and return summation of all its non Factors.

```c
#include<stdio.h>

int SumNonFact(int iNo)
{
    int iCnt = 0;
    int iSum = 0;

    for(iCnt = 1; iCnt <= iNo; iCnt++)
    {
        if((iNo % iCnt) != 0)
        {
            iSum = iSum + iCnt;
        }
    }

    return iSum;
}

int main()
{
    int iValue = 0;
    int iRet = 0;

    printf("Enter Number : \n");
    scanf("%d",&iValue);


    iRet = SumNonFact(iValue);

    printf("%d \n",iRet);



    return 0;
}
```

OUTPUT :
 gcc A3Program4.c -o Myexe

1 ./Myexe
Enter Number :
12
50

2 ./Myexe
Enter Number :
10
37

5 . Write a program which accept number from user difference between summation of all its factors and non factors.

```c
#include<stdio.h>

int FactDiff(int iNo)
{
  int iCnt = 0;
  int iSum1 = 0;
  int iSum2 = 0;
  int iResult = 0;

  for(iCnt = 1; iCnt <= (iNo/2); iCnt++)
  {
    if((iNo % iCnt) == 0)
    {
      iSum1 = iSum1 + iCnt;
    }
  }
  for(iCnt = 1; iCnt <= iNo; iCnt++)
  {
    if((iNo % iCnt) != 0)
    {
      iSum2 = iSum2 + iCnt;
    }
  }

  iResult = iSum1 -iSum2;

  return iResult;

}



int main()
{
  int iValue = 0;

  int iRet = 0;

  printf("Enter Number : \n");
  scanf("%d",&iValue);

  iRet = FactDiff(iValue);

  printf("%d\n",iRet);
```

```
    return 0;

}
```

OUTPUT :

gcc A3Program5.c -o Myexe

1 ./Myexe
Enter Number :
12
-34

2 ./Myexe
Enter Number :
10
-29