

Assignment:13

Q.1 Accept a number and return the count of even digits.

Ans.

```
#include<stdio.h>

int CountEven(int iVal)
{
    int iEvenN=0,iDigit=0;

    if(iVal<0)
    {
        iVal=-iVal;
    }

    while(iVal!=0)
    {
        iDigit=iVal%10;

        if(iDigit%2==0)
        {
            iEvenN++;
        }
        iVal/=10;
    }

    return iEvenN;
}

int main()
{
    int iNo=0;

    printf("Enter a number to count even digits in it:\n");
    scanf("%d",&iNo);

    int iRet=CountEven(iNo);

    printf("There area %d even numbers in digit.\n",iRet);

    return 0;
}
```

OUTPUT:

```
Command Prompt

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>gcc Q1_.c -o Q1exe

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q1exe
Enter a number to count even digits in it:
2395
There area 1 even numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q1exe
Enter a number to count even digits in it:
1018
There area 2 even numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q1exe
Enter a number to count even digits in it:
-1018
There area 2 even numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q1exe
Enter a number to count even digits in it:
8461
There area 3 even numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q1exe
Enter a number to count even digits in it:
8462
There area 4 even numbers in digit.
```

Q.2 Accept a number from user and return count of odd numbers.

Ans.

```
#include<stdio.h>

int CountEven(int iVal)
{
    int iOddN=0,iDigit=0;

    if(iVal<0)
    {
        iVal=-iVal;
    }

    while(iVal!=0)
    {
        iDigit=iVal%10;

        if(iDigit%2!=0)
```

```

        {
            iOddN++;
        }
        iVal/=10;
    }

    return iOddN;
}

int main()
{
    int iNo=0;

    printf("Enter a number to count Odd digits in it:\n");
    scanf("%d",&iNo);

    int iRet=CountEven(iNo);

    printf("There area %d Odd numbers in digit.\n",iRet);

    return 0;
}

```

OUTPUT:

```

C:\> Command Prompt

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>Q2exe
Enter a number to count Odd digits in it:
2395
There area 3 Odd numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>Q2exe
Enter a number to count Odd digits in it:
1018
There area 2 Odd numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>Q2exe
Enter a number to count Odd digits in it:
-1018
There area 2 Odd numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>Q2exe
Enter a number to count Odd digits in it:
8462
There area 0 Odd numbers in digit.

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>

```

Q.3 Accept a number and return count of digits lies between 3 – 7.

Ans.

```
#include<stdio.h>

int InBetween(int iVal)
{
    int iDigit=0,iCount=0;
    int iCnt=0;
    int iRange[5]={3,4,5,6,7};

    if(iVal<0)
    {
        iVal=-iVal;
    }

    while(iVal!=0)
    {
        iDigit=iVal%10;

        for(iCnt=0;iCnt<5;iCnt++)
        {
            if(iDigit==iRange[iCnt])
            {
                iCount ++;
            }
        }
        iVal/=10;
    }

    return iCount;
}

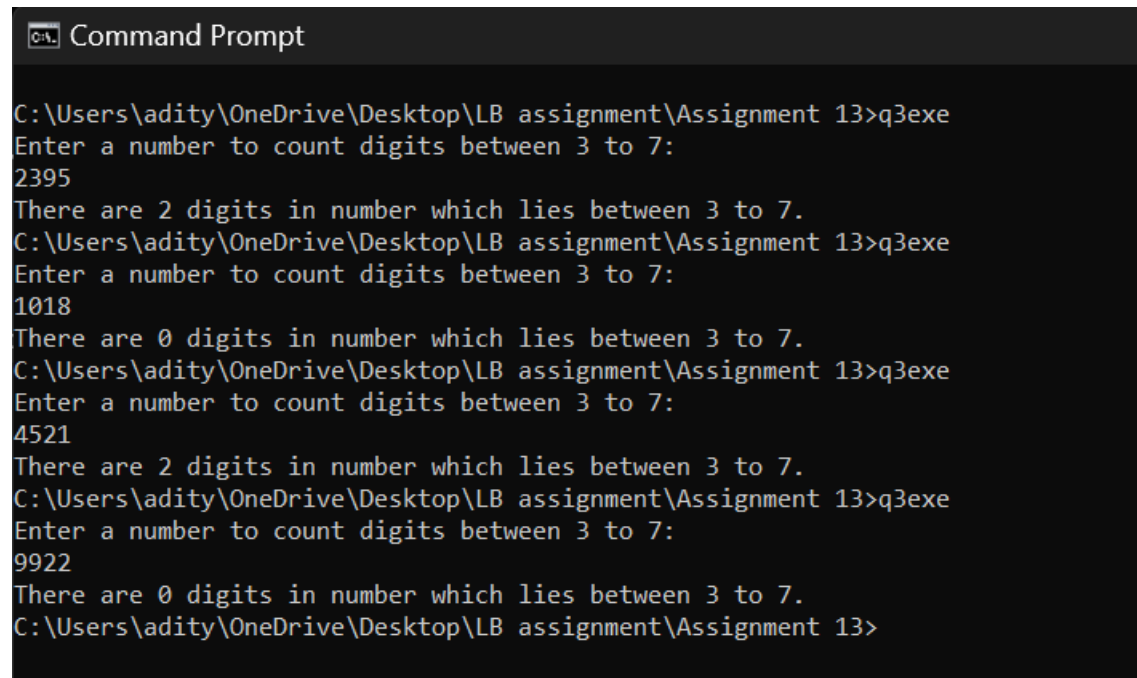
int main()
{
    int iNo=0;

    printf("Enter a number to count digits between 3 to 7:\n");
    scanf("%d",&iNo);

    int iRet=InBetween(iNo);
```

```
printf("There are %d digits in number which lies between 3 to 7.",iRet);  
  
return 0;  
}
```

OUTPUT:



```
C:\> Command Prompt  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q3exe  
Enter a number to count digits between 3 to 7:  
2395  
There are 2 digits in number which lies between 3 to 7.  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q3exe  
Enter a number to count digits between 3 to 7:  
1018  
There are 0 digits in number which lies between 3 to 7.  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q3exe  
Enter a number to count digits between 3 to 7:  
4521  
There are 2 digits in number which lies between 3 to 7.  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q3exe  
Enter a number to count digits between 3 to 7:  
9922  
There are 0 digits in number which lies between 3 to 7.  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>
```

Q.4 Accept number from user and return multiplication of all digits.

Ans.

```
#include<stdio.h>

int CountEven(int iVal)
{
    int iMult=1,iDigit=0;

    if(iVal<0)
    {
        iVal=-iVal;
    }

    while(iVal!=0)
    {
        iDigit=iVal%10;

        if(iDigit==0)
        {
            iDigit+=1;
        }

        iMult*=iDigit;

        iVal/=10;
    }

    return iMult;
}

int main()
{
    int iNo=0;

    printf("Enter a number to multiply all digits in it:\n");
    scanf("%d",&iNo);

    int iRet=CountEven(iNo);

    printf("Multiplication of digits is:\n%d",iRet);

    return 0;
}
```

OUTPUT:

```
Command Prompt

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q4exe
Enter a number to multiply all digits in it:
2395
Multiplication of digits is:
270
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q4exe
Enter a number to multiply all digits in it:
1018
Multiplication of digits is:
8
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q4exe
Enter a number to multiply all digits in it:
9440
Multiplication of digits is:
144
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q4exe
Enter a number to multiply all digits in it:
922432
Multiplication of digits is:
864
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>
```

Q.5 Accept number from user and return difference between summation of even and odd numbers.

Ans.

```
#include<stdio.h>

int SummationDiff(int iVal)
{
    int iOdd=0,iEven=0,iDiff=0,iDigit=0;

    if(iVal<0)
    {
        iVal=-iVal;
    }

    while(iVal!=0)
    {
```

```

        iDigit=iVal%10;

        if(iDigit%2!=0)
        {
            iOdd+=iDigit;
        }
        else if(iDigit%2==0)
        {
            iEven+=iDigit;
        }
        iVal/=10;
    }

    iDiff=iOdd-iEven;

    if(iDiff<0)
    {
        iDiff=-iDiff;
    }

    return iDiff;
}

int main()
{
    int iNo=0;

    printf("Enter a number to get difference between odd and even
summation:\n");
    scanf("%d",&iNo);

    int iRet=SummationDiff(iNo);

    printf("Difference between summations is:\n%d",iRet);

    return 0;
}

```


OUTPUT:

```
Command Prompt

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q5exe
Enter a number to get difference between odd and even summation:
2395
Difference between summations is:
15
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q5exe
Enter a number to get difference between odd and even summation:
1018
Difference between summations is:
6
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q5exe
Enter a number to get difference between odd and even summation:
8440
Difference between summations is:
16
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>q5exe
Enter a number to get difference between odd and even summation:
5733
Difference between summations is:
18
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 13>
```