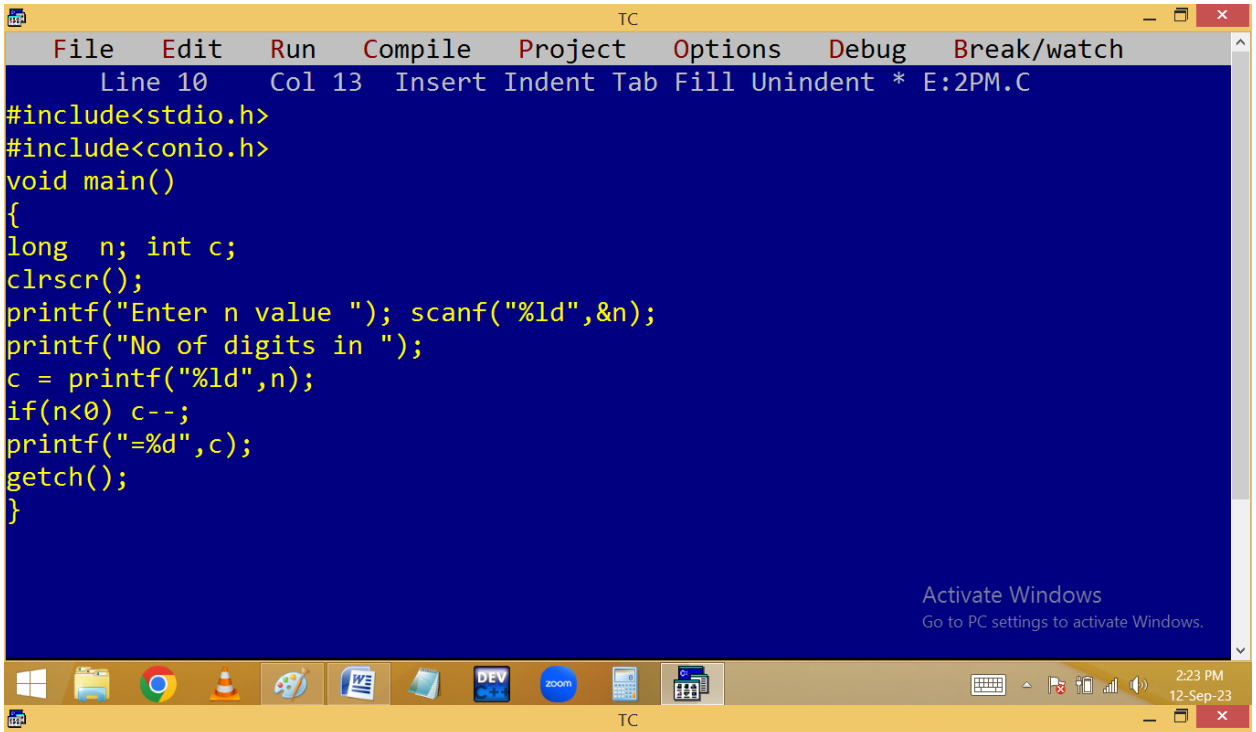
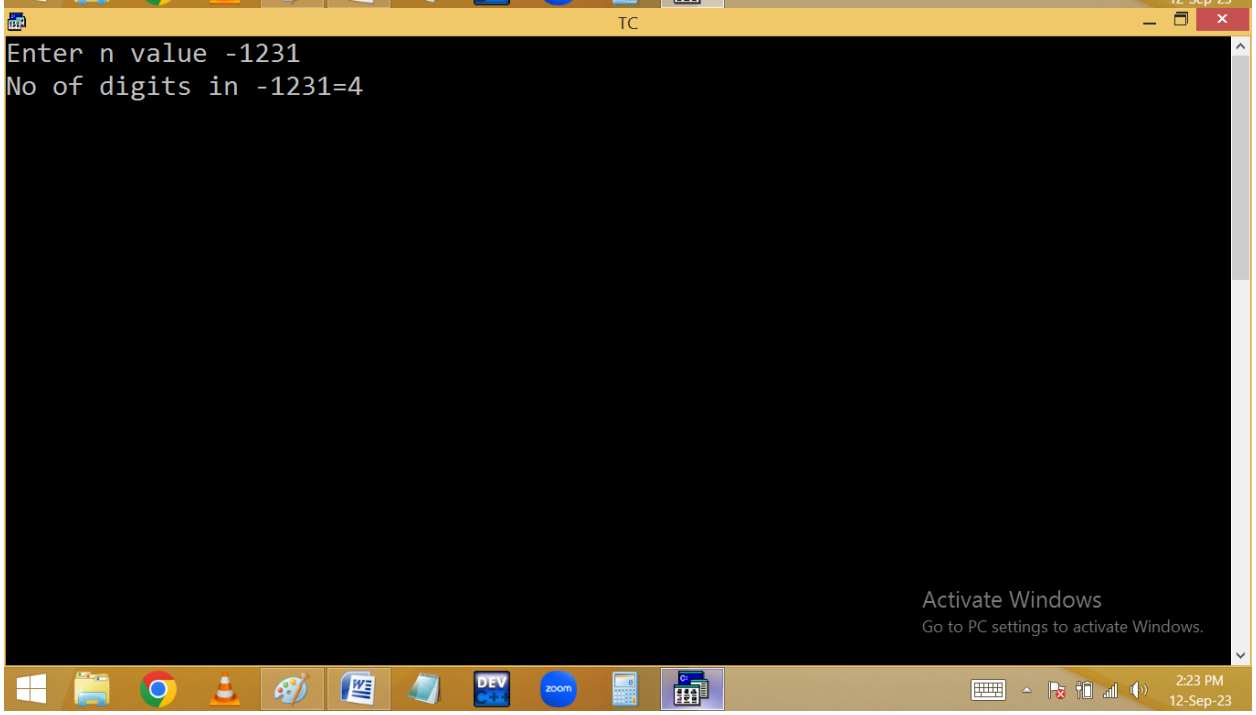
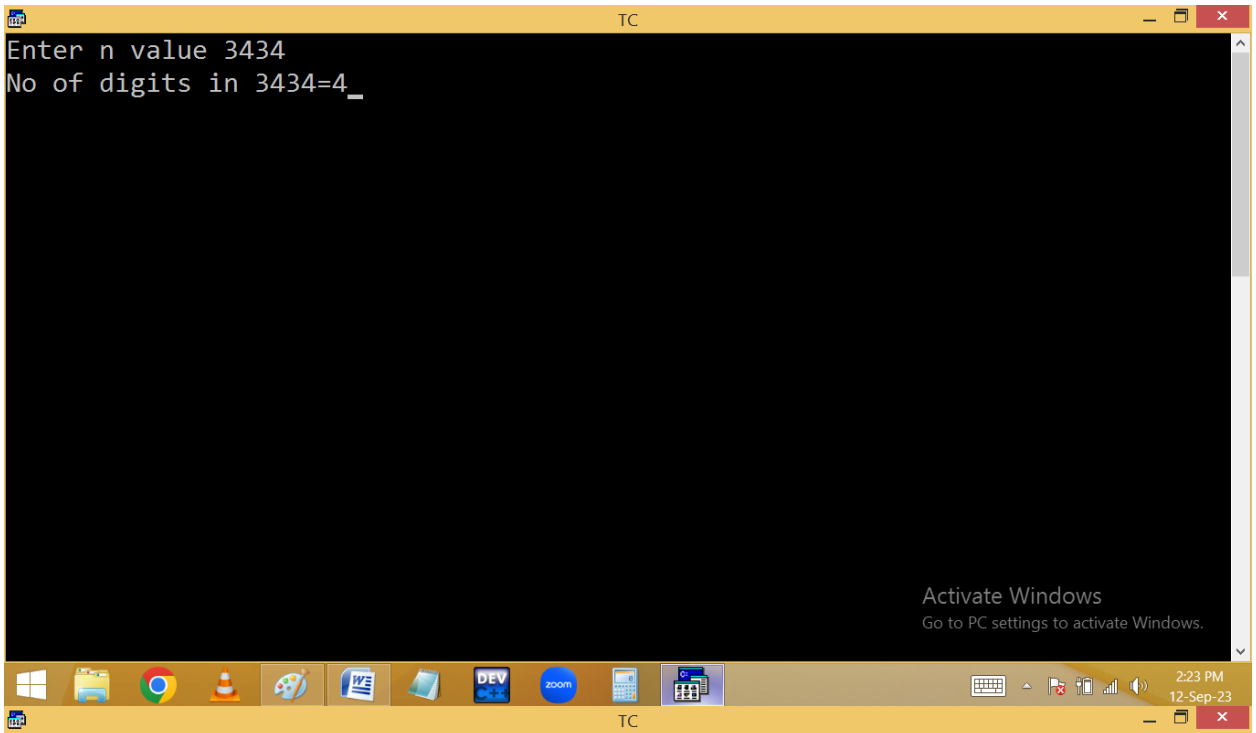
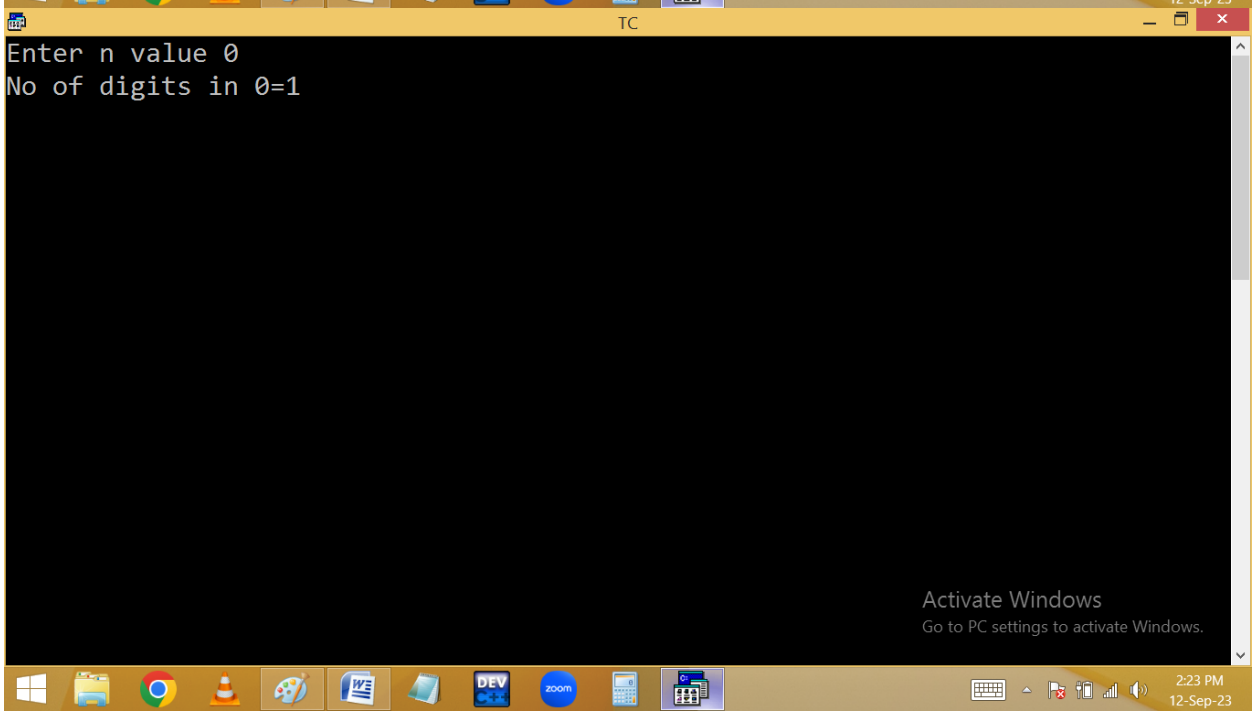
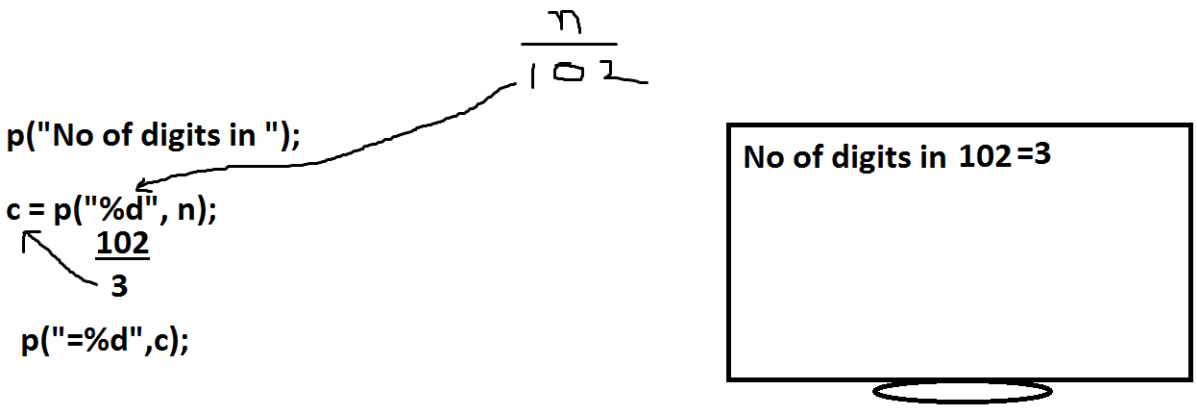
Finding no of digits in given no without using loop:






TC
Enter n value 3434
No of digits in 3434=4
Activate Windows
Go to PC settings to activate Windows.
2:23 PM
12-Sep-23

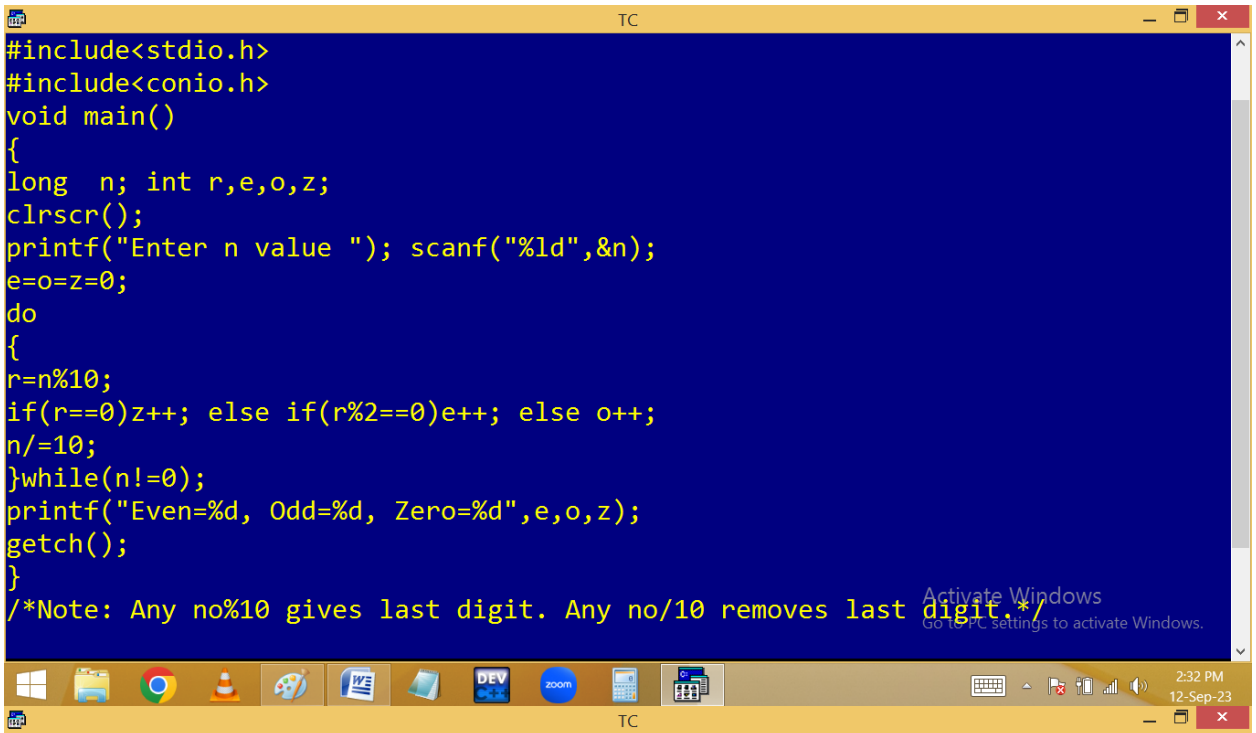

TC
Enter n value 0
No of digits in 0=1
Activate Windows
Go to PC settings to activate Windows.
2:23 PM
12-Sep-23

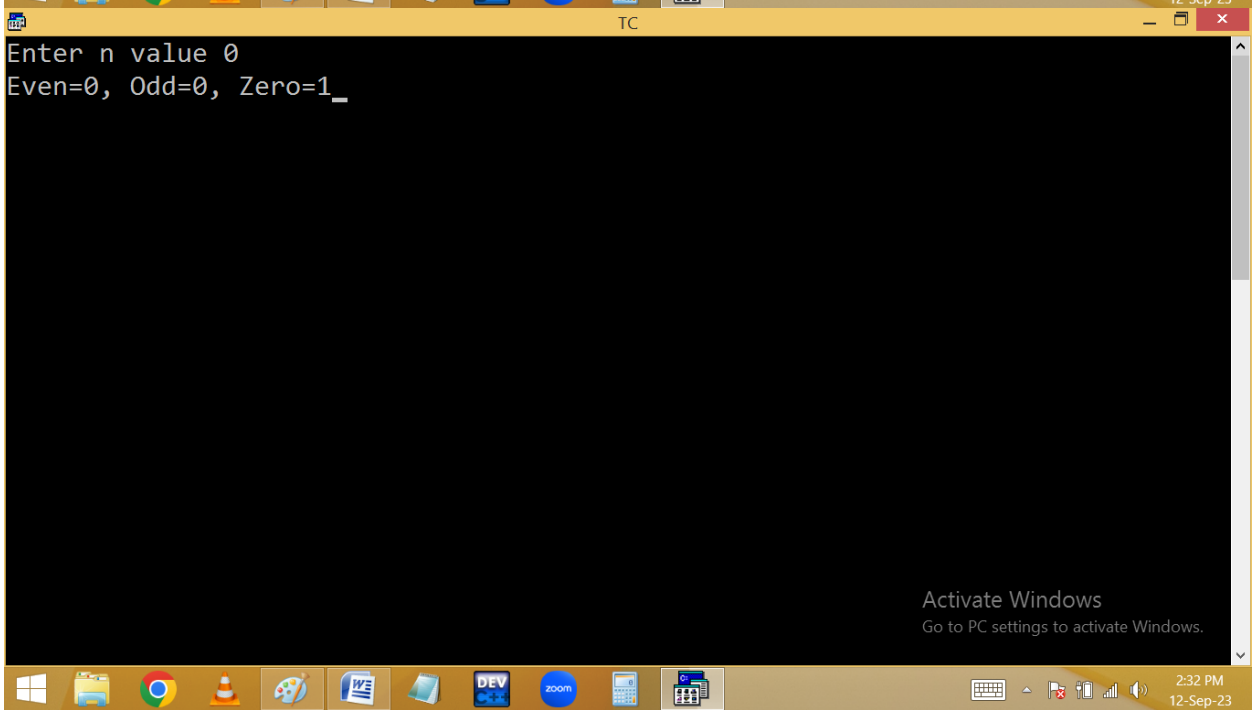


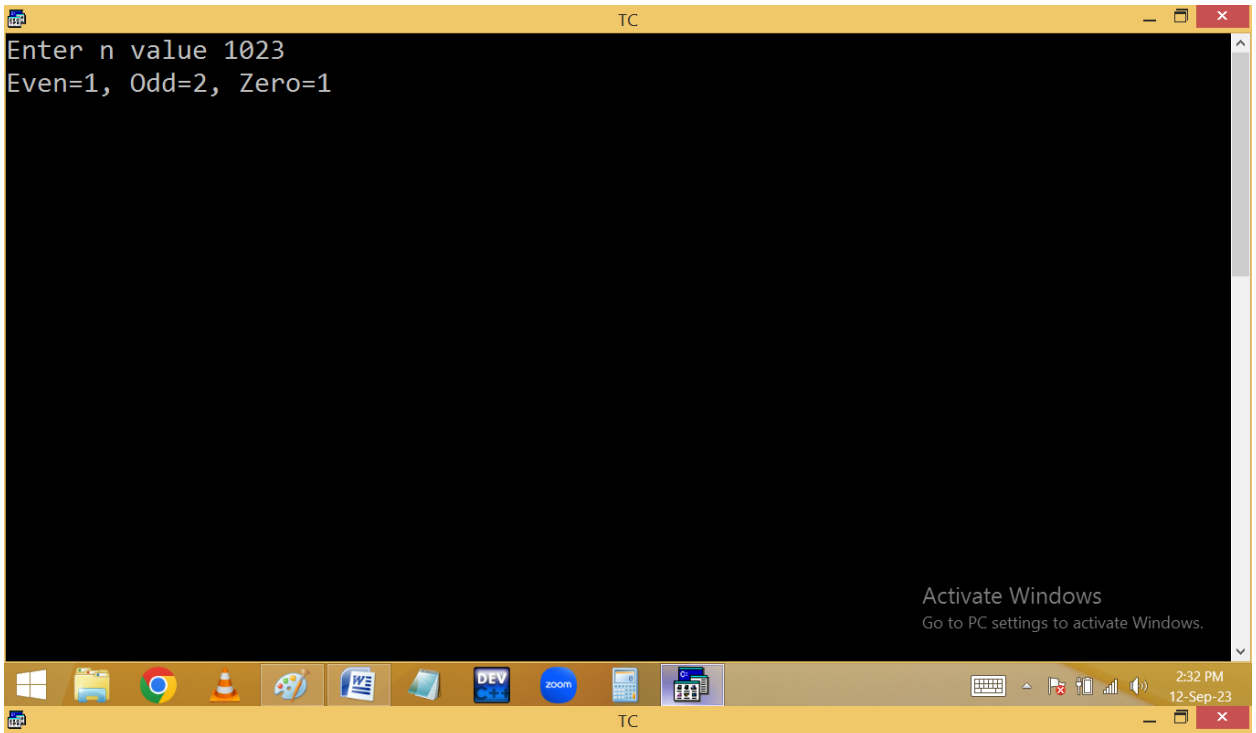
Eg:

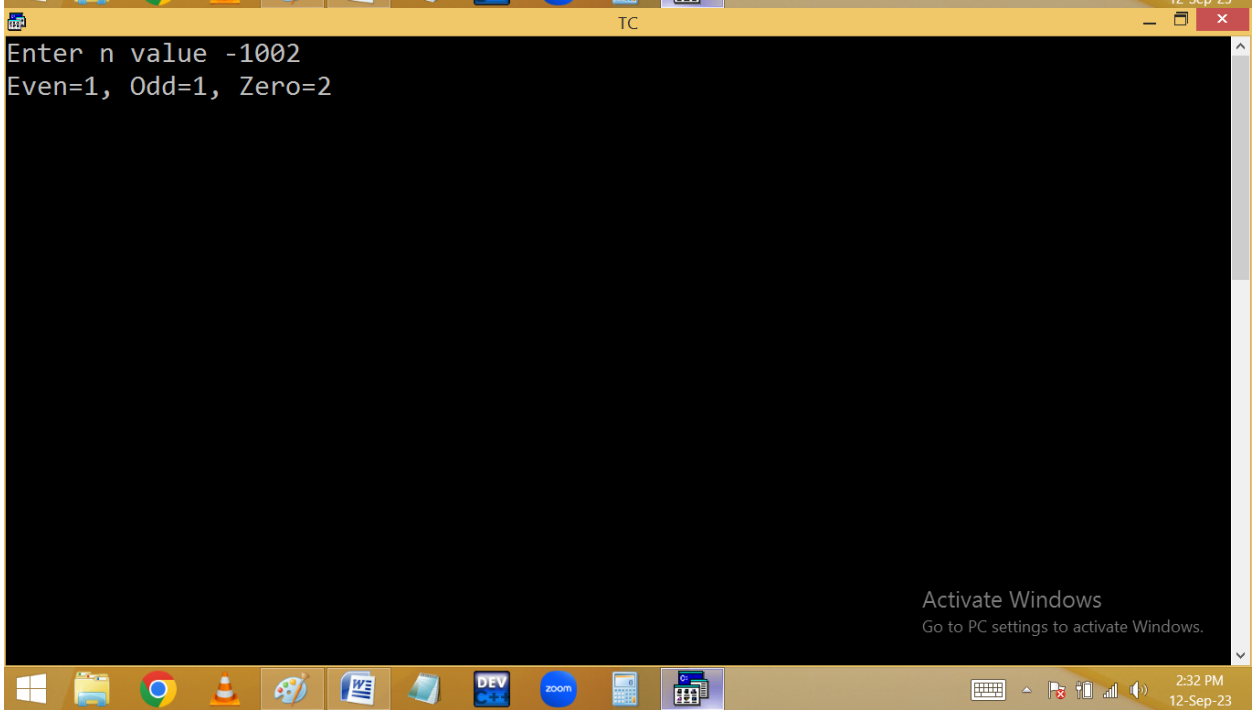
Finding the no of even, odd, zero digits in given no.

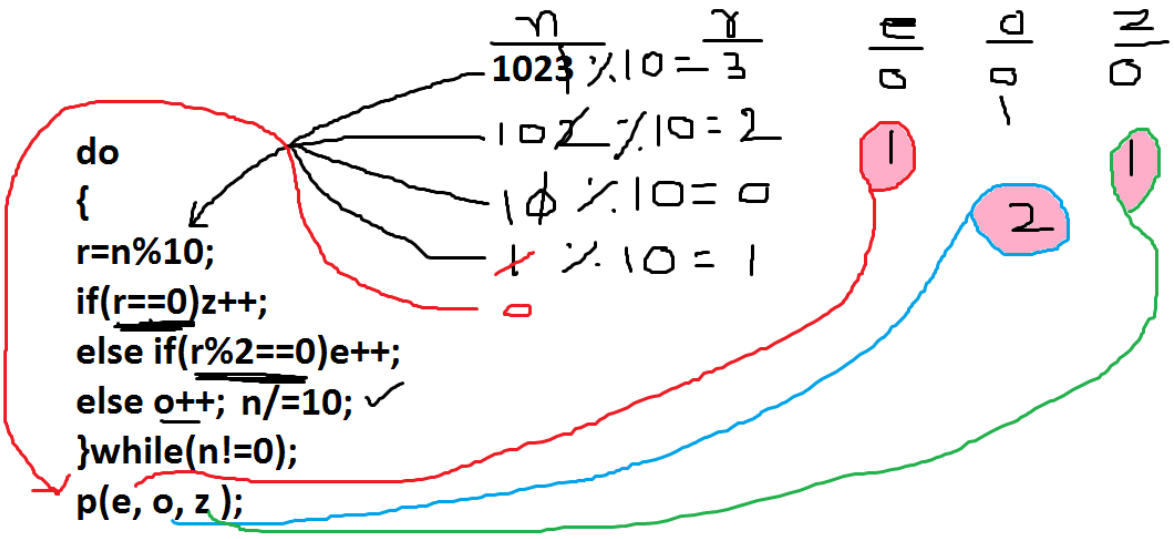
Eg: 1023 ➔ 1 even, 2 odd, 1 zero


TC
#include<stdio.h>
#include<conio.h>
void main()
{
long n; int r,e,o,z;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
e=o=z=0;
do
{
r=n%10;
if(r==0)z++; else if(r%2==0)e++; else o++;
n/=10;
}while(n!=0);
printf("Even=%d, Odd=%d, Zero=%d",e,o,z);
getch();
}
/*Note: Any no%10 gives last digit. Any no/10 removes last digit.*/
Activate Windows
Go to PC settings to activate Windows.
2:32 PM
12-Sep-23


TC
Enter n value 0
Even=0, Odd=0, Zero=1
Activate Windows
Go to PC settings to activate Windows.
2:32 PM
12-Sep-23

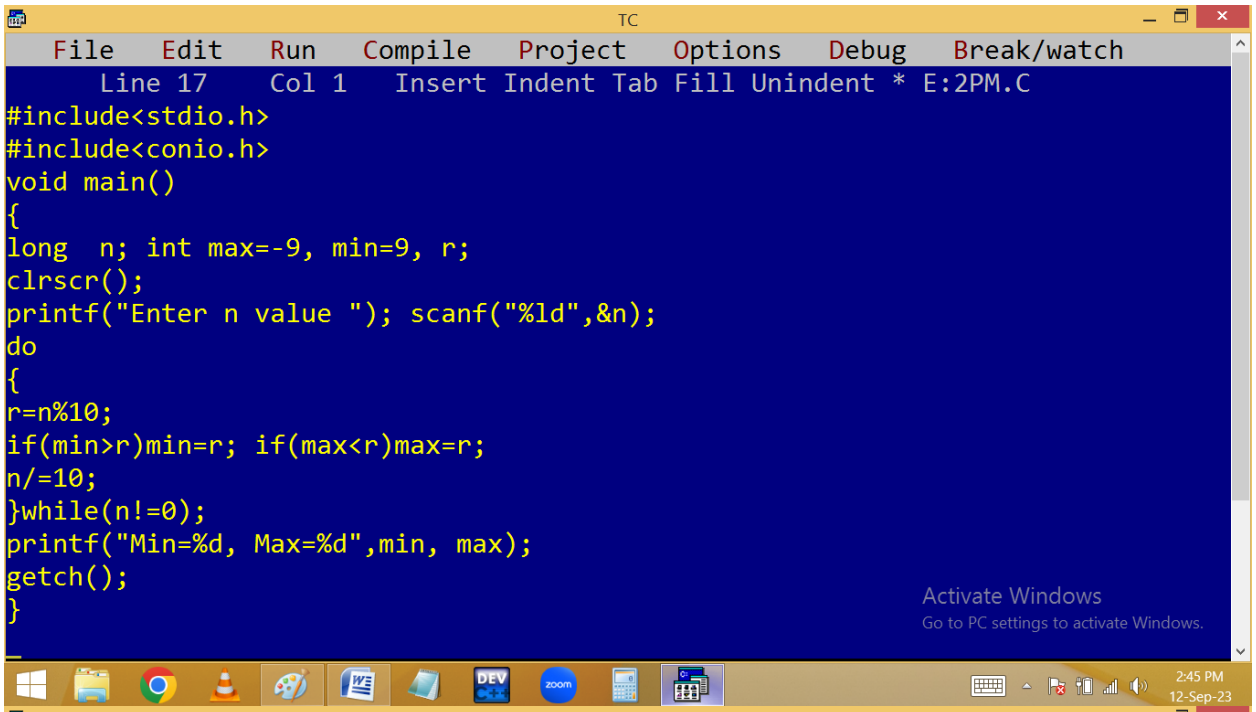

TC
Enter n value 1023
Even=1, Odd=2, Zero=1
Activate Windows
Go to PC settings to activate Windows.
2:32 PM
12-Sep-23

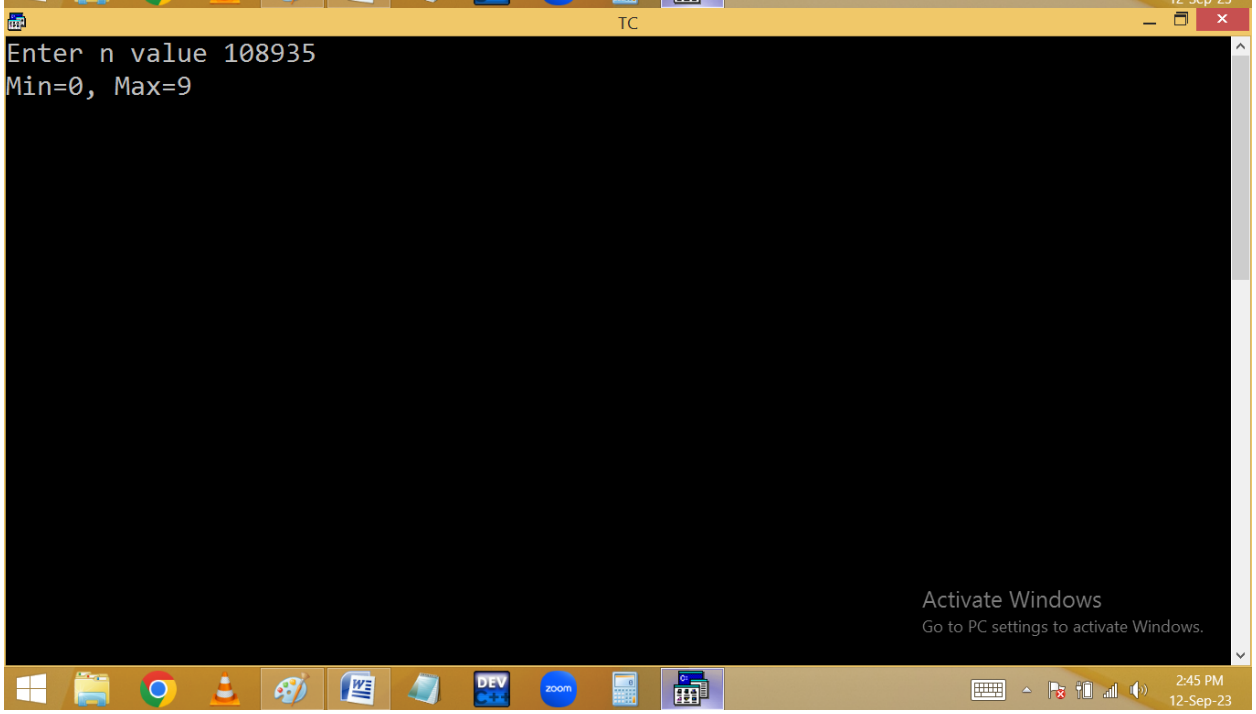

TC
Enter n value -1002
Even=1, Odd=1, Zero=2
Activate Windows
Go to PC settings to activate Windows.
2:32 PM
12-Sep-23

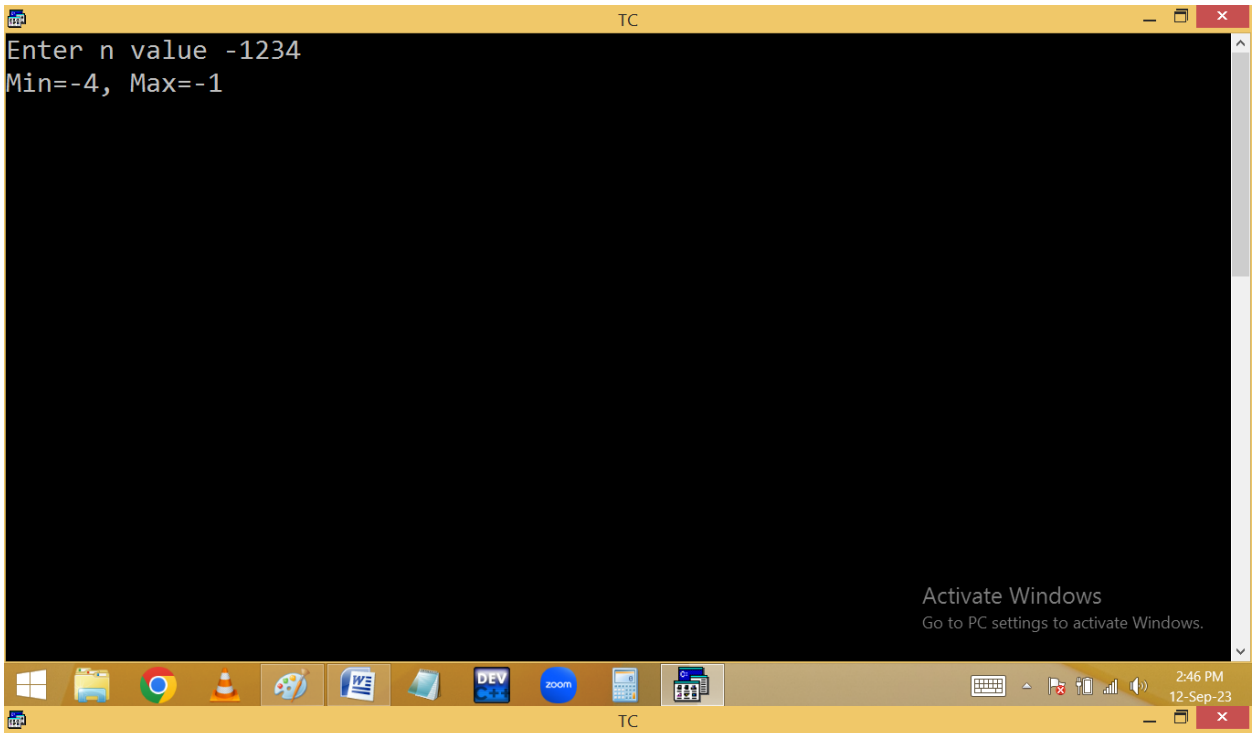


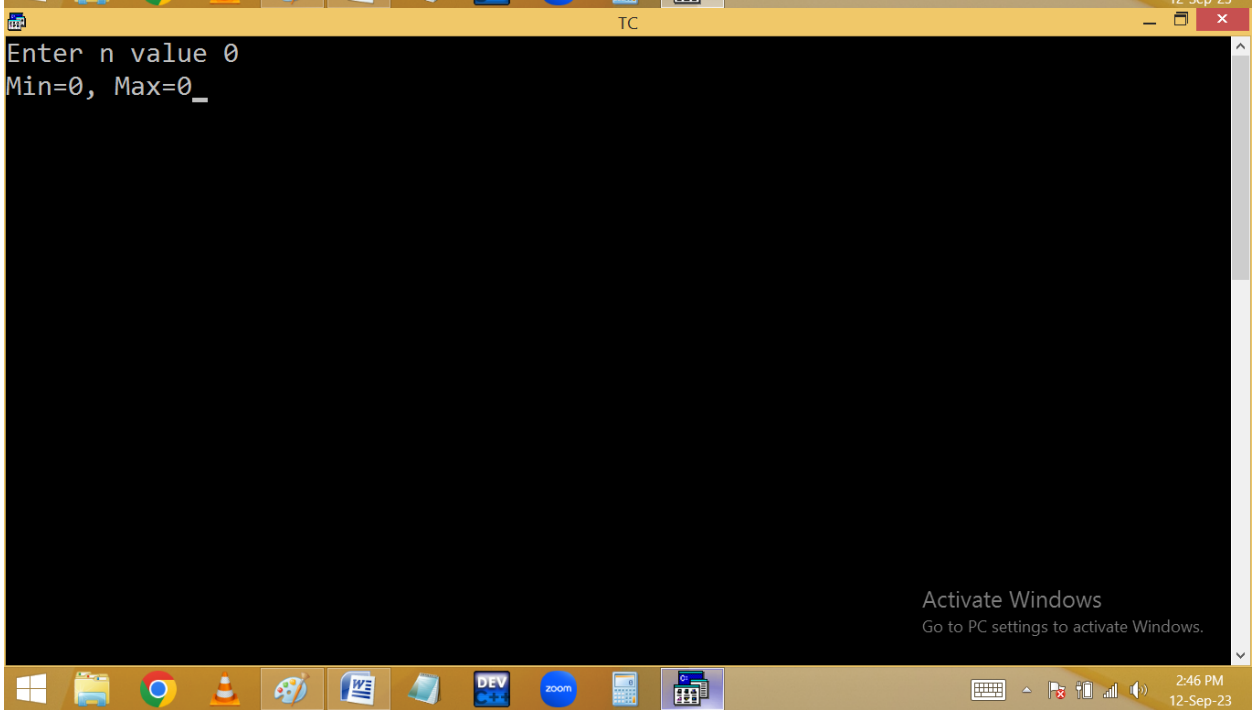
Finding max, min digits of given no.

9123 → max=9, min=1


TC
File Edit Run Compile Project Options Debug Break/watch
Line 17 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n; int max=-9, min=9, r;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
do
{
r=n%10;
if(min>r)min=r; if(max<r)max=r;
n/=10;
}while(n!=0);
printf("Min=%d, Max=%d",min, max);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:45 PM
12-Sep-23


TC
Enter n value 108935
Min=0, Max=9
Activate Windows
Go to PC settings to activate Windows.
2:45 PM
12-Sep-23


TC
Enter n value -1234
Min=-4, Max=-1
Activate Windows
Go to PC settings to activate Windows.
2:46 PM
12-Sep-23

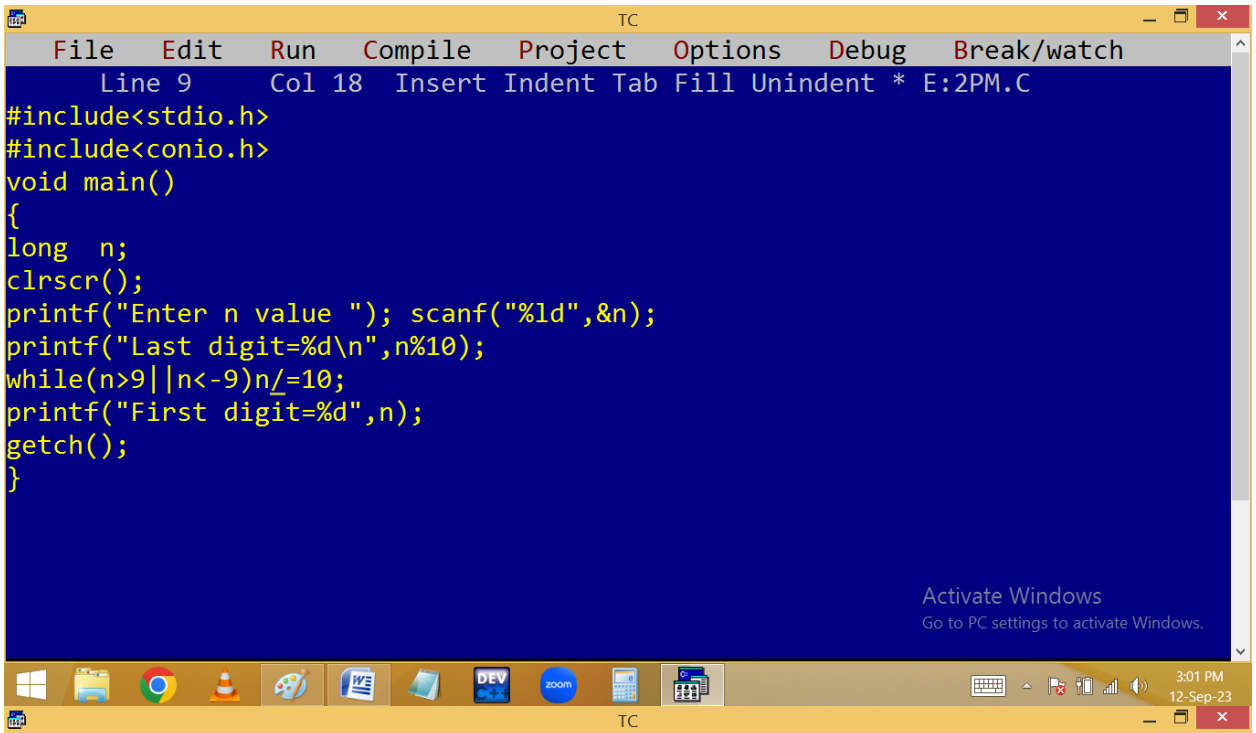

TC
Enter n value 0
Min=0, Max=0
Activate Windows
Go to PC settings to activate Windows.
2:46 PM
12-Sep-23

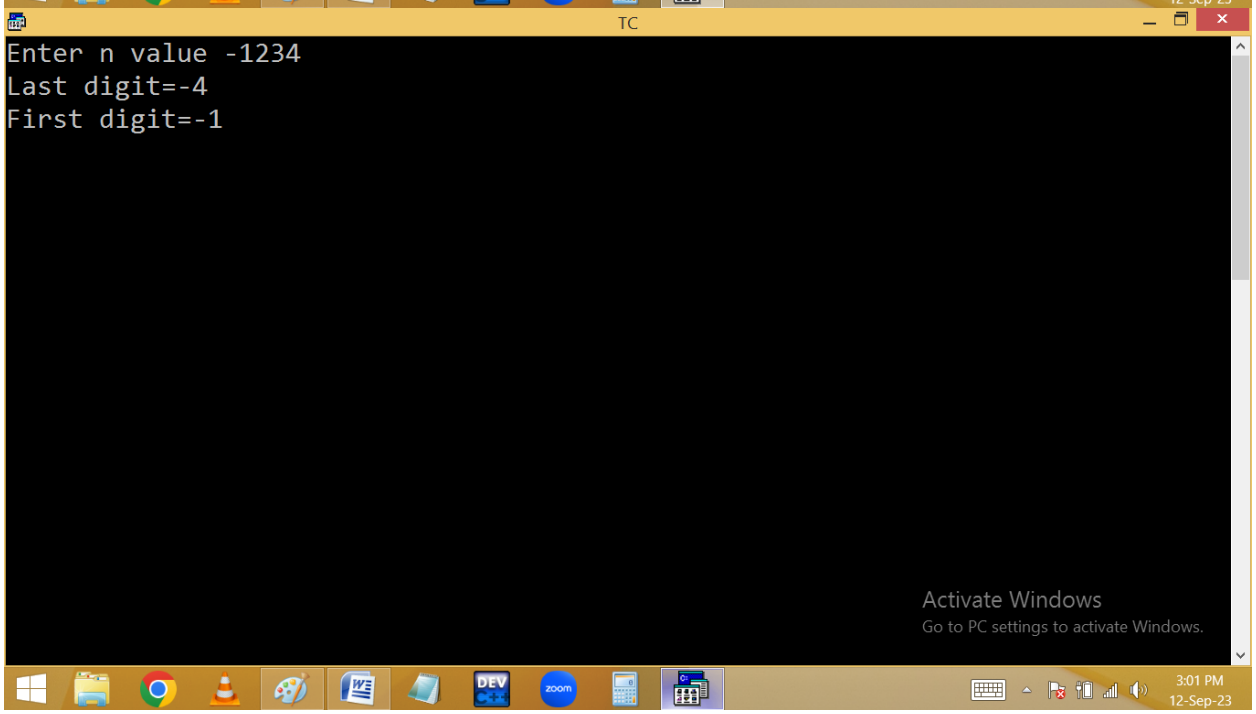
```
do
{
r=n%10;
if(min>r)min=r;
if(max<r)max=r;
n/=10;
}while(n!=0);
p( max,    min );
```

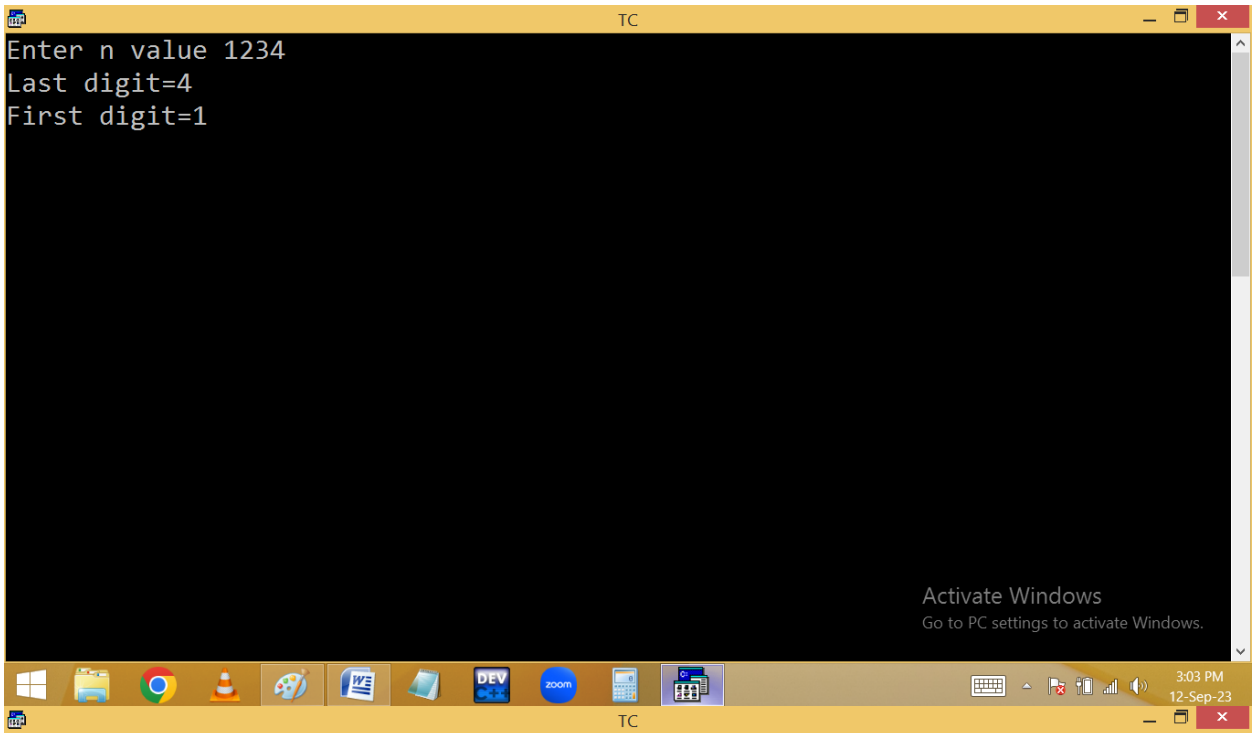
n	r	max	min
9123	%10=3	-9 <3	9>3
912	%10=2	3<2	3>2
91	%10=1	3<1	2>1
9	%10=9	3<9	1>3
0			

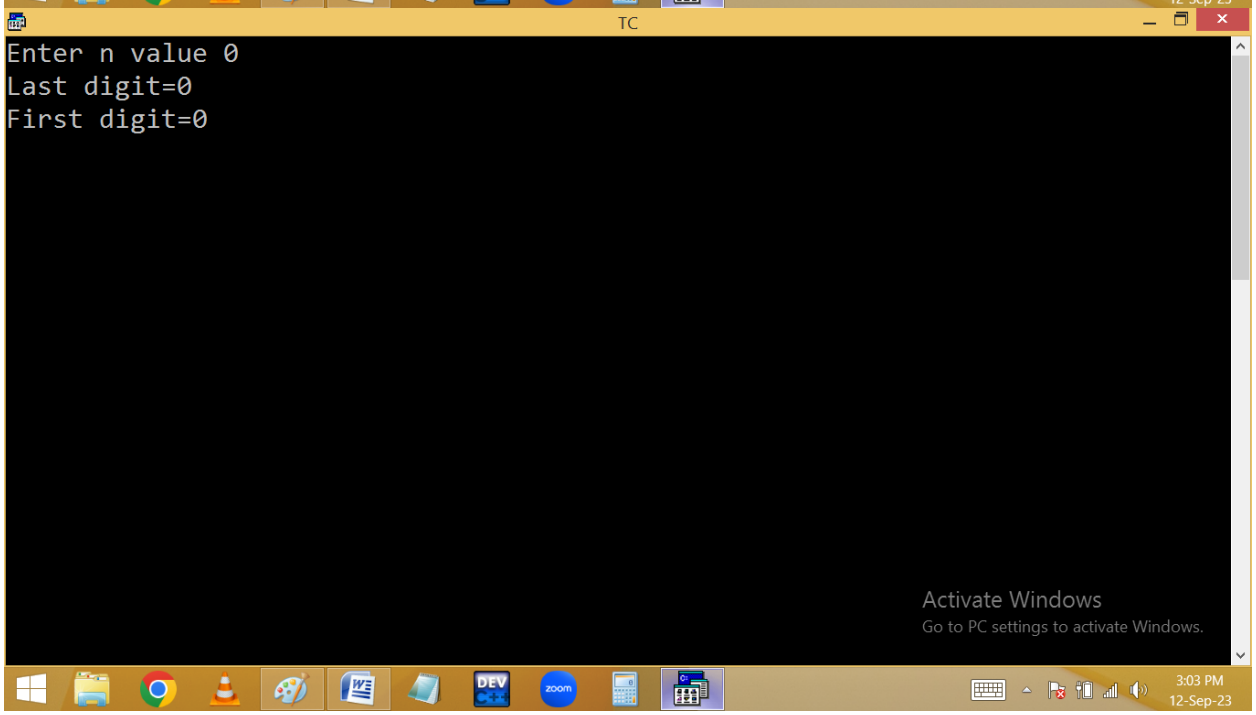
Printing 1st and last digits of given no.

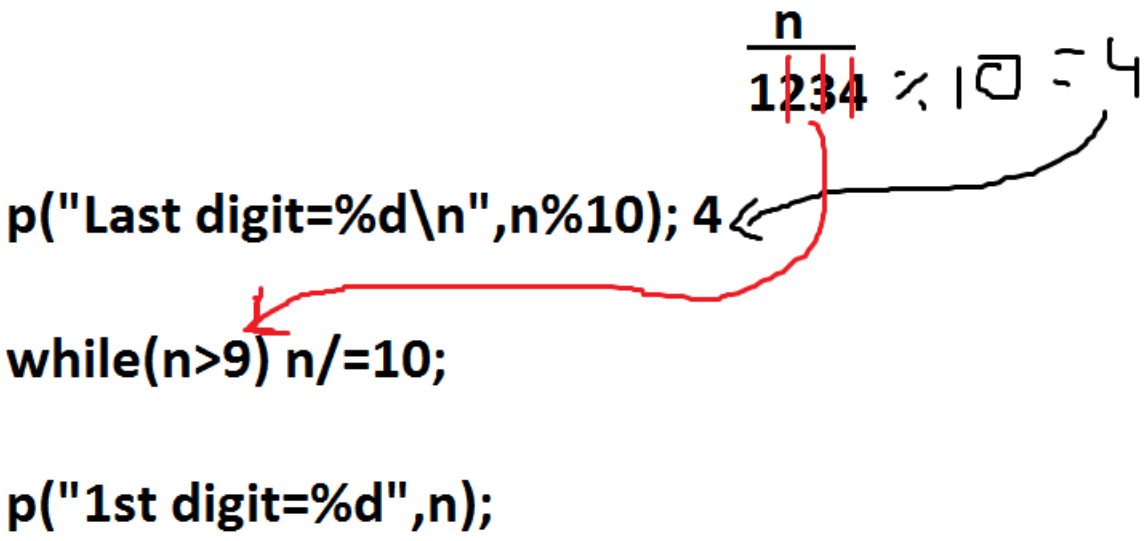
1234 ➔ 1st digit 1, last digit 4


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 18 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
printf("Last digit=%d\n",n%10);
while(n>9||n<-9)n/=10;
printf("First digit=%d",n);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:01 PM
12-Sep-23


TC
Enter n value -1234
Last digit=-4
First digit=-1
Activate Windows
Go to PC settings to activate Windows.
3:01 PM
12-Sep-23

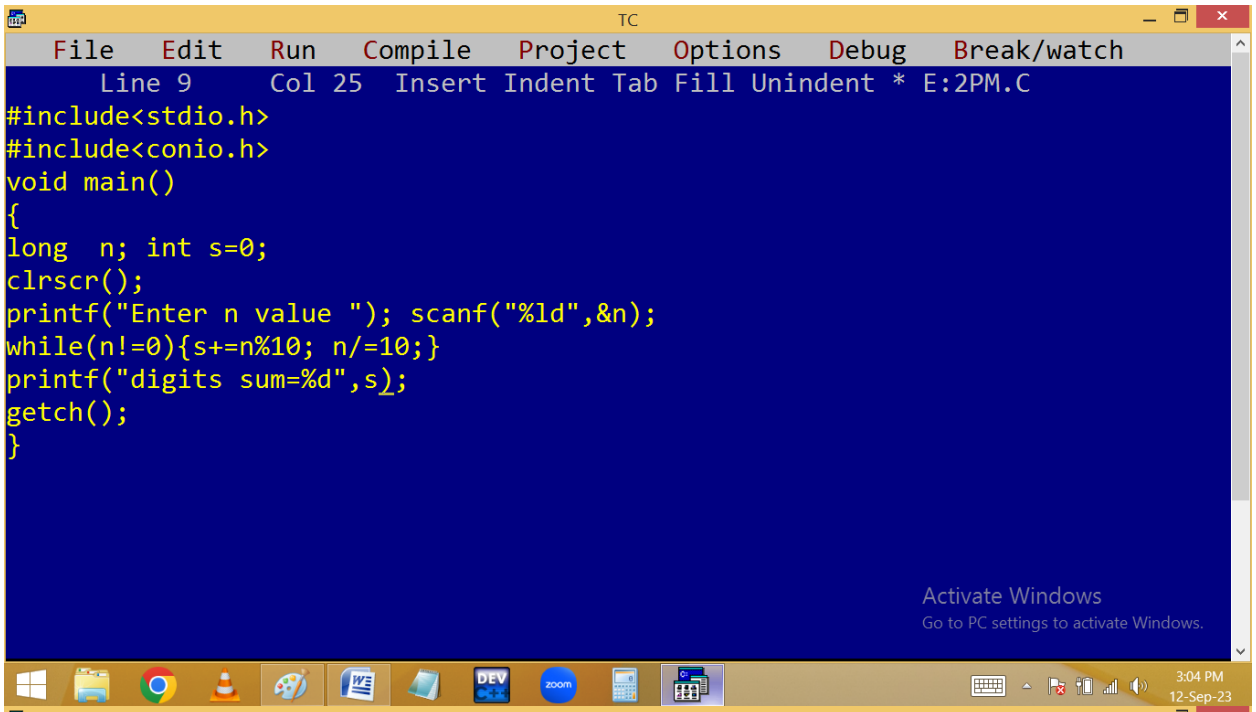

TC
Enter n value 1234
Last digit=4
First digit=1
Activate Windows
Go to PC settings to activate Windows.
3:03 PM
12-Sep-23

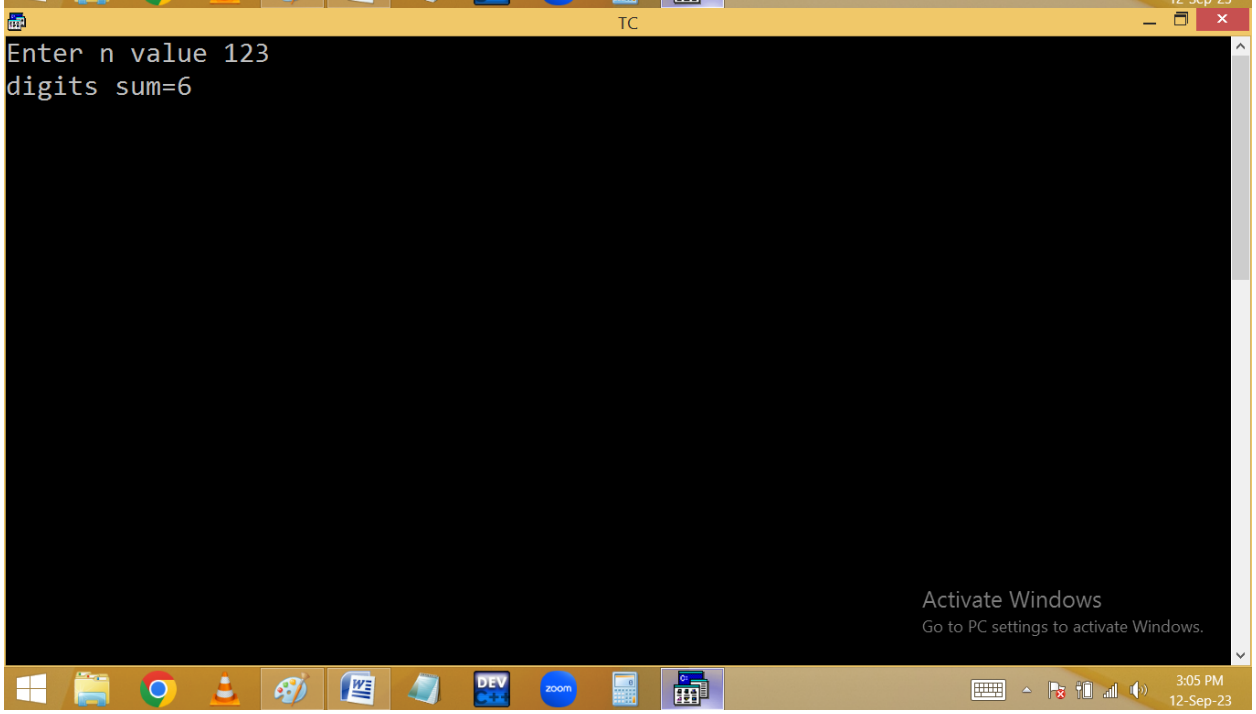

TC
Enter n value 0
Last digit=0
First digit=0
Activate Windows
Go to PC settings to activate Windows.
3:03 PM
12-Sep-23

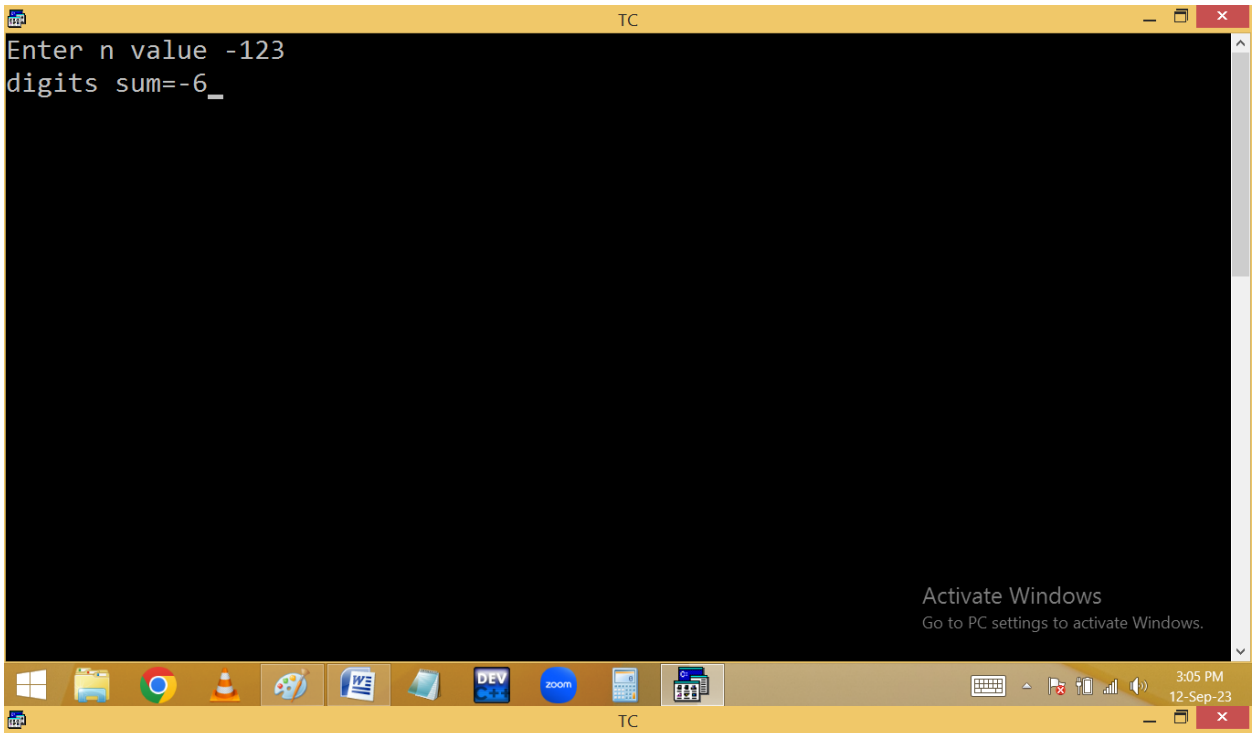


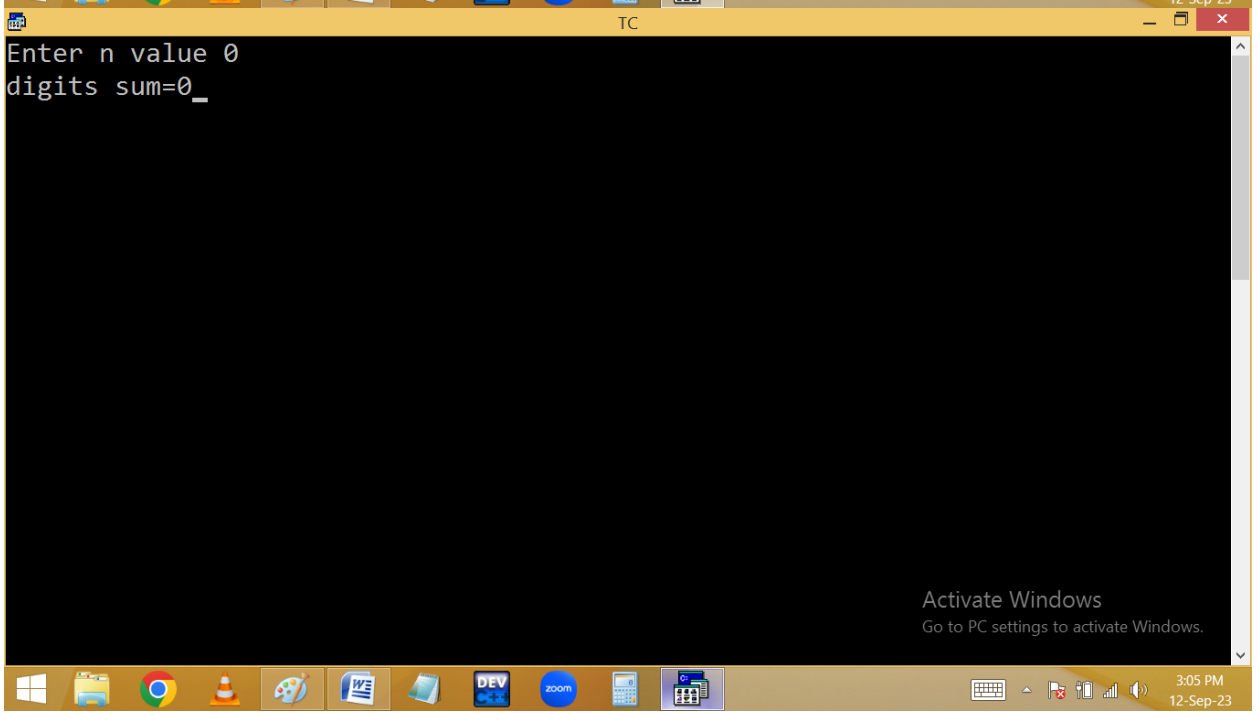
Eg. finding digits sum.

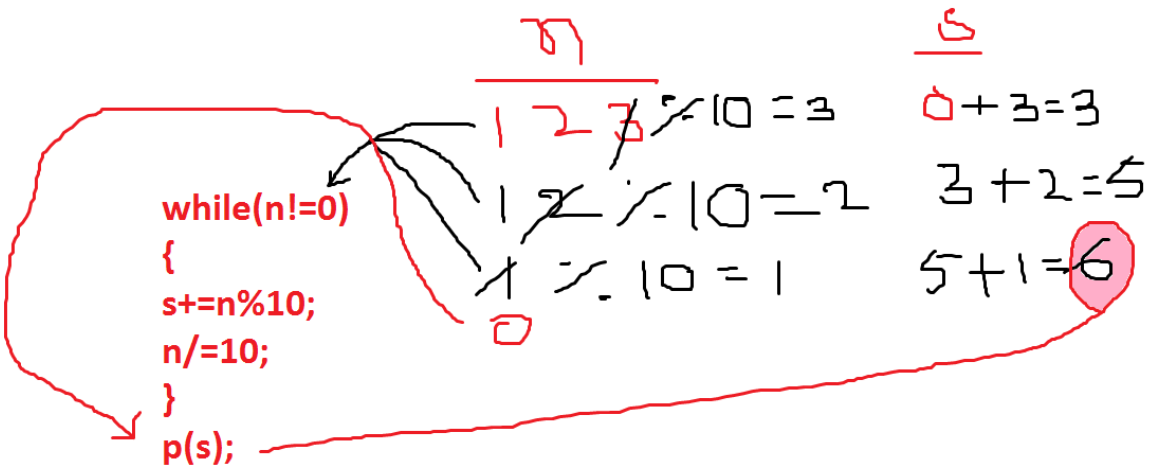
Eg: 123 ➔ 1+2+3=6


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 25 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n; int s=0;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
while(n!=0){s+=n%10; n/=10;}
printf("digits sum=%d",s);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:04 PM
12-Sep-23

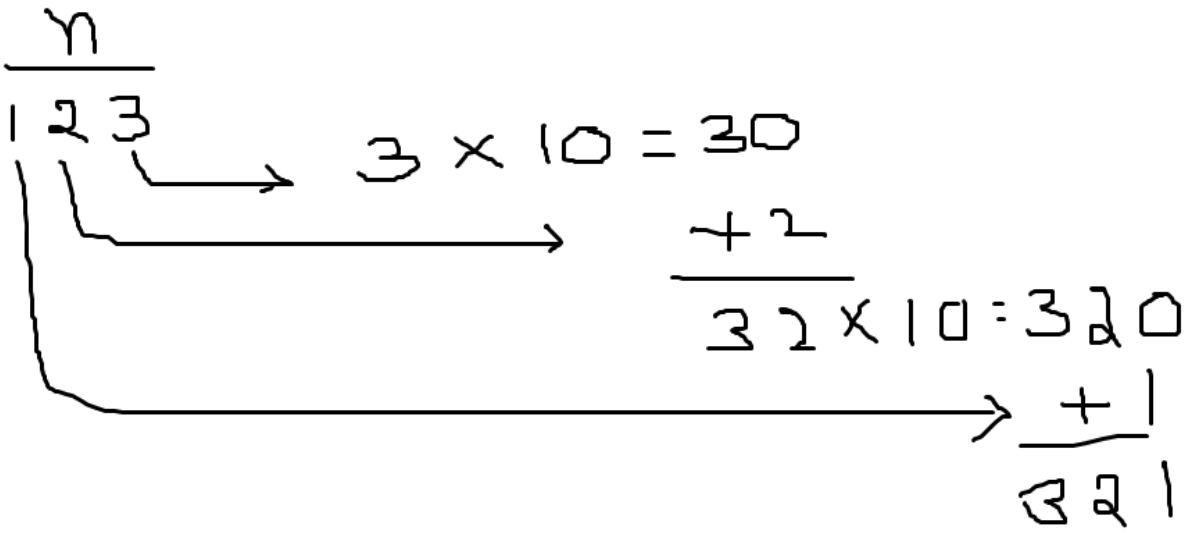

TC
Enter n value 123
digits sum=6
Activate Windows
Go to PC settings to activate Windows.
3:05 PM
12-Sep-23

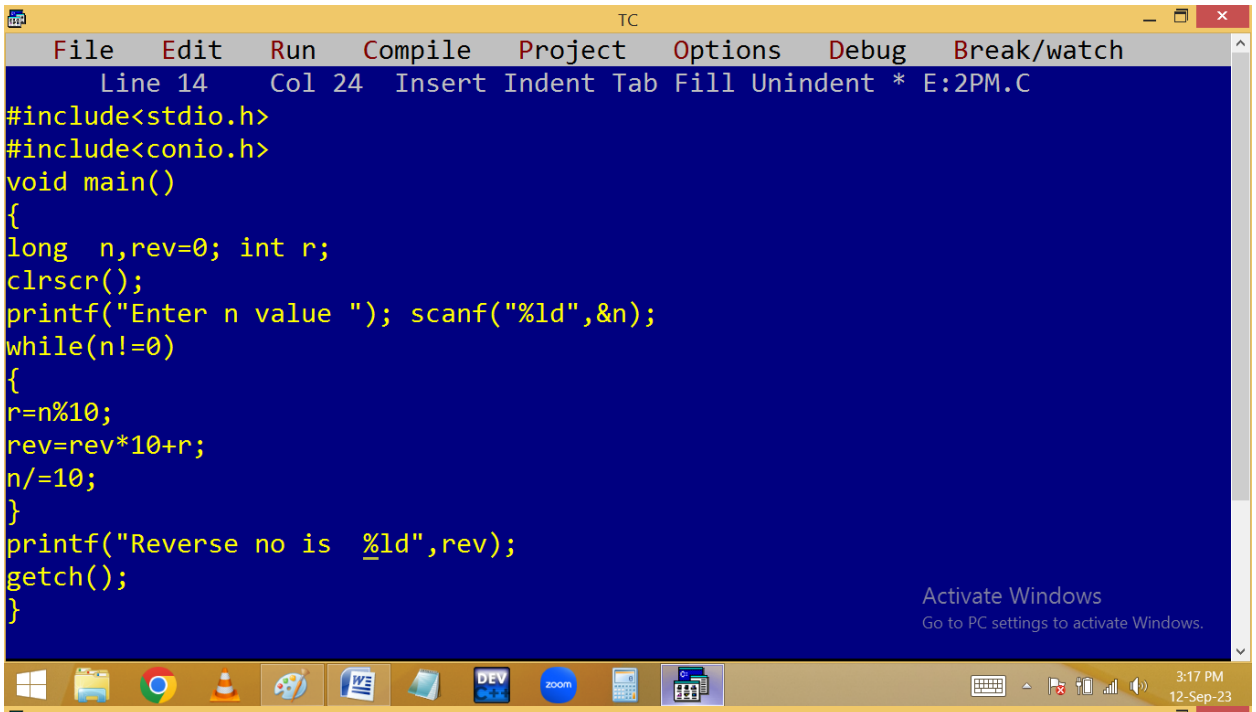

TC
Enter n value -123
digits sum=-6
Activate Windows
Go to PC settings to activate Windows.
3:05 PM
12-Sep-23

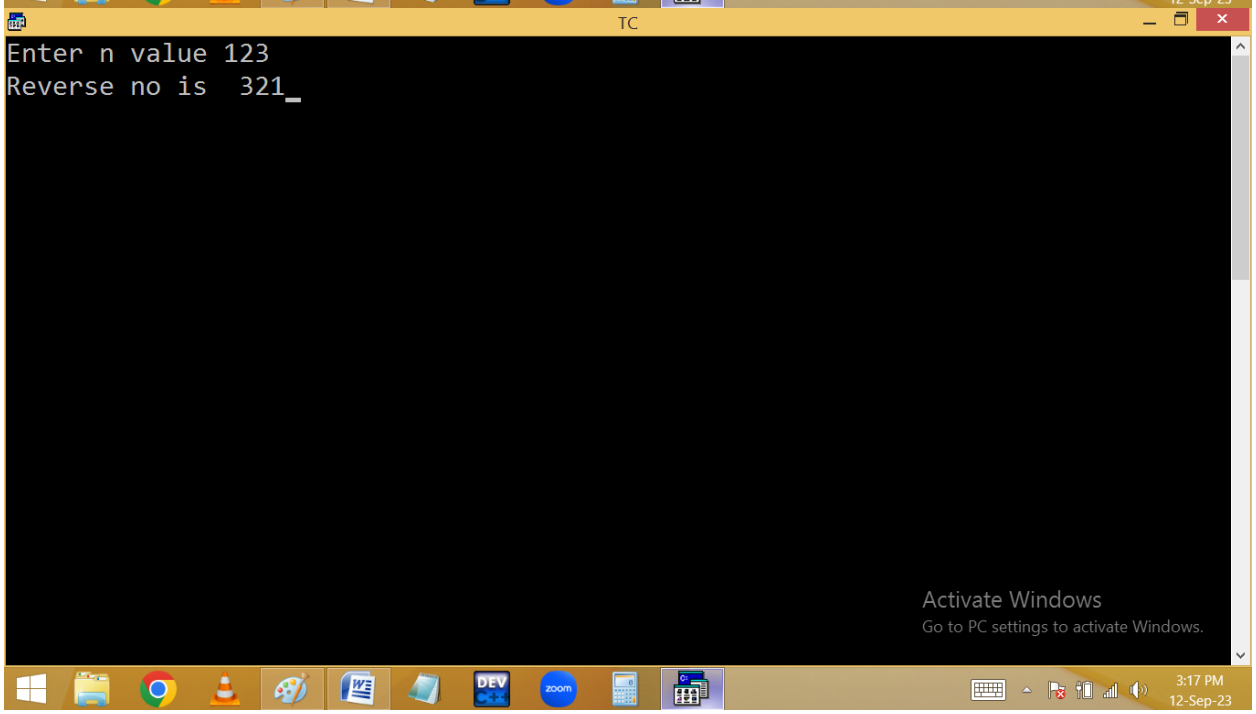

TC
Enter n value 0
digits sum=0
Activate Windows
Go to PC settings to activate Windows.
3:05 PM
12-Sep-23

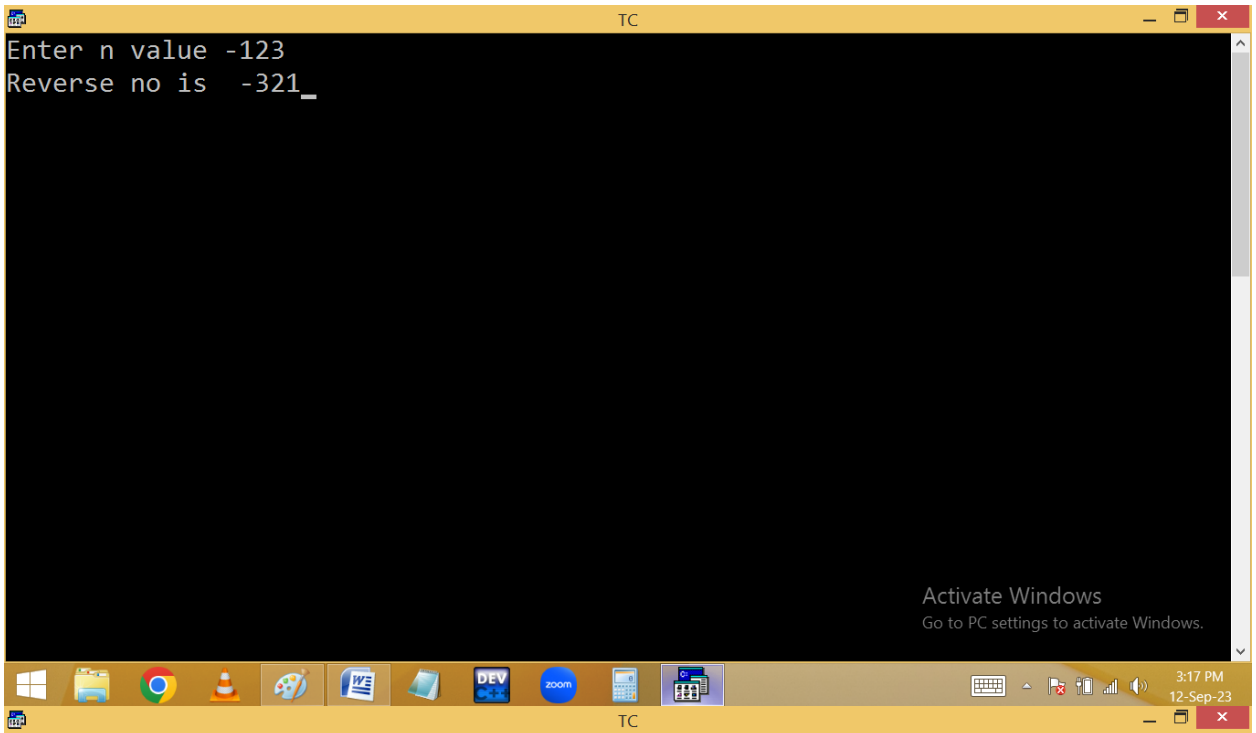

n
s
123%10=3
12%10=2
1%10=1
0
0+3=3
3+2=5
5+1=6
while(n!=0)
{
s+=n%10;
n/=10;
}
p(s);

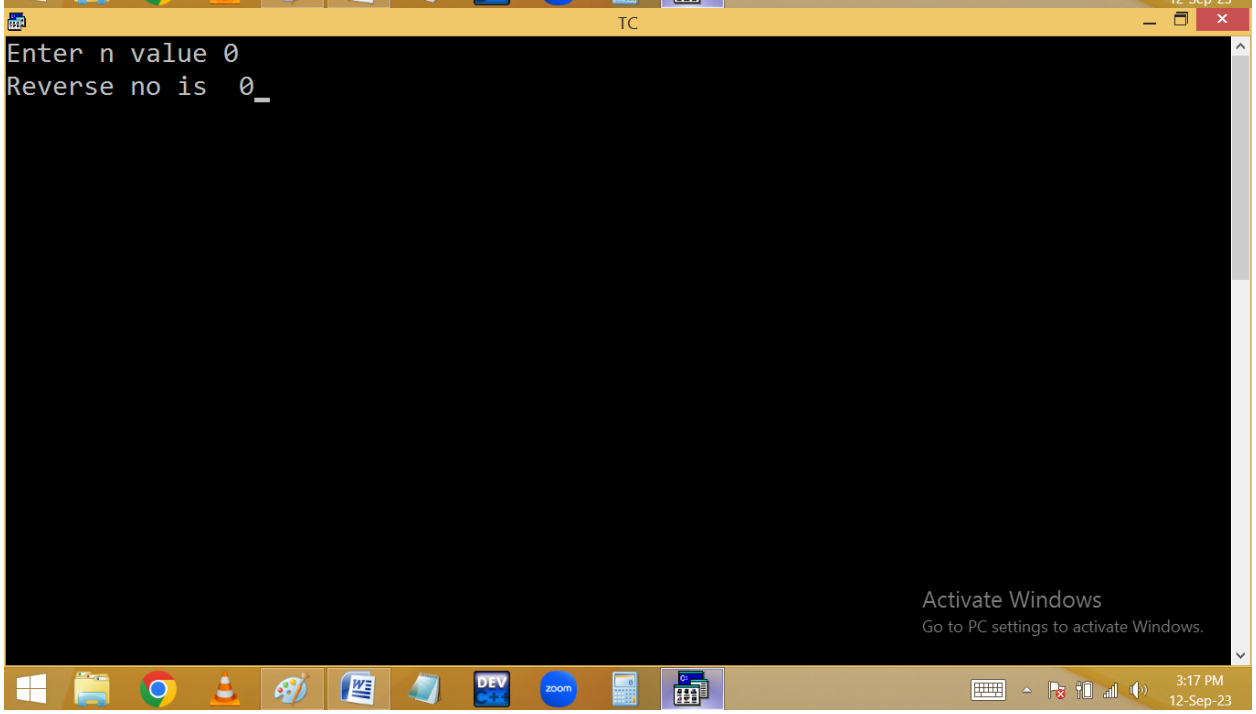
Reverse no:

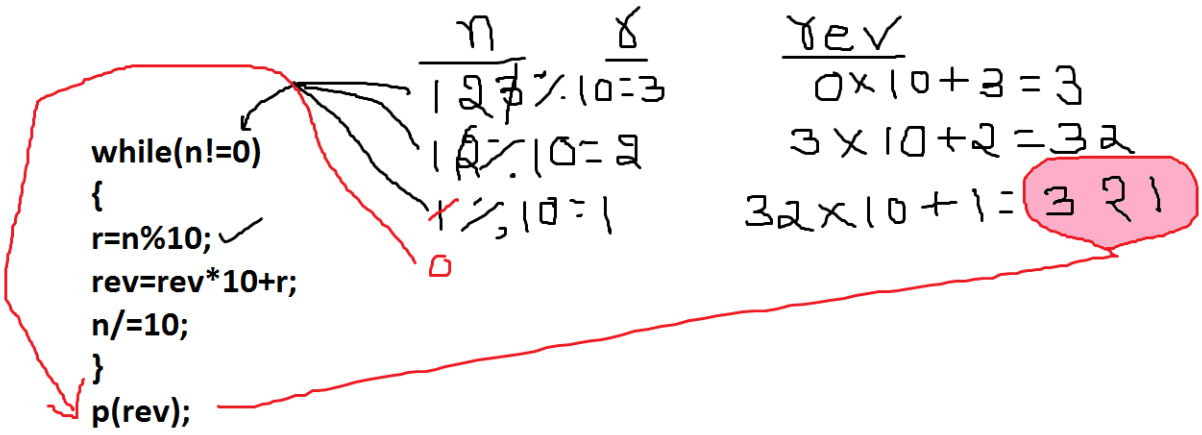

n
123
3x10=30
+2
32x10=320
+1
321


TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 24 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n,rev=0; int r;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
while(n!=0)
{
r=n%10;
rev=rev*10+r;
n/=10;
}
printf("Reverse no is %ld",rev);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
12-Sep-23


TC
Enter n value 123
Reverse no is 321
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
12-Sep-23

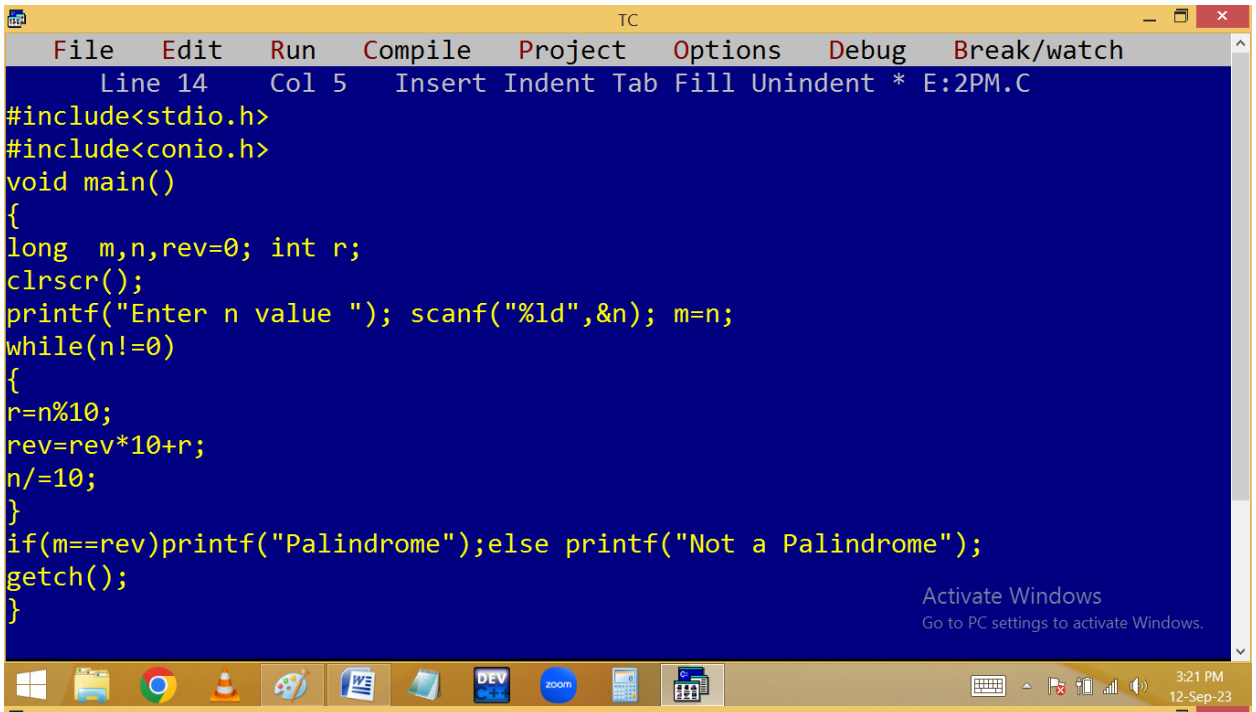

TC
Enter n value -123
Reverse no is -321
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
12-Sep-23

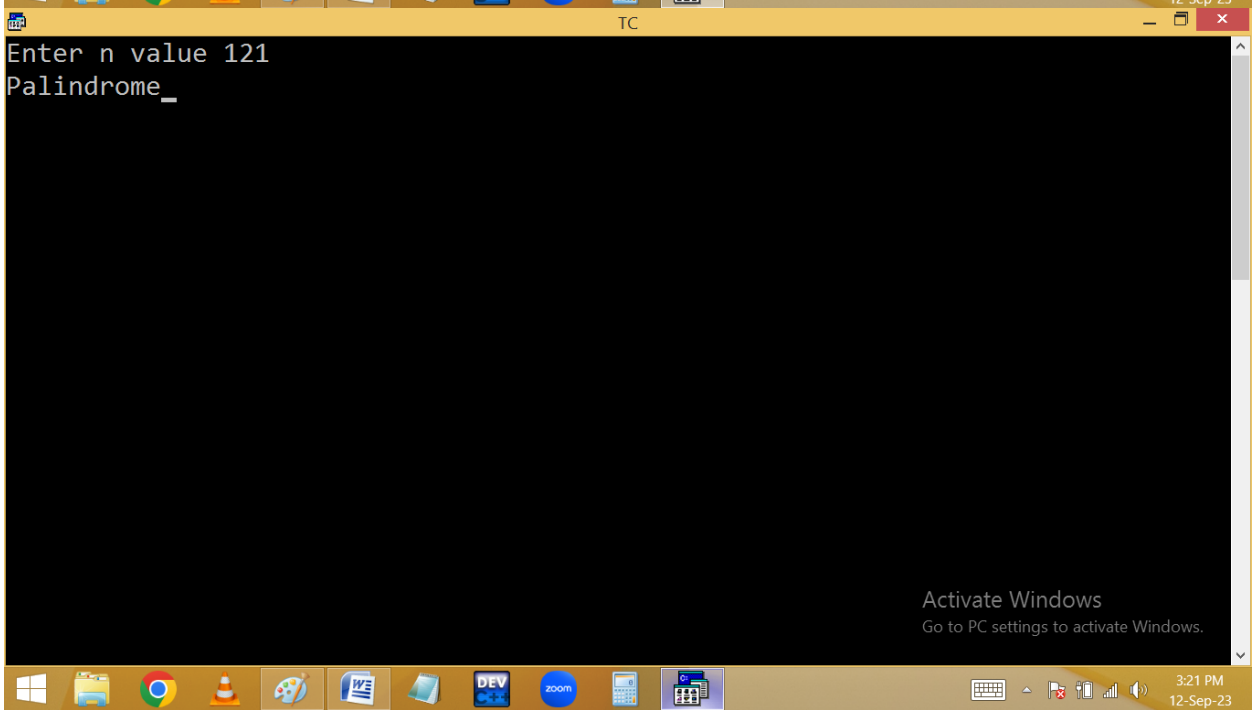

TC
Enter n value 0
Reverse no is 0
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
12-Sep-23

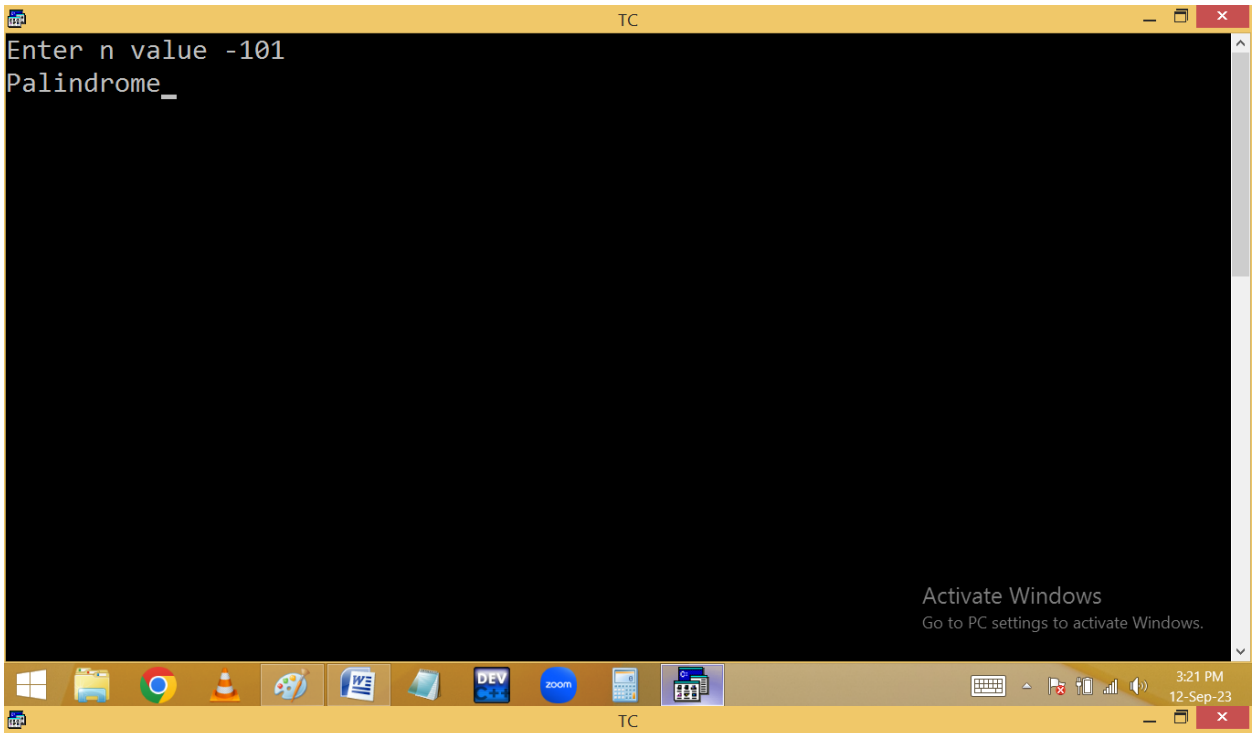


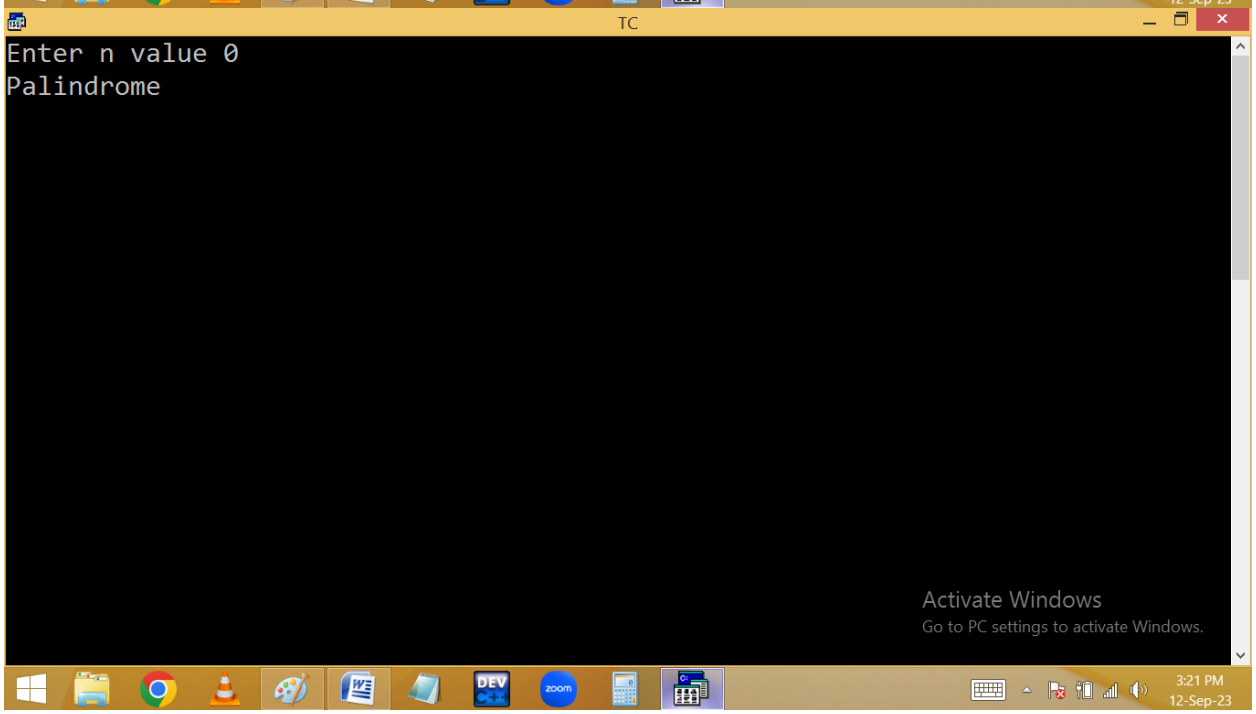
Finding palindrome or not.

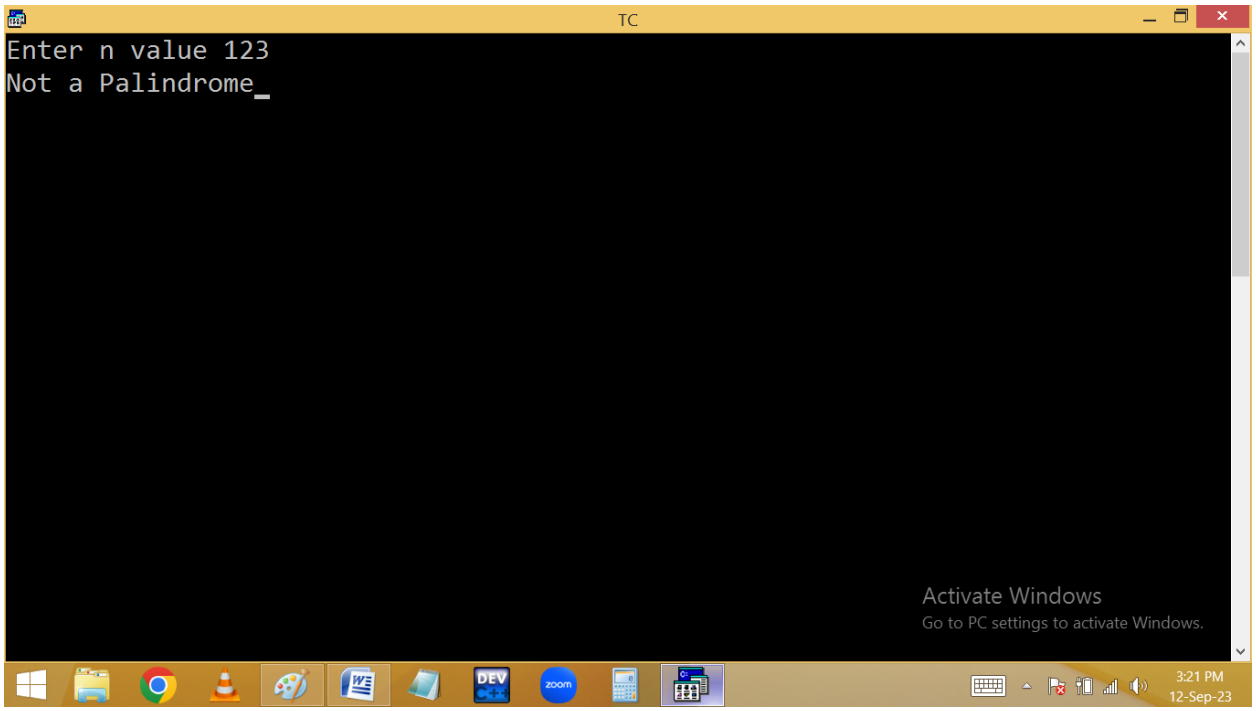
121 reverse is 121

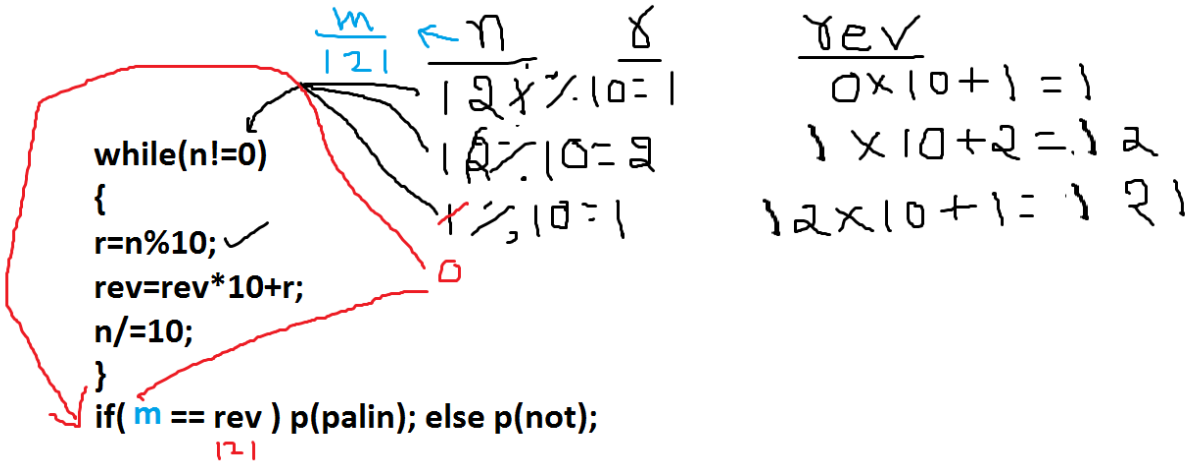

TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 5 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long m,n,rev=0; int r;
clrscr();
printf("Enter n value "); scanf("%ld",&n); m=n;
while(n!=0)
{
r=n%10;
rev=rev*10+r;
n/=10;
}
if(m==rev)printf("Palindrome");else printf("Not a Palindrome");
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:21 PM
12-Sep-23


TC
Enter n value 121
Palindrome
Activate Windows
Go to PC settings to activate Windows.
3:21 PM
12-Sep-23

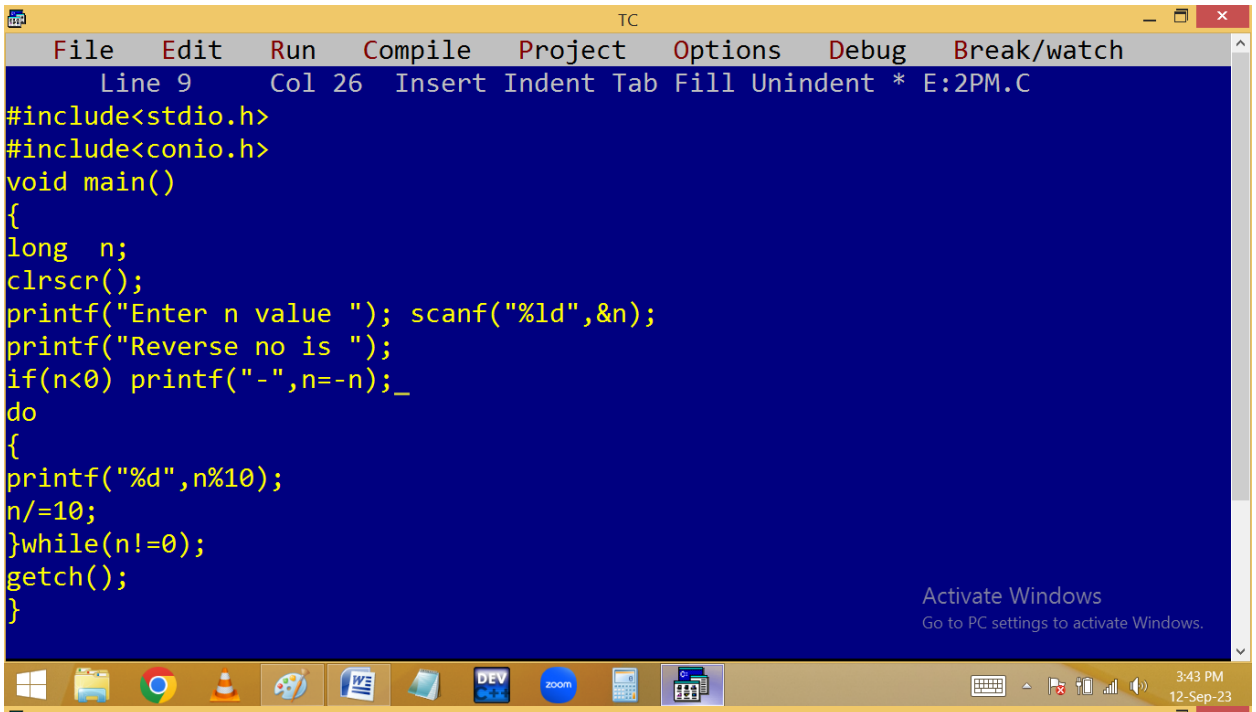

TC
Enter n value -101
Palindrome
Activate Windows
Go to PC settings to activate Windows.
3:21 PM
12-Sep-23

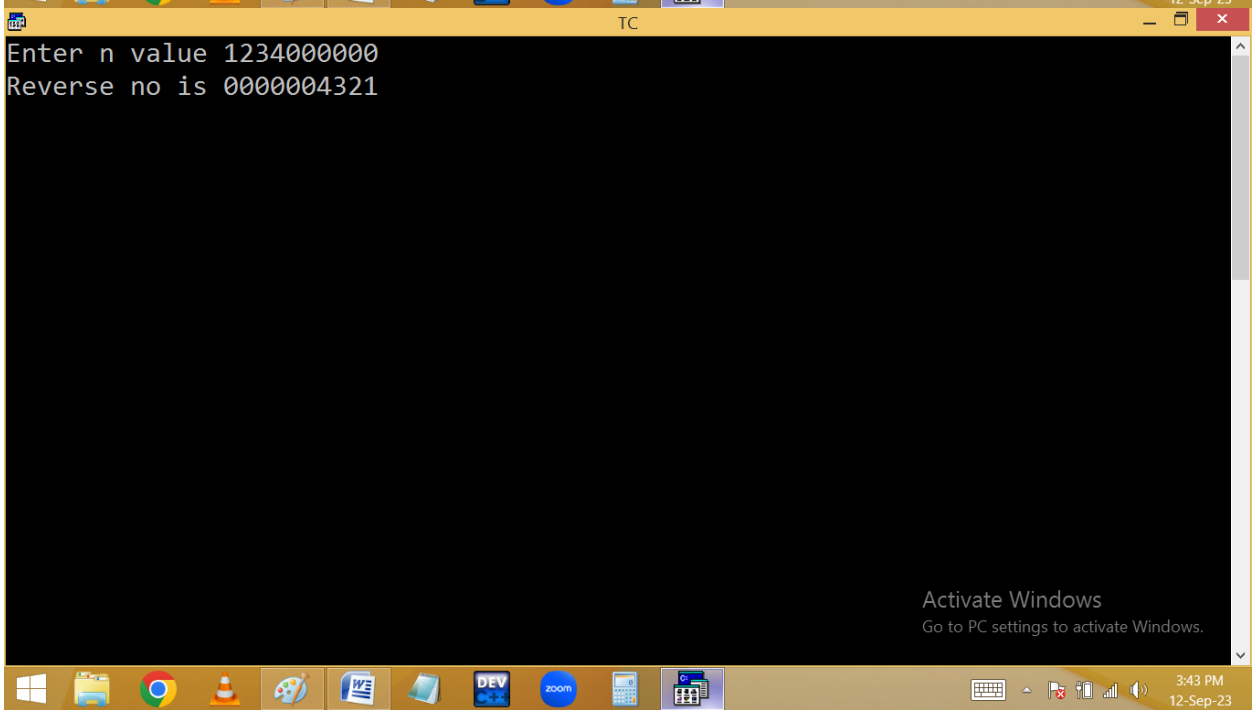

TC
Enter n value 0
Palindrome
Activate Windows
Go to PC settings to activate Windows.
3:21 PM
12-Sep-23

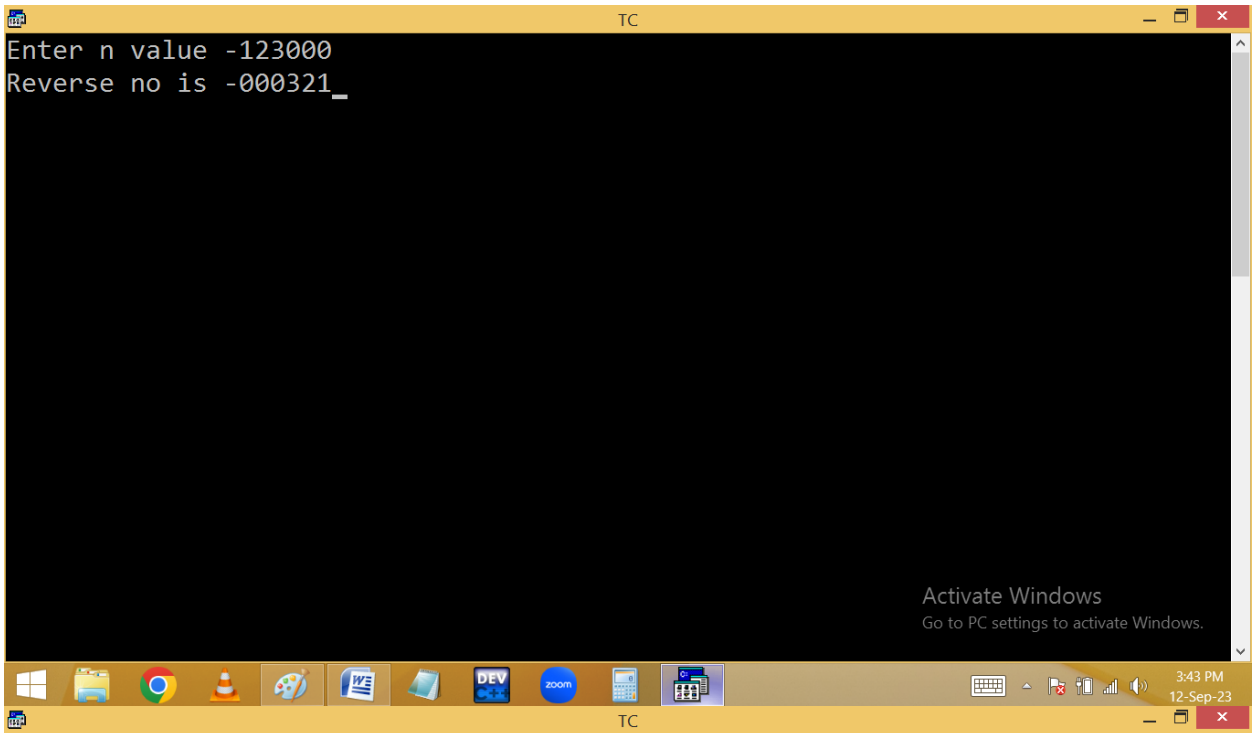


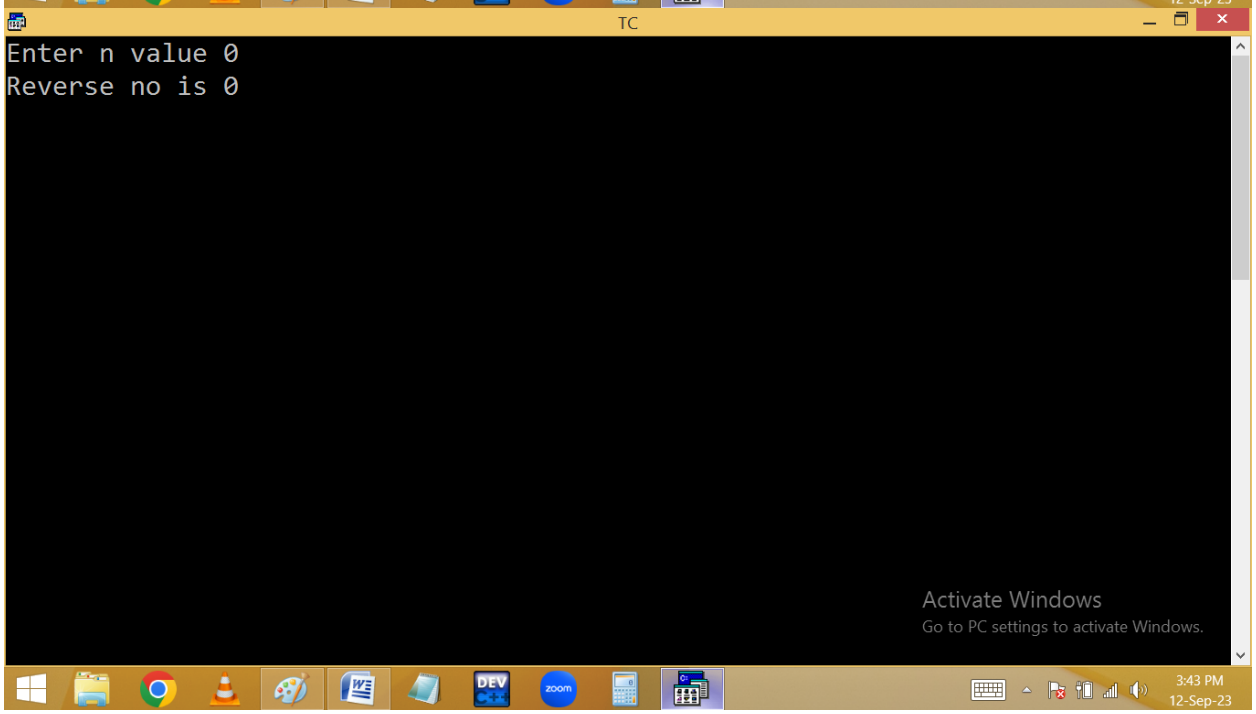


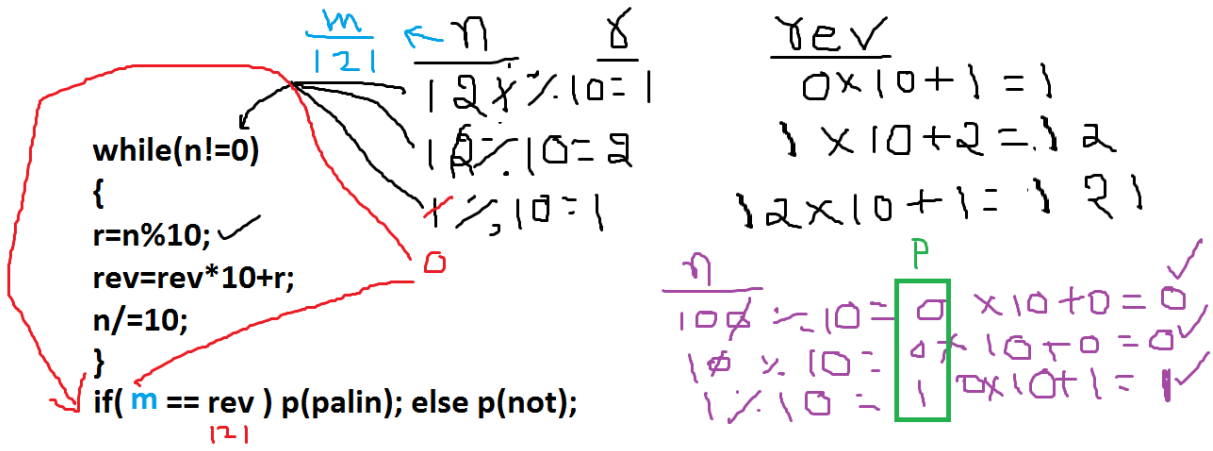
Printing 100 as 001:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 26 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
printf("Reverse no is ");
if(n<0) printf("-",n=-n);_
do
{
printf("%d",n%10);
n/=10;
}while(n!=0);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:43 PM
12-Sep-23


TC
Enter n value 1234000000
Reverse no is 0000004321
Activate Windows
Go to PC settings to activate Windows.
3:43 PM
12-Sep-23


TC
Enter n value -123000
Reverse no is -000321
Activate Windows
Go to PC settings to activate Windows.
3:43 PM
12-Sep-23


TC
Enter n value 0
Reverse no is 0
Activate Windows
Go to PC settings to activate Windows.
3:43 PM
12-Sep-23



Home work:

102 ➔ One Zero Two

Armstrong no.

9 is a 1 digit no ➔ $9^1 = 9$

153 is 3 digit no ➔ $1^3+5^3+3^3=1+125+27 = 153$

1634 is 4 digit no ➔ $1^4+6^4+3^4+4^4=1634$