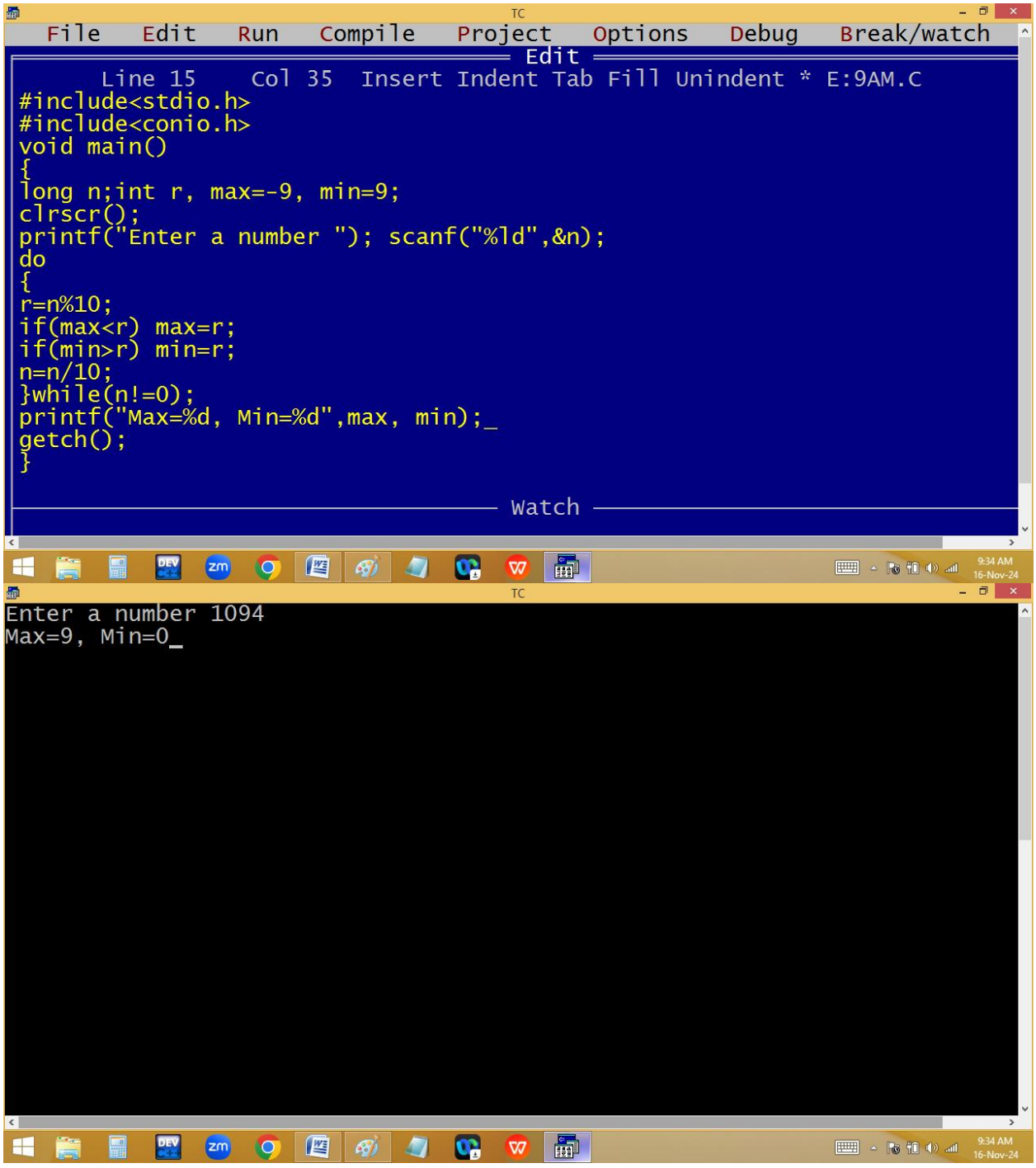
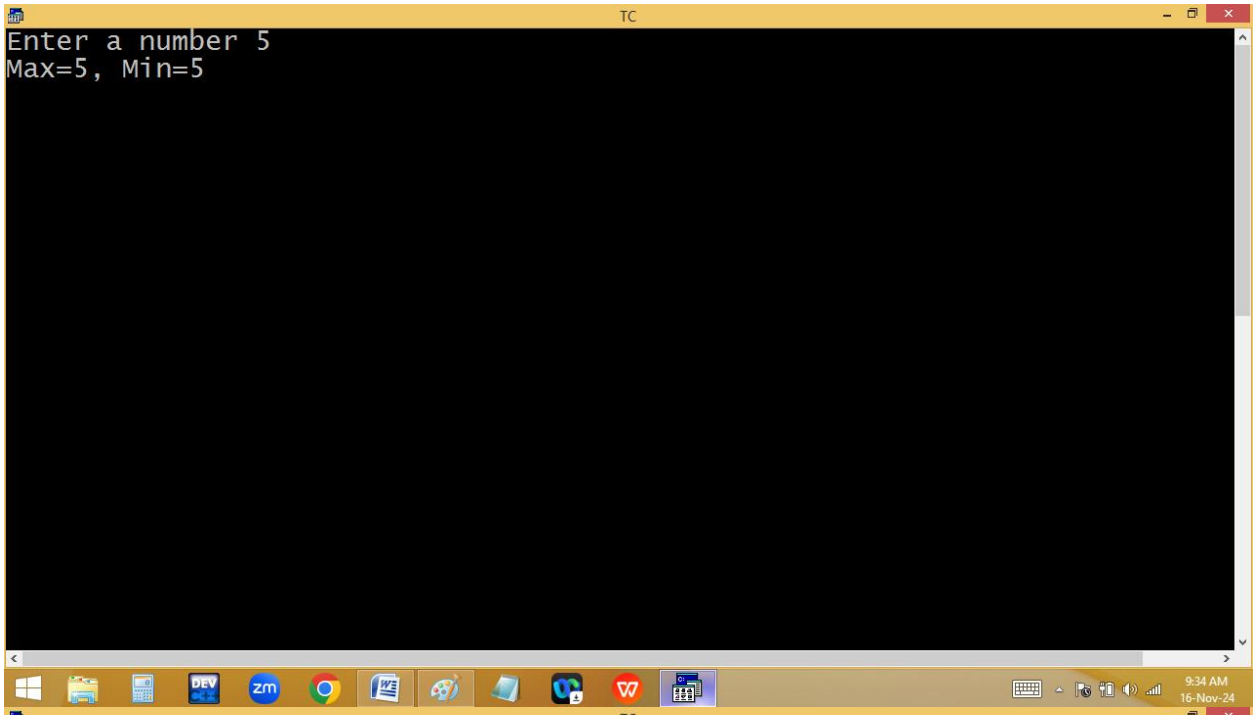
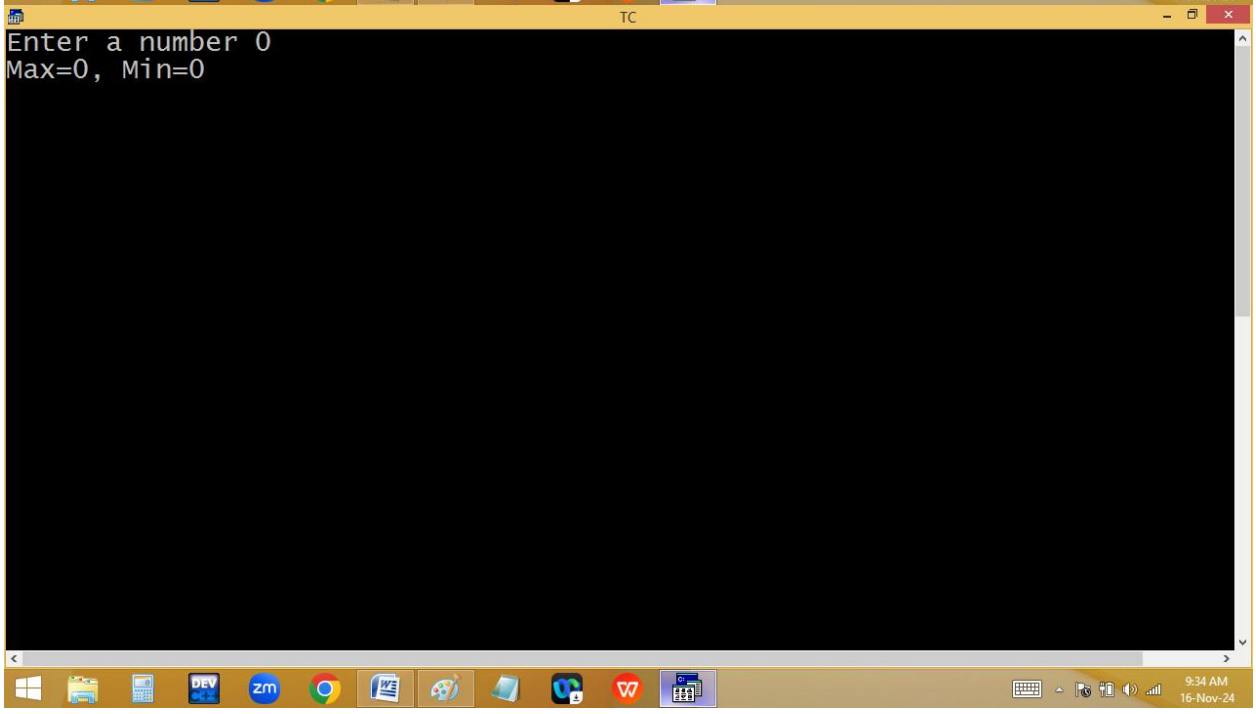
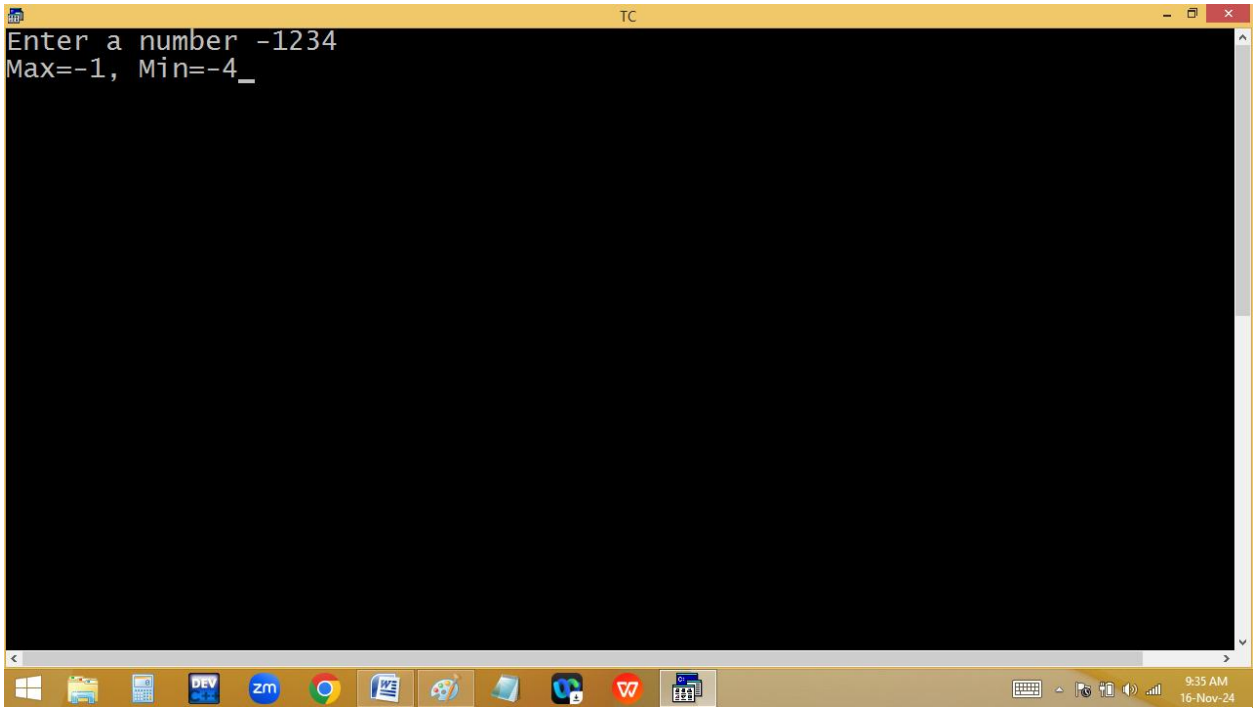
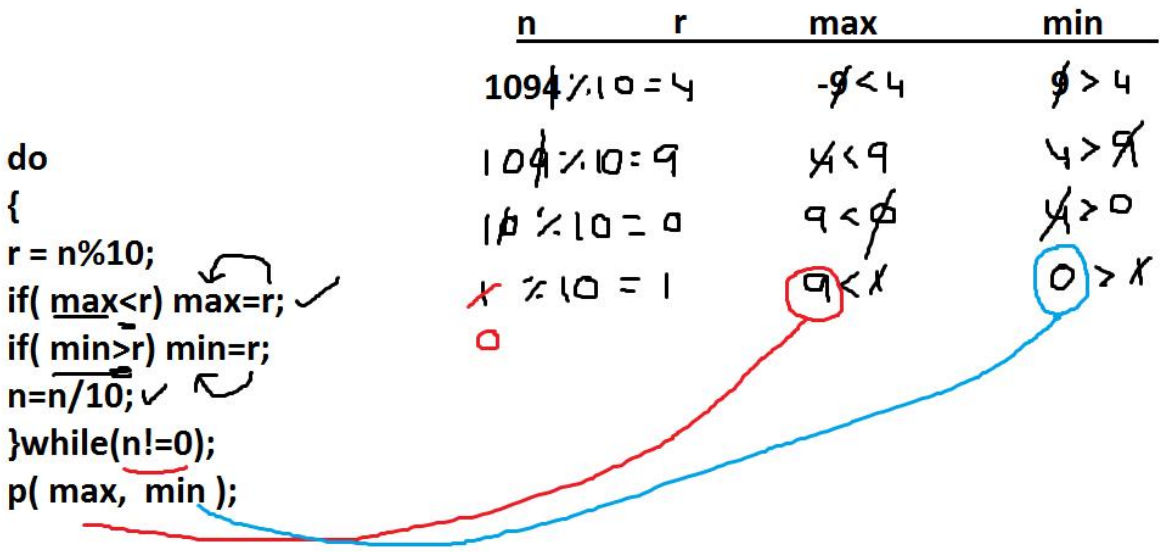
Finding max and min digits of given no:




TC
Enter a number 5
Max=5, Min=5
9:34 AM
16-Nov-24

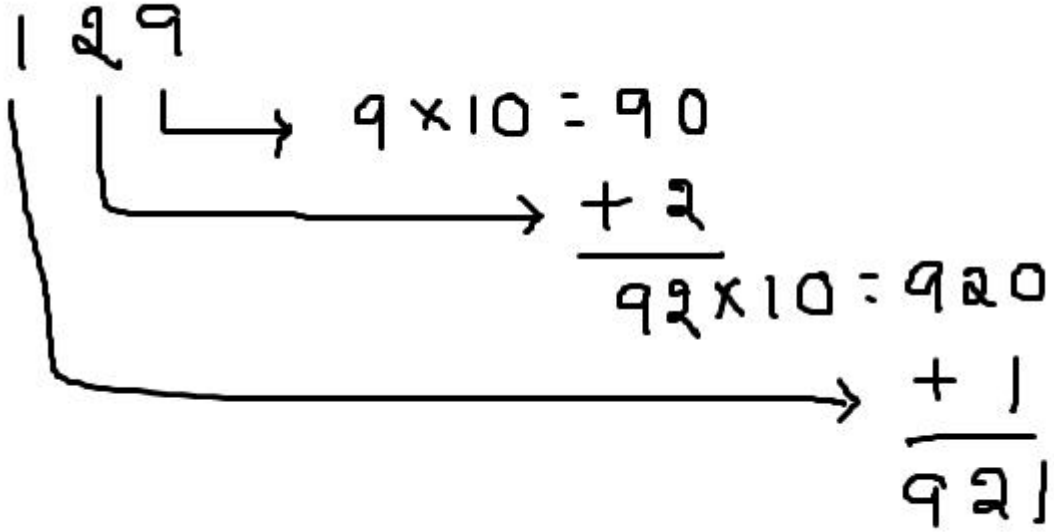

TC
Enter a number 0
Max=0, Min=0
9:34 AM
16-Nov-24

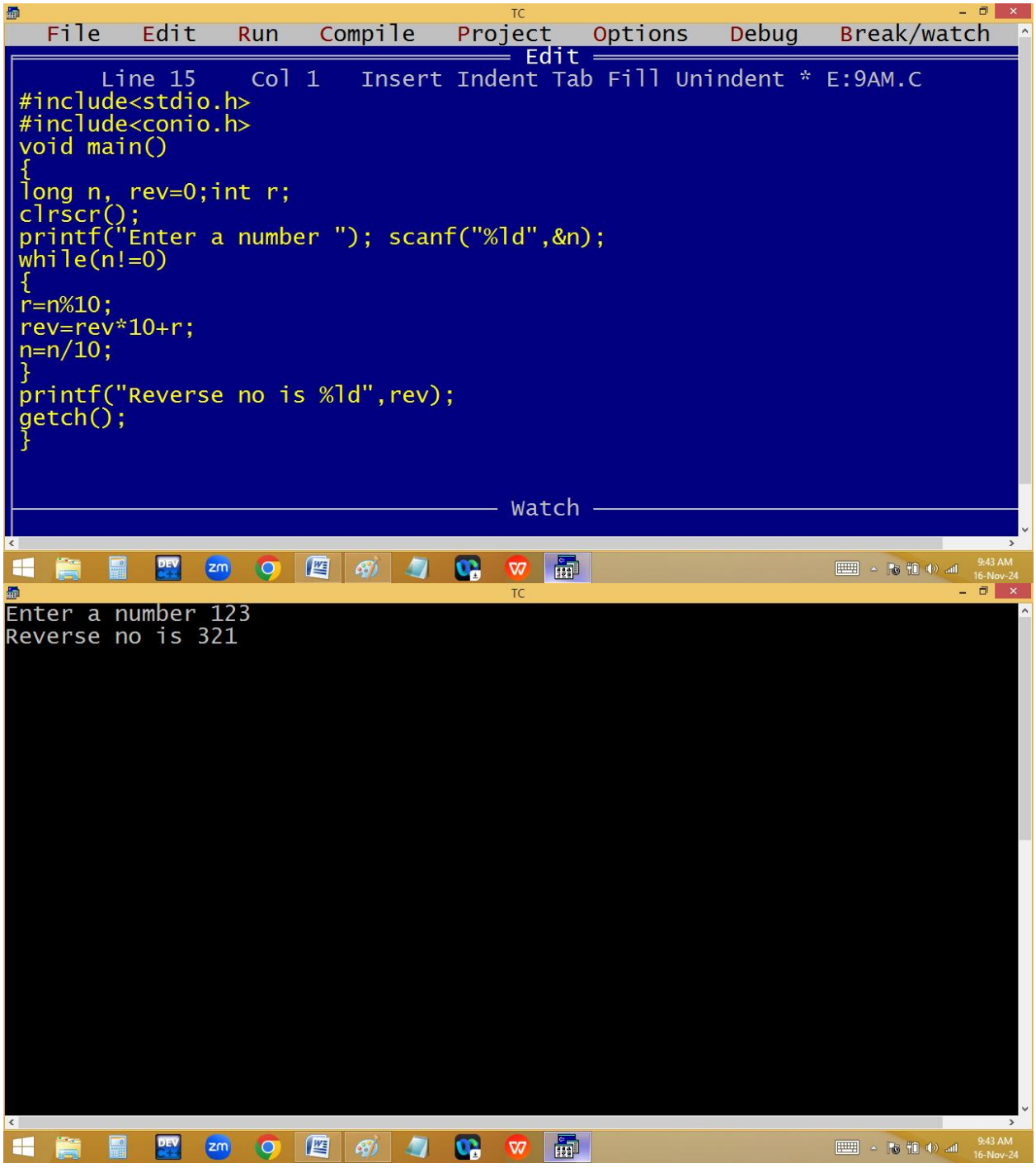


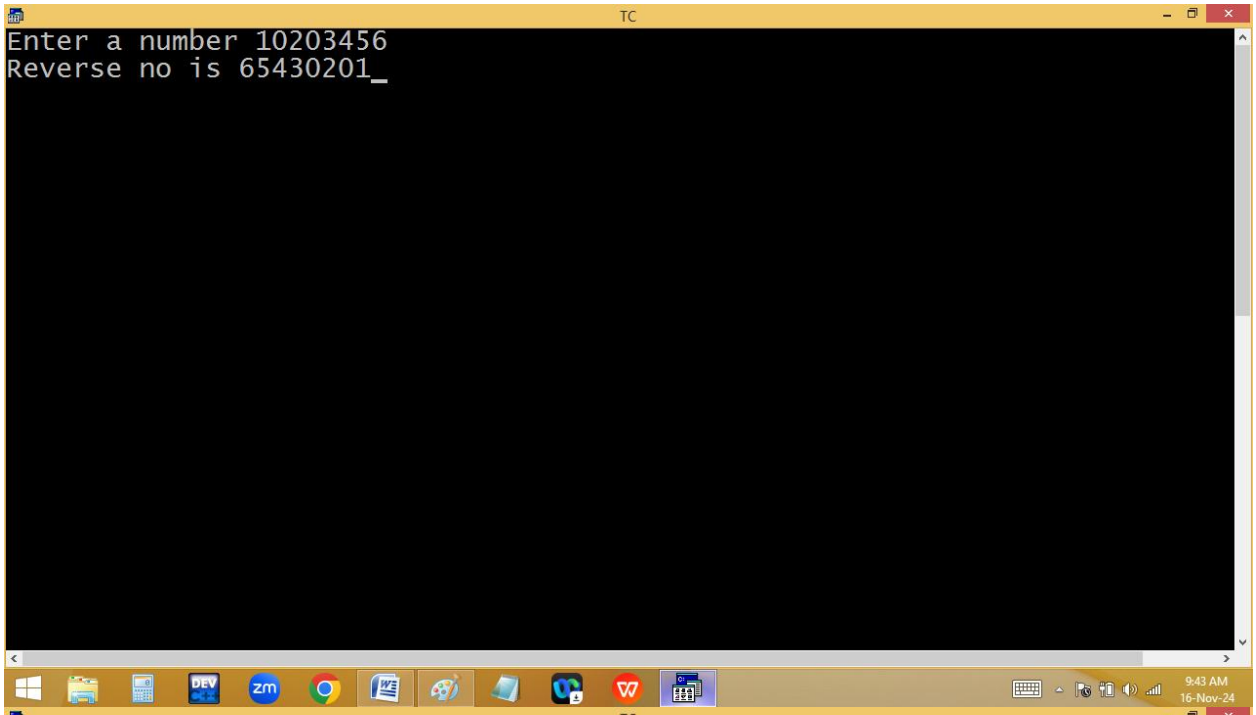


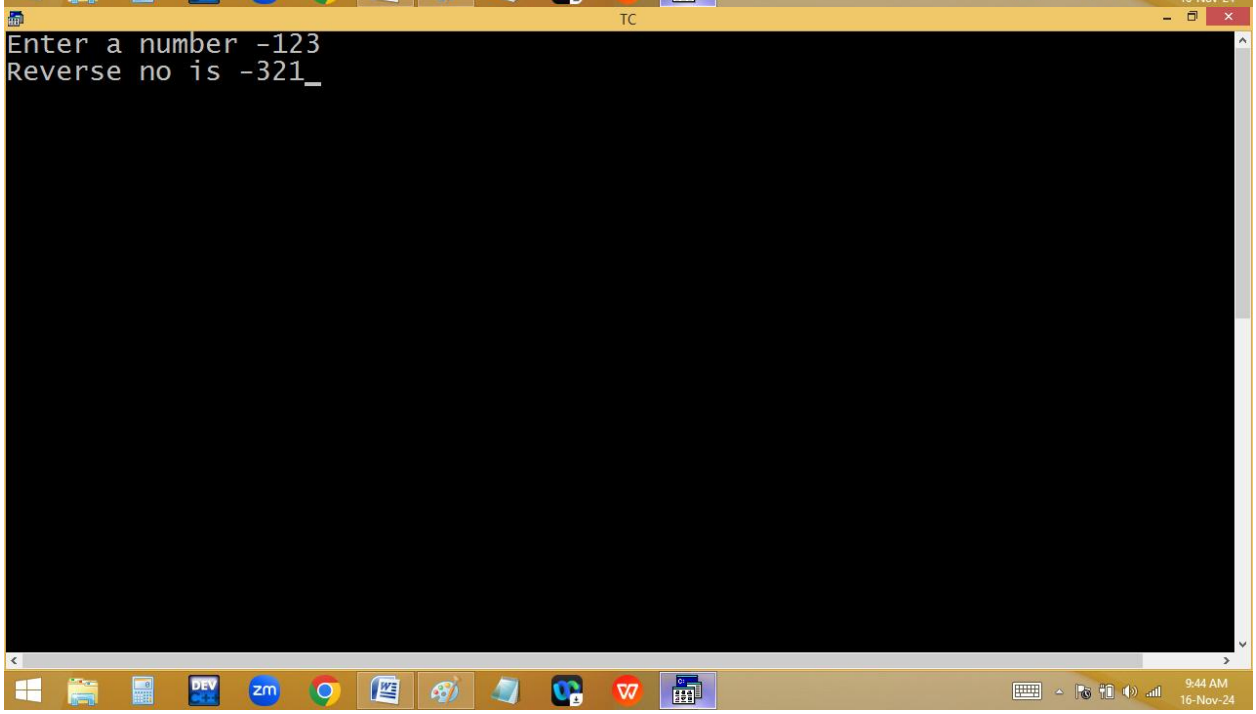
Finding reverse no:

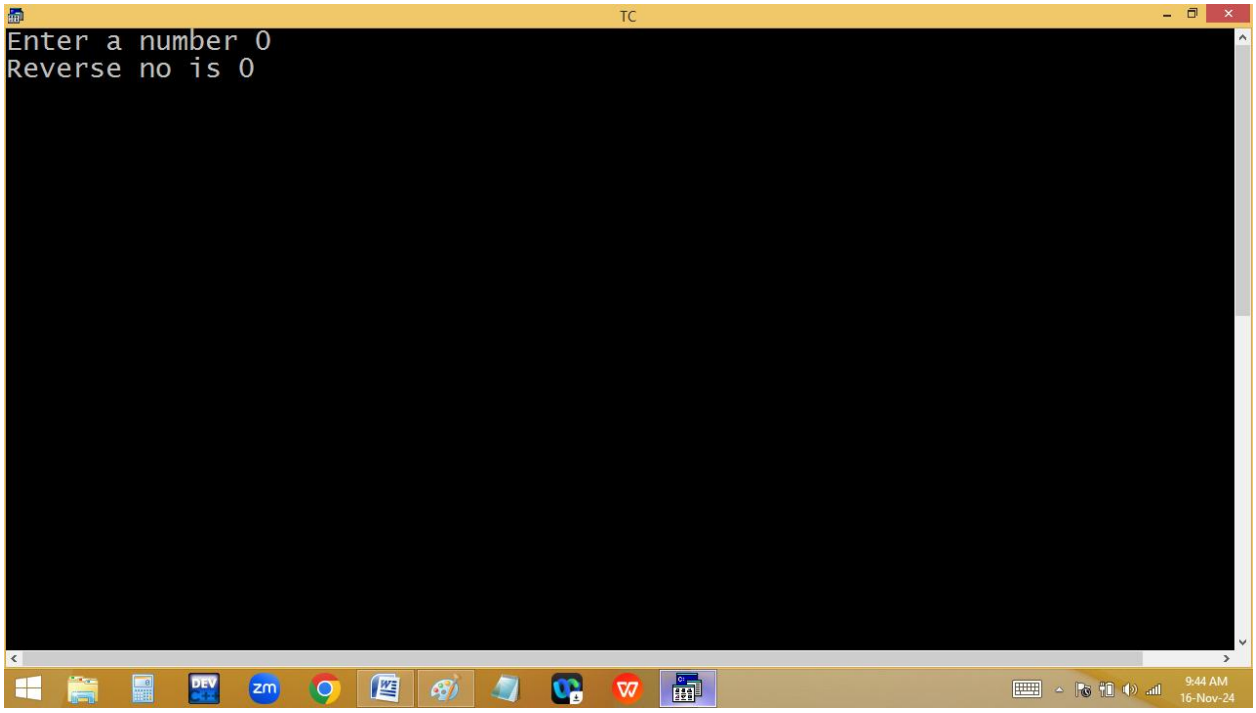
123 reverse is 321

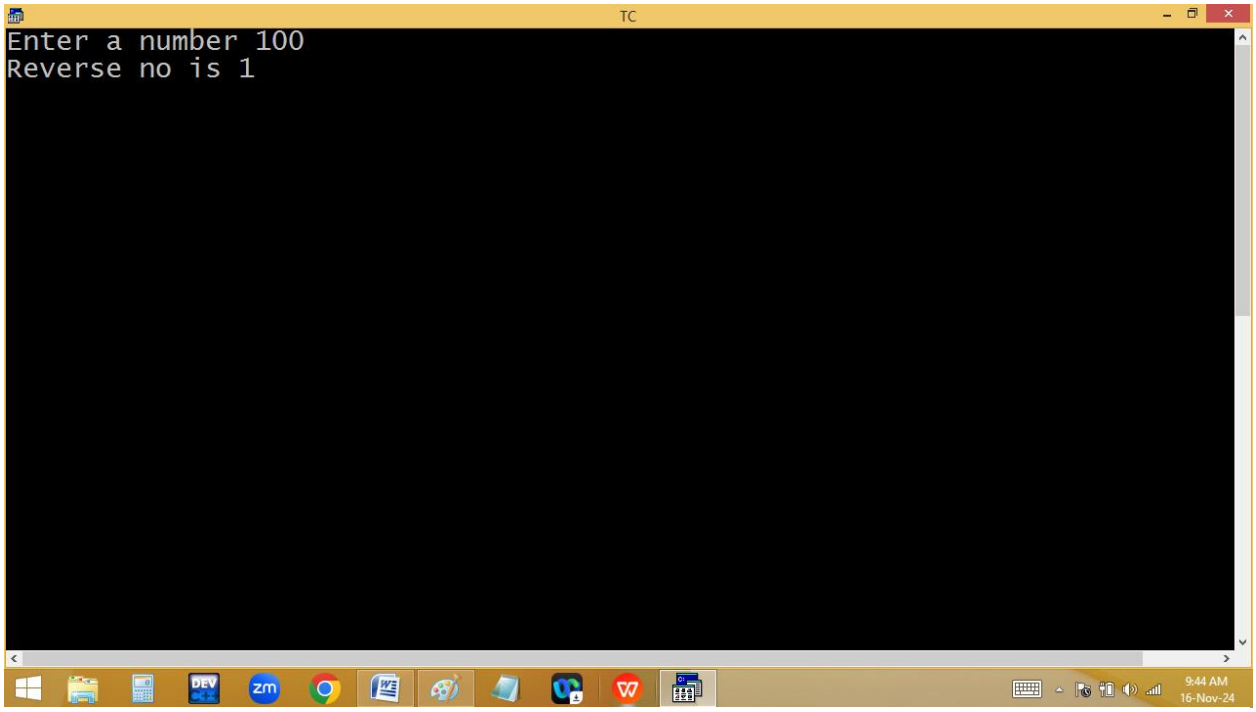

১২৭
৭×১০ = ৭০
+ ২
৭২×১০ = ৭২০
+ ১
৭২১

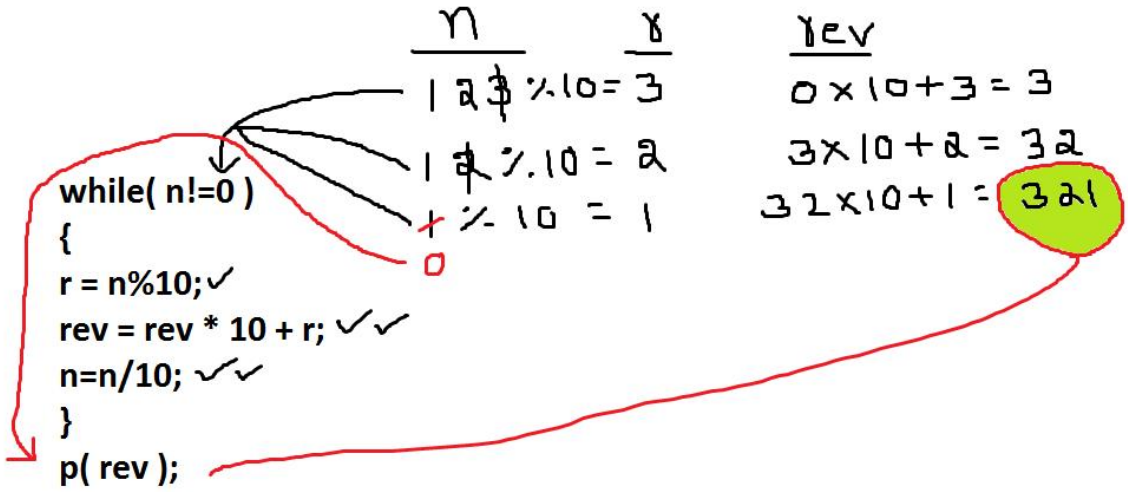

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 15 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n, rev=0;int r;
clrscr();
printf("Enter a number "); scanf("%ld",&n);
while(n!=0)
{
r=n%10;
rev=rev*10+r;
n=n/10;
}
printf("Reverse no is %ld",rev);
getch();
}
Watch
9:43 AM
16-Nov-24
TC
Enter a number 123
Reverse no is 321
9:43 AM
16-Nov-24


TC
Enter a number 10203456
Reverse no is 65430201_
9:43 AM
16-Nov-24

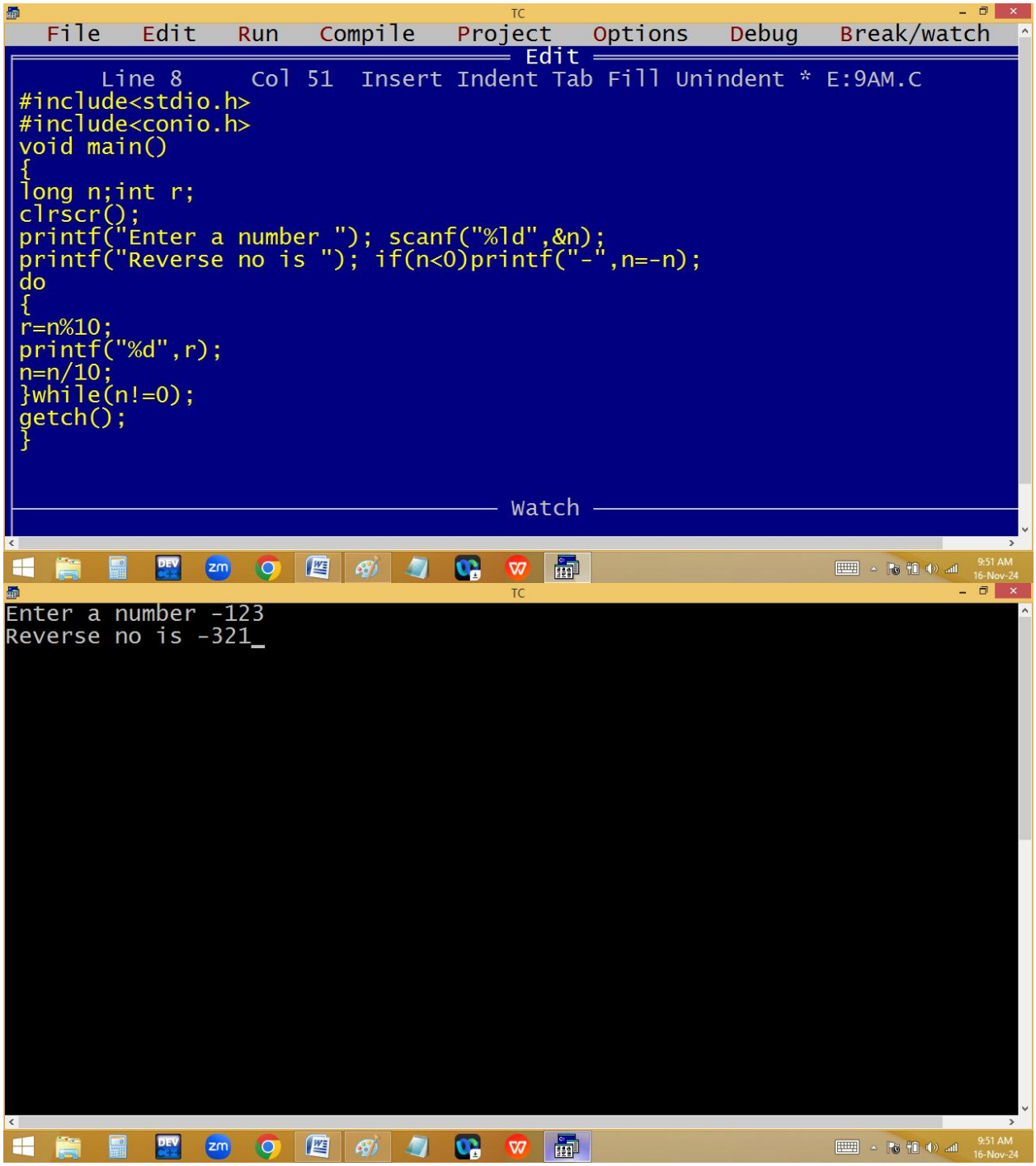

TC
Enter a number -123
Reverse no is -321_
9:44 AM
16-Nov-24

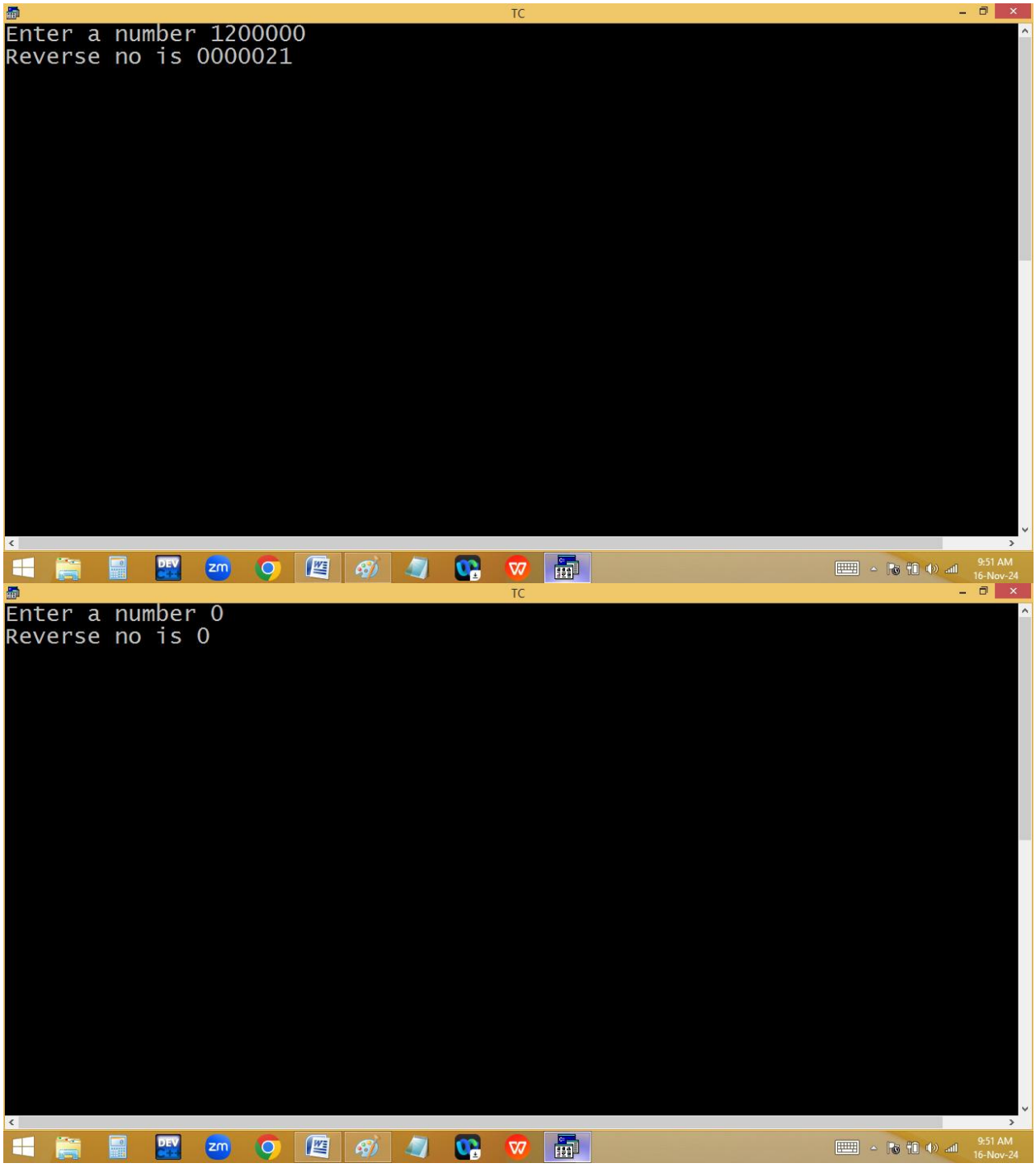

TC
Enter a number 0
Reverse no is 0
9:44 AM
16-Nov-24

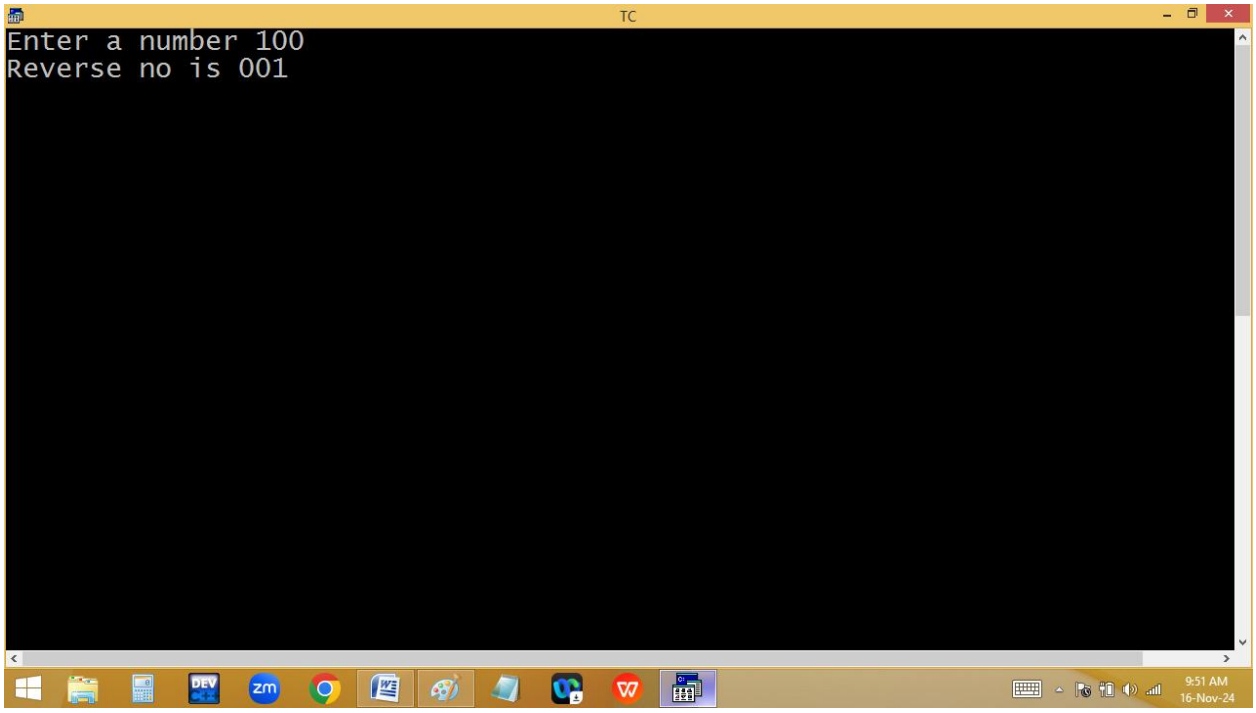

TC
Enter a number 100
Reverse no is 1

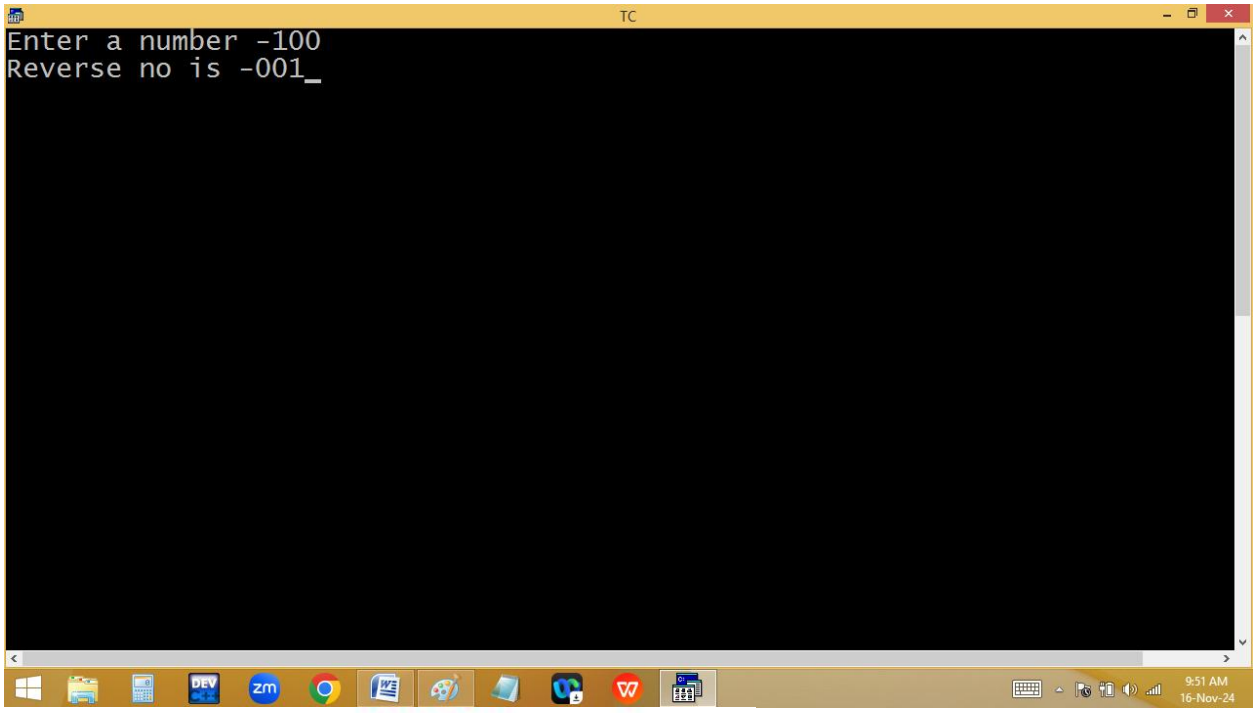

n
r
123 %10 = 3
12 %10 = 2
1 %10 = 1
0
rev
0 x 10 + 3 = 3
3 x 10 + 2 = 32
32 x 10 + 1 = 321
while(n!=0)
{
r = n%10;
rev = rev * 10 + r;
n=n/10;
}
p(rev);

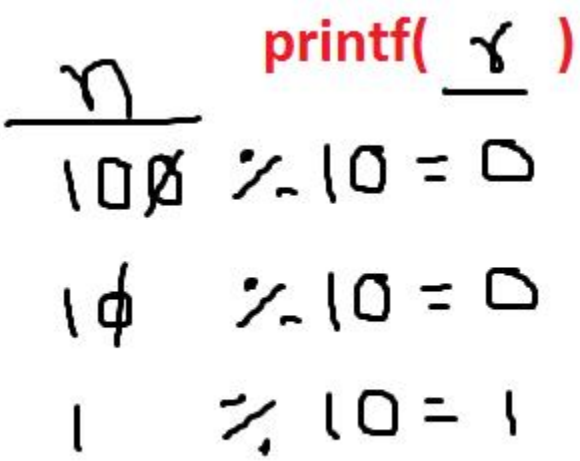
n	r	rev
100	100 % 10 = 0	0 × 10 + 0 = 0
10	10 % 10 = 0	0 × 10 + 0 = 0
1	1 % 10 = 1	0 × 10 + 1 = 1 ✓


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 8 Col 51 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n;int r;
clrscr();
printf("Enter a number "); scanf("%ld",&n);
printf("Reverse no is "); if(n<0)printf("-",n=-n);
do
{
r=n%10;
printf("%d",r);
n=n/10;
}while(n!=0);
getch();
}
Watch
9:51 AM
16-Nov-24
TC
Enter a number -123
Reverse no is -321
9:51 AM
16-Nov-24


TC
Enter a number 1200000
Reverse no is 0000021
9:51 AM
16-Nov-24
TC
Enter a number 0
Reverse no is 0
9:51 AM
16-Nov-24

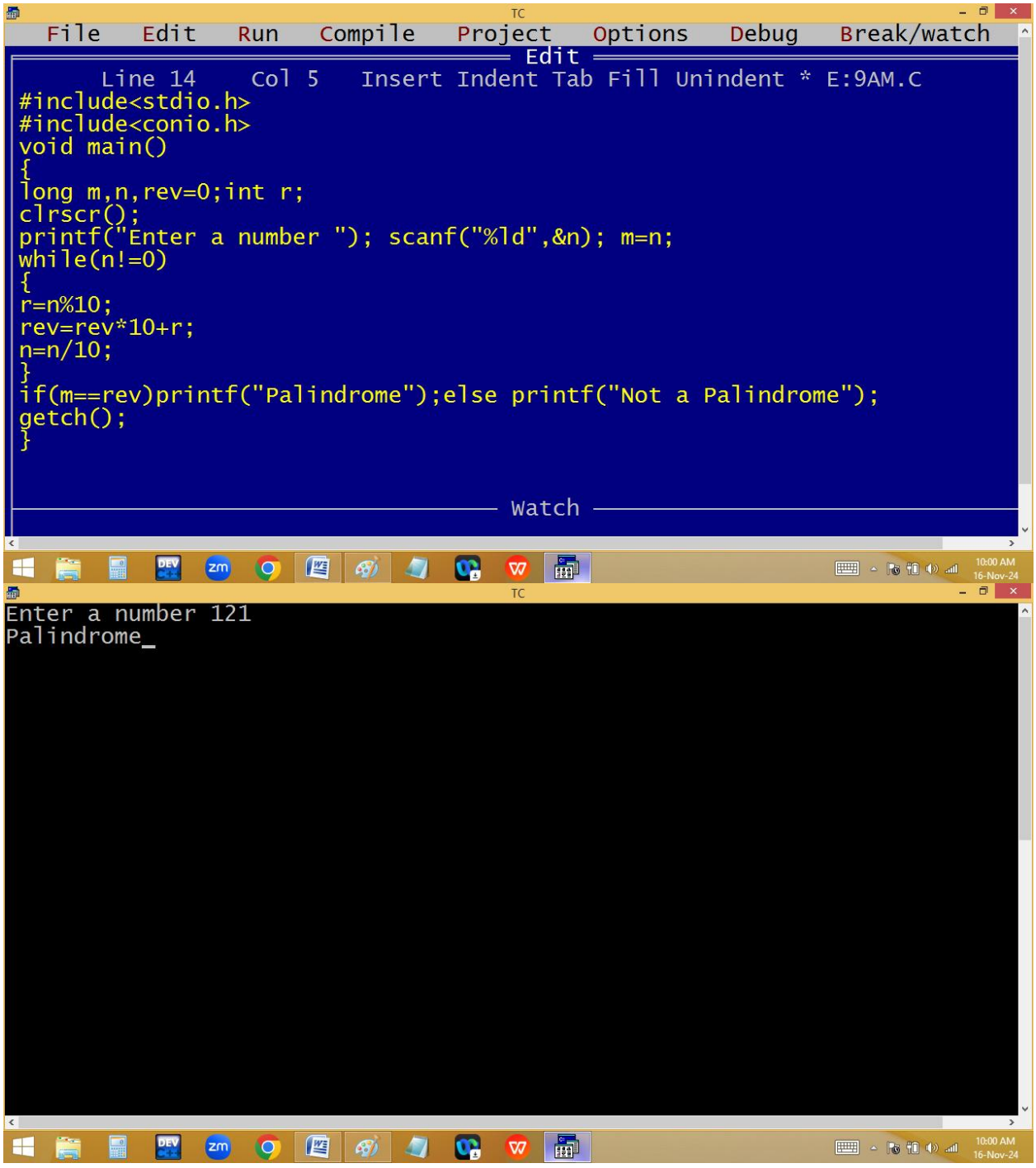

TC
Enter a number 100
Reverse no is 001
9:51 AM
16-Nov-24

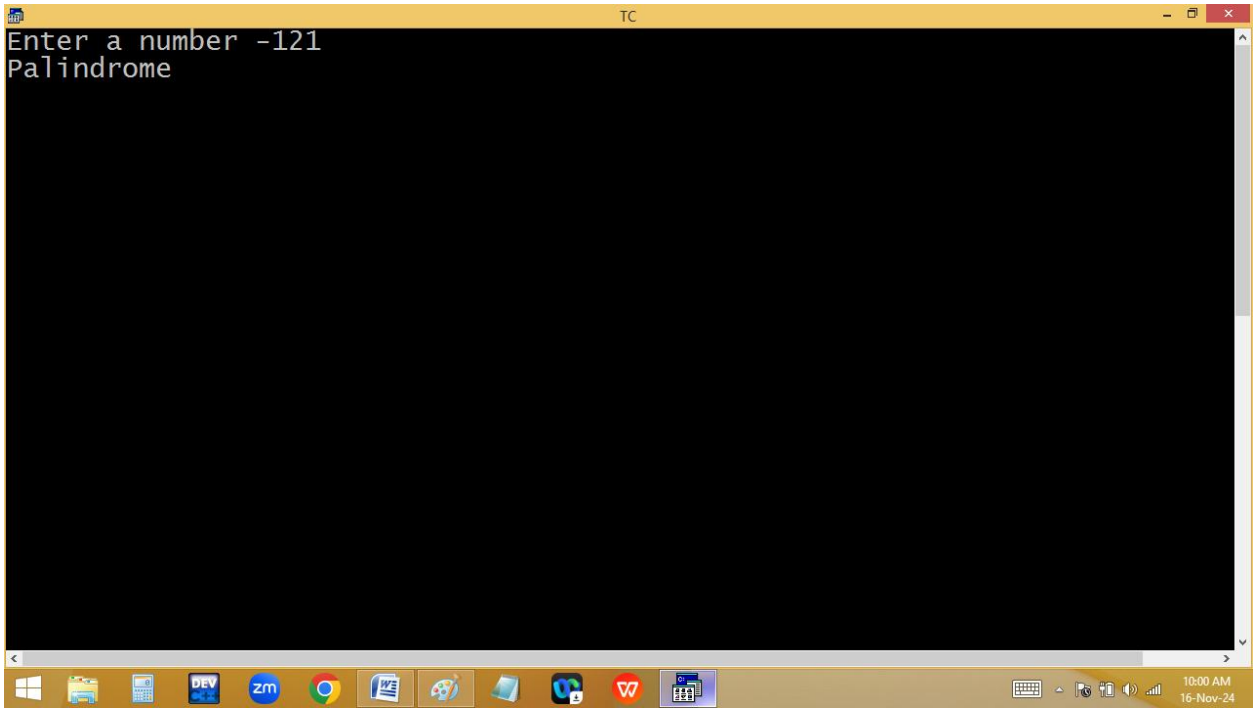


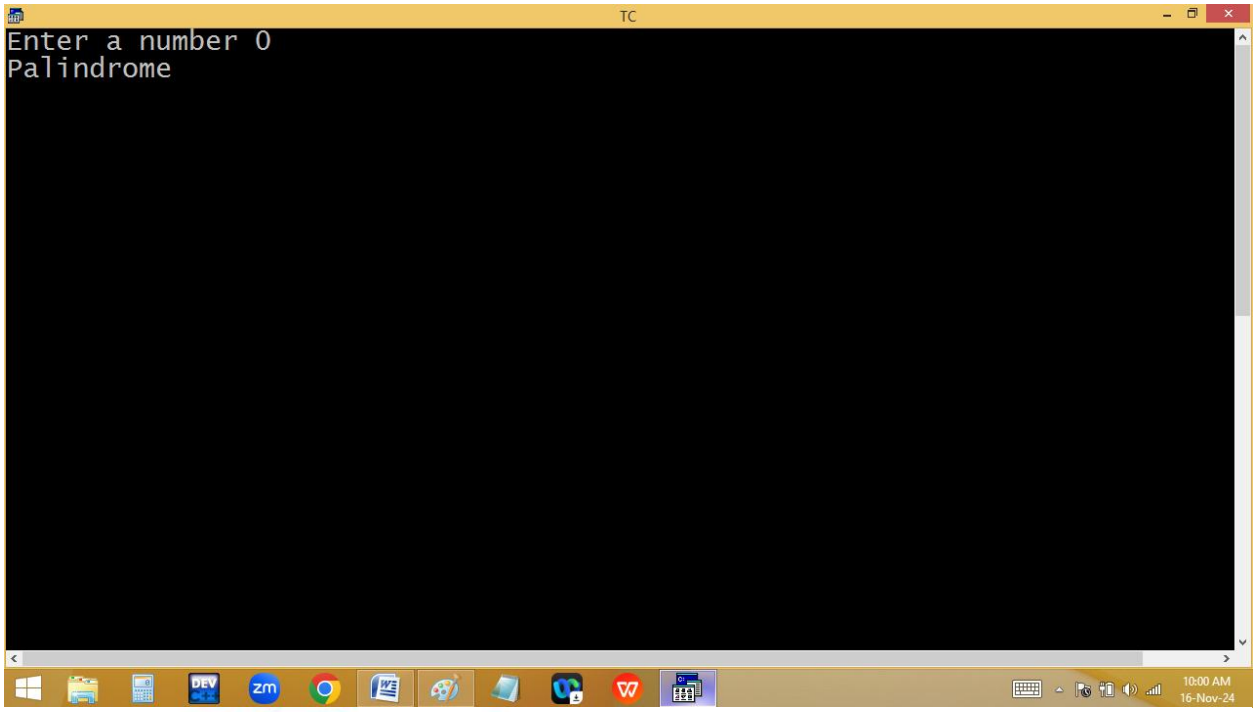


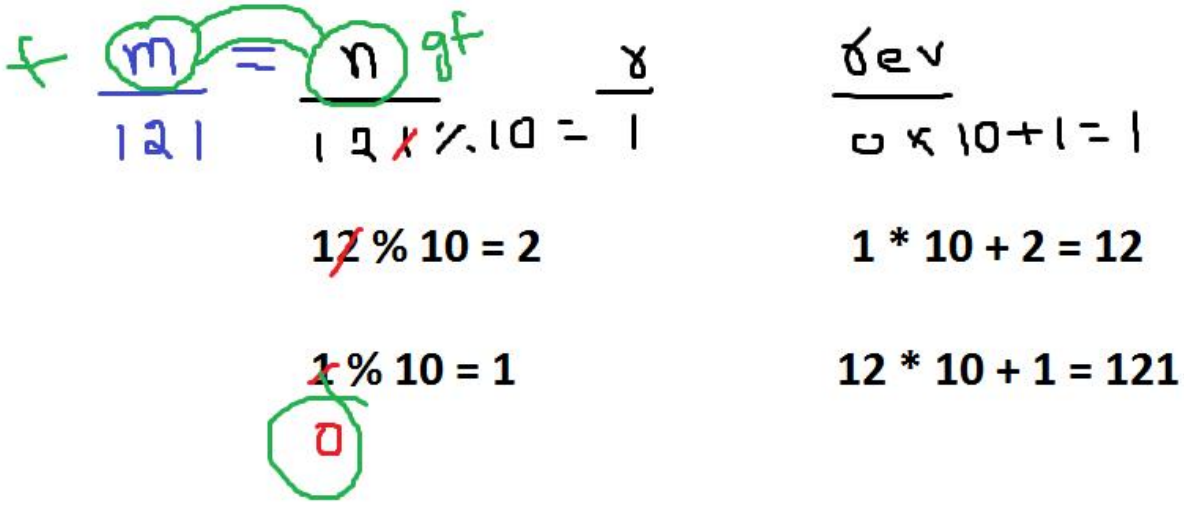
Finding palindrome no:

121 reverse is 121


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 14 Col 5 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long m,n,rev=0;int r;
clrscr();
printf("Enter a number "); scanf("%ld",&n); m=n;
while(n!=0)
{
r=n%10;
rev=rev*10+r;
n=n/10;
}
if(m==rev)printf("Palindrome");else printf("Not a Palindrome");
getch();
}
Watch
TC
Enter a number 121
Palindrome_


TC
Enter a number -121
Palindrome
10:00 AM
16-Nov-24





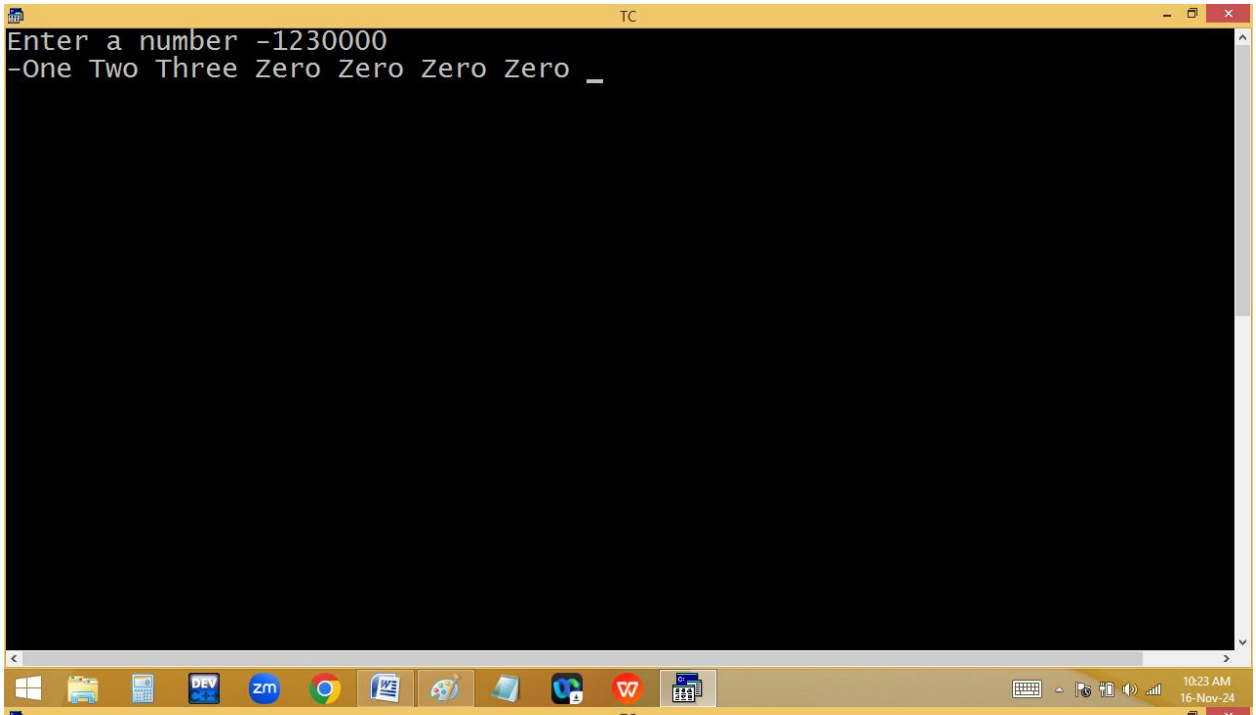
No to text conversion:

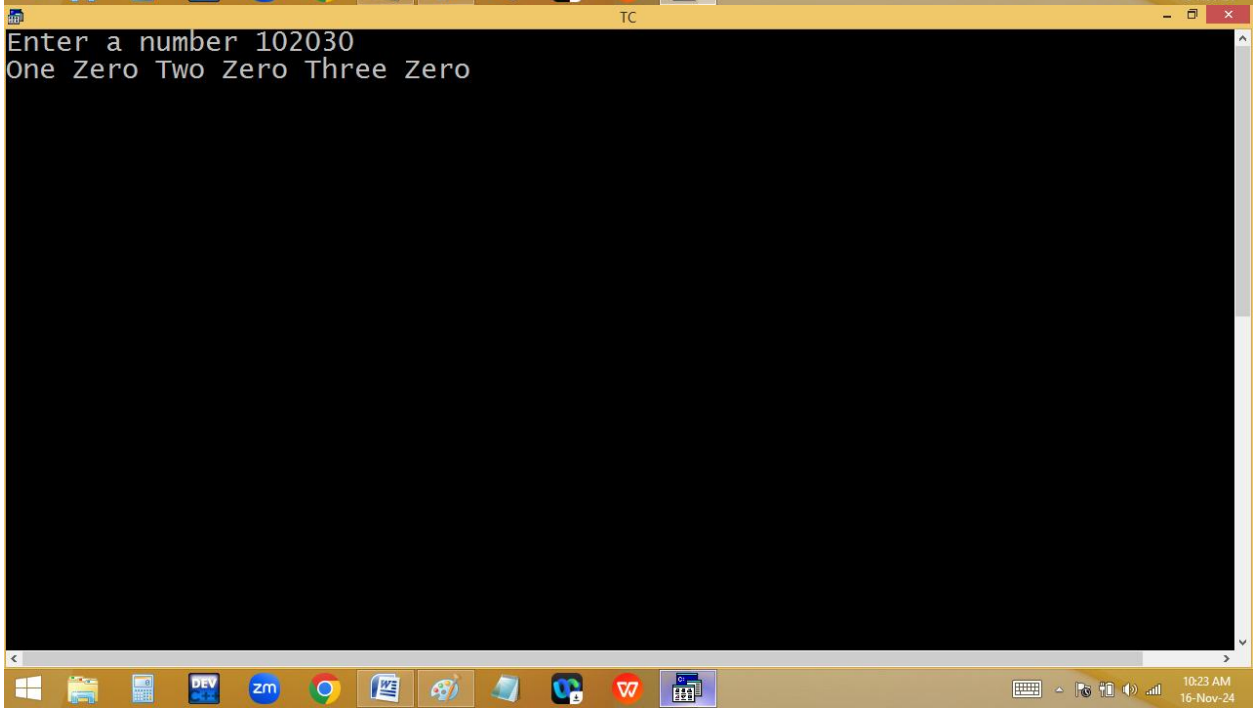
102 ➔ One Zero Two

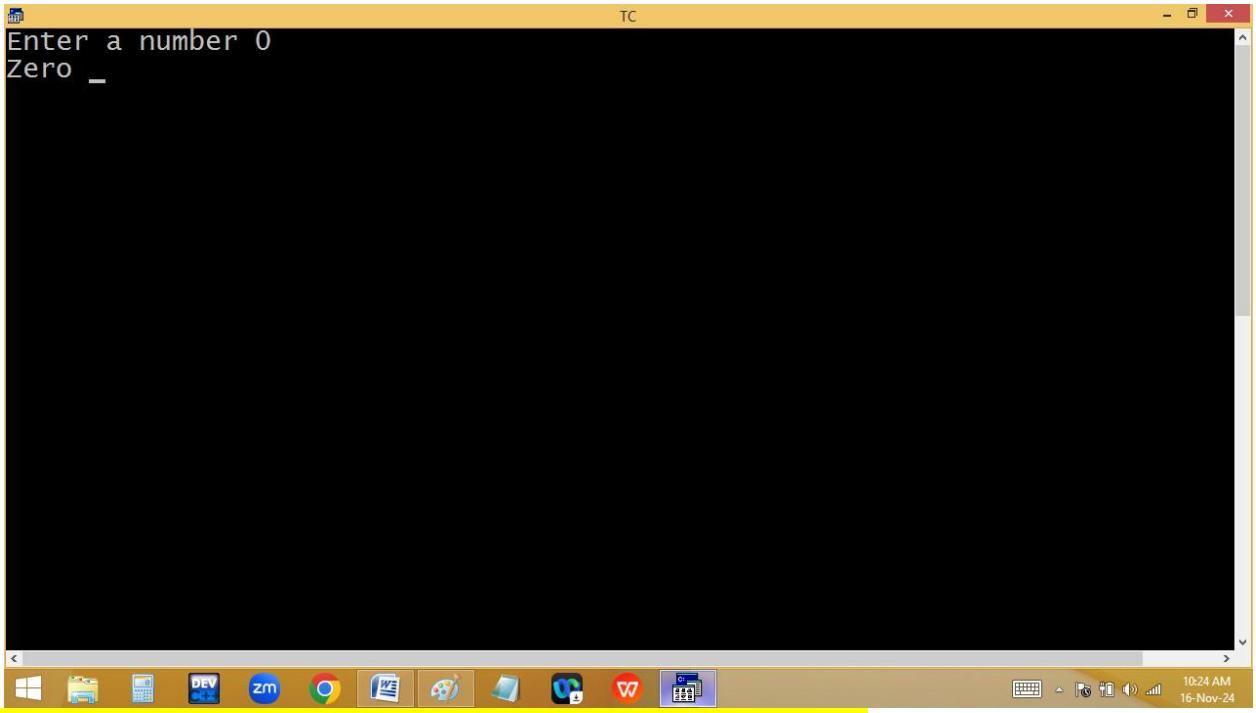
```
#include<stdio.h>

#include<conio.h>
```

```
void main()
{
long m,n,rev=0;int r;
clrscr();
printf("Enter a number "); scanf("%ld",&n);
if(n<0)  printf("-",n=-n); m=n;
while(n!=0){r=n%10;rev=rev*10+r;n=n/10;} /* reverse no */
do
{
switch(rev%10)
{
case 0: printf("Zero");break;
case 1: printf("One");break;
case 2: printf("Two");break;
case 3: printf("Three");break;
case 4: printf("Four");break;
case 5: printf("Five");break;
case 6: printf("Six");break;
case 7: printf("Seven");break;
case 8: printf("Eight");break;
```

```
case 9: printf("Nine");break;
}
rev=rev/10;
printf(" ");
}while(rev!=0);
while(m%10==0 && m!=0)printf("Zero ",m=m/10);
getch();
}
```


TC
Enter a number -1230000
-One Two Three Zero Zero Zero Zero
10:23 AM
16-Nov-24


TC
Enter a number 102030
One Zero Two Zero Three Zero
10:23 AM
16-Nov-24



Finding no of even / odd / zero digits in given no:

1023 ➔ 1 even, 2 odd, 1 zero

```
do
{
switch( rev%10 )
{
case 0: p("Zero");b;
case 1: p("One");b;
case 2: p("Two");b;
case 9: p("Nine");
}
rev=rev/10;
}while(  rev  !=0);
```

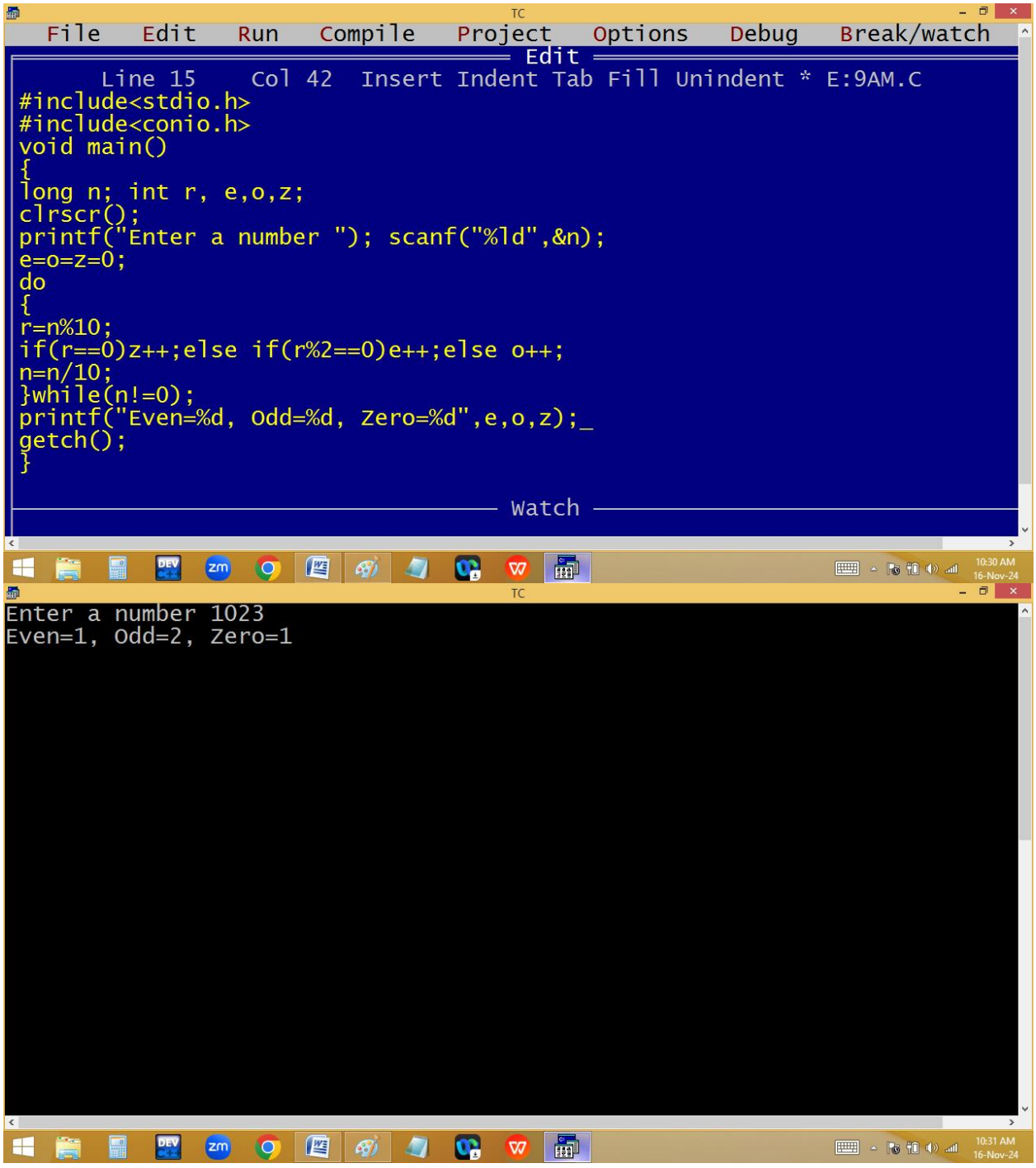
m = 102

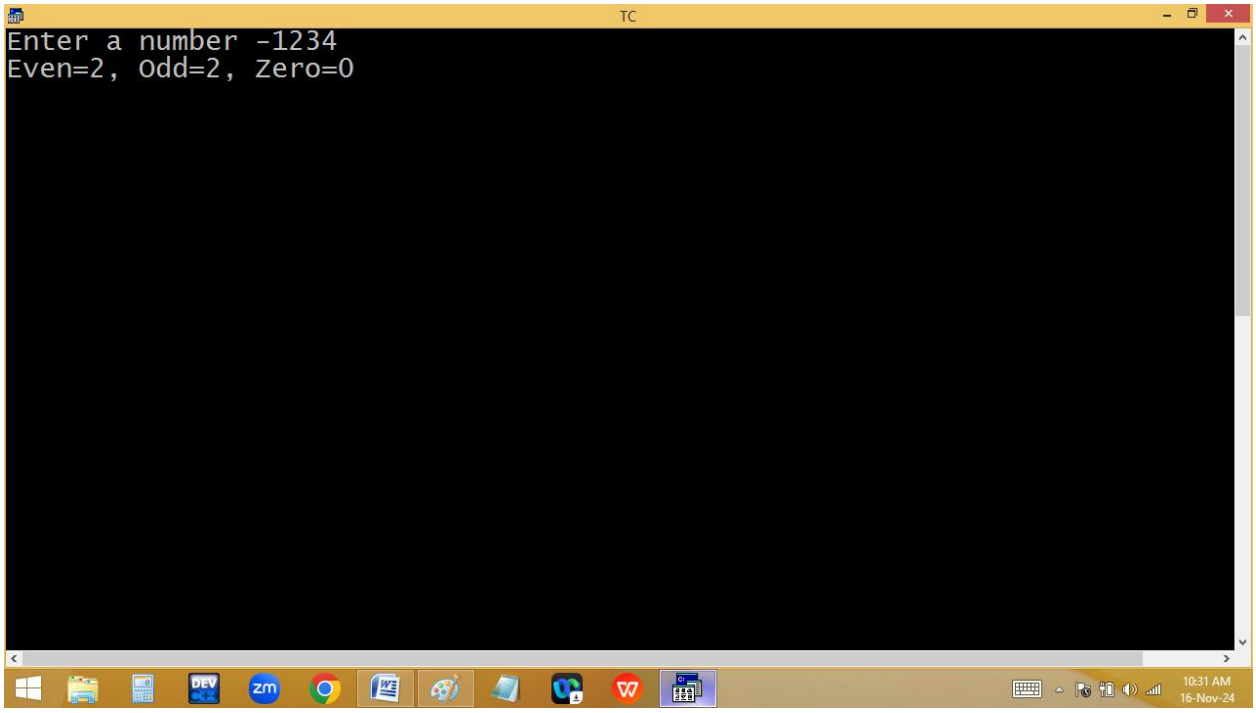
rev = 201 → 201 % 10 = 1 → One
rev = 20 → 20 % 10 = 0 → Zero
rev = 2 → 2 % 10 = 2 → Two
rev = 0

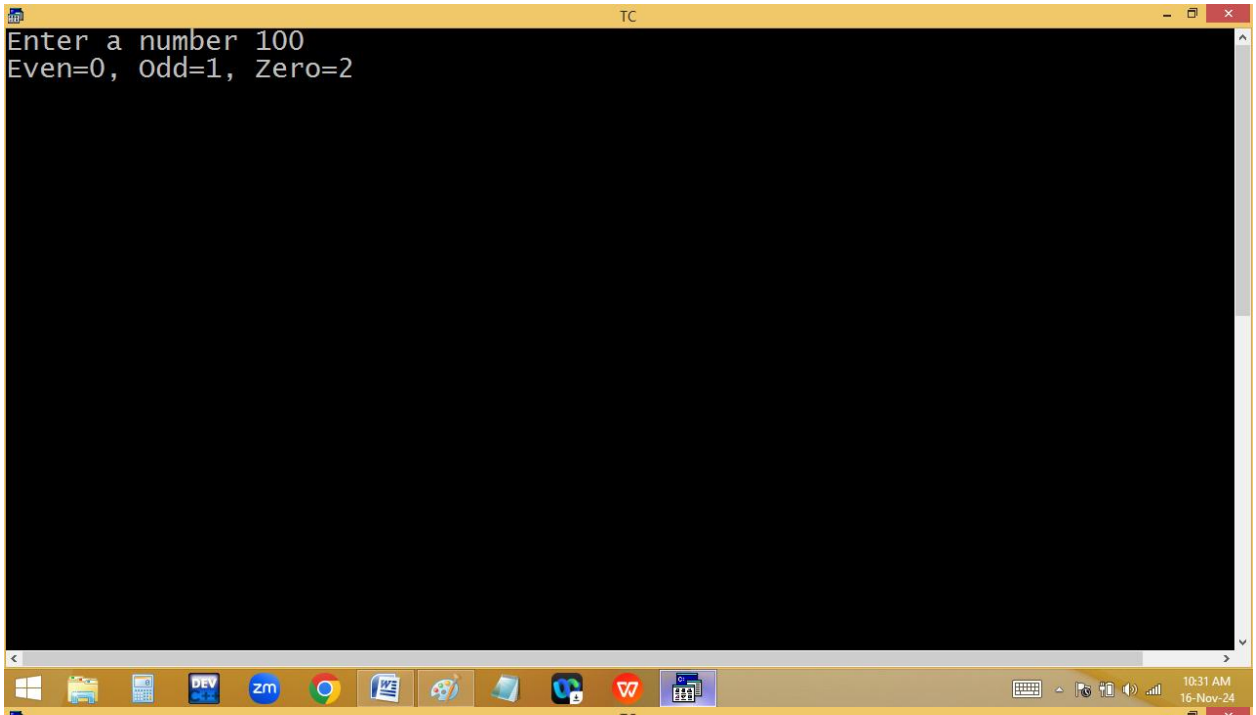
m = 100 → 100 % 10 = 0 → Zero
m = 10 → 10 % 10 = 0 → Zero
m = 0

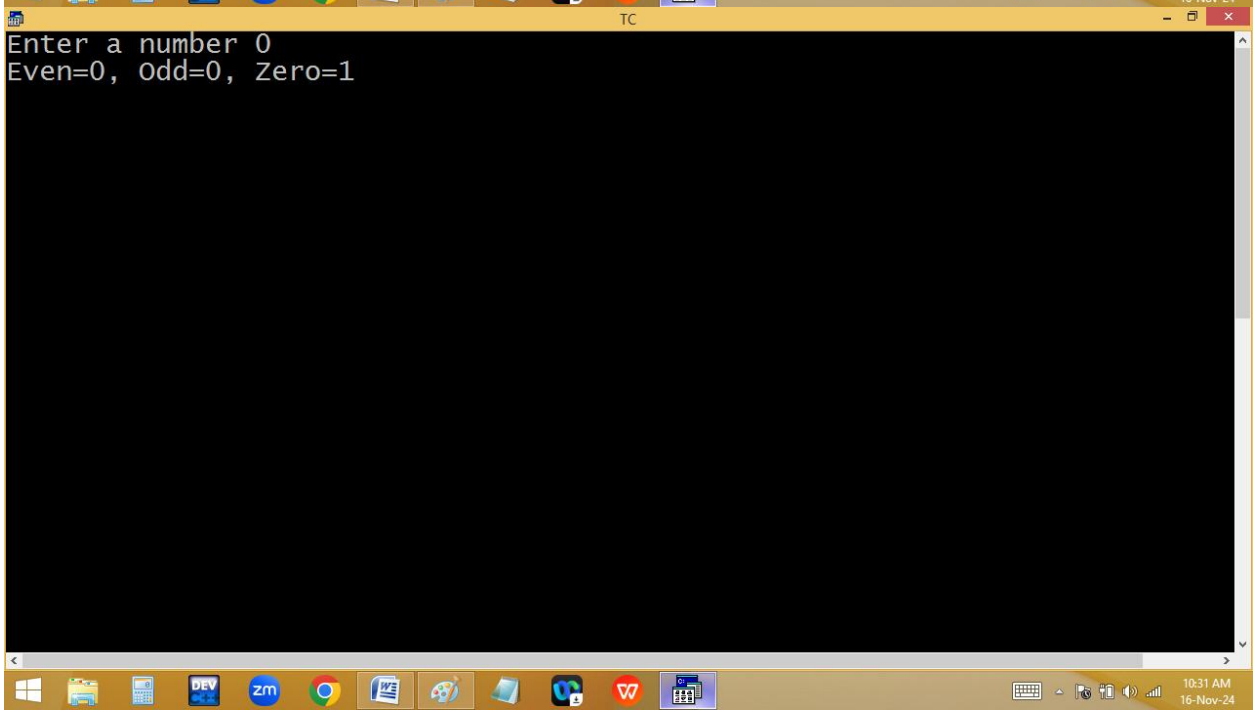
One Zero Zero

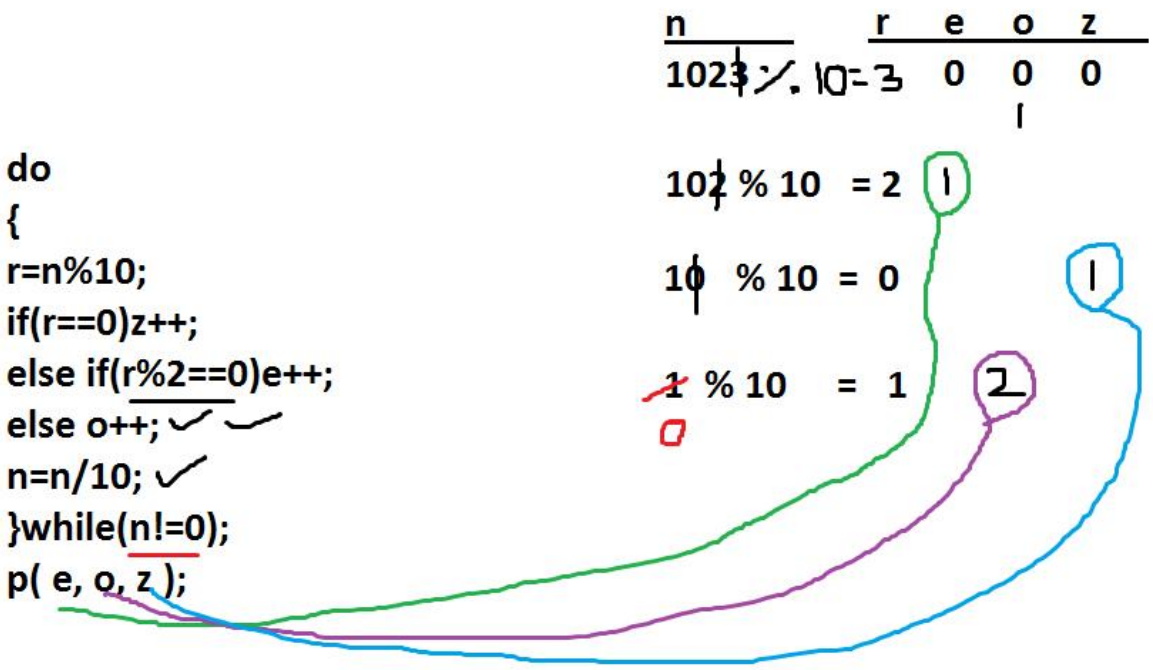
while (m%10== 0 && m!=0) p("Zero", m/=10);


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 15 Col 42 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n; int r, e,o,z;
clrscr();
printf("Enter a number "); scanf("%ld",&n);
e=o=z=0;
do
{
r=n%10;
if(r==0)z++;else if(r%2==0)e++;else o++;
n=n/10;
}while(n!=0);
printf("Even=%d, Odd=%d, Zero=%d",e,o,z);_
getch();
}
Watch
10:30 AM
16-Nov-24
TC
Enter a number 1023
Even=1, Odd=2, Zero=1
10:31 AM
16-Nov-24


TC
Enter a number -1234
Even=2, Odd=2, Zero=0
10:31 AM
16-Nov-24


TC
Enter a number 100
Even=0, Odd=1, Zero=2
10:31 AM
16-Nov-24


TC
Enter a number 0
Even=0, Odd=0, Zero=1
10:31 AM
16-Nov-24



for loop:

It is an entry control loop.

for is a keyword.

It is also used to repeat a program several times based on a condition.

When compared with while and do while, for loop is looking to be smart. In for it is compulsory to maintain two semicolons. For works without condition also and default condition is always 1 i.e. true.

Generally for loop is having 3 expressions.

1. **Initialization**
2. **Test condition / expression**
3. **Increment/decrement / updation**

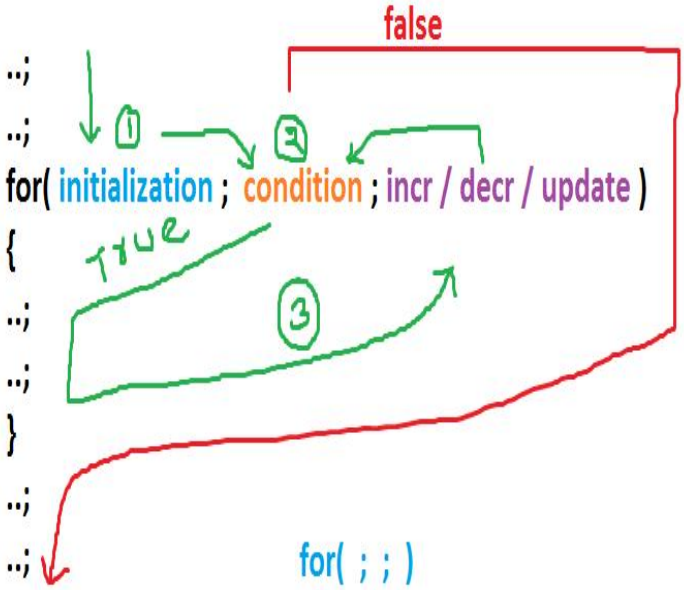
At first entry of for loop the initialization part is executed and later the test condition is checked. If the condition is true then the for block statements are executed. After completion of the block, the increment or decrement part is executed. Later once again the test condition is evaluated. If it is true then

once again for block statements are executed. Like this the process is continued until the condition becomes false. Here the initialization part is executed only once, at the time of loop beginning.

It is mandatory to maintain 2 semicolon (;) in a for loop.

If the for loop is having more than three expressions, it is mandatory to separate the expressions with , separator.

If the for loop is having less than three expressions, then leave the expressions with empty semicolon.




```
for( exp ; exp ; exp )
{
 ..;
}
```

```
for( exp, exp ; exp ; exp, exp )
{
}
```

```
for( ; ; )
{
}
```

```
for( ; exp ; )
{
}
```