scanf()

It is the major input function available in stdio.h

It is used to read the values at run time from user.

Syntax:

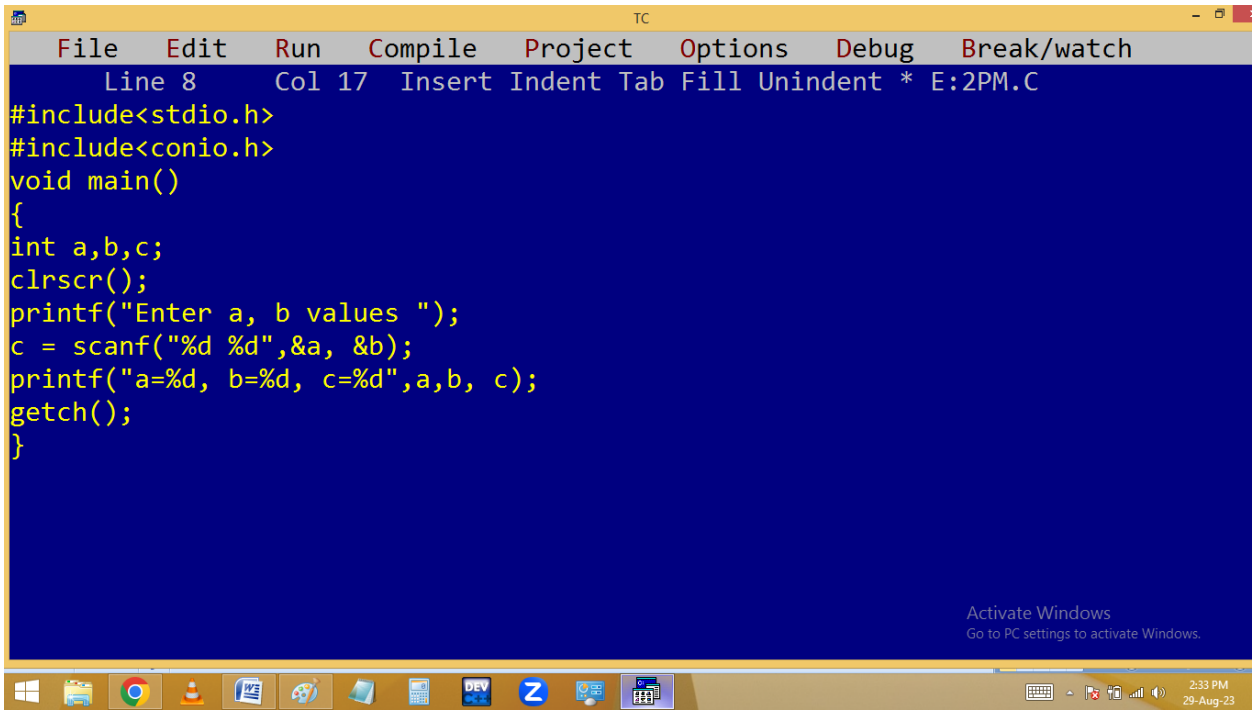
int scanf("conversion characters" , &variable, &variable,……);

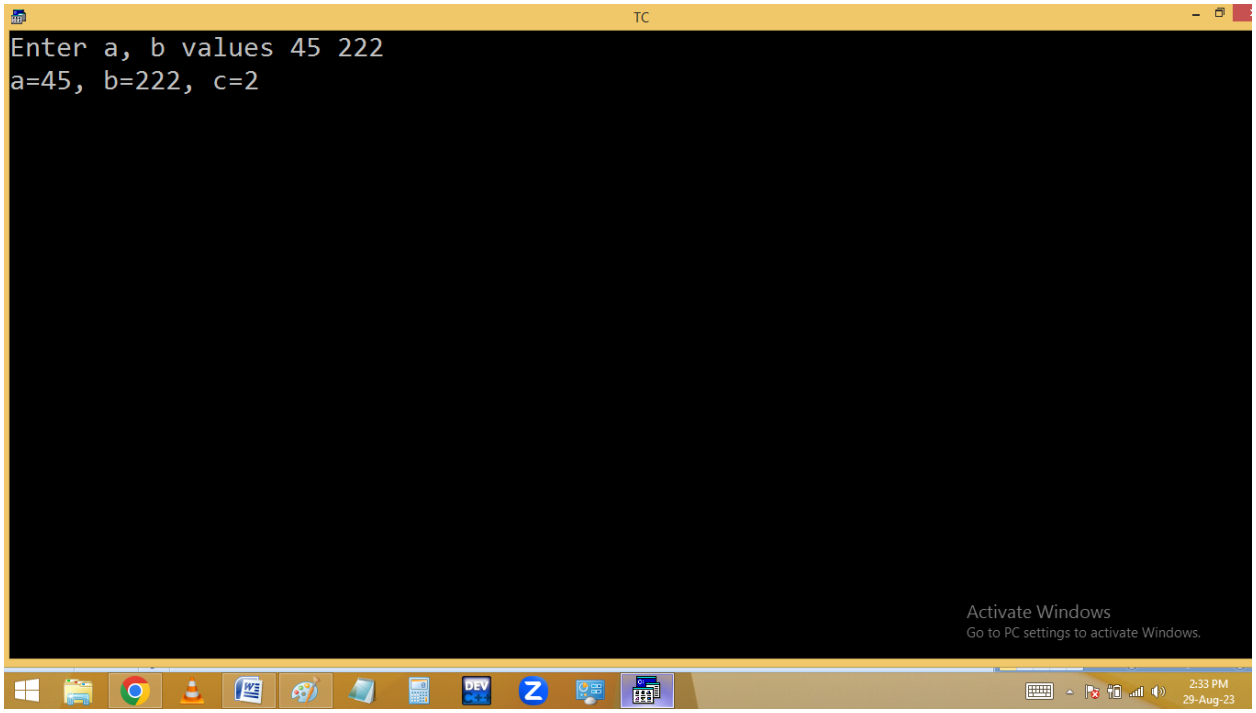
- Here scanf() returns an integer which indicates the no of conversion characters we have used in scanf().
- Generally conversion characters are the first arguments and they should be placed in " ".
- Space is optional in between the conversion characters. When comma /

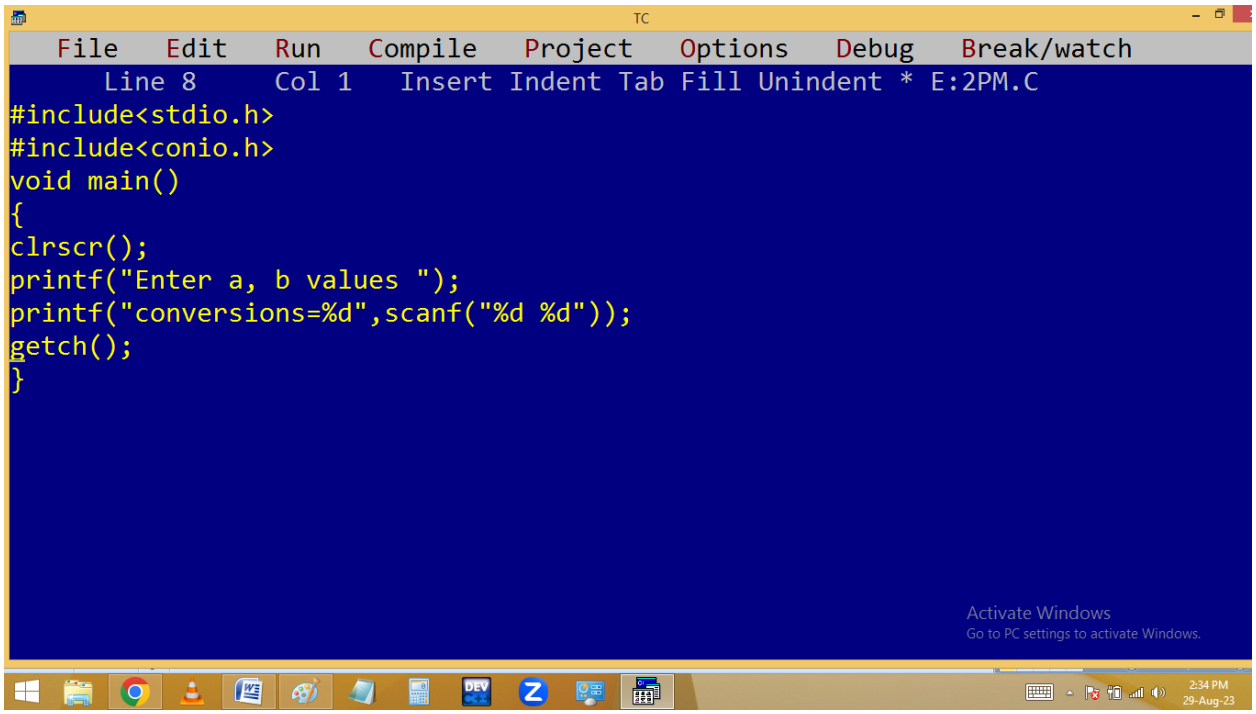
any character is entered in between conversion characters, at run time also we have to enter the same letter in between the values.

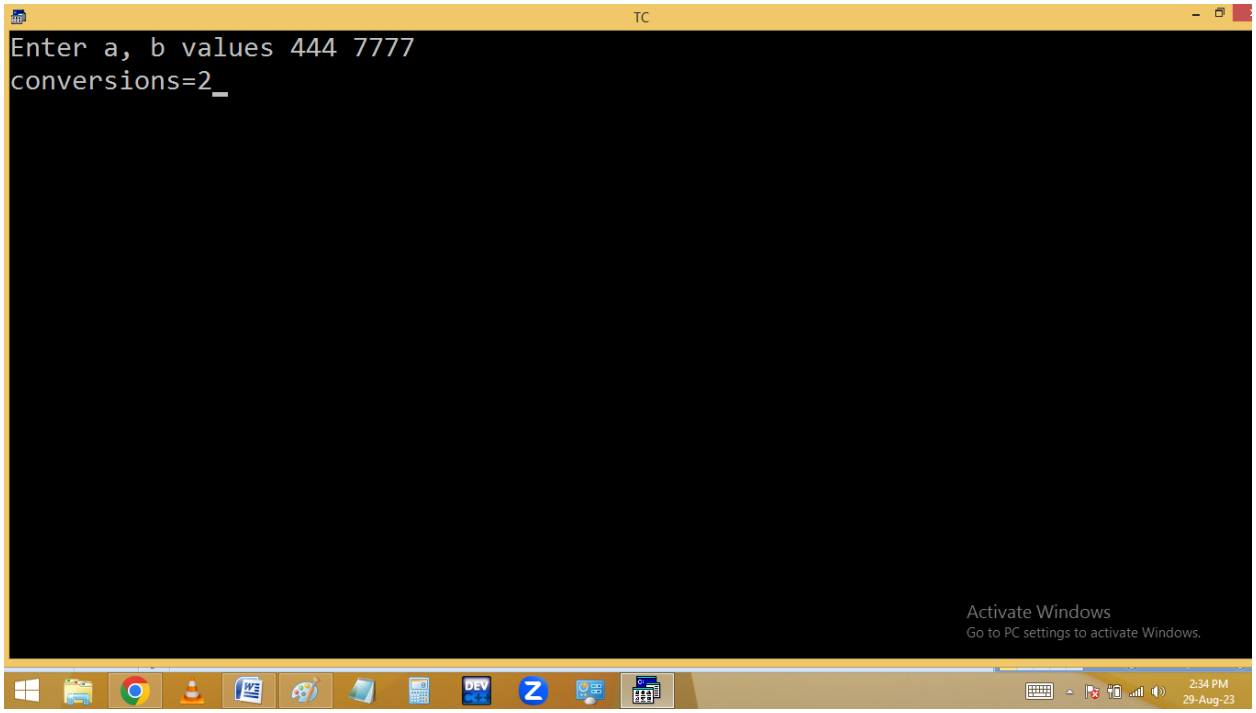
- **&** indicates address of variable. **&** is mandatory for all data types **except string** type variables.

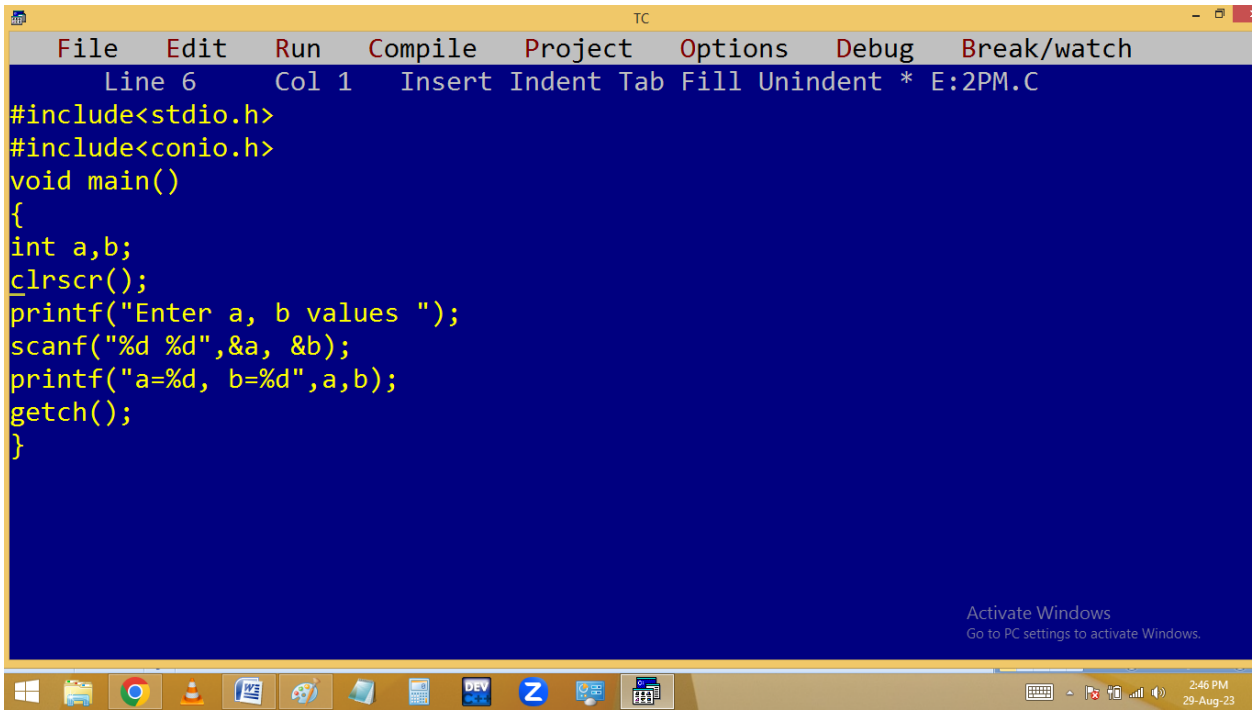
write a c program to find the no of conversion characters in scanf():

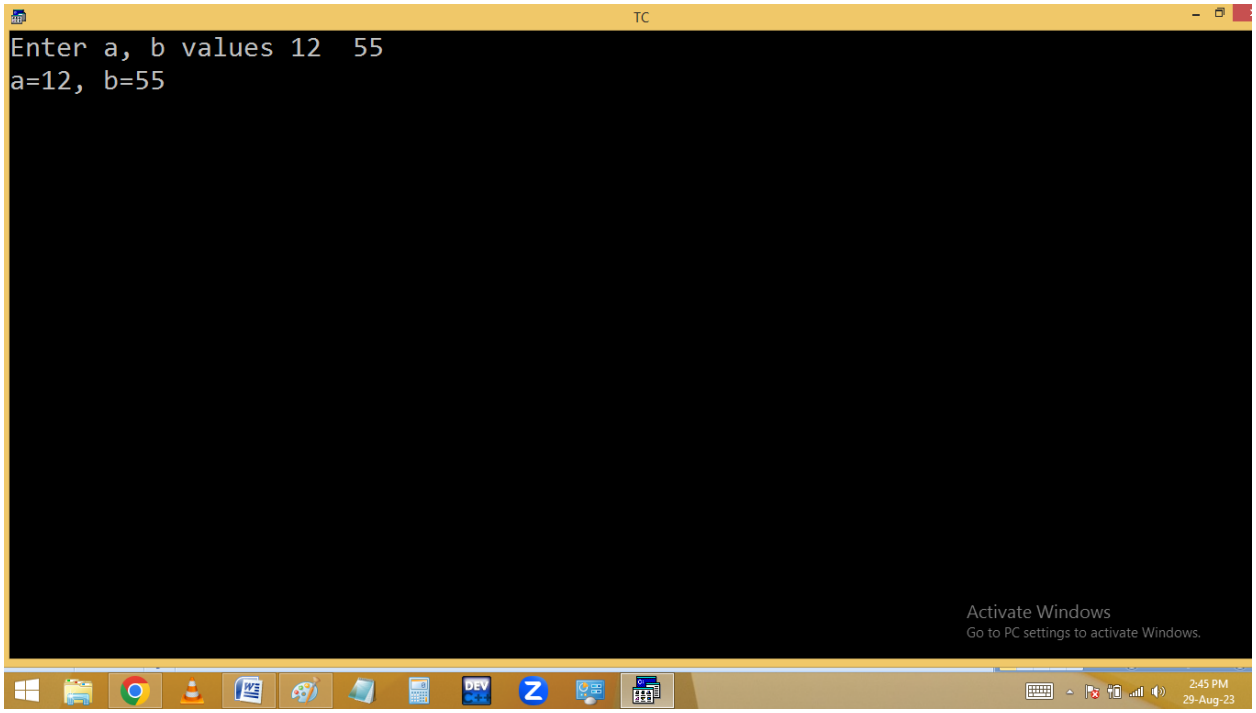

TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 17 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c;
clrscr();
printf("Enter a, b values ");
c = scanf("%d %d",&a, &b);
printf("a=%d, b=%d, c=%d",a,b, c);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:33 PM
29-Aug-23


TC
Enter a, b values 45 222
a=45, b=222, c=2
Activate Windows
Go to PC settings to activate Windows.
2:33 PM
29-Aug-23

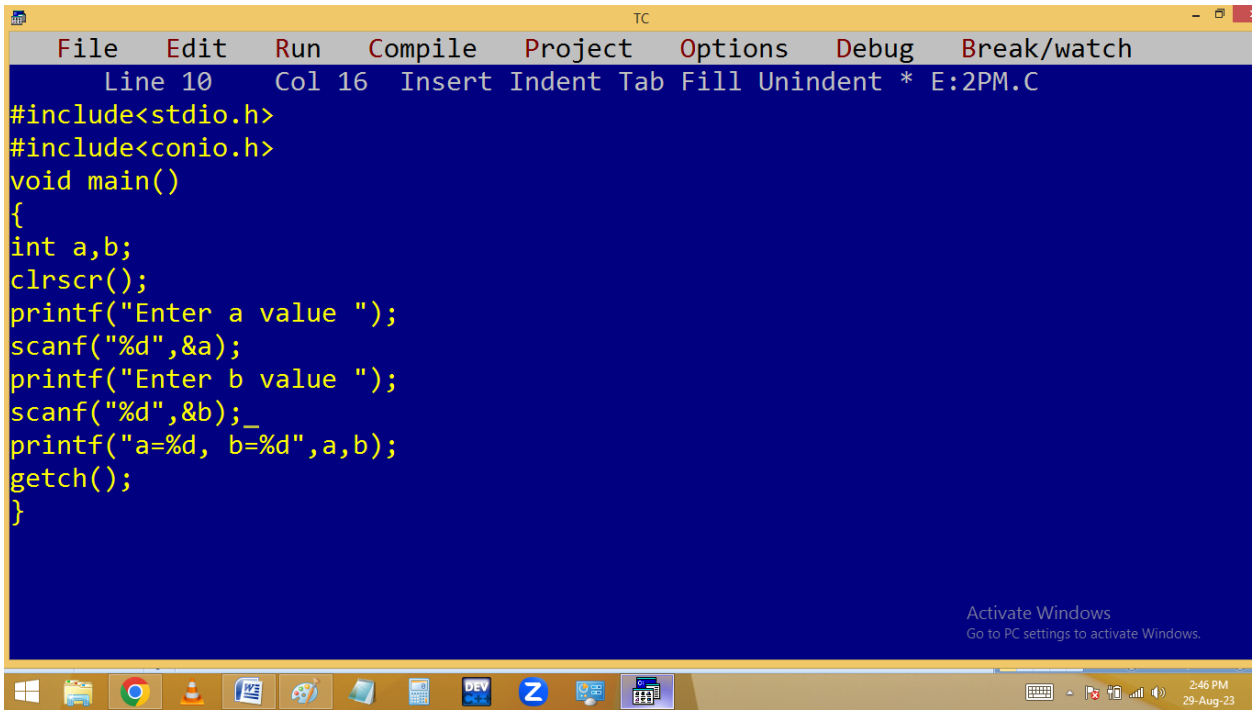

TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("Enter a, b values ");
printf("conversions=%d",scanf("%d %d"));
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:34 PM
29-Aug-23

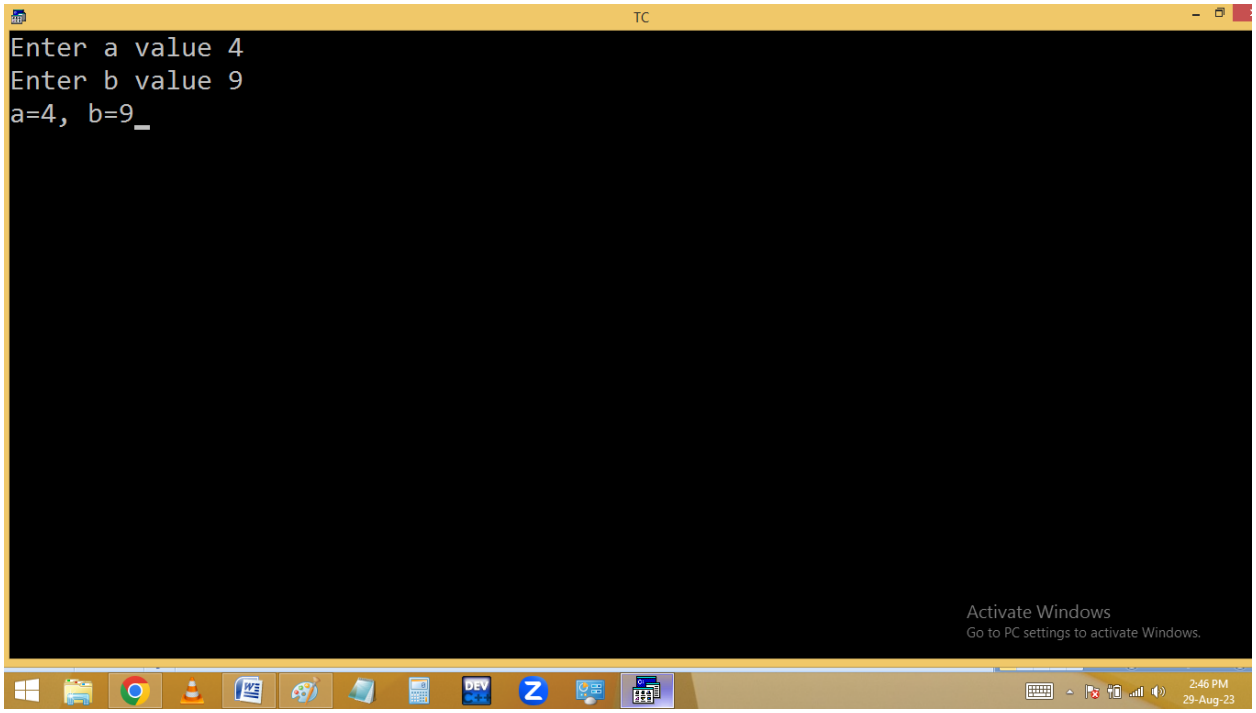

TC
Enter a, b values 444 7777
conversions=2
Activate Windows
Go to PC settings to activate Windows.
2:34 PM
29-Aug-23

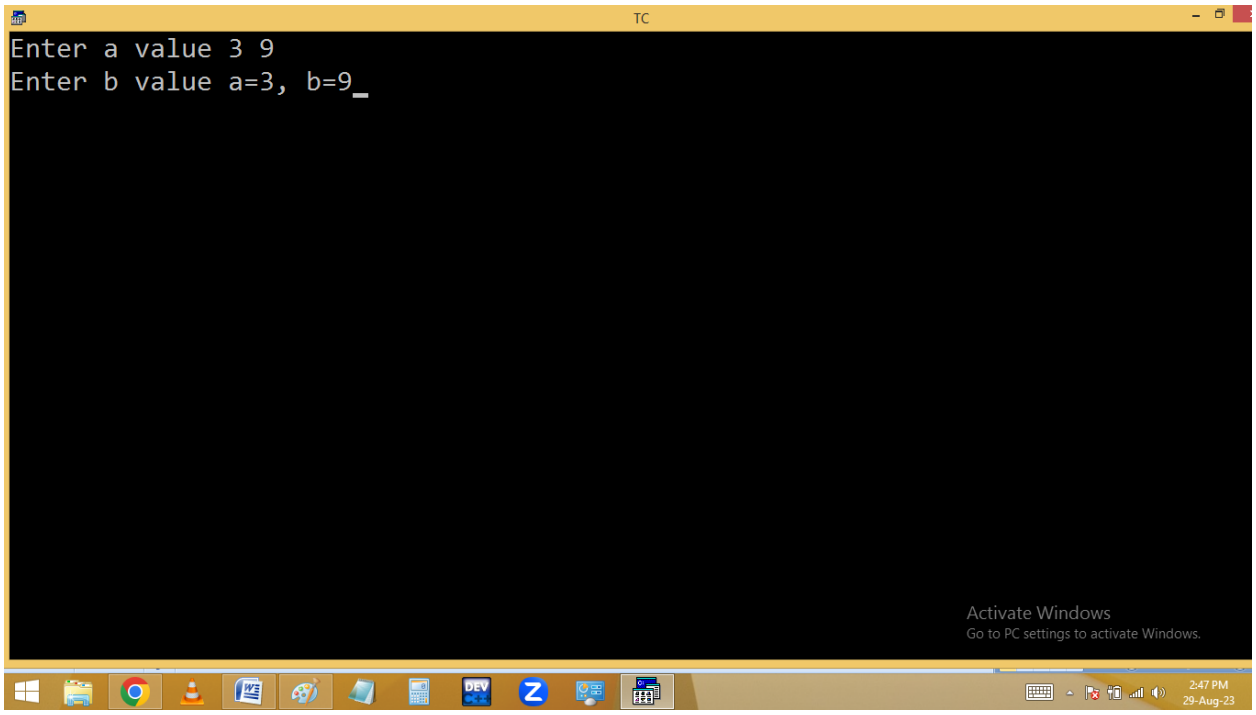


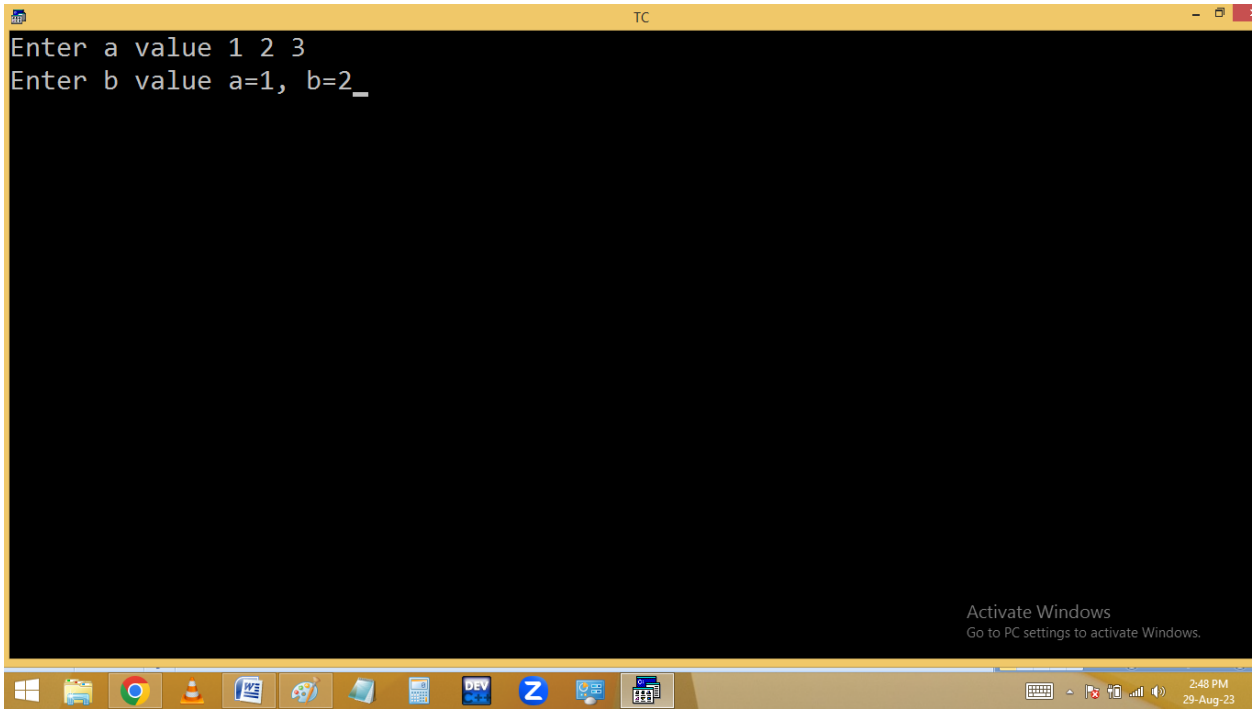


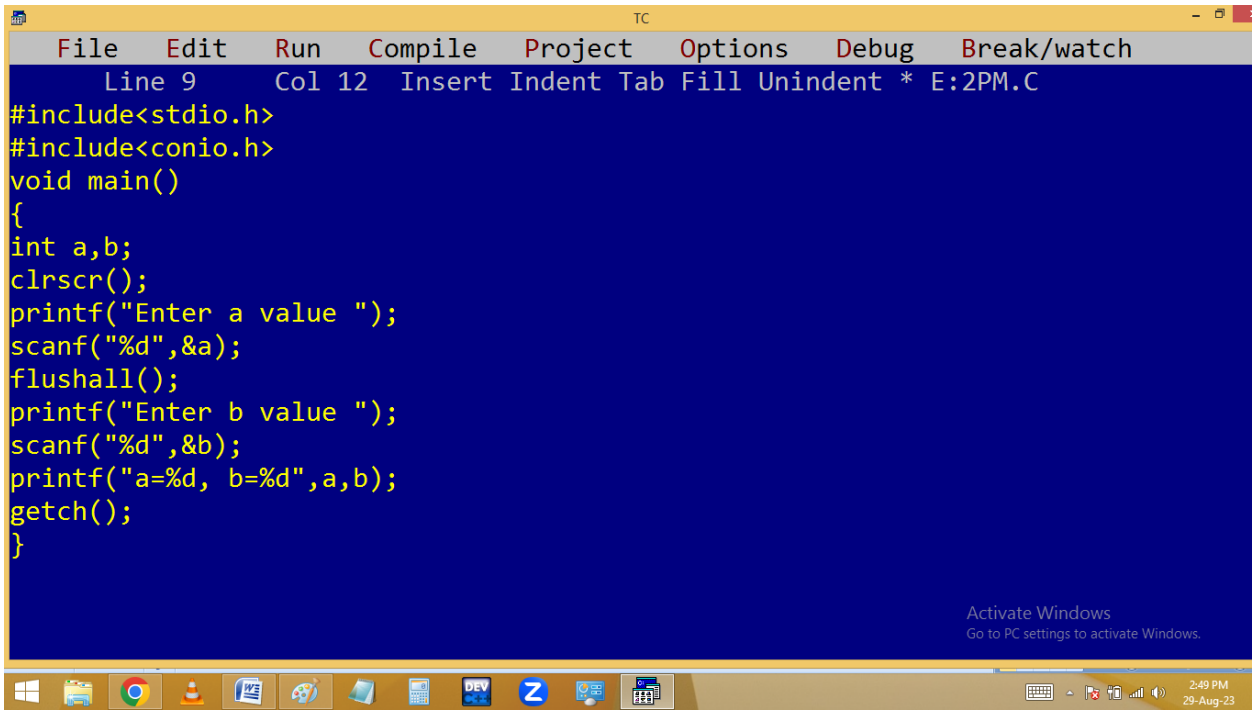
Controlling inputs in scanf():

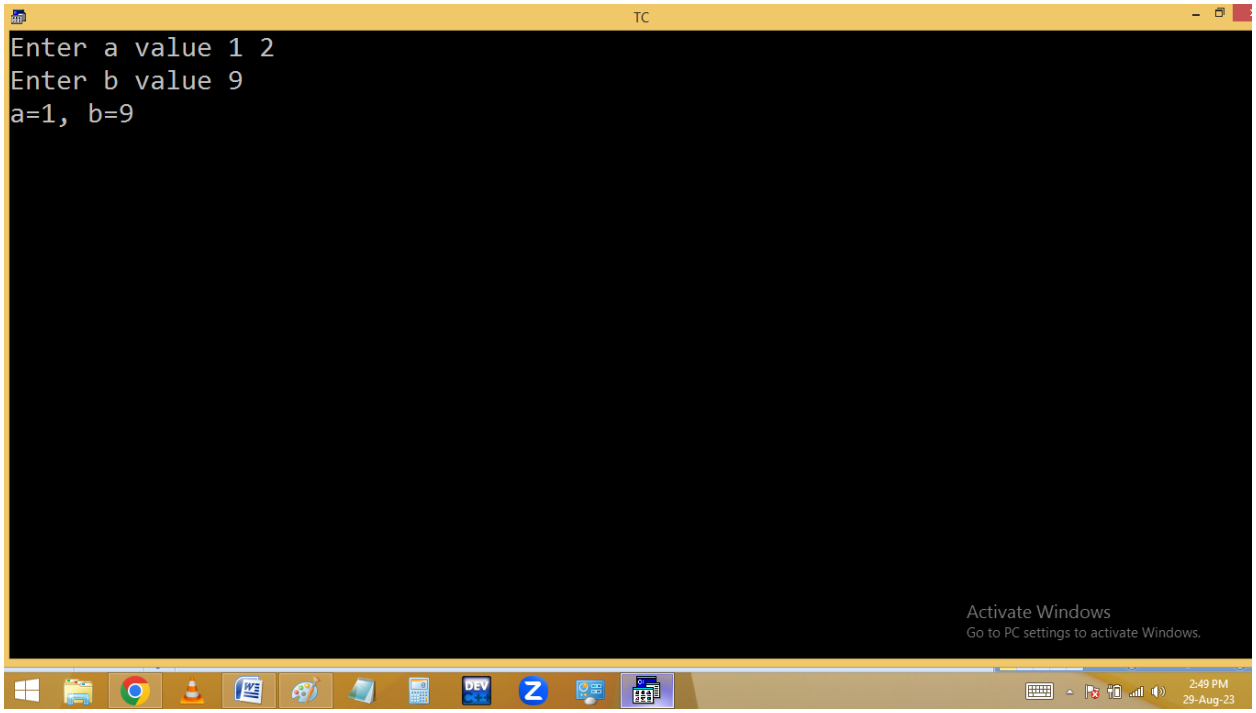

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 16 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a value ");
scanf("%d",&a);
printf("Enter b value ");
scanf("%d",&b);
printf("a=%d, b=%d",a,b);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:46 PM
29-Aug-23

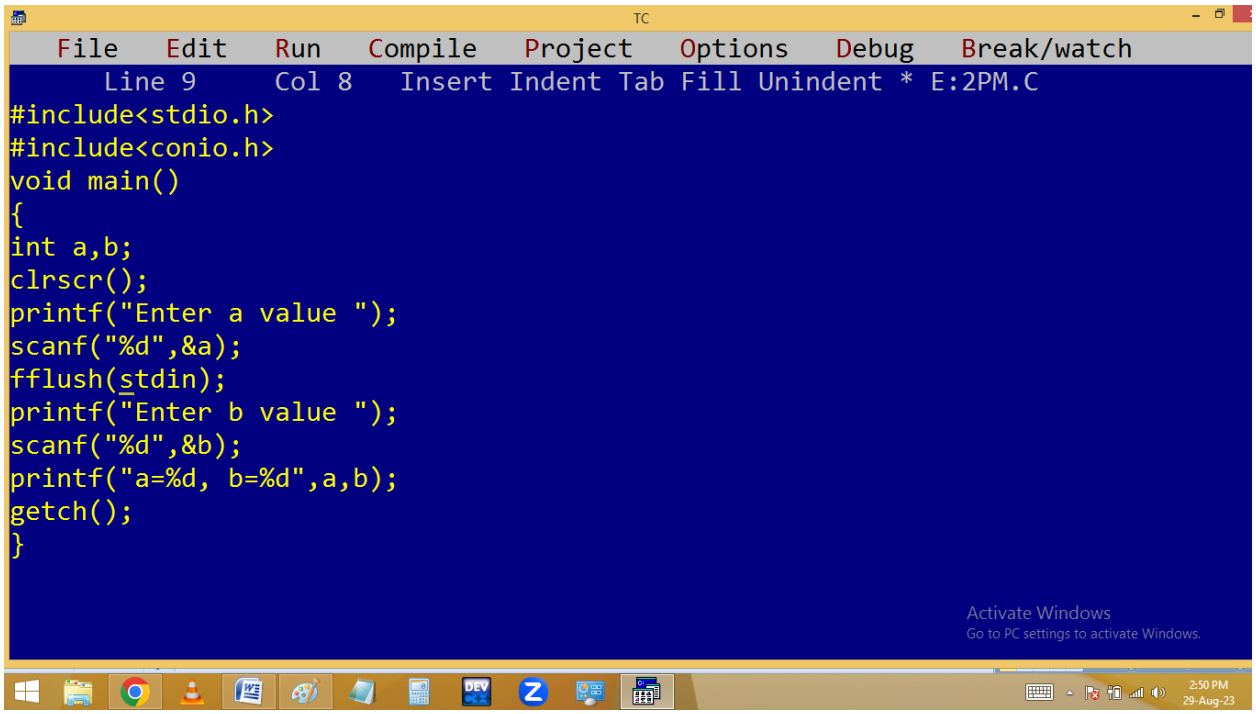

TC
Enter a value 4
Enter b value 9
a=4, b=9
Activate Windows
Go to PC settings to activate Windows.
2:46 PM
29-Aug-23

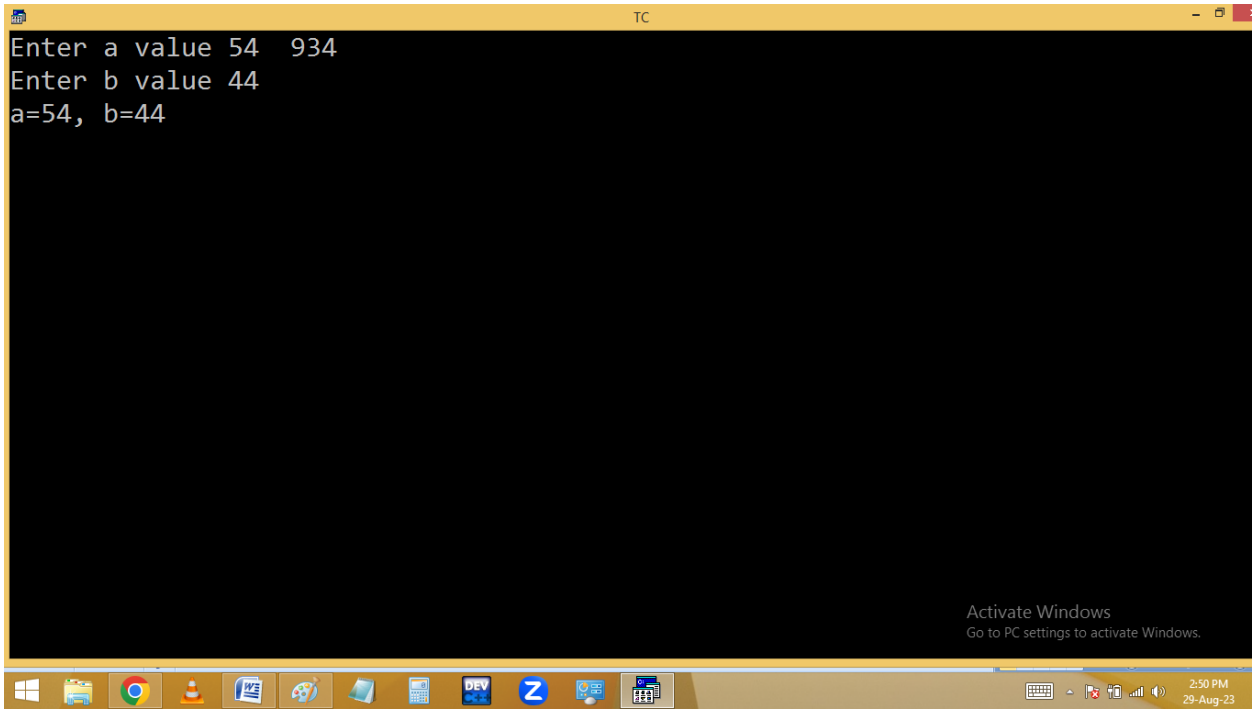

TC
Enter a value 3 9
Enter b value a=3, b=9
Activate Windows
Go to PC settings to activate Windows.
2:47 PM
29-Aug-23

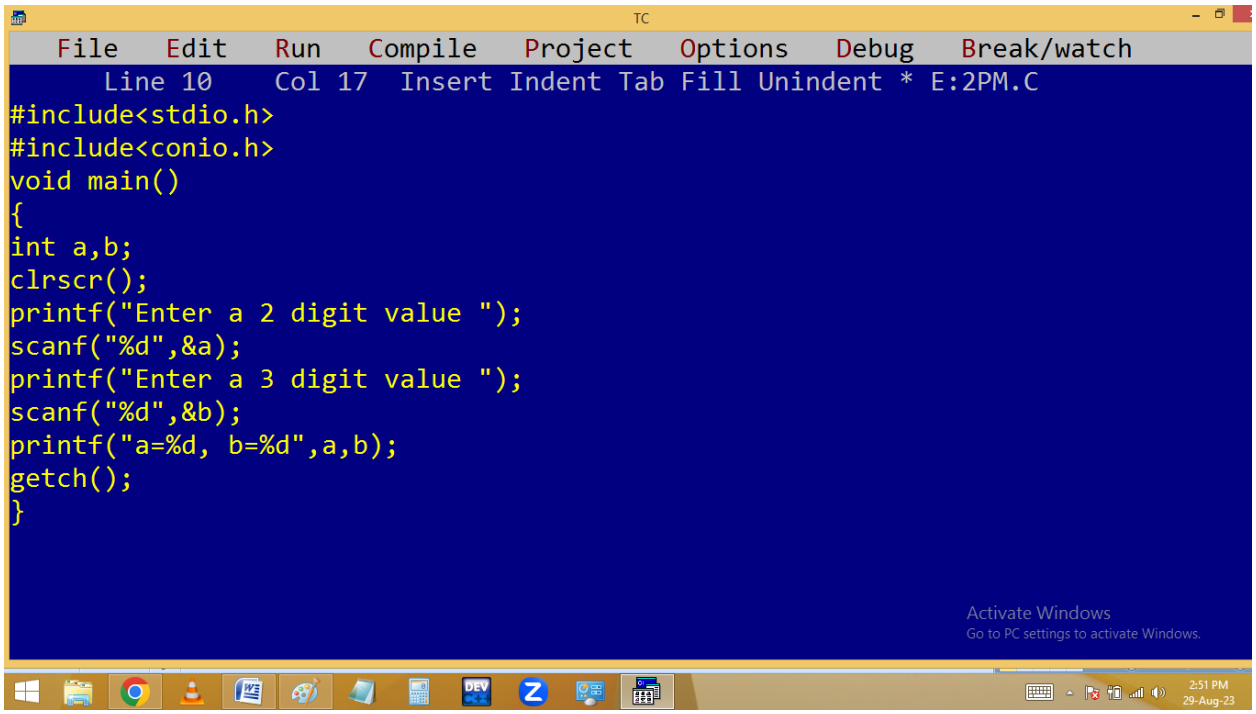

TC
Enter a value 1 2 3
Enter b value a=1, b=2
Activate Windows
Go to PC settings to activate Windows.
2:48 PM
29-Aug-23

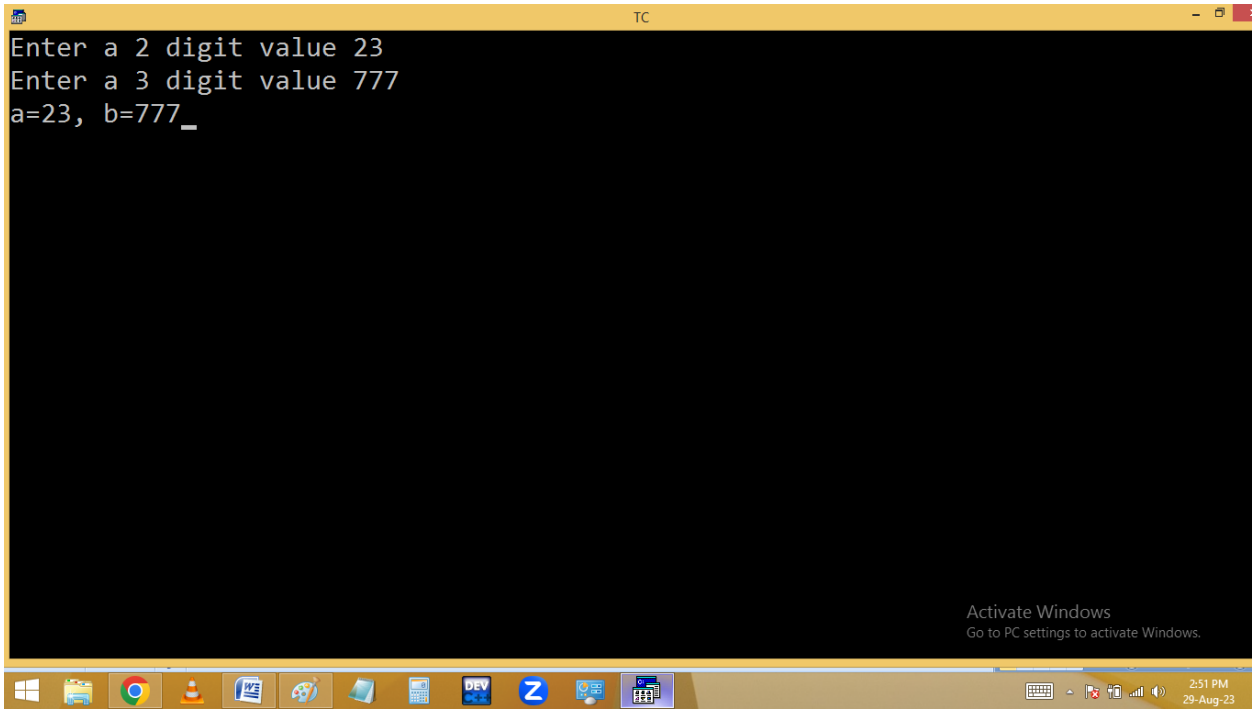

TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a value ");
scanf("%d",&a);
flushall();
printf("Enter b value ");
scanf("%d",&b);
printf("a=%d, b=%d",a,b);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:49 PM
29-Aug-23

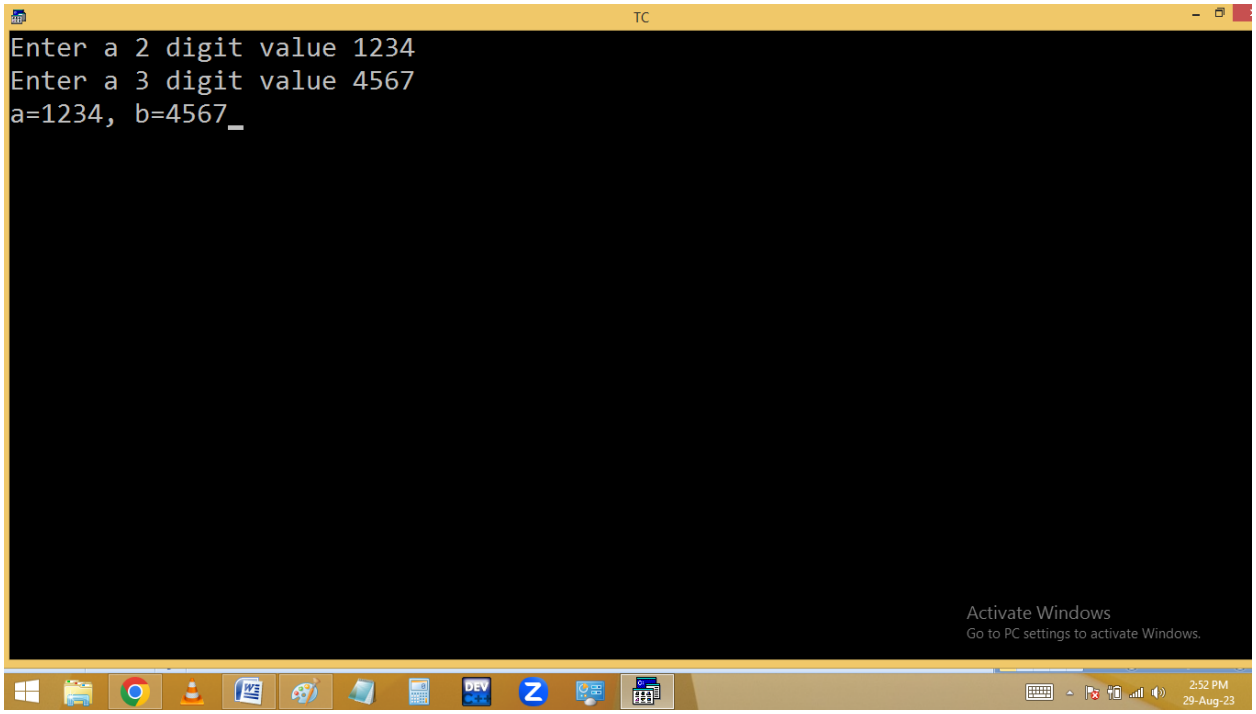

TC
Enter a value 1 2
Enter b value 9
a=1, b=9
Activate Windows
Go to PC settings to activate Windows.
2:49 PM
29-Aug-23

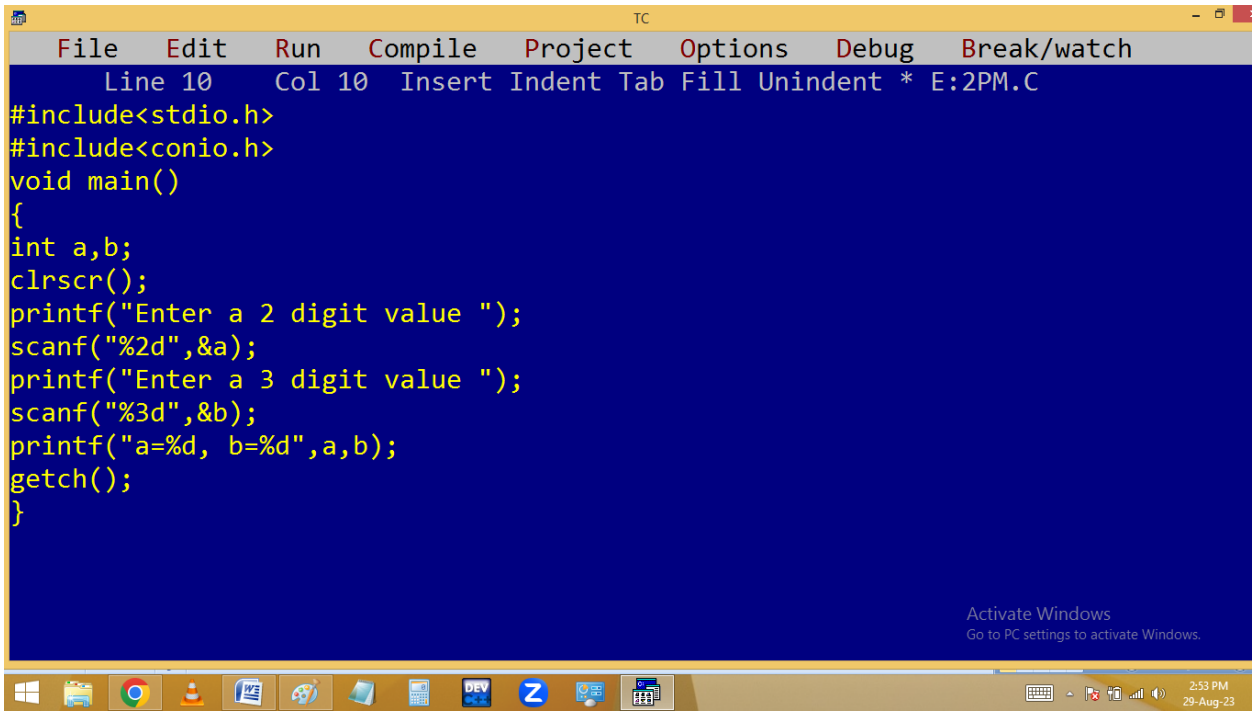

TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 8 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a value ");
scanf("%d",&a);
fflush(stdin);
printf("Enter b value ");
scanf("%d",&b);
printf("a=%d, b=%d",a,b);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:50 PM
29-Aug-23

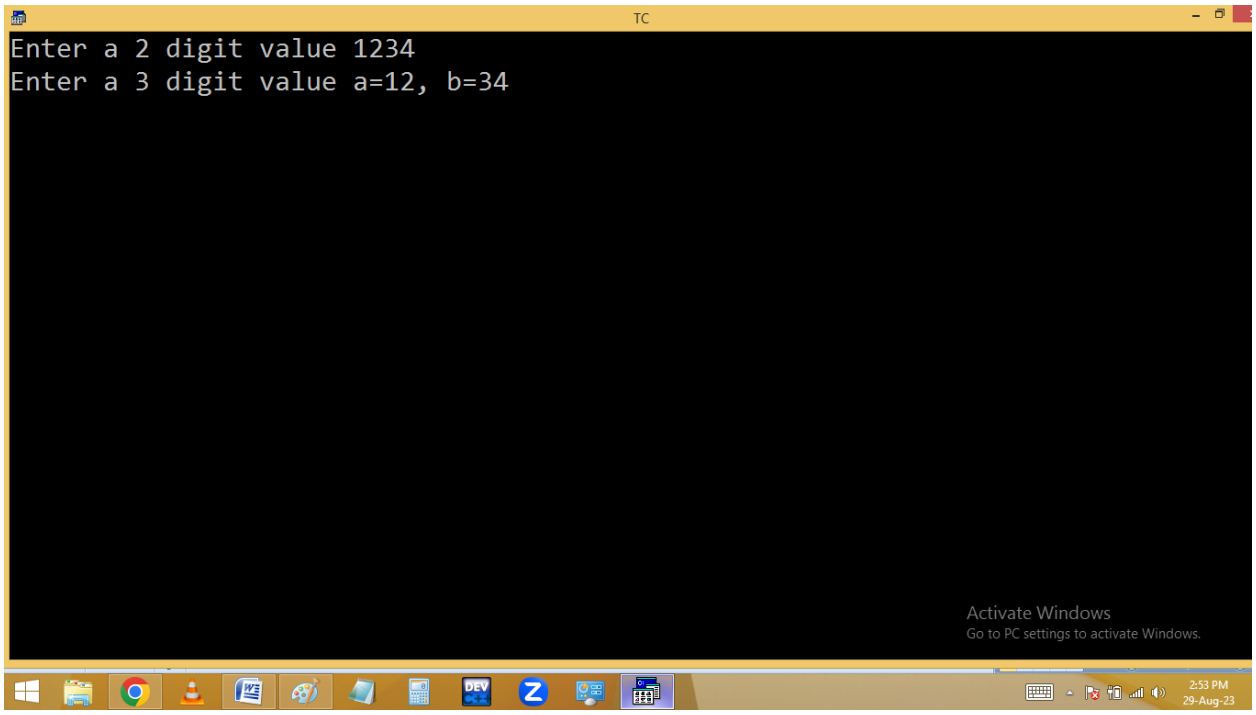

TC
Enter a value 54 934
Enter b value 44
a=54, b=44
Activate Windows
Go to PC settings to activate Windows.
2:50 PM
29-Aug-23

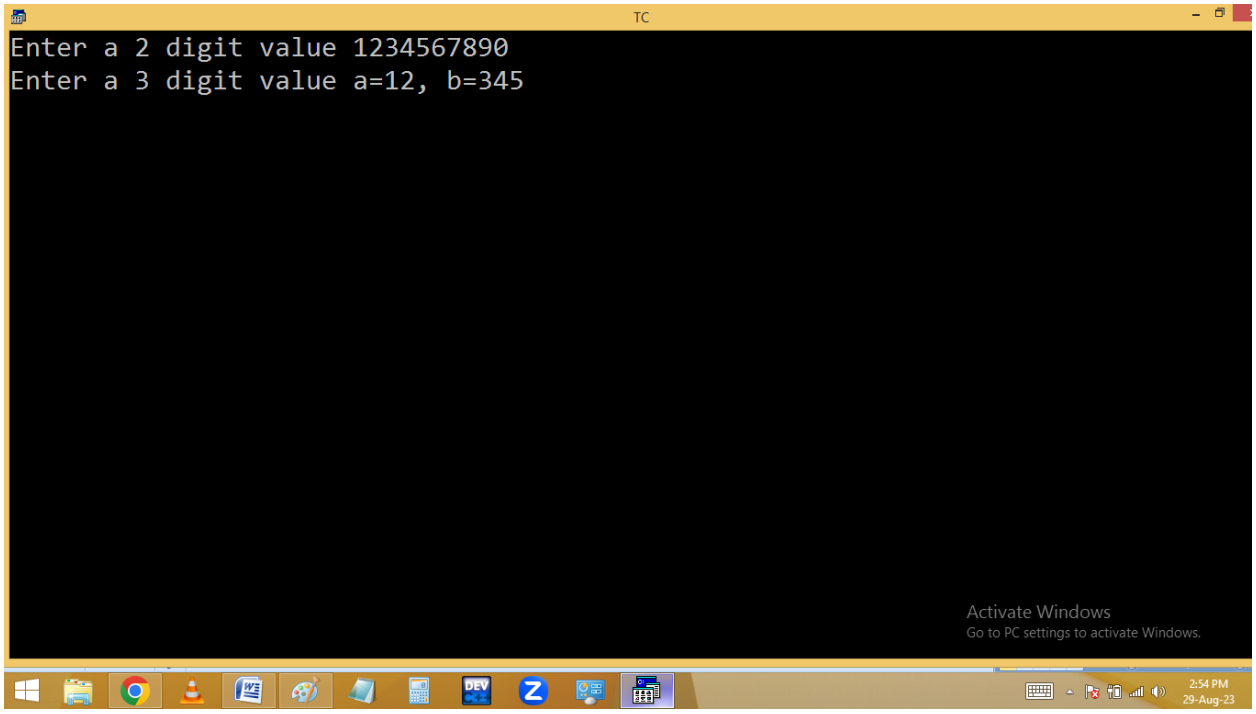

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 17 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a 2 digit value ");
scanf("%d",&a);
printf("Enter a 3 digit value ");
scanf("%d",&b);
printf("a=%d, b=%d",a,b);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:51 PM
29-Aug-23

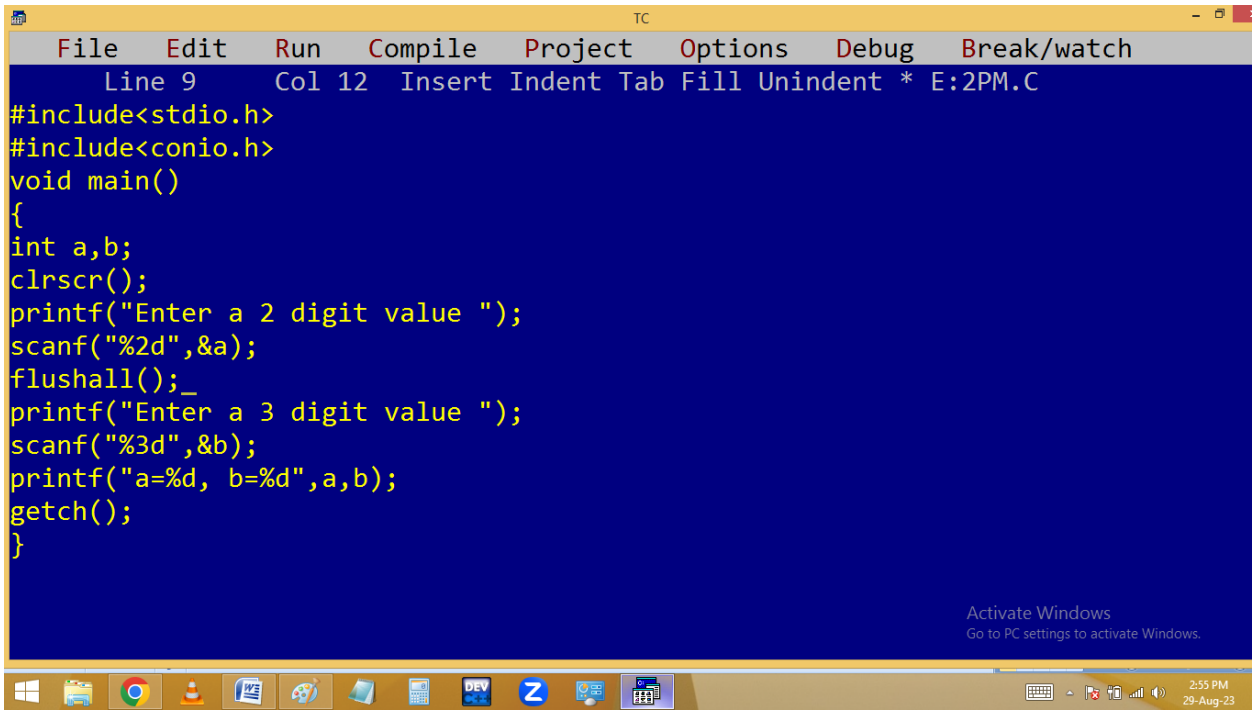

TC
Enter a 2 digit value 23
Enter a 3 digit value 777
a=23, b=777
Activate Windows
Go to PC settings to activate Windows.
2:51 PM
29-Aug-23

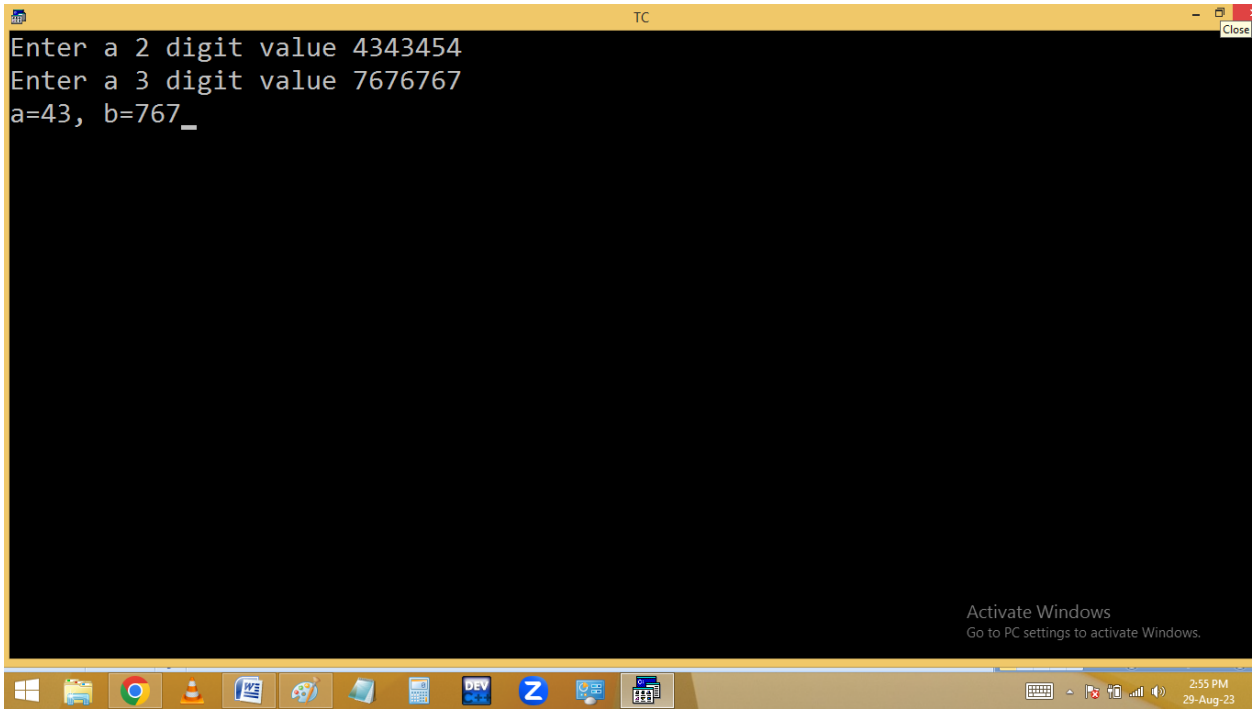

TC
Enter a 2 digit value 1234
Enter a 3 digit value 4567
a=1234, b=4567
Activate Windows
Go to PC settings to activate Windows.
2:52 PM
29-Aug-23


TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 10 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a 2 digit value ");
scanf("%2d",&a);
printf("Enter a 3 digit value ");
scanf("%3d",&b);
printf("a=%d, b=%d",a,b);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:53 PM
29-Aug-23

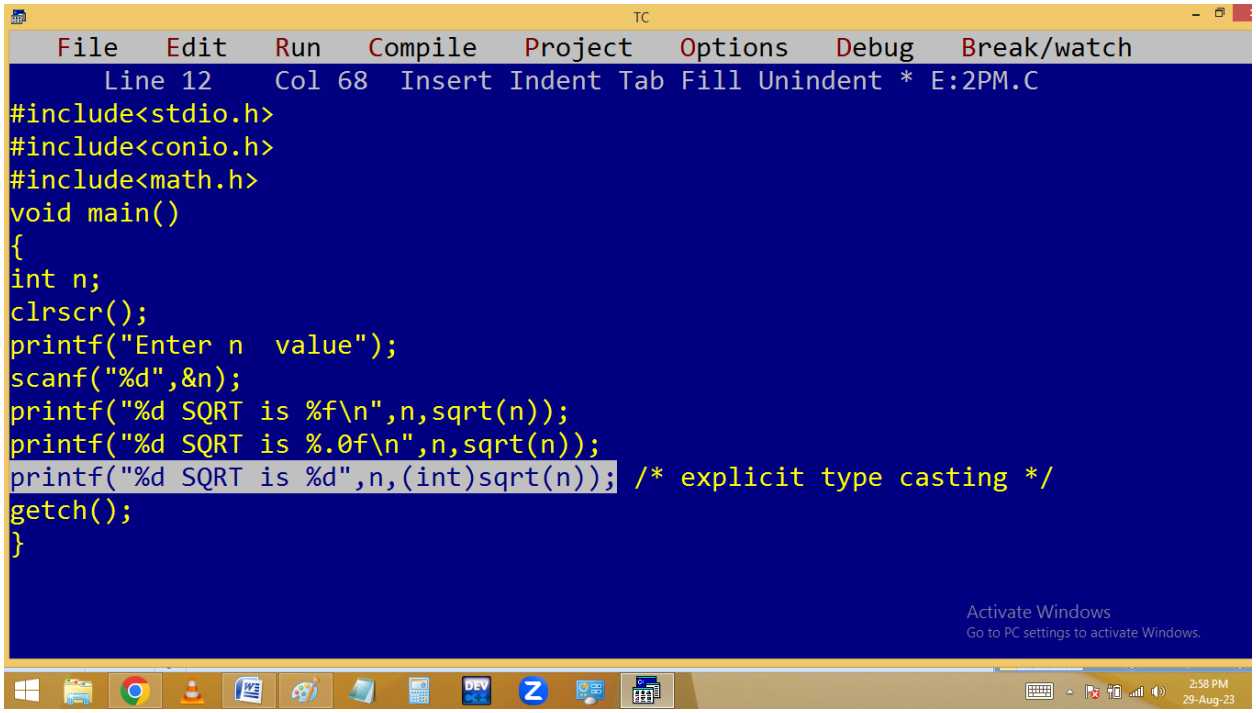

TC
Enter a 2 digit value 1234
Enter a 3 digit value a=12, b=34
Activate Windows
Go to PC settings to activate Windows.
2:53 PM
29-Aug-23

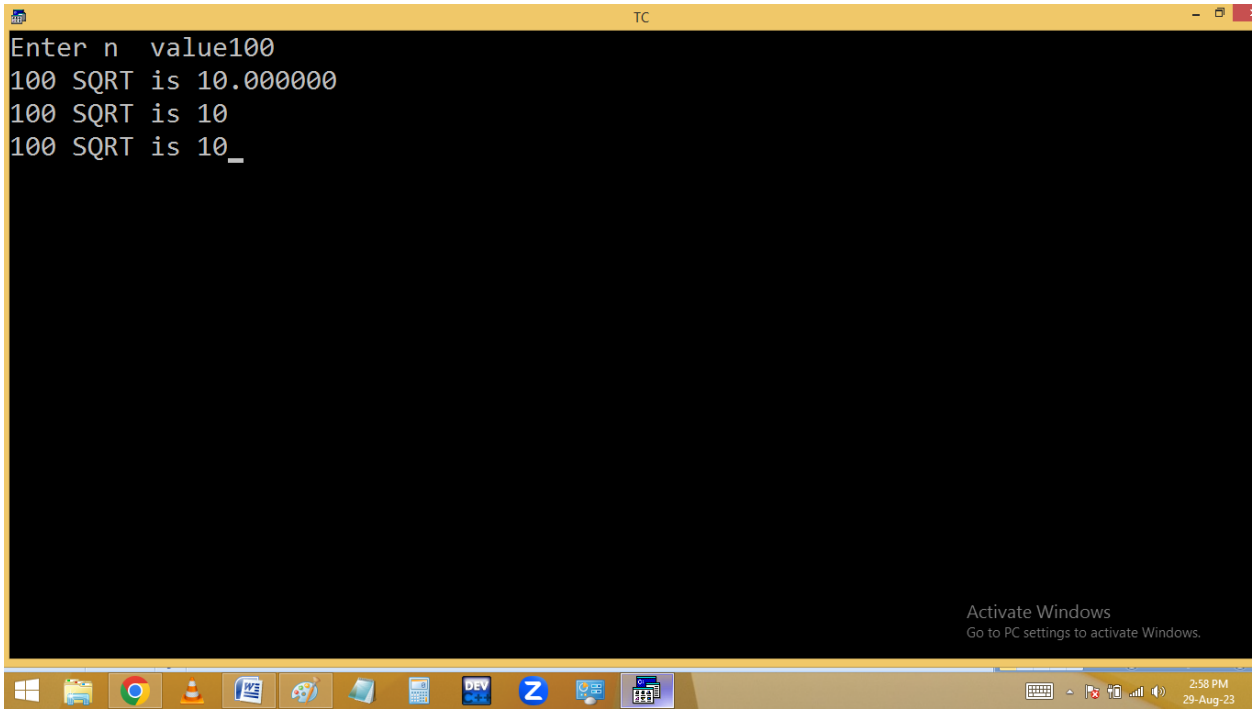

TC
Enter a 2 digit value 1234567890
Enter a 3 digit value a=12, b=345
Activate Windows
Go to PC settings to activate Windows.
2:54 PM
29-Aug-23


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a 2 digit value ");
scanf("%2d",&a);
flushall();
printf("Enter a 3 digit value ");
scanf("%3d",&b);
printf("a=%d, b=%d",a,b);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:55 PM
29-Aug-23

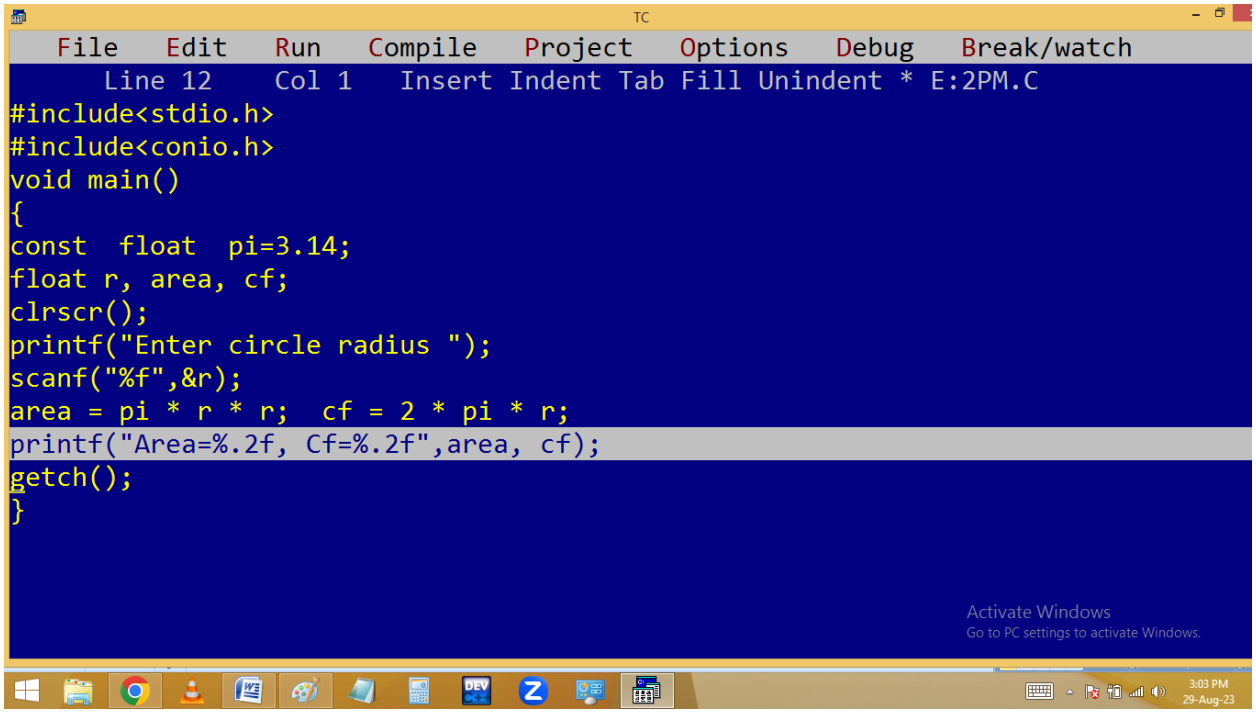

TC
Close
Enter a 2 digit value 4343454
Enter a 3 digit value 7676767
a=43, b=767
Activate Windows
Go to PC settings to activate Windows.
2:55 PM
29-Aug-23

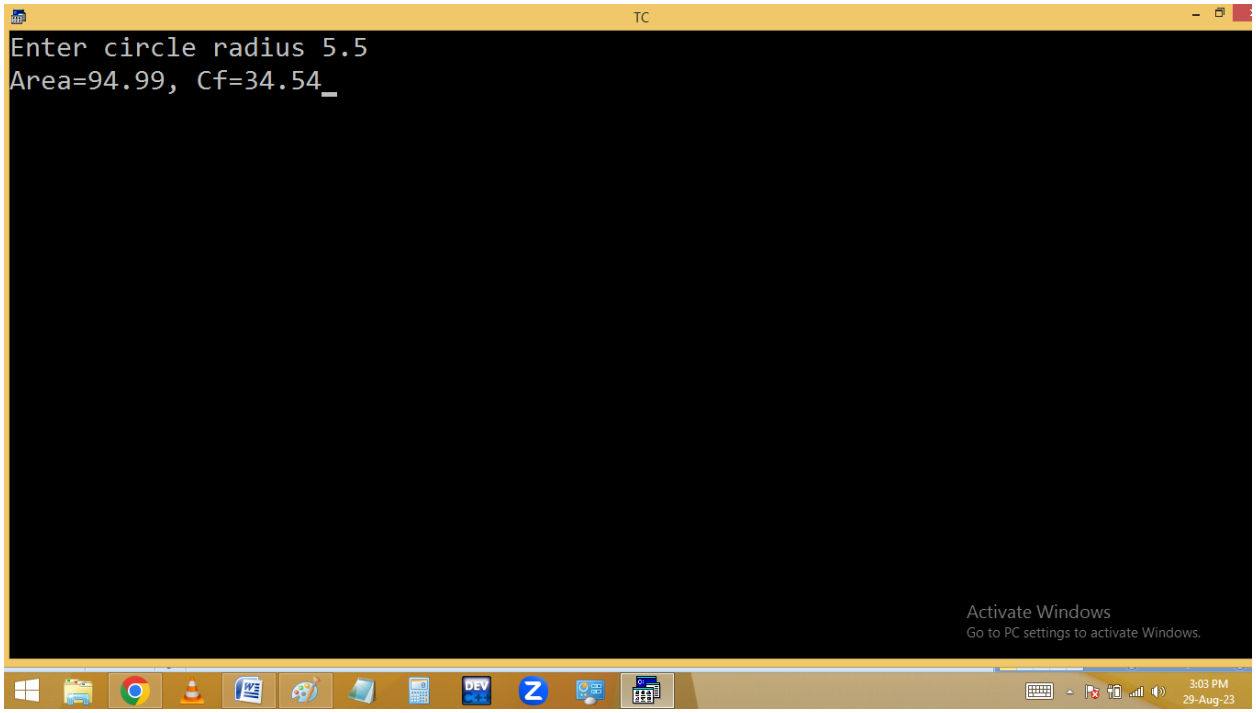
Finding SQRT of given no.

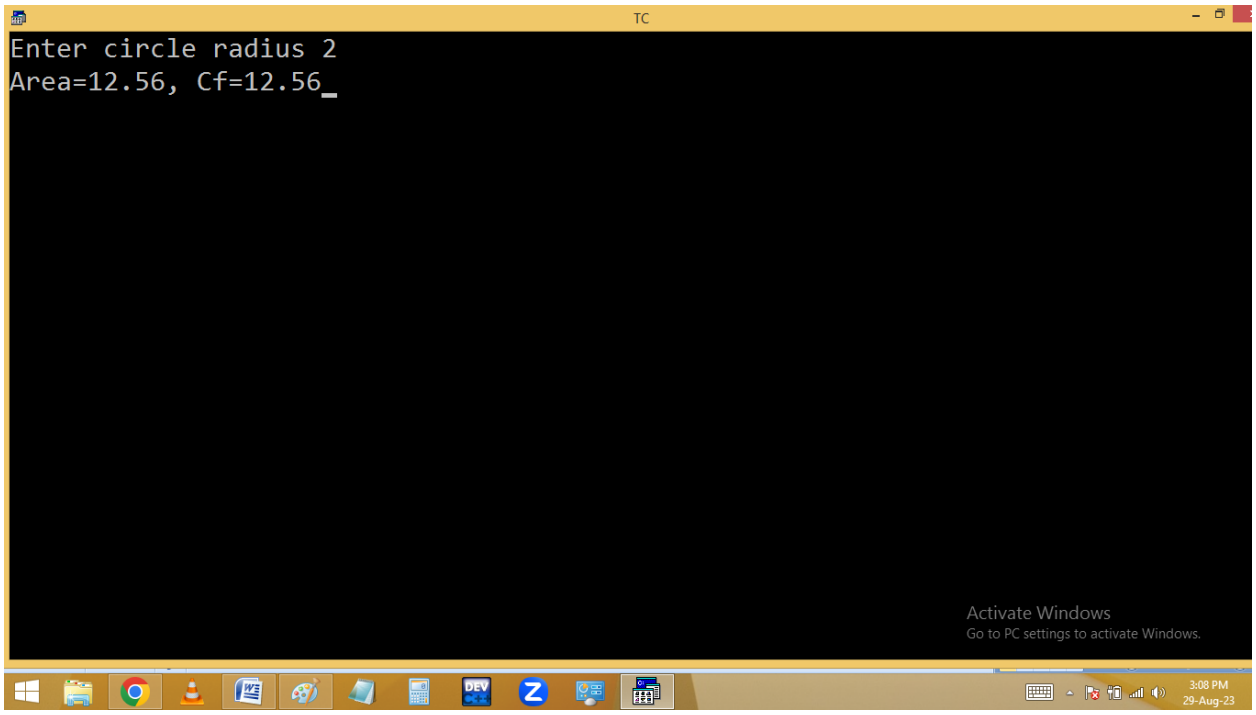




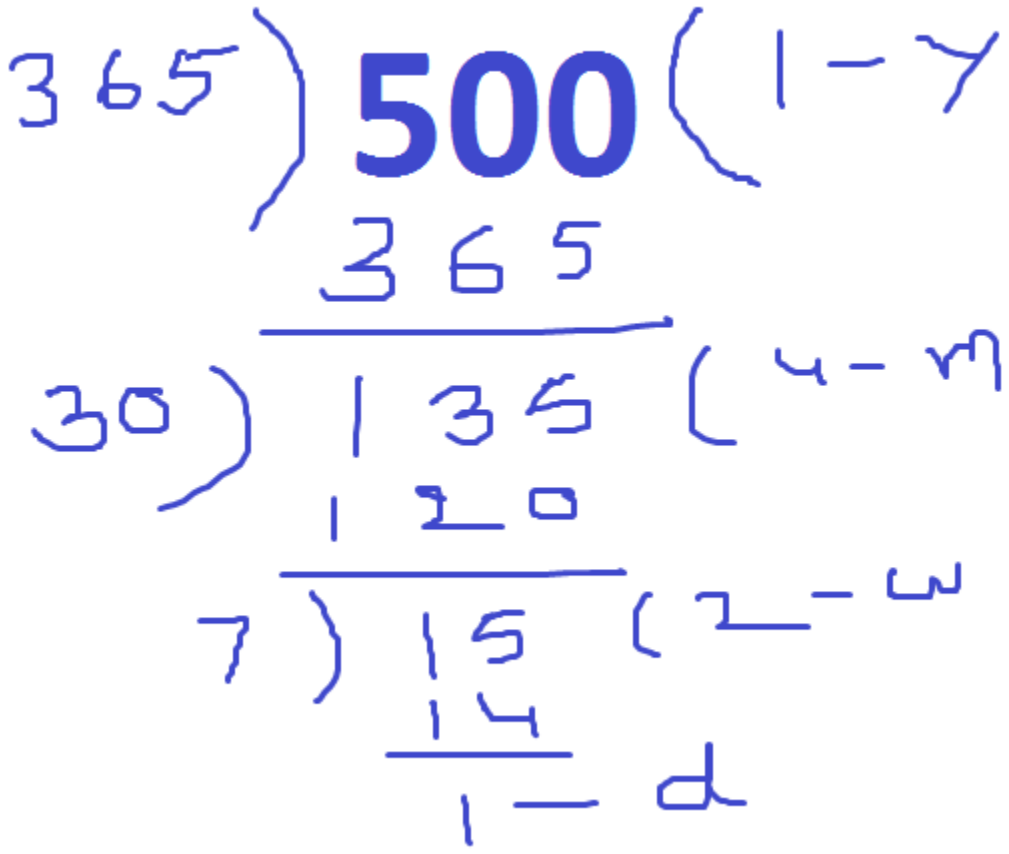
Finding area and circumference of a circle.







Finding baby age in years, months, weeks and days.

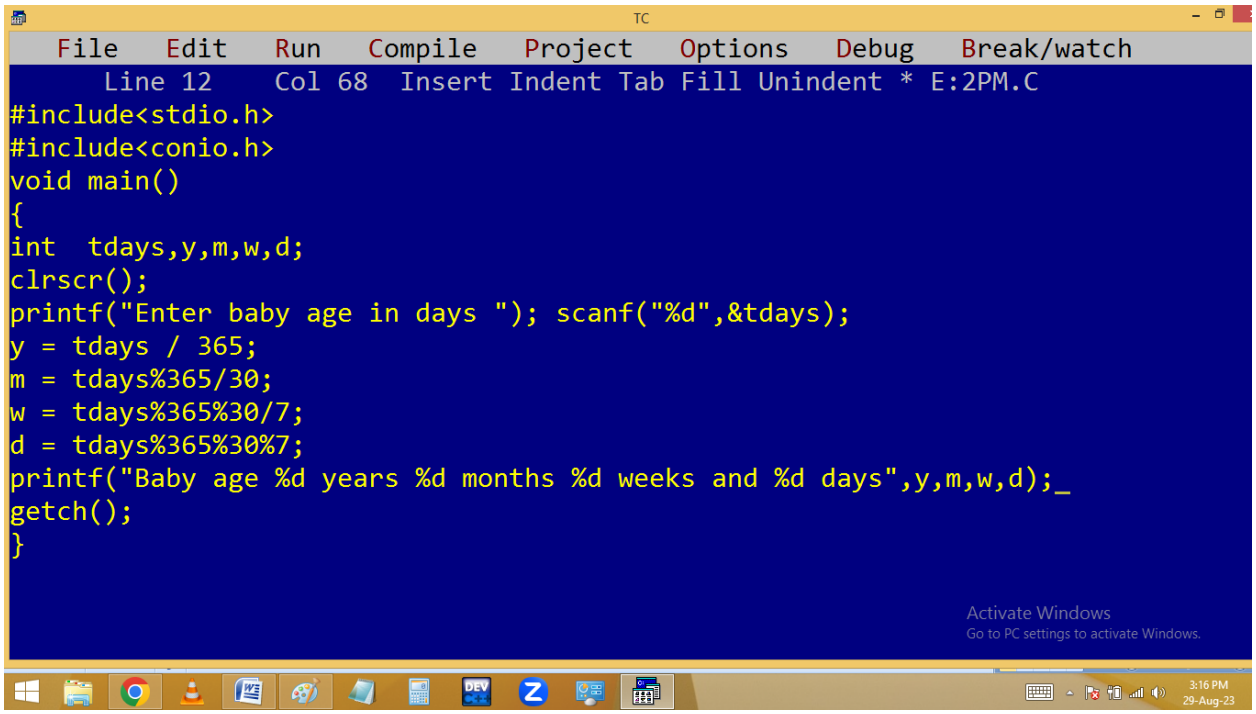


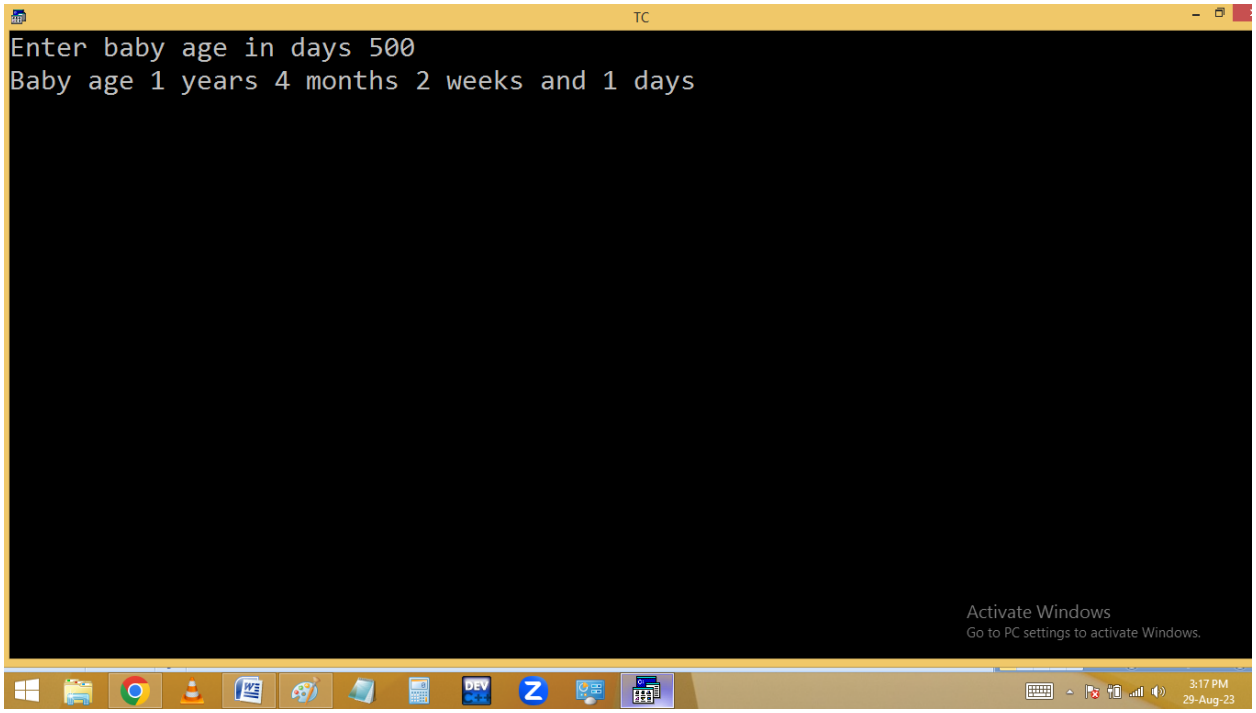
y = 500/365=1

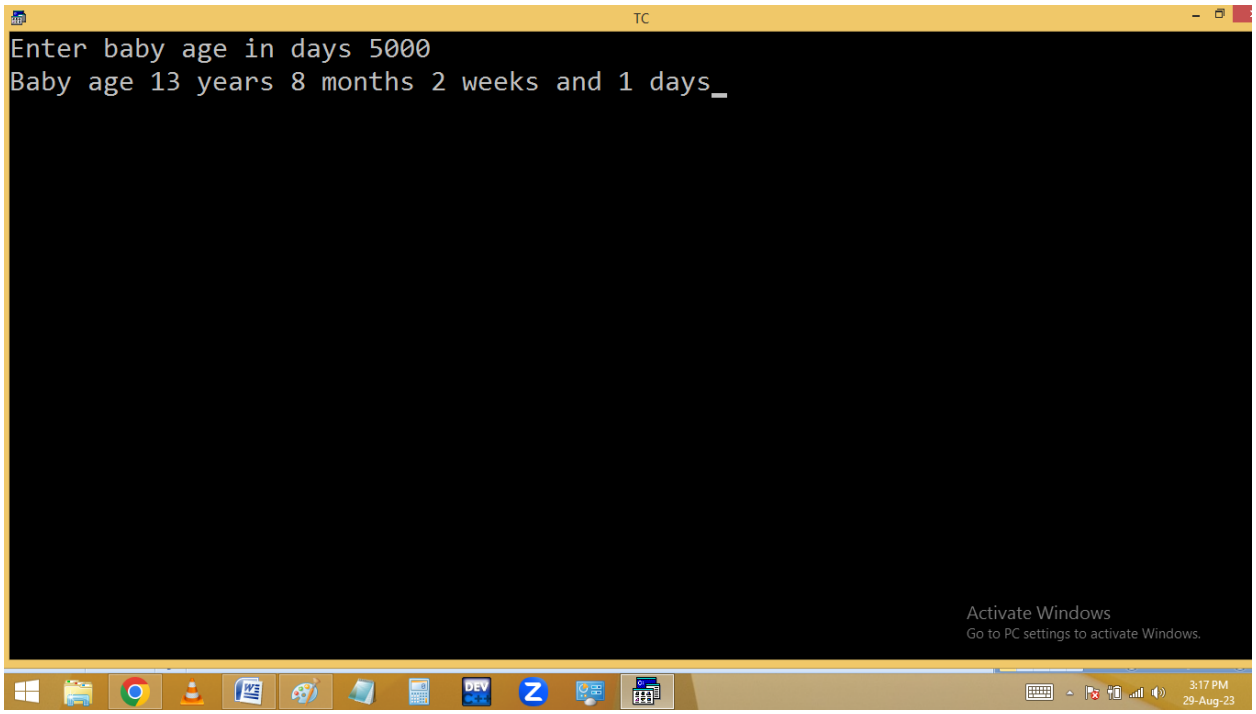
m= 500%365=135/30=4

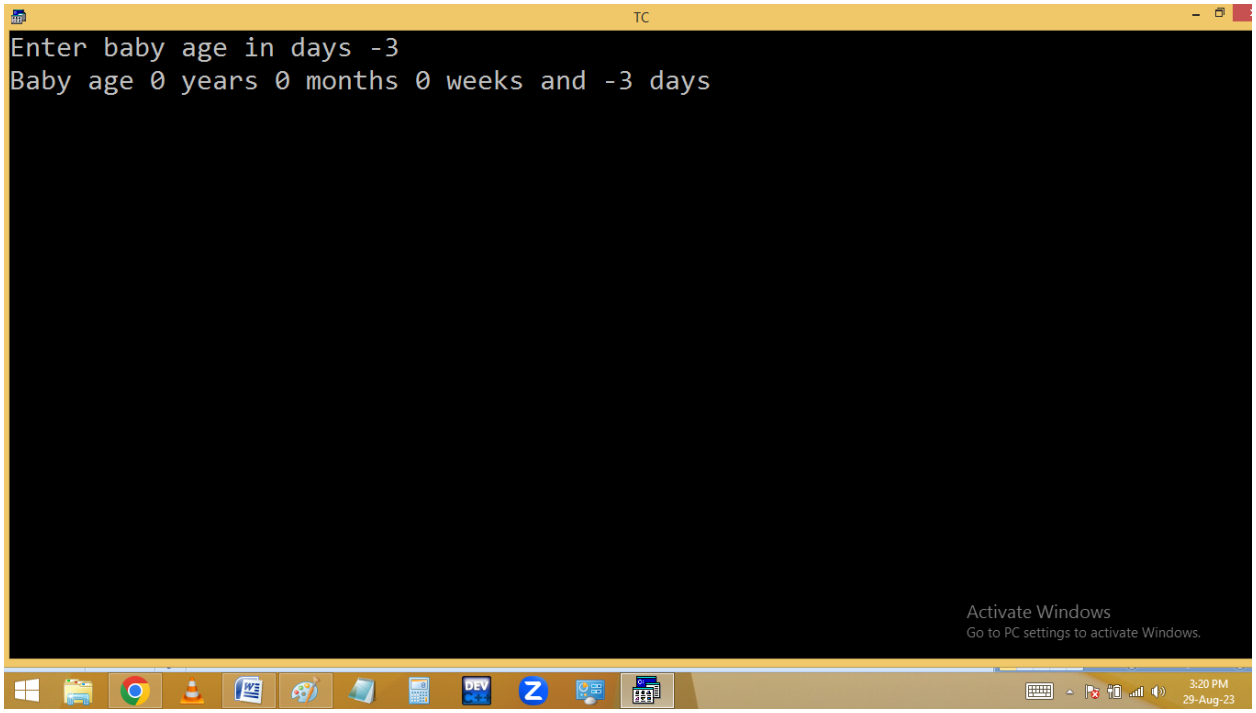
w=500%365=135%30=15/7=2

d=500%365=135%30=15%7=1


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 68 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int tdays,y,m,w,d;
clrscr();
printf("Enter baby age in days "); scanf("%d",&tdays);
y = tdays / 365;
m = tdays%365/30;
w = tdays%365%30/7;
d = tdays%365%30%7;
printf("Baby age %d years %d months %d weeks and %d days",y,m,w,d);_
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:16 PM
29-Aug-23

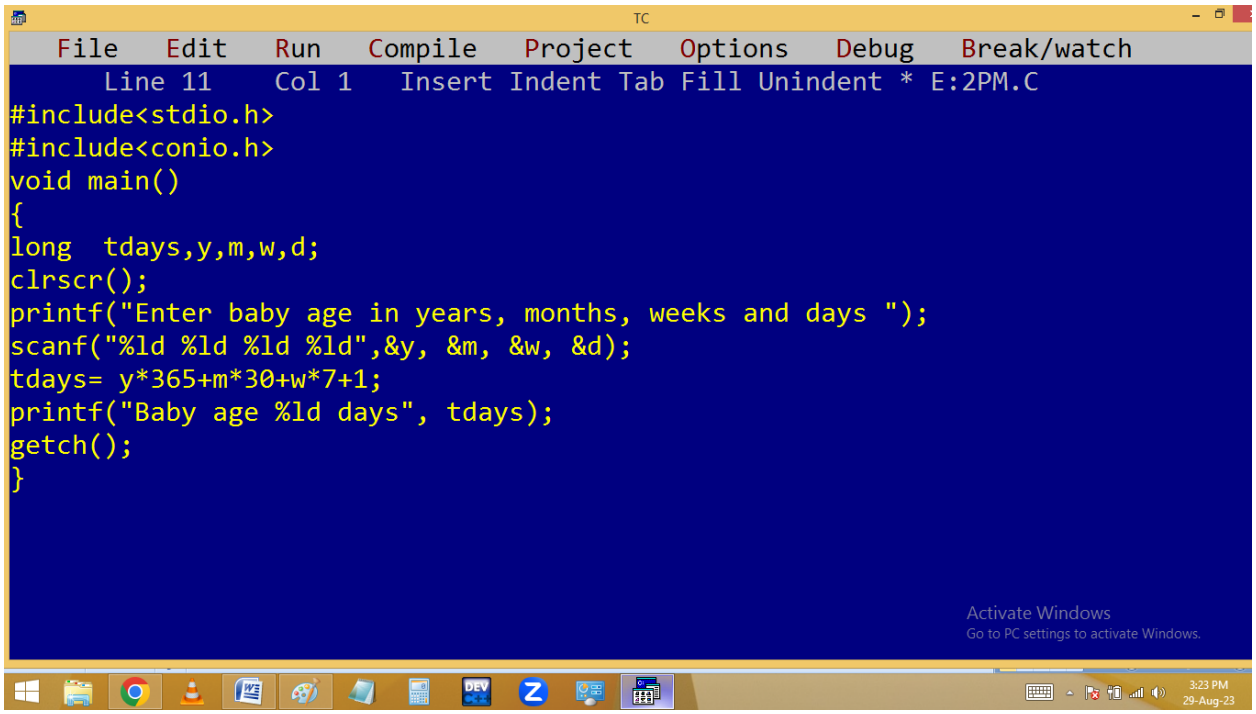

TC
Enter baby age in days 500
Baby age 1 years 4 months 2 weeks and 1 days
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
29-Aug-23

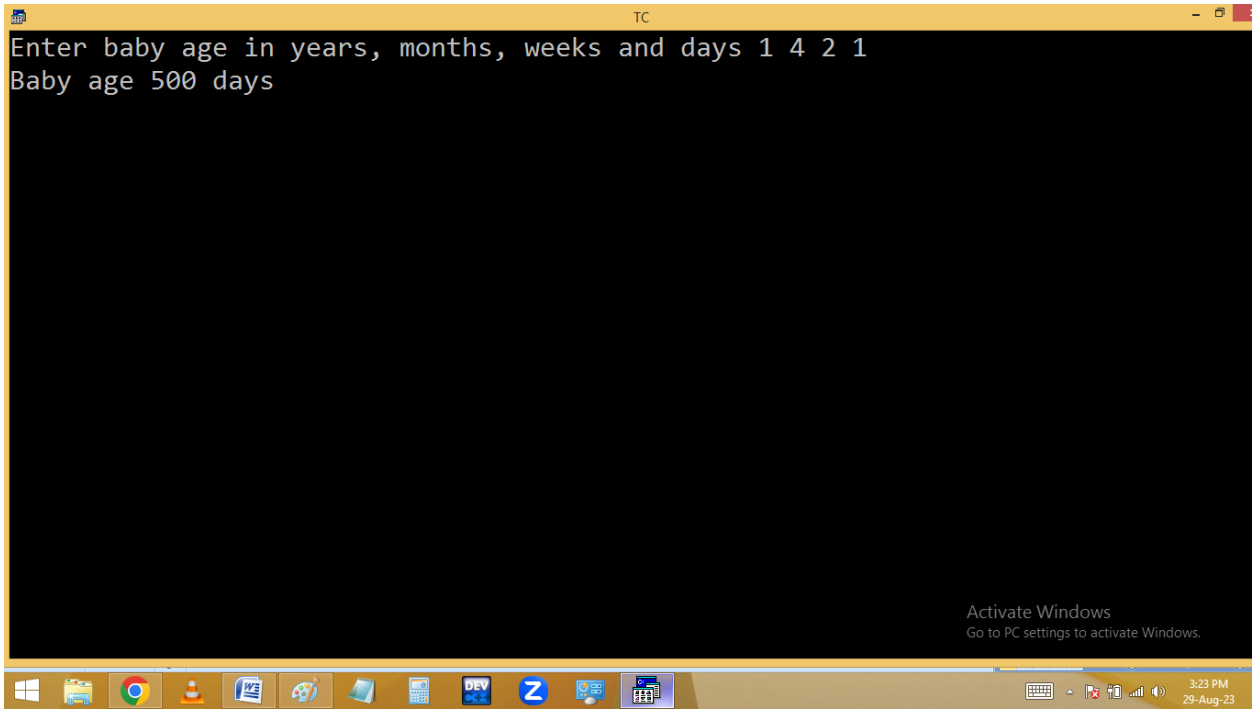

TC
Enter baby age in days 5000
Baby age 13 years 8 months 2 weeks and 1 days
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
29-Aug-23


TC
Enter baby age in days -3
Baby age 0 years 0 months 0 weeks and -3 days
Activate Windows
Go to PC settings to activate Windows.
3:20 PM
29-Aug-23

Read baby age in years, months, weeks and days. Find baby age in total days.

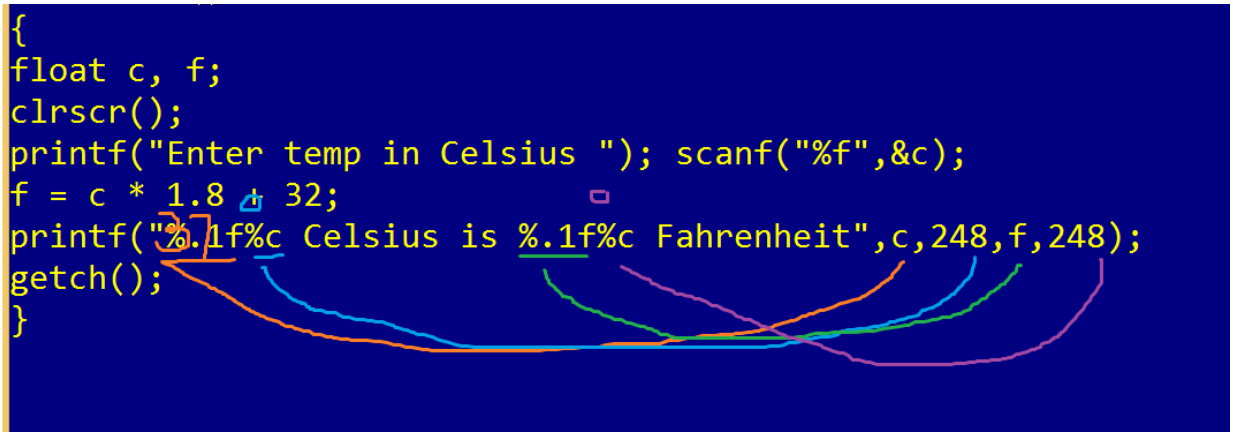
1 y * 365 + 4m * 30 + 2w * 7 + 1d = 500

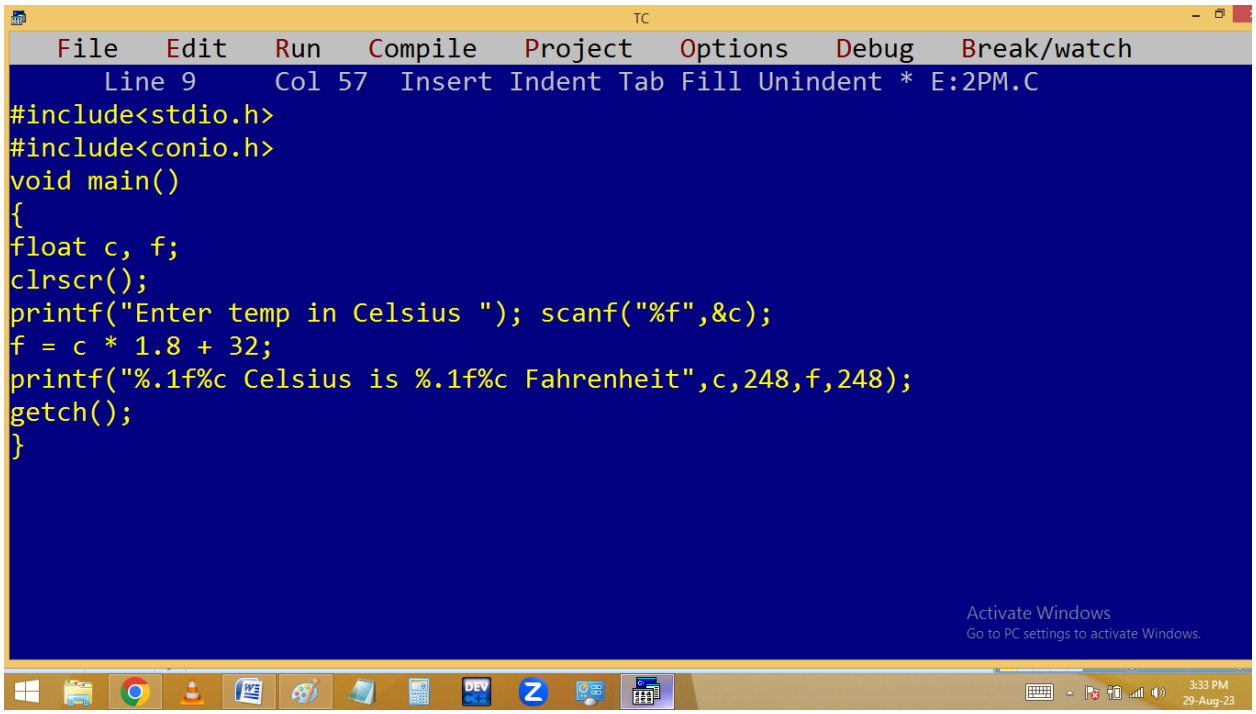

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long tdays,y,m,w,d;
clrscr();
printf("Enter baby age in years, months, weeks and days ");
scanf("%ld %ld %ld %ld",&y, &m, &w, &d);
tdays= y*365+m*30+w*7+1;
printf("Baby age %ld days", tdays);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:23 PM
29-Aug-23

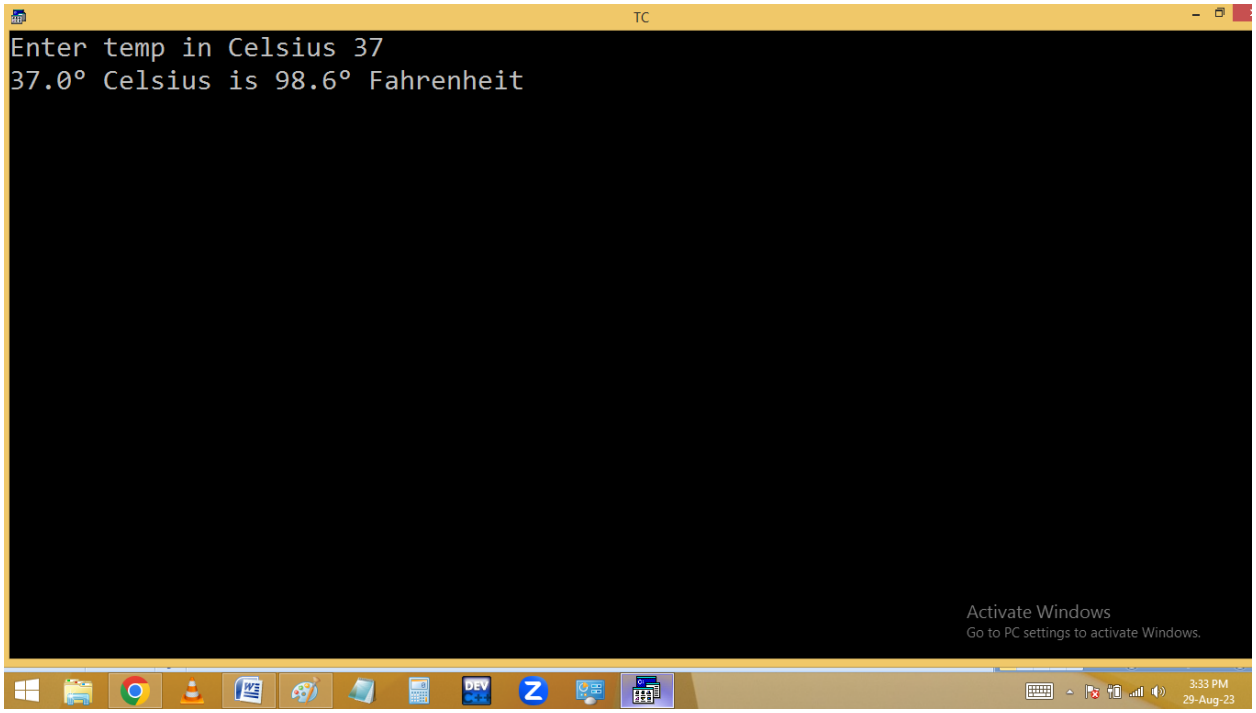

TC
Enter baby age in years, months, weeks and days 1 4 2 1
Baby age 500 days
Activate Windows
Go to PC settings to activate Windows.
3:23 PM
29-Aug-23

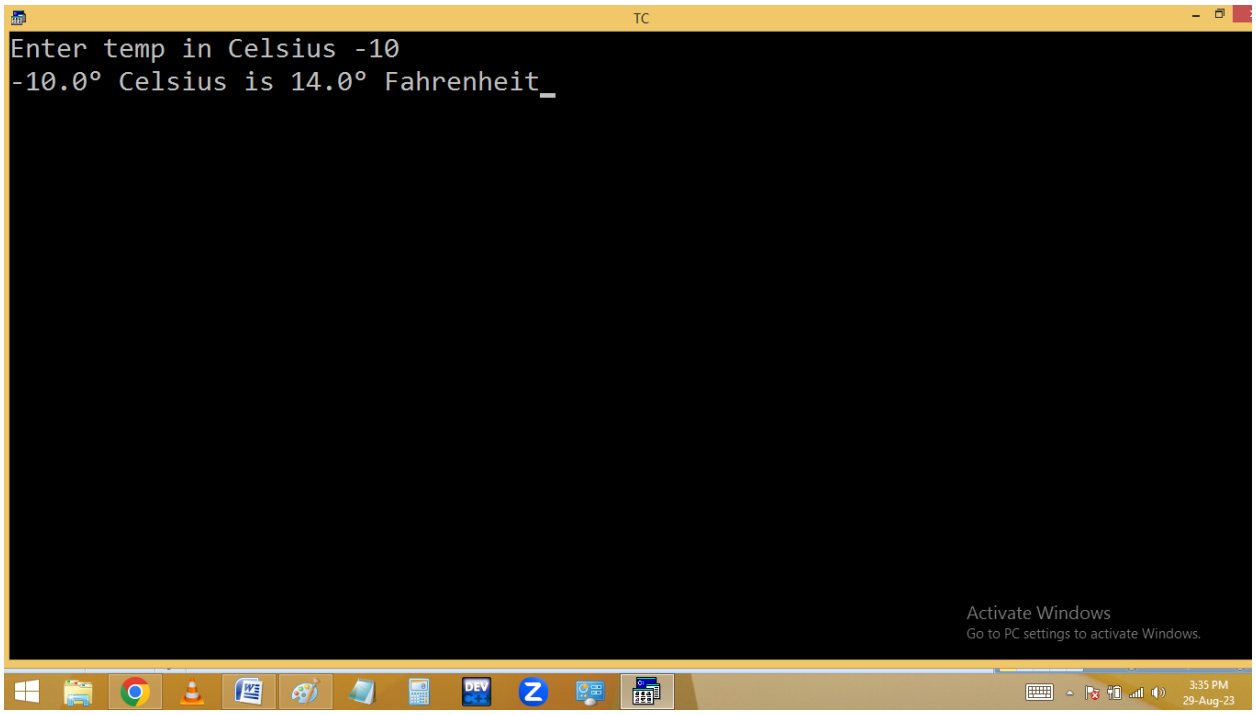
Eg. **Celsius to Fahrenheit conversion**:

F = c * 1.8 + 32



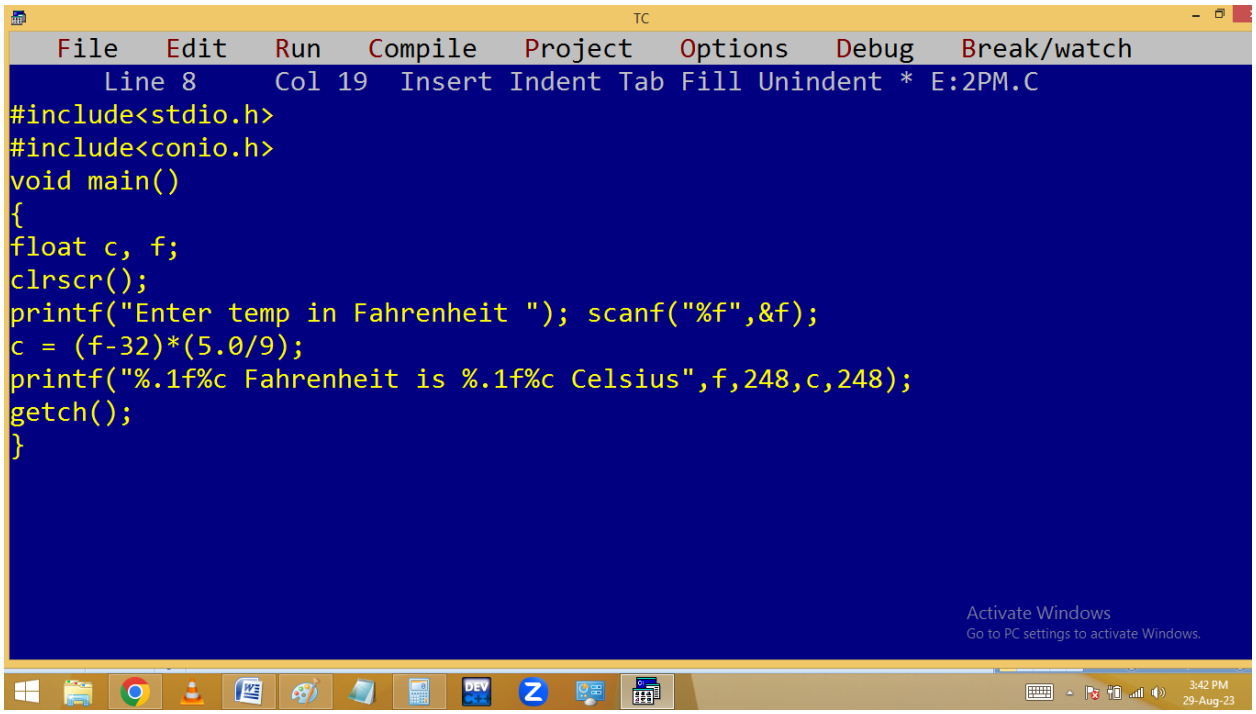

TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 57 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
float c, f;
clrscr();
printf("Enter temp in Celsius "); scanf("%f",&c);
f = c * 1.8 + 32;
printf("%.1f%c Celsius is %.1f%c Fahrenheit",c,248,f,248);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:33 PM
29-Aug-23

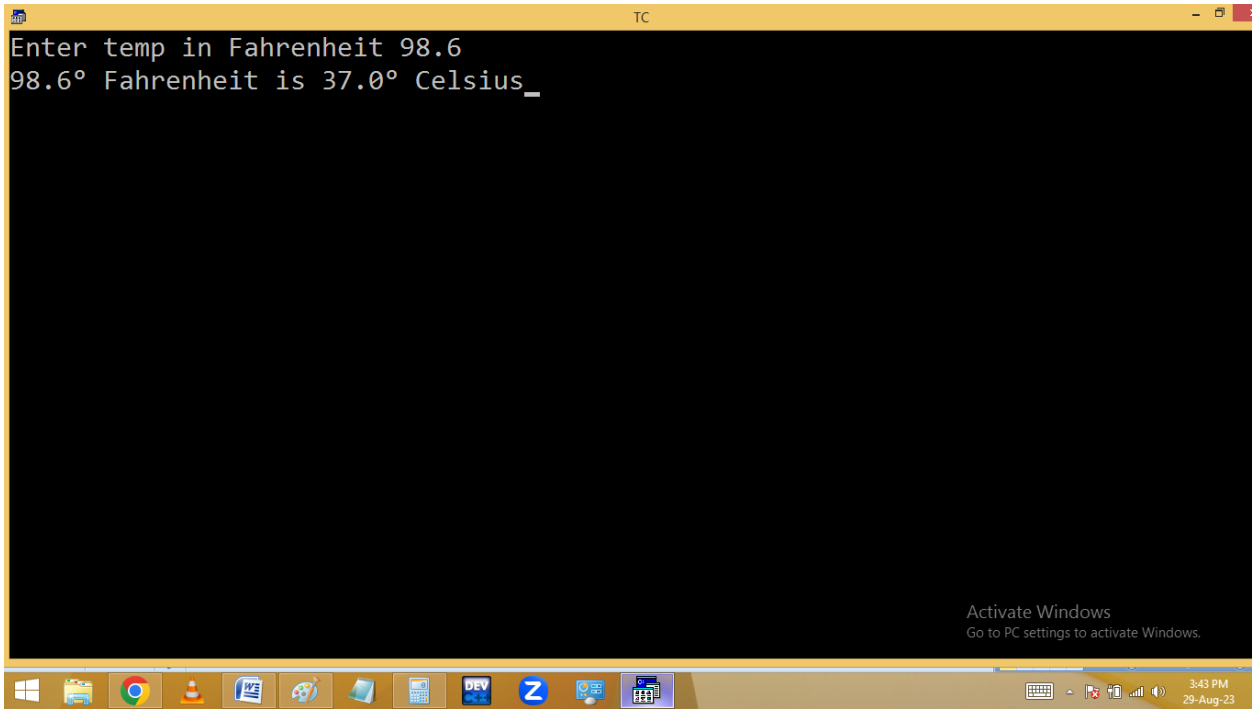

TC
Enter temp in Celsius 37
37.0° Celsius is 98.6° Fahrenheit
Activate Windows
Go to PC settings to activate Windows.
3:33 PM
29-Aug-23



Fahrenheit to Celsius:

C = f-32*(5/9)


TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 19 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
float c, f;
clrscr();
printf("Enter temp in Fahrenheit "); scanf("%f",&f);
c = (f-32)*(5.0/9);
printf("%.1f%c Fahrenheit is %.1f%c Celsius",f,248,c,248);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:42 PM
29-Aug-23


TC
Enter temp in Fahrenheit 98.6
98.6° Fahrenheit is 37.0° Celsius
Activate Windows
Go to PC settings to activate Windows.
3:43 PM
29-Aug-23