

Read a baby age in no of days and find the baby age in years, months, weeks and days.

$$y = 500/365=1$$

$$m = 500\%365=135/30=4$$

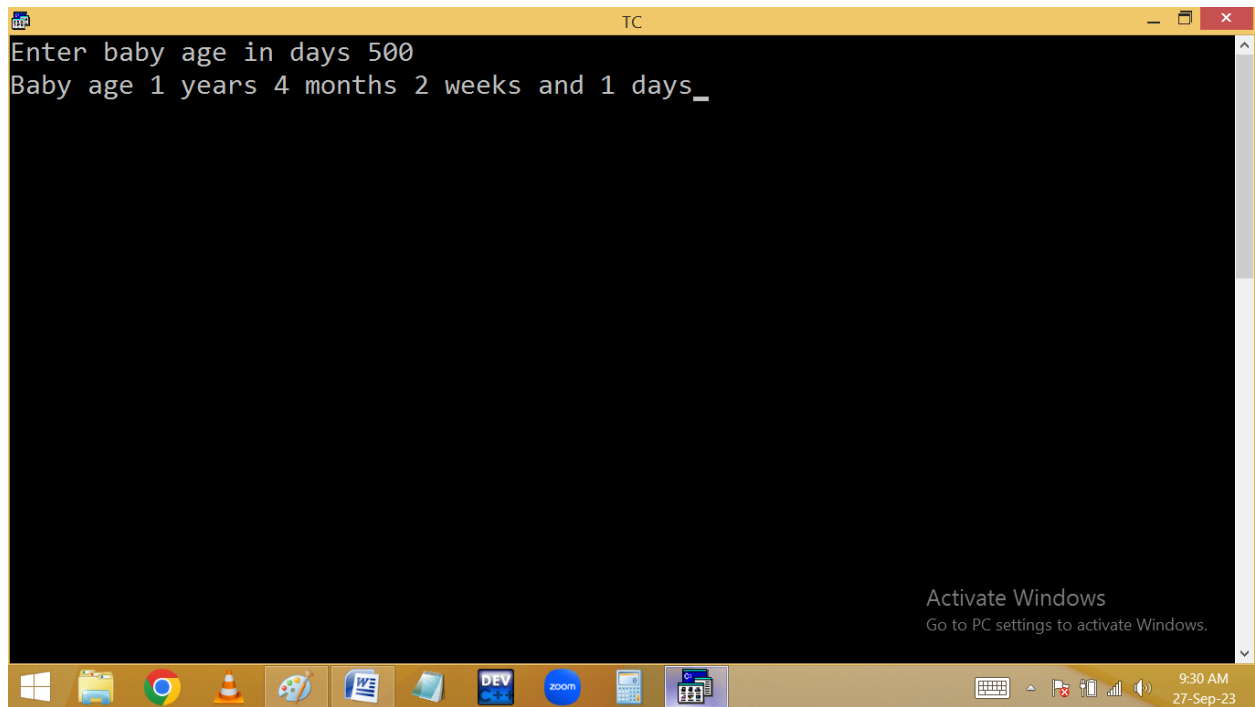
$$w = 500\%365=135\%30=15/7=2$$

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

$$\begin{array}{r} 365 \overline{) 500} \quad (1-y \\ \underline{365} \\ 135 \\ 30 \overline{) 135} \quad (4-m \\ \underline{120} \\ 15 \\ 7 \overline{) 15} \quad (2-w \\ \underline{14} \\ 1 - d \end{array}$$

```
TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 7 Col 27 Insert Indent Tab Fill Unindent * E:9AM.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.

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.
```



```
TC
Enter baby age in days 500
Baby age 1 years 4 months 2 weeks and 1 days_

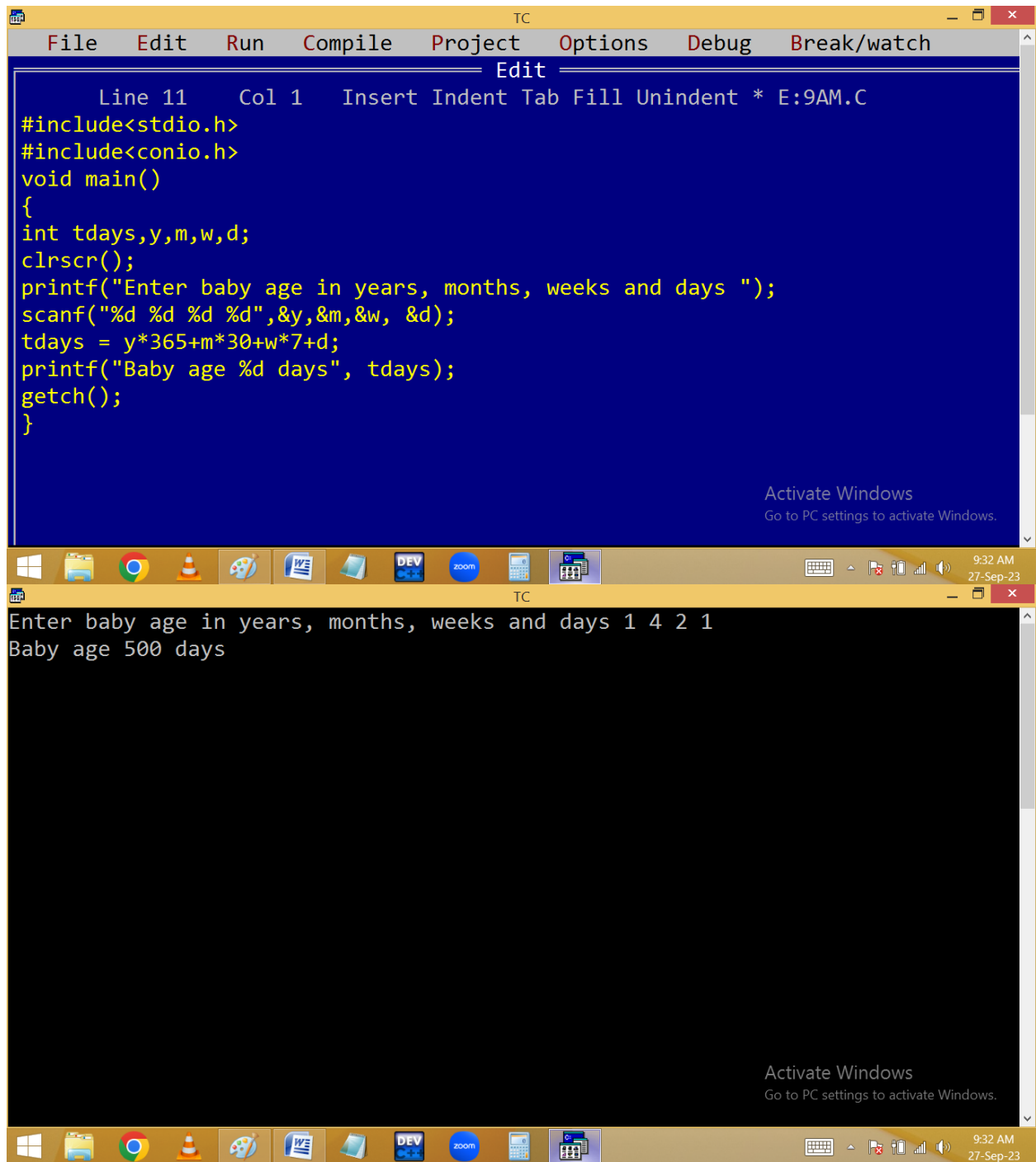
Activate Windows
Go to PC settings to activate Windows.

9:30 AM
27-Sep-23
```

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

1 y + 4 m + 2 w + 1 day

$1 * 365 + 4 * 30 + 2 * 7 + 1 = 500$ days

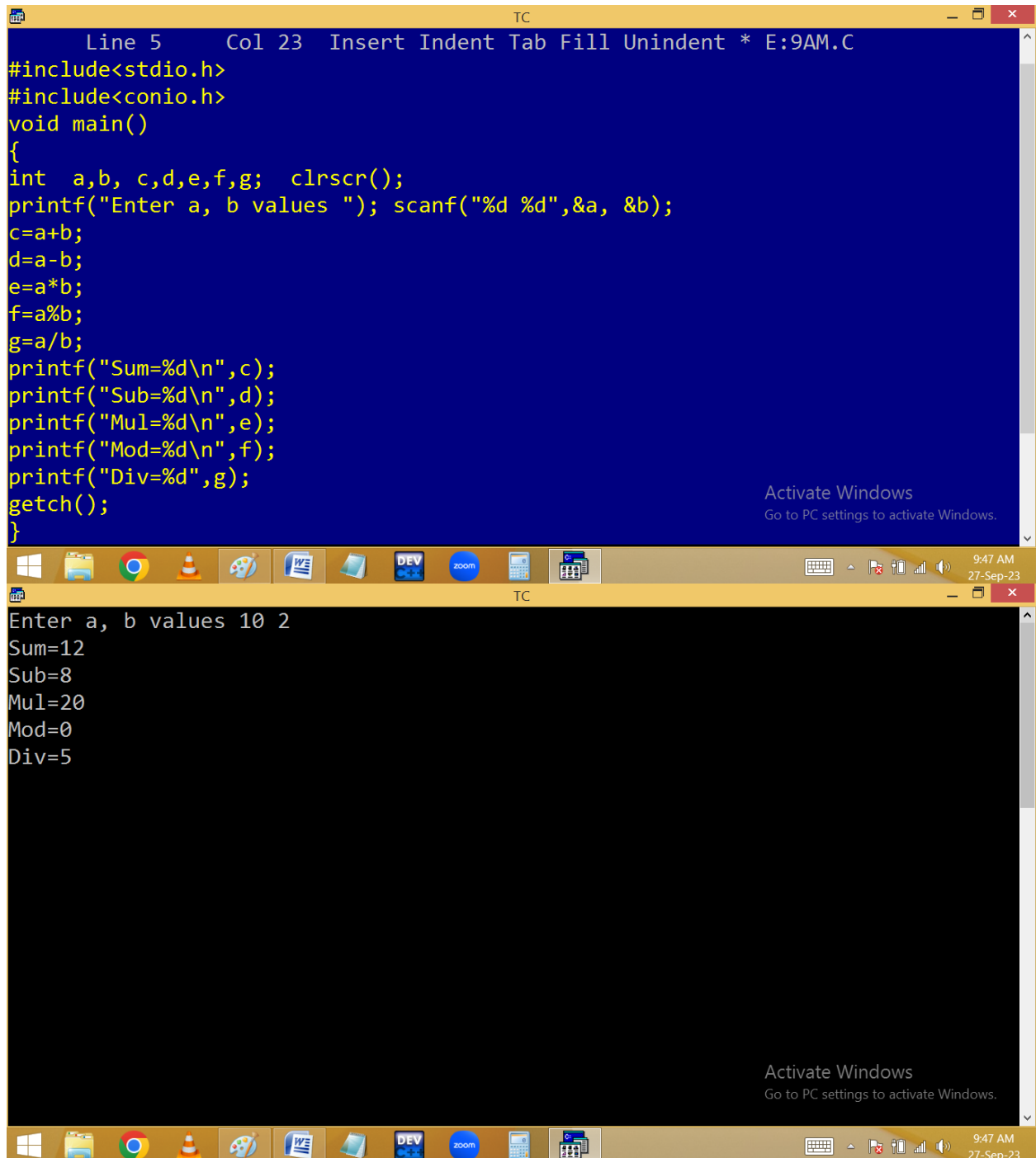


The image shows two screenshots of the Turbo C++ (TC) IDE. The top screenshot displays the source code of a C program in the 'Edit' window. The code calculates the total number of days based on input years, months, weeks, and days. The bottom screenshot shows the program's execution output in the 'TC' window, where the user has entered '1 4 2 1' and the program has outputted 'Baby age 500 days'.

```
Line 11 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int tdays,y,m,w,d;
clrscr();
printf("Enter baby age in years, months, weeks and days ");
scanf("%d %d %d %d",&y,&m,&w, &d);
tdays = y*365+m*30+w*7+d;
printf("Baby age %d days", tdays);
getch();
}
```

Enter baby age in years, months, weeks and days 1 4 2 1
Baby age 500 days

Read two numbers and perform all the arithmetic operations [+,-, *, %, /].



The image shows two screenshots of the Turbo C++ (TC) IDE. The top screenshot displays the source code for a C program that reads two integers and performs arithmetic operations. The bottom screenshot shows the program's execution output for the input values 10 and 2.

Source Code (E:9AM.C):

```
Line 5      Col 23  Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int  a,b, c,d,e,f,g; clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
c=a+b;
d=a-b;
e=a*b;
f=a%b;
g=a/b;
printf("Sum=%d\n",c);
printf("Sub=%d\n",d);
printf("Mul=%d\n",e);
printf("Mod=%d\n",f);
printf("Div=%d",g);
getch();
}
```

Execution Output:

```
Enter a, b values 10 2
Sum=12
Sub=8
Mul=20
Mod=0
Div=5
```

The image shows two screenshots of the Turbo C++ (TC) IDE. The top screenshot displays the source code of a C program in a blue editor window. The code includes headers for `stdio.h` and `conio.h`, and defines a `main` function that declares two integers `a` and `b`, clears the screen, prompts the user for values, and calculates the sum, difference, product, modulus, and quotient. The bottom screenshot shows the same IDE with the program's output, where the user has entered 5 and 2, resulting in the calculated values for each operation. Both windows have a standard Windows taskbar at the bottom with icons for various applications and the system clock showing 9:48 AM on 27-Sep-23.

```
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Sum=%d\n",a+b);
printf("Sub=%d\n",a-b);
printf("Mul=%d\n",a*b);
printf("Mod=%d\n",a%b);
printf("Div=%d",a/b);
getch();
}
```

Enter a, b values 5 2
Sum=7
Sub=3
Mul=10
Mod=1
Div=2_

The image shows two screenshots of the Turbo C++ (TC) IDE. The top screenshot displays the source code of a C program in a blue-themed editor. The code includes headers for `stdio.h` and `conio.h`, and defines a `main` function. Inside `main`, it declares two integers `a` and `b`, clears the screen with `clrscr()`, and prompts the user to enter values for `a` and `b` using `scanf`. It then calculates and prints the sum, difference, product, modulus, and division of `a` and `b` using `printf`. The bottom screenshot shows the program's execution in a black console window. The user has entered `5` for `a` and `2` for `b`. The program outputs the results: `Sum=7`, `Sub=3`, `Mul=10`, `Mod=1`, and `Div=2.500000`. Following the output, an error message appears: `printf : floating point formats not linked`, followed by `Abnormal program termination`. Both screenshots show the Windows taskbar at the bottom with the time `9:49 AM` on `27-Sep-23`.

```
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 16 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Sum=%d\n",a+b);
printf("Sub=%d\n",a-b);
printf("Mul=%d\n",a*b);
printf("Mod=%d\n",a%b);
printf("Div=%.2f",a/b);
getch();
}
```

Enter a, b values 5 2
Sum=7
Sub=3
Mul=10
Mod=1
Div=2.500000
printf : floating point formats not linked
Abnormal program termination

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 25 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Sum=%d\n",a+b);
printf("Sub=%d\n",a-b);
printf("Mul=%d\n",a*b);
printf("Mod=%d\n",a%b);
printf("Div=%.2f", (float)a/b);
getch();
}

Activate Windows
Go to PC settings to activate Windows.
```

```
TC
Enter a, b values 5 2
Sum=7
Sub=3
Mul=10
Mod=1
Div=2.50

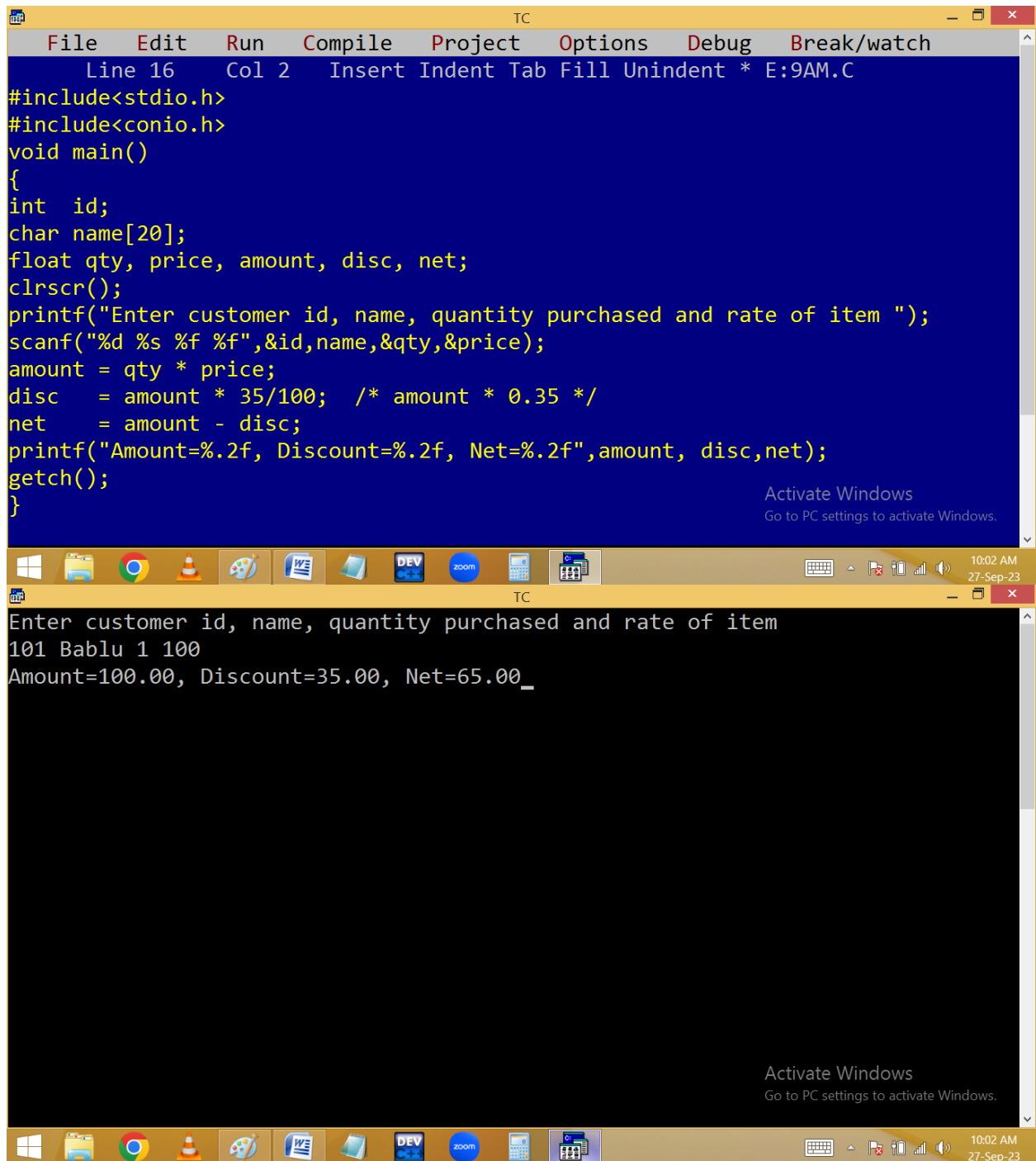
Activate Windows
Go to PC settings to activate Windows.
```


The image shows two screenshots of the Turbo C++ (TC) IDE. The top screenshot displays the source code of a C program in a blue editor window. The code includes headers for `stdio.h`, `conio.h`, and `math.h`, and defines a `main` function that prompts the user for two floating-point numbers, `a` and `b`. It then calculates and prints their sum, difference, product, modulus, and quotient. The bottom screenshot shows the same IDE with the program's output. The user has entered `5.5 3.3`, and the program has printed the results: `Sum=8.80`, `Sub=2.20`, `Mul=18.15`, `Mod=2.20`, and `Div=1.67`. Both screenshots show a Windows taskbar at the bottom with various application icons and a system clock indicating 9:52 AM on 27-Sep-23.

```
File Edit Run Compile Project Options Debug Break/watch
Line 3 Col 17 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<math.h>_
void main()
{
float a,b;
clrscr();
printf("Enter a, b values "); scanf("%f %f",&a, &b);
printf("Sum=%.2f\n",a+b);
printf("Sub=%.2f\n",a-b);
printf("Mul=%.2f\n",a*b);
printf("Mod=%.2f\n",fmod(a,b));
printf("Div=%.2f",a/b);
getch();
}
```

Enter a, b values 5.5 3.3
Sum=8.80
Sub=2.20
Mul=18.15
Mod=2.20
Div=1.67_

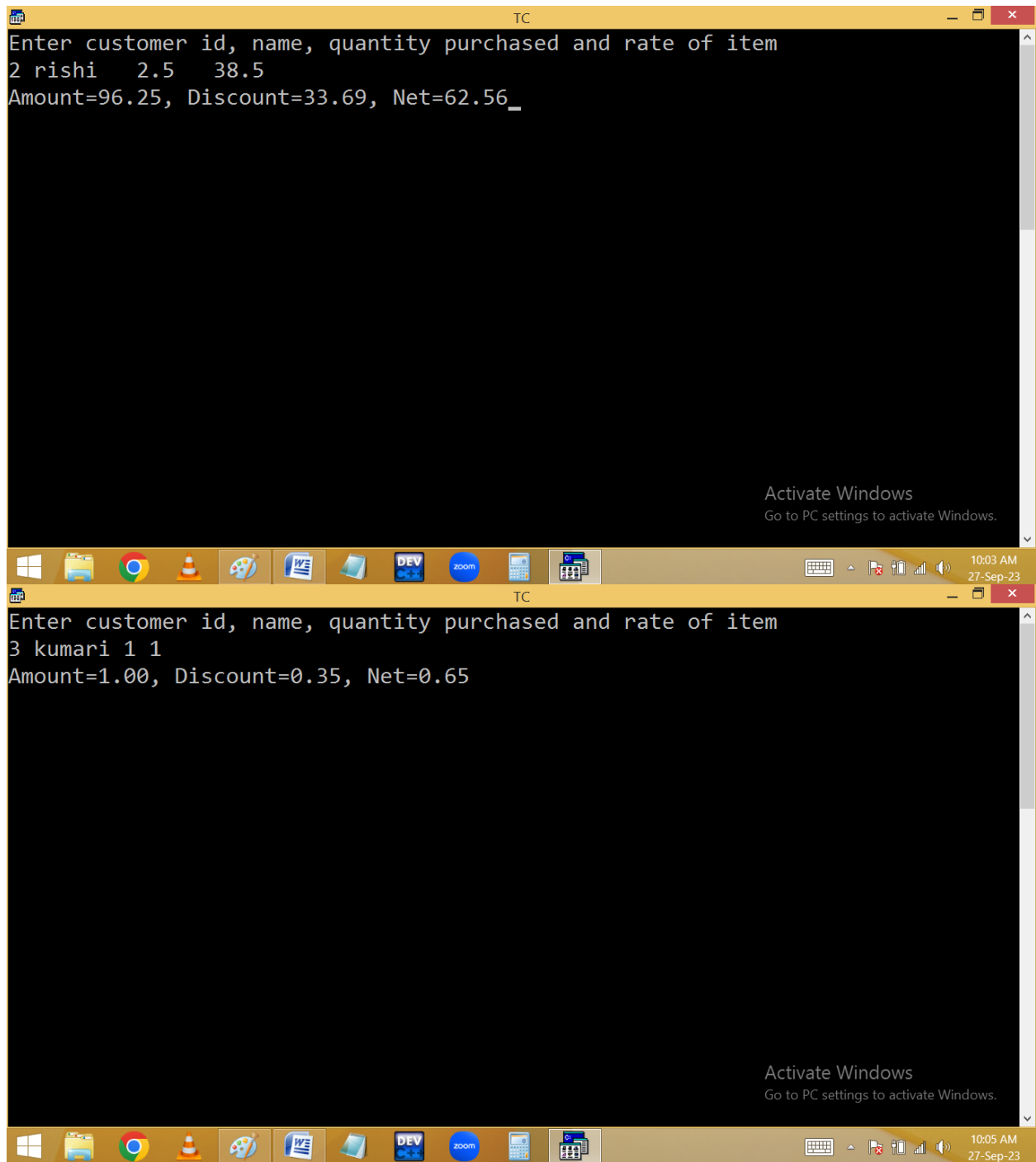
Read a customer id, name, Quantity purchased and rate of item. Find amount, 35% discount and net amount.



The image shows two windows of the Turbo C++ (TC) IDE. The top window is the source code editor for a file named 'E:9AM.C'. It contains a C program that calculates the net amount after a 35% discount. The code is as follows:

```
Line 16 Col 2 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
    int id;
    char name[20];
    float qty, price, amount, disc, net;
    clrscr();
    printf("Enter customer id, name, quantity purchased and rate of item ");
    scanf("%d %s %f %f",&id,name,&qty,&price);
    amount = qty * price;
    disc = amount * 35/100; /* amount * 0.35 */
    net = amount - disc;
    printf("Amount=%.2f, Discount=%.2f, Net=%.2f",amount, disc,net);
    getch();
}
```

The bottom window is the output console, which shows the execution of the program. It displays the prompt 'Enter customer id, name, quantity purchased and rate of item', followed by the user input '101 Bablu 1 100', and the calculated output 'Amount=100.00, Discount=35.00, Net=65.00_'. Both windows have a taskbar at the bottom showing various application icons and the system clock indicating 10:02 AM on 27-Sep-23.



Flexible discount:

The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code for a C program named E:9AM.C. The code calculates the net amount after a discount. The bottom window shows the program's execution output.

TC

File Edit Run Compile Project Options Debug Break/watch

Line 13 Col 29 Insert Indent Tab Fill Unindent * E:9AM.C

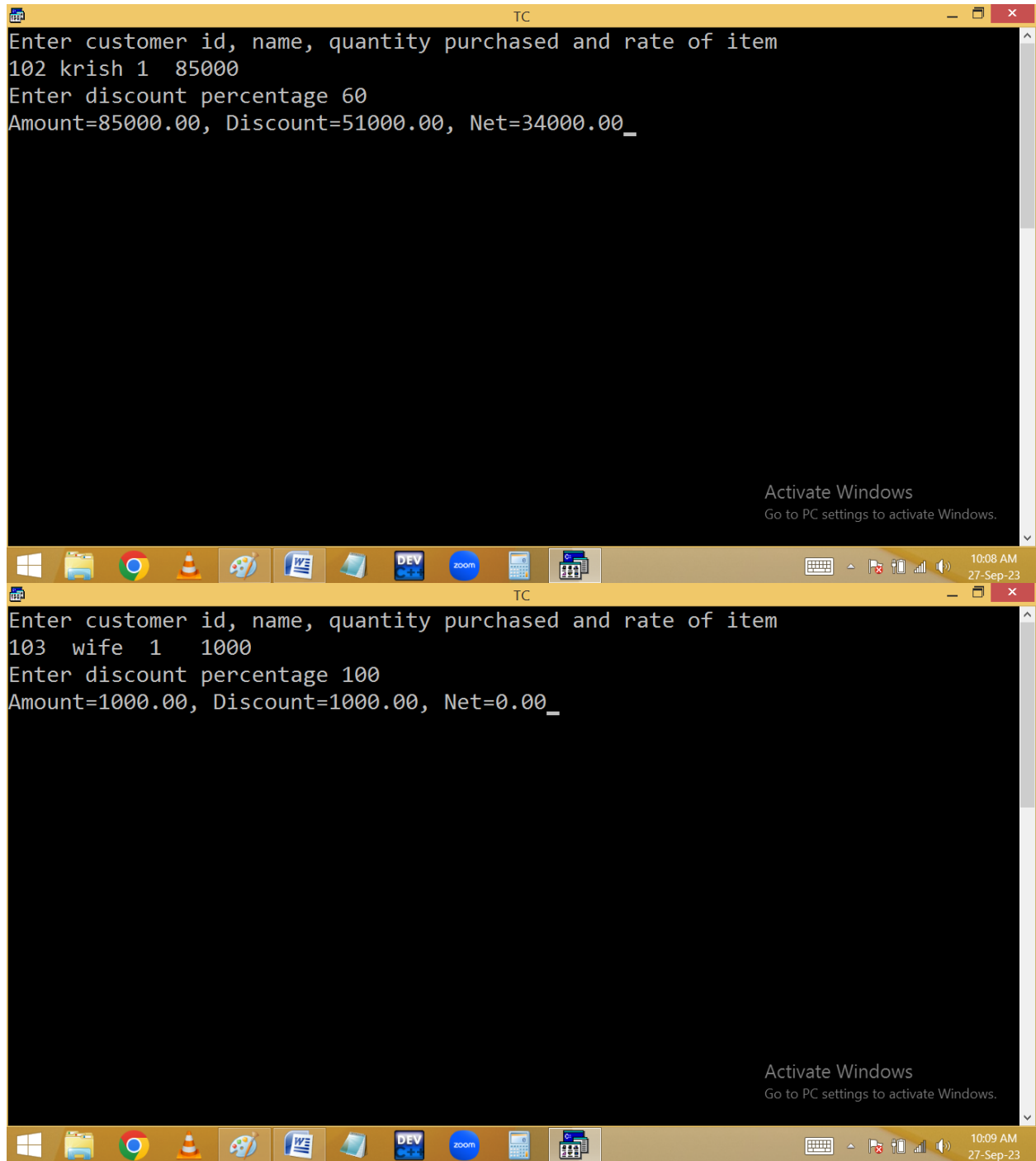
```
#include<stdio.h>
#include<conio.h>
void main()
{
    int id;
    char name[20];
    float qty, price, amount, disc, net;
    clrscr();
    printf("Enter customer id, name, quantity purchased and rate of item ");
    scanf("%d %s %f %f",&id,name,&qty,&price);
    printf("Enter discount percentage "); scanf("%f",&disc);
    amount = qty * price;
    disc = amount * disc/100;
    net = amount - disc;
    printf("Amount=%.2f, Discount=%.2f, Net=%.2f",amount, disc,net);
    getch();
}
```

TC

Enter customer id, name, quantity purchased and rate of item
101 bablu 1 100
Enter discount percentage 0
Amount=100.00, Discount=0.00, Net=100.00_

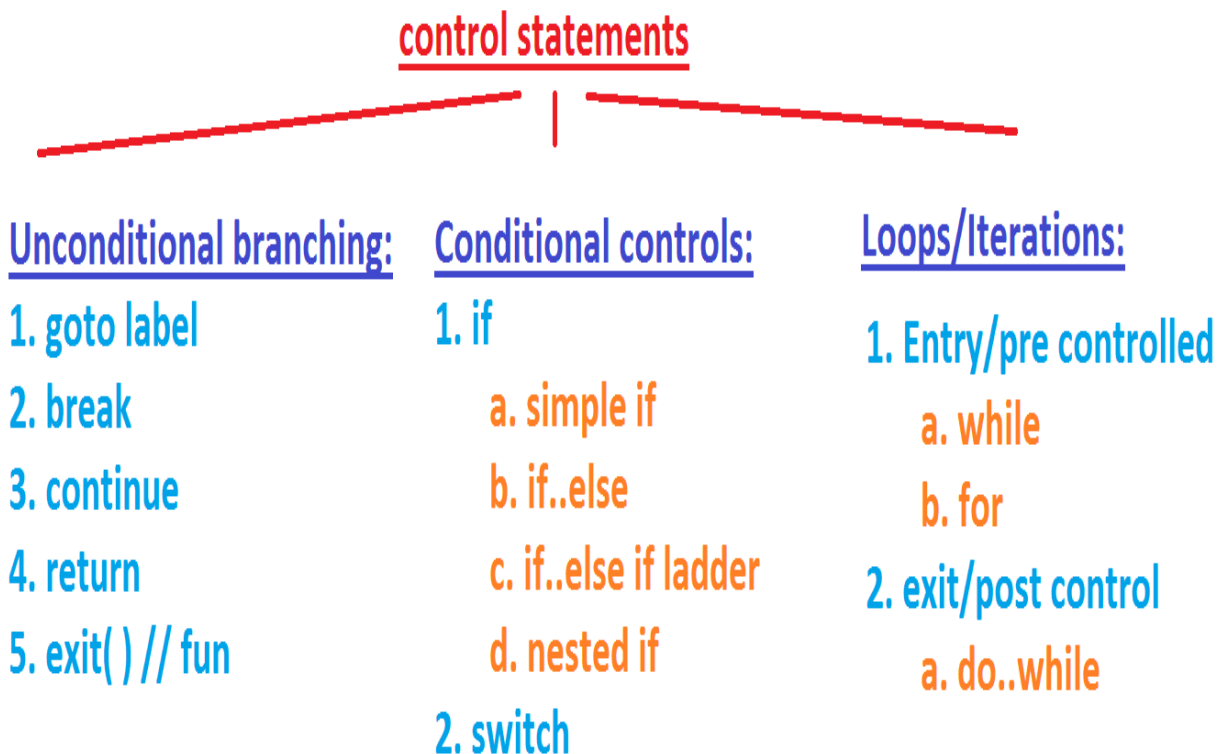
Activate Windows
Go to PC settings to activate Windows.

10:07 AM
27-Sep-23



CONTROL STATEMENTS / CONTROL STRUCTURES

They are used to control program execution order. In c program execution controlled by using below statements.



goto label / jumping statement

It is used to transfer program execution

from one place to another place [label].

In this process it is jumping from one area to another without any condition. Hence it is also called **unconditional** jumping statement.

Syntax:

```
.....;  
.....;  
goto label;  
.....;  
.....;  
label:  
.....;  
.....;
```

Here **goto** is a keyword.

Label is an identifier is used to identify the area[line].

Every label should be end with **: (colon)**

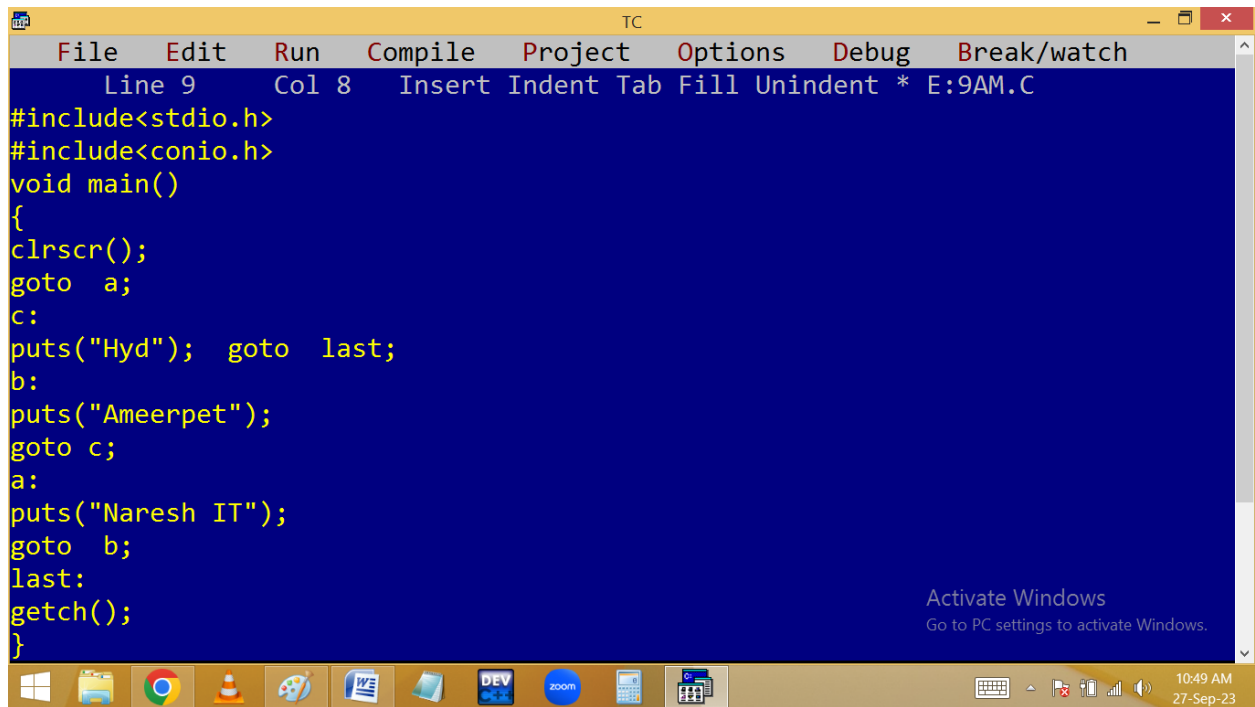
Keywords not allowed in labels i.e. label should be user defined.

Duplicate labels not allowed.

There is no space between go and to.

Label naming rules are similar to the identifier rules.

Note: goto label working style is similar to loops some times.



TC

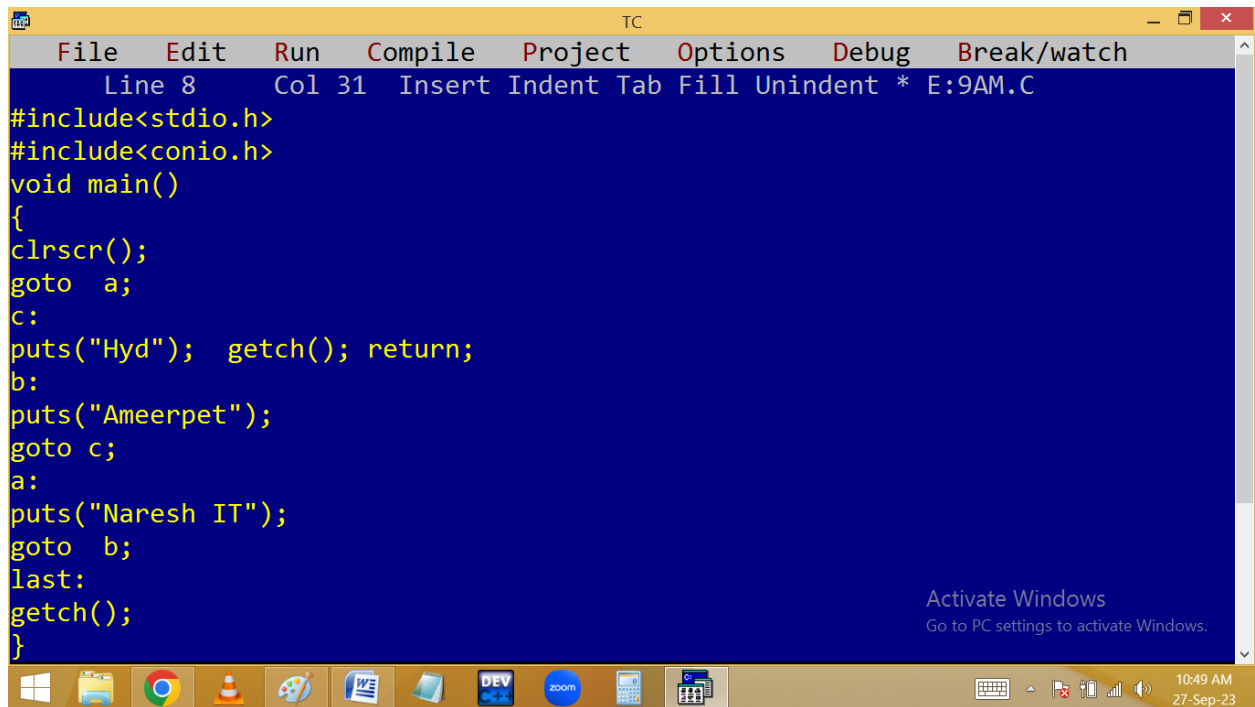
File Edit Run Compile Project Options Debug Break/watch

Line 9 Col 8 Insert Indent Tab Fill Unindent * E:9AM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
goto a;
c:
puts("Hyd"); goto last;
b:
puts("Ameerpet");
goto c;
a:
puts("Naresh IT");
goto b;
last:
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

10:49 AM
27-Sep-23



TC

File Edit Run Compile Project Options Debug Break/watch

Line 8 Col 31 Insert Indent Tab Fill Unindent * E:9AM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
goto a;
c:
puts("Hyd"); getch(); return;
b:
puts("Ameerpet");
goto c;
a:
puts("Naresh IT");
goto b;
last:
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

10:49 AM
27-Sep-23

TC

Line 18 Col 19 Insert Indent Tab Fill Unindent * E:9AM.C

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
clrscr();
goto a;
c:
puts("Hyd"); getch(); exit(0);
b:
puts("Ameerpet");
goto c;
a:
puts("Naresh IT");
goto b;
last:
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

10:50 AM
27-Sep-23

TC

```
Naresh IT
Ameerpet
Hyd
```

Activate Windows
Go to PC settings to activate Windows.

10:49 AM
27-Sep-23