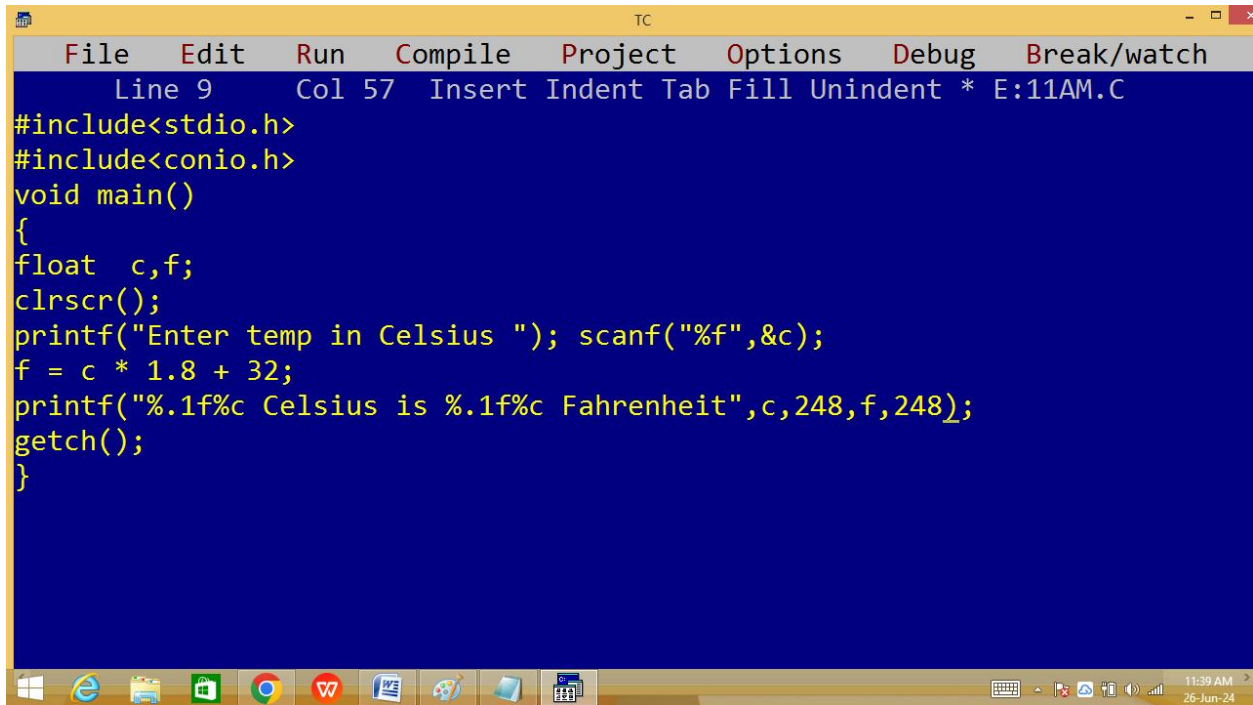


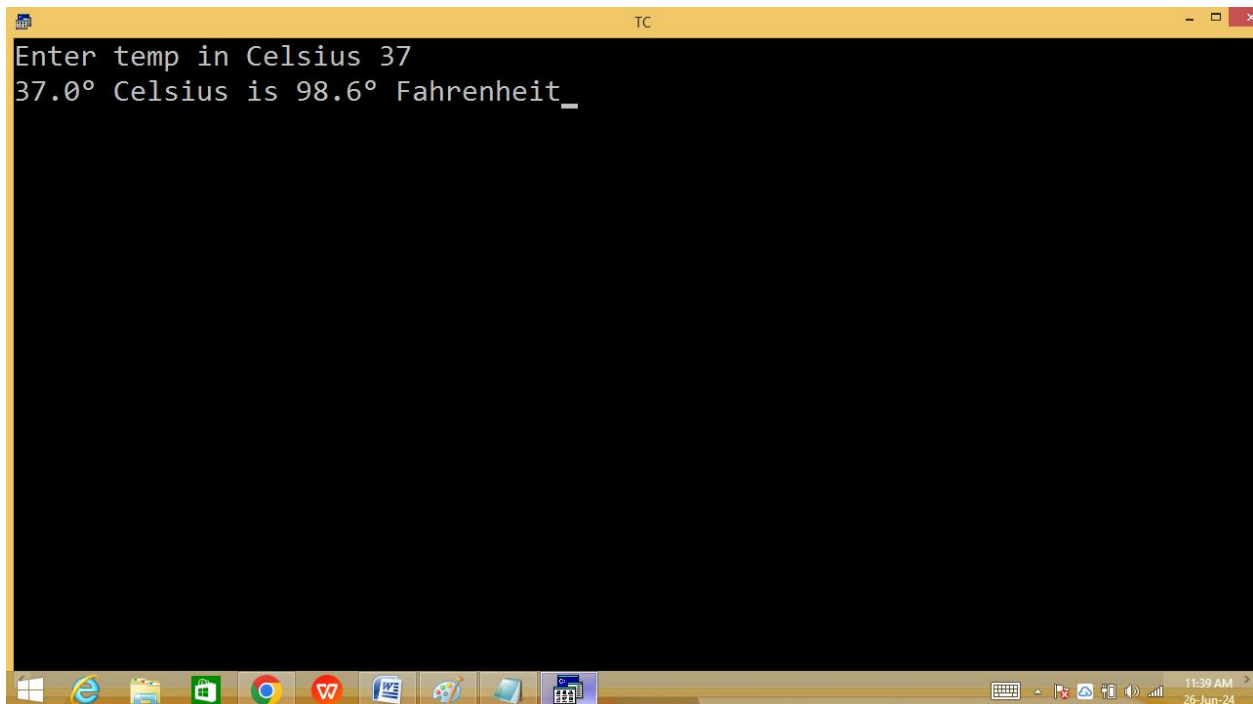
## Celsius to Fahrenheit:



The screenshot shows the Turbo C++ IDE with a blue background. The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the top indicates 'Line 9 Col 57 Insert Indent Tab Fill Unindent \* E:11AM.C'. The code is as follows:

```
#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();
}
```

The Windows taskbar at the bottom shows icons for various applications and the system clock displays 11:39 AM on 26-Jun-24.

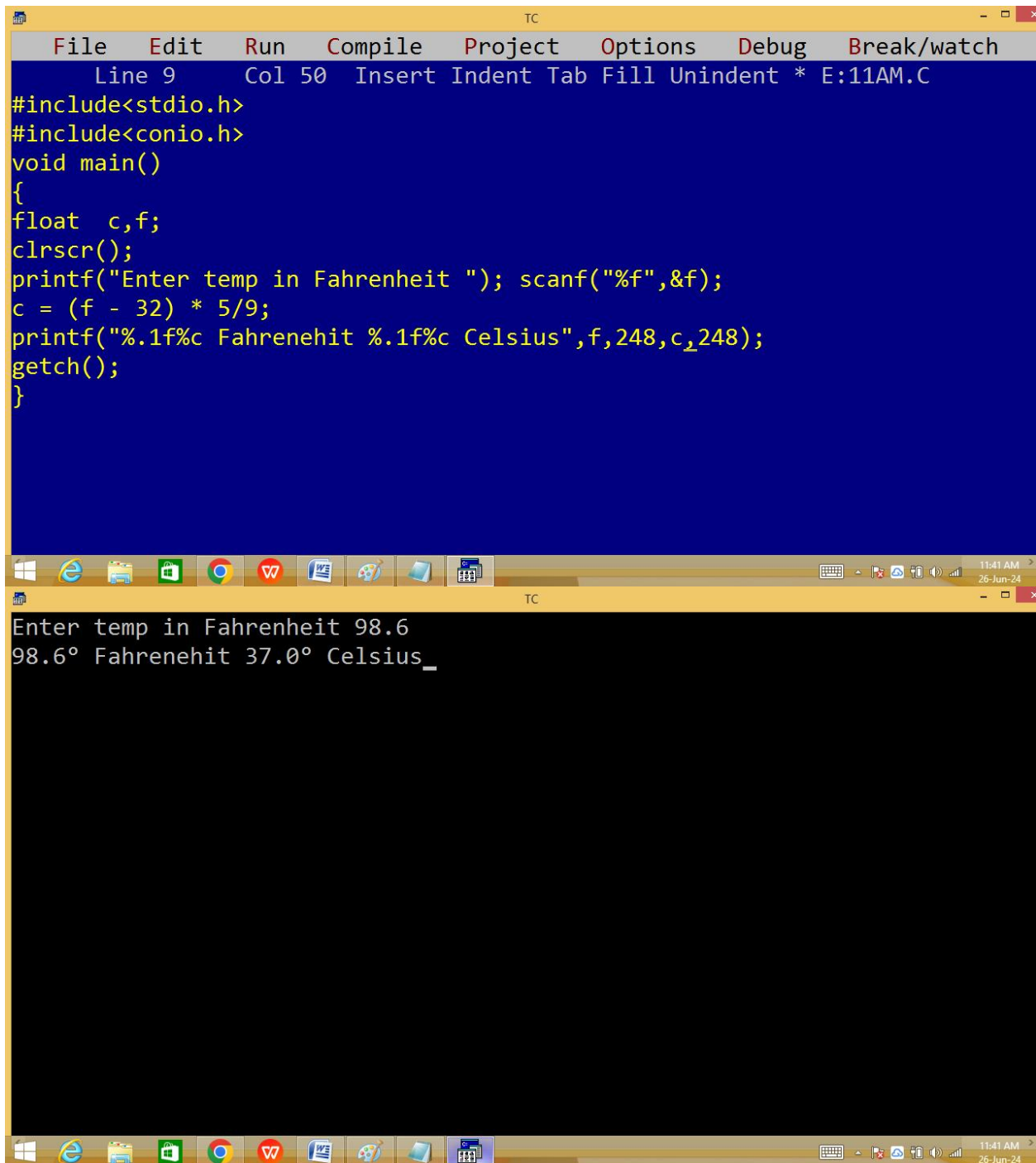


The screenshot shows the Turbo C++ IDE with a black background. The program has executed, and the output is displayed as follows:

```
Enter temp in Celsius 37
37.0° Celsius is 98.6° Fahrenheit_
```

The Windows taskbar at the bottom shows icons for various applications and the system clock displays 11:39 AM on 26-Jun-24.

## Fahrenheit to Celsius:



The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code for a program that converts Fahrenheit to Celsius. The code includes standard headers, declares variables, and uses printf and scanf for input/output. The bottom window shows the program's execution, where the user has entered 98.6 as the Fahrenheit temperature, and the program has outputted 37.0 as the Celsius temperature.

```
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 50 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
float c,f;
clrscr();
printf("Enter temp in Fahrenheit "); scanf("%f",&f);
c = (f - 32) * 5/9;
printf("%.1f° Fahrenheit %.1f° Celsius",f,248,c,248);
getch();
}
```

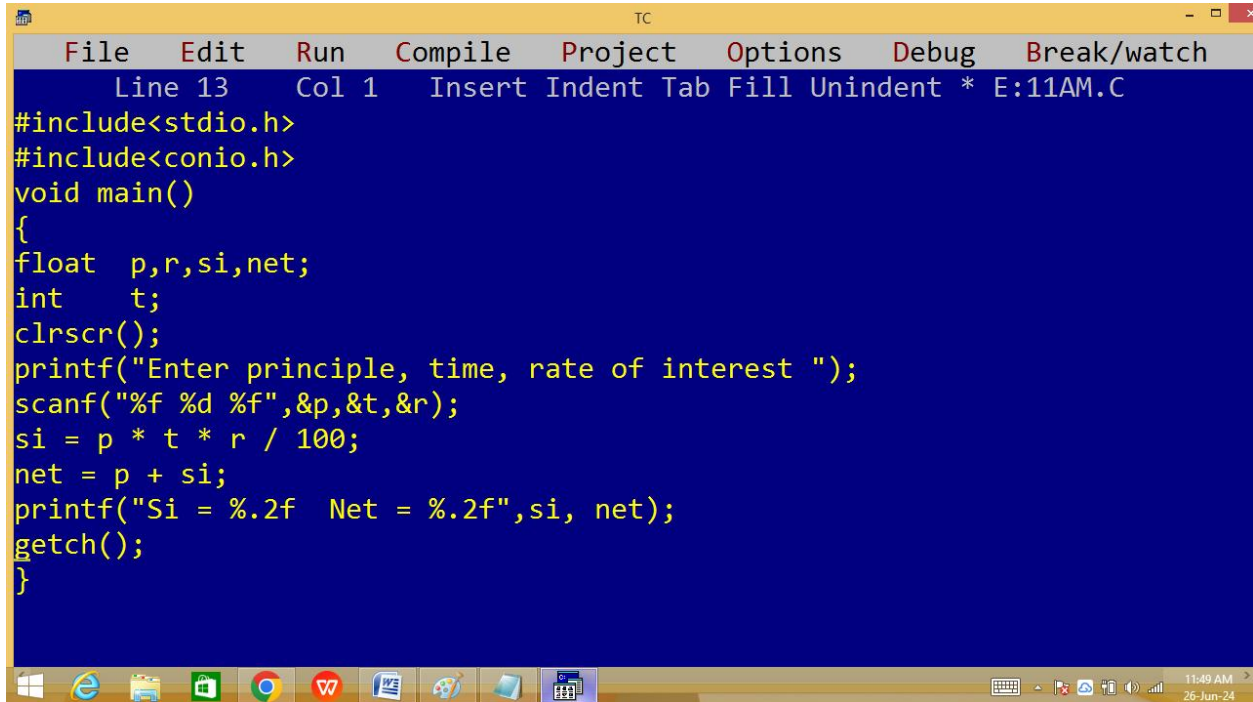
Enter temp in Fahrenheit 98.6  
98.6° Fahrenheit 37.0° Celsius\_

```
TC
Enter temp in Fahrenheit 100
100.0° Fahrenehit 37.8° Celsius_
```

```
TC
Enter temp in Fahrenheit 104
104.0° Fahrenehit 40.0° Celsius_
```

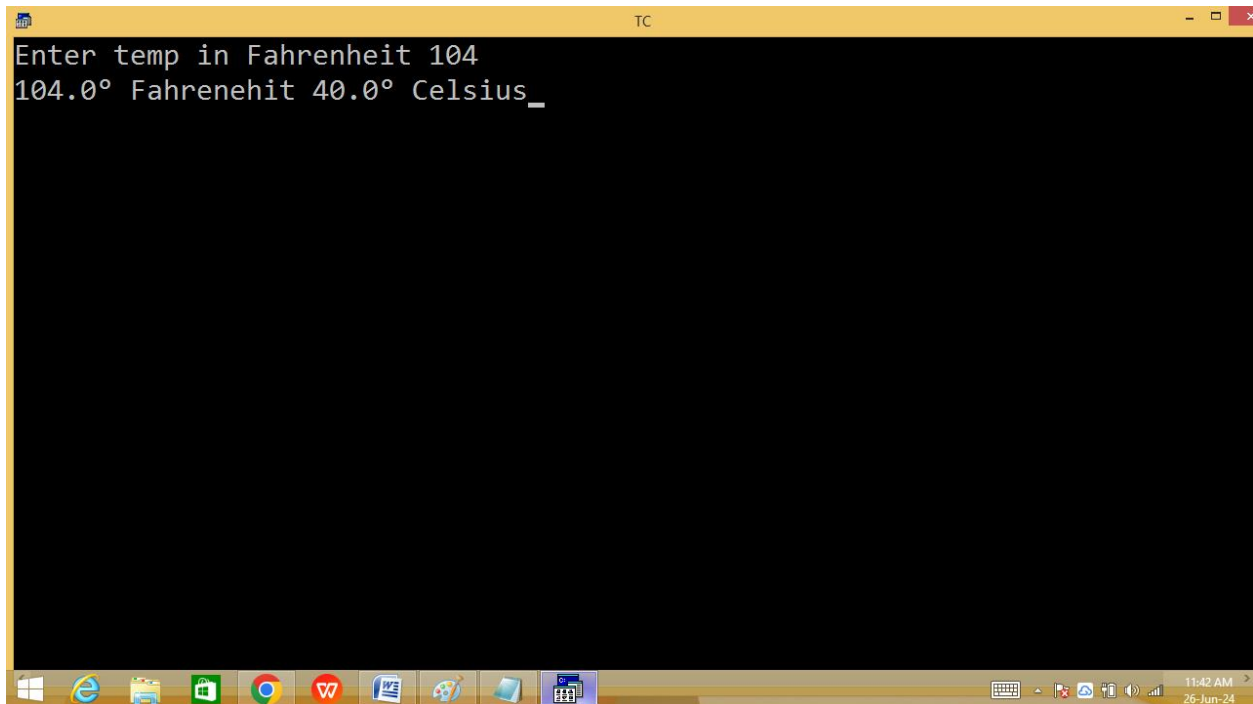
Finding simple interest:

$$P * t * r / 100;$$



The screenshot shows the Turbo C++ (TC) IDE with the following code in E:11AM.C:

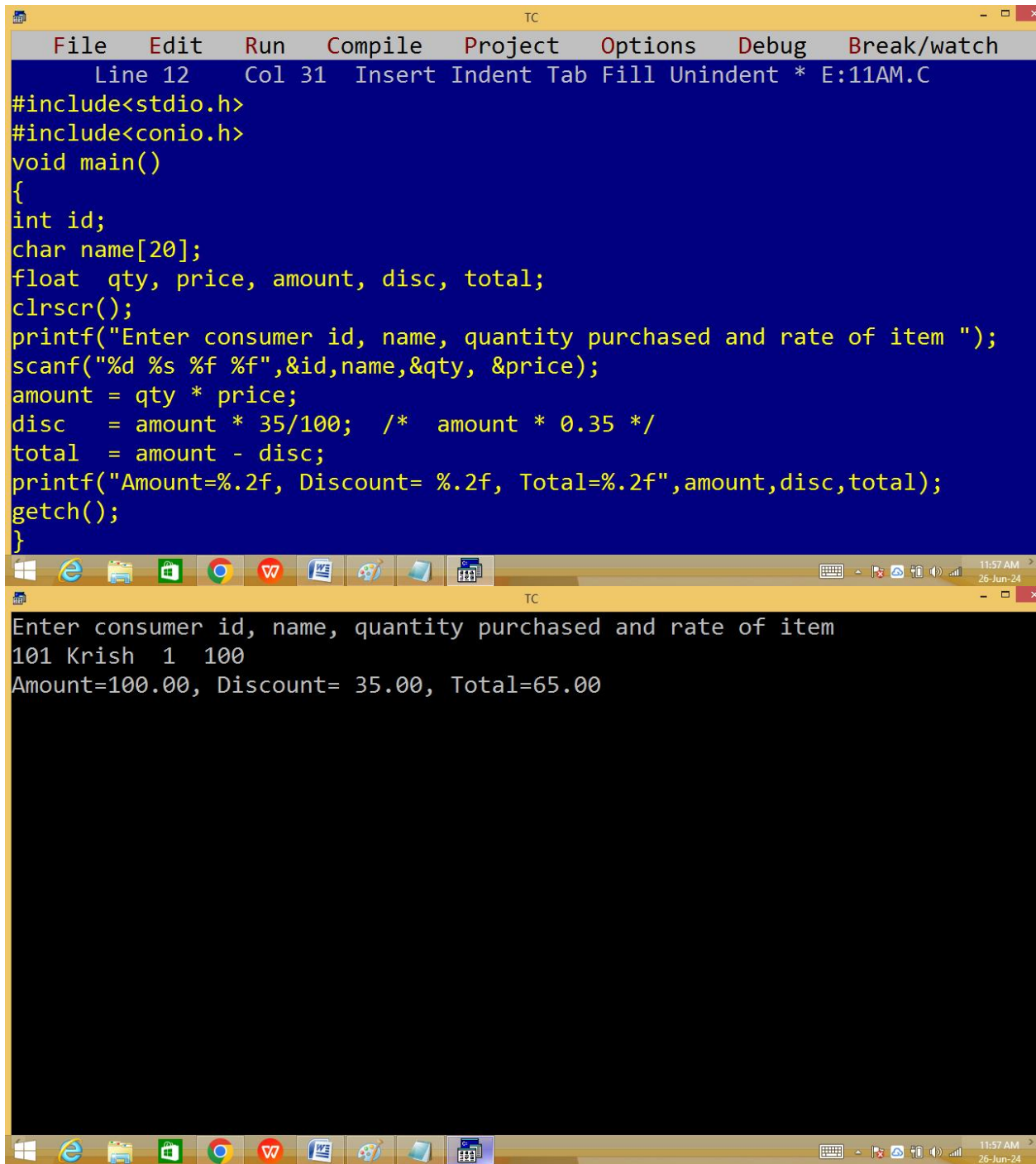
```
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
float  p,r,si,net;
int    t;
clrscr();
printf("Enter principle, time, rate of interest ");
scanf("%f %d %f",&p,&t,&r);
si = p * t * r / 100;
net = p + si;
printf("Si = %.2f  Net = %.2f",si, net);
getch();
}
```



The screenshot shows the Turbo C++ (TC) IDE displaying the program's output:

```
Enter temp in Fahrenheit 104
104.0° Fahrenehit 40.0° Celsius_
```

Read a customer id, name, quantity purchased and rate of item. Find the amount, 35% discount and total.



The image shows two windows of the Turbo C++ (TC) IDE. The top window displays the source code for a C program that calculates the total price of an item after a 35% discount. The code includes headers for `stdio.h` and `conio.h`, and uses `printf` and `scanf` for input/output. The bottom window shows the program's execution output, where the user has entered the consumer ID '101', name 'Krish', quantity '1', and price '100'. The program outputs the calculated amount (100.00), discount (35.00), and total (65.00).

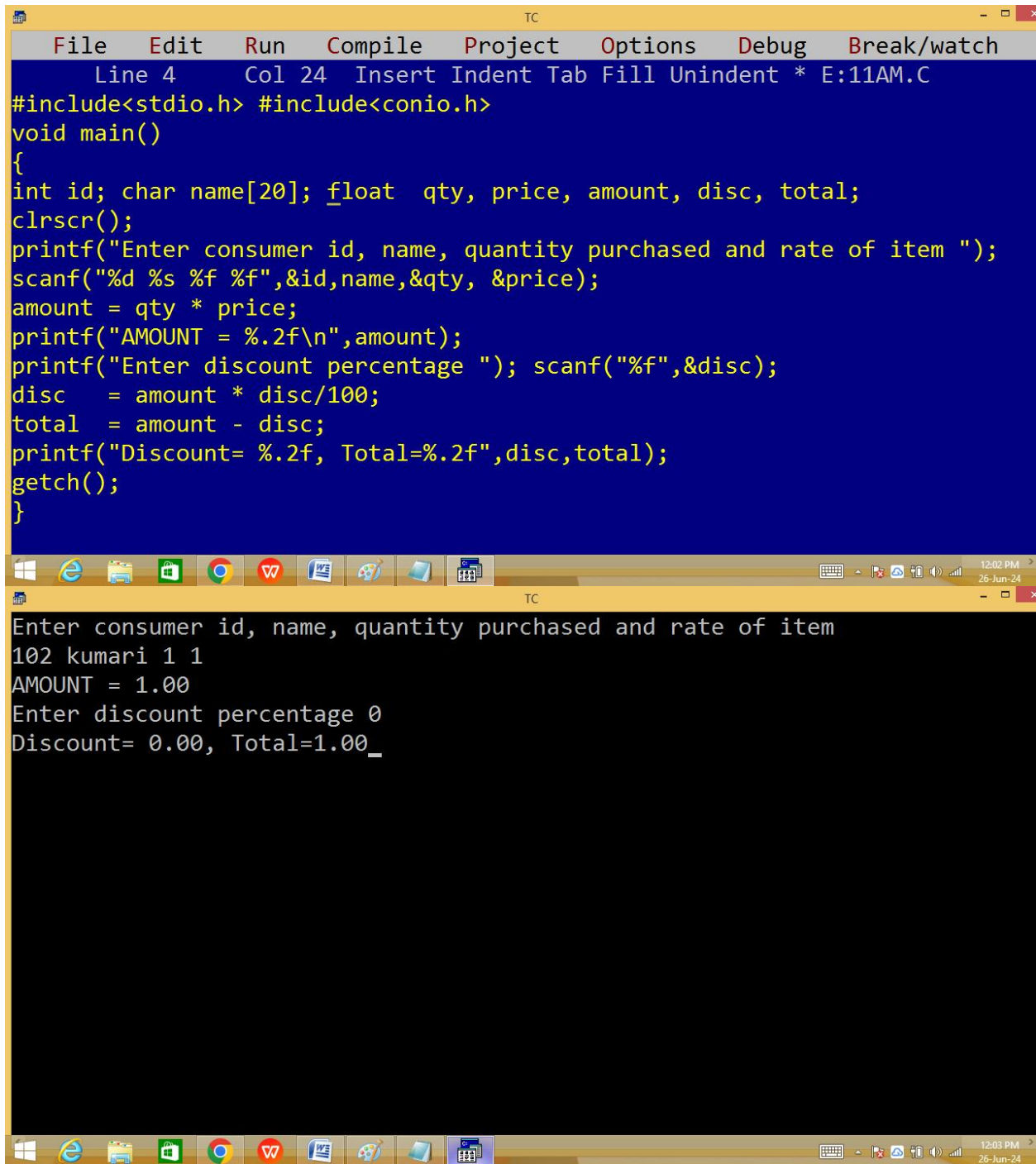
```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 31 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int id;
char name[20];
float qty, price, amount, disc, total;
clrscr();
printf("Enter consumer id, name, quantity purchased and rate of item ");
scanf("%d %s %f %f",&id,name,&qty, &price);
amount = qty * price;
disc = amount * 35/100; /* amount * 0.35 */
total = amount - disc;
printf("Amount=%.2f, Discount= %.2f, Total=%.2f",amount,disc,total);
getch();
}
```

TC

Enter consumer id, name, quantity purchased and rate of item  
101 Krish 1 100  
Amount=100.00, Discount= 35.00, Total=65.00

```
TC
Enter consumer id, name, quantity purchased and rate of item
102 kumari 1 1
Amount=1.00, Discount= 0.35, Total=0.65_
```

**Dynamic discount [ runtime / instant ]:**



The image shows two windows of the Turbo C++ (TC) IDE. The top window displays the source code for a C program that calculates the total amount after a discount. The code includes headers for stdio.h and conio.h, and uses printf and scanf for input/output. The bottom window shows the program's execution, where the user has entered consumer ID 102, name 'kumari', quantity 1, and price 1. The calculated amount is 1.00, and the user has entered a discount percentage of 0, resulting in a total of 1.00.

```
File Edit Run Compile Project Options Debug Break/watch
Line 4 Col 24 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h> #include<conio.h>
void main()
{
int id; char name[20]; float qty, price, amount, disc, total;
clrscr();
printf("Enter consumer id, name, quantity purchased and rate of item ");
scanf("%d %s %f %f",&id,name,&qty, &price);
amount = qty * price;
printf("AMOUNT = %.2f\n",amount);
printf("Enter discount percentage "); scanf("%f",&disc);
disc = amount * disc/100;
total = amount - disc;
printf("Discount= %.2f, Total=%.2f",disc,total);
getch();
}
```

Enter consumer id, name, quantity purchased and rate of item  
102 kumari 1 1  
AMOUNT = 1.00  
Enter discount percentage 0  
Discount= 0.00, Total=1.00\_

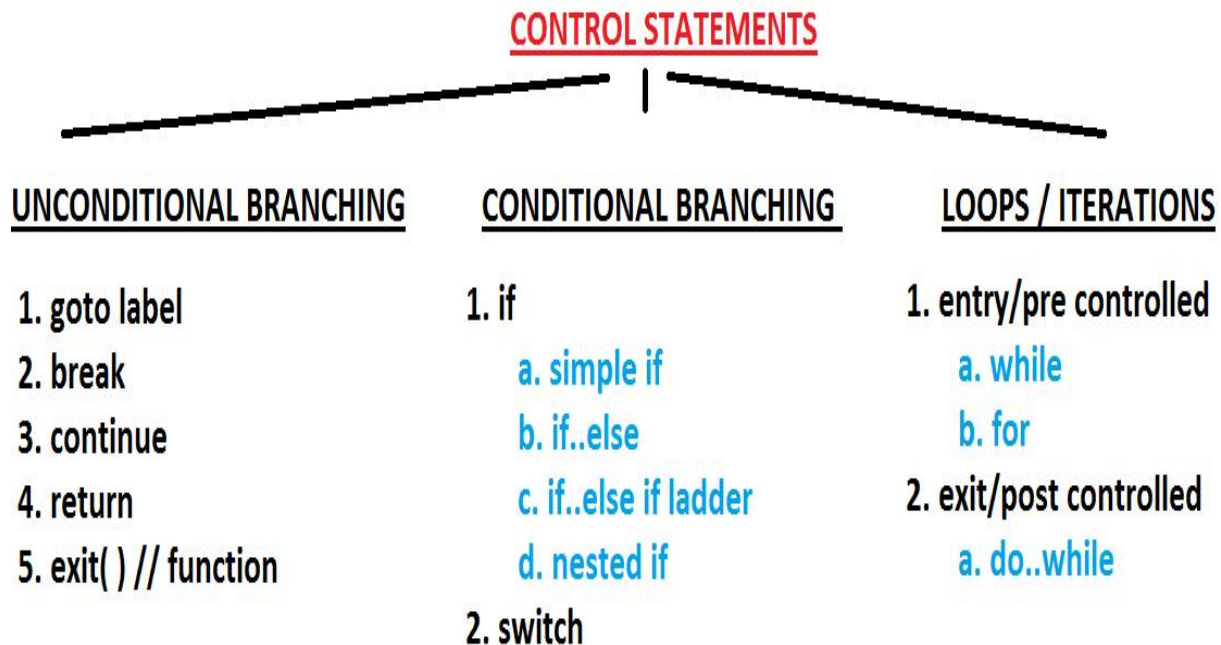


```
TC
Enter consumer id, name, quantity purchased and rate of item
101 krish 1 95000
AMOUNT = 95000.00
Enter discount percentage 80
Discount= 76000.00, Total=19000.00
```

```
TC
Enter consumer id, name, quantity purchased and rate of item
0000 wife 100 10
AMOUNT = 1000.00
Enter discount percentage 100
Discount= 1000.00, Total=0.00_
```

## CONTROL STATEMENTS / CONTROL STRUCTURES

They are used to control the program execution order. In C we can control program execution order 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)**

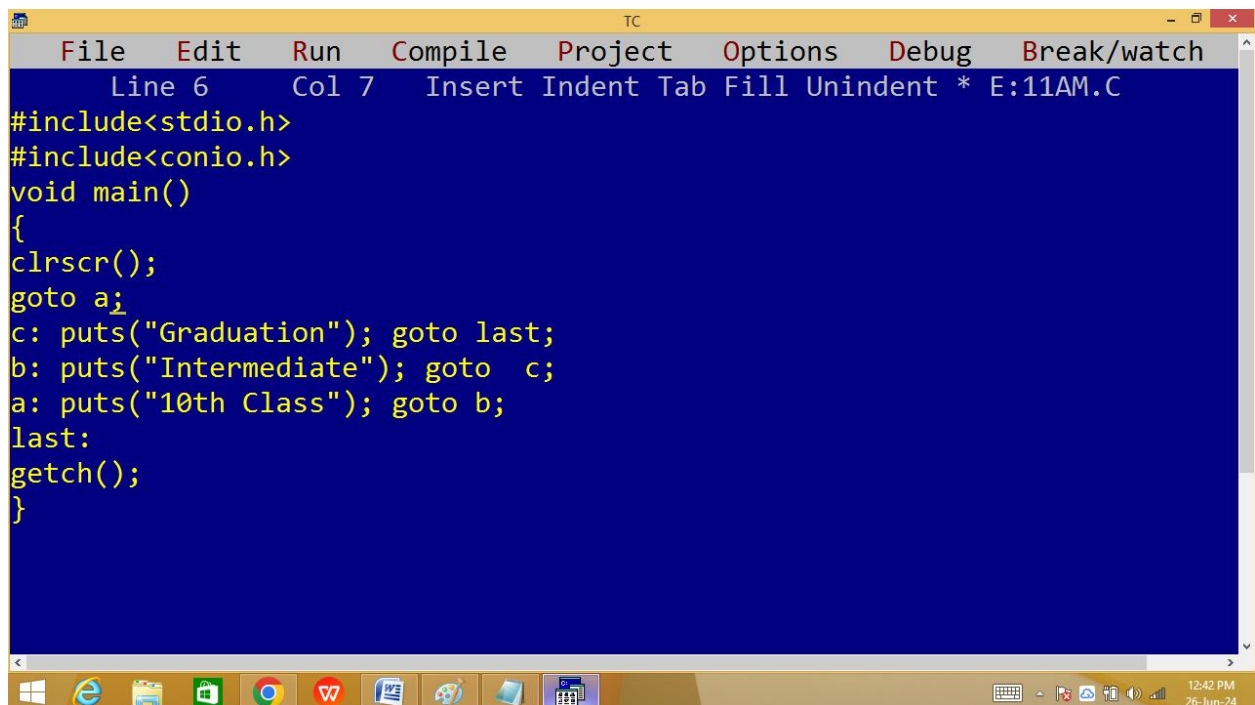
Keywords not allowed in labels i.e. label should be user defined.

Duplicate labels not allowed.

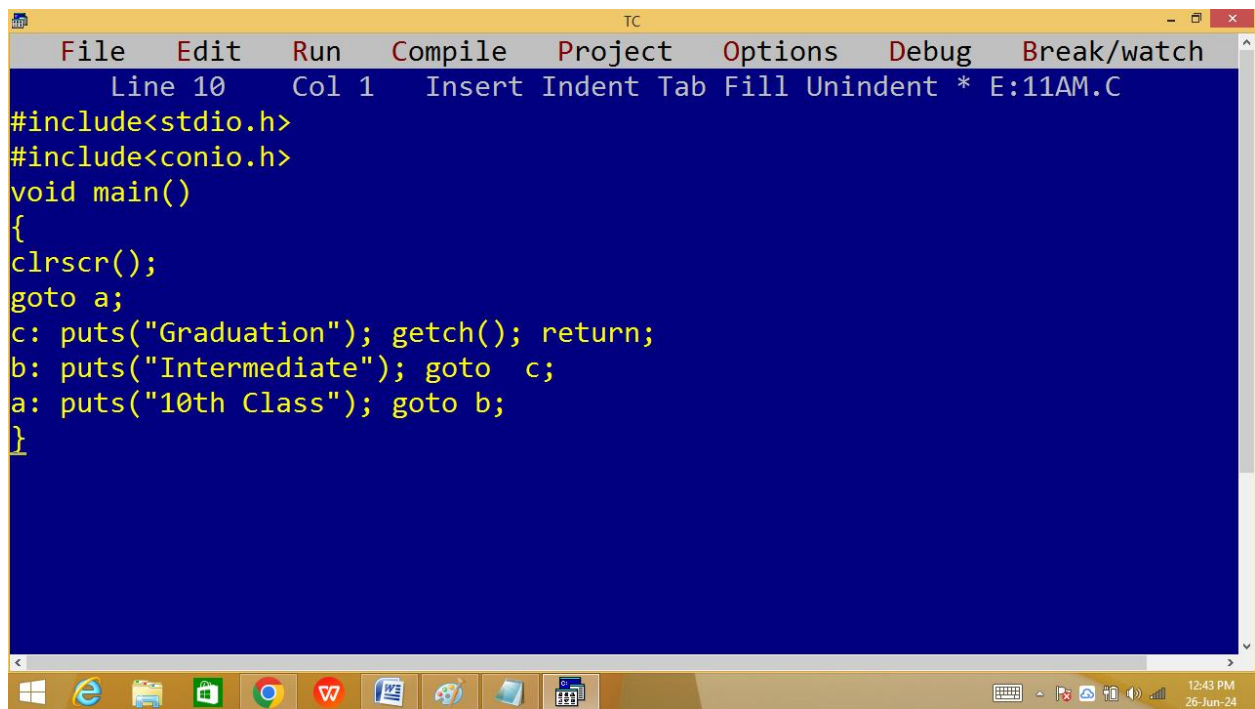
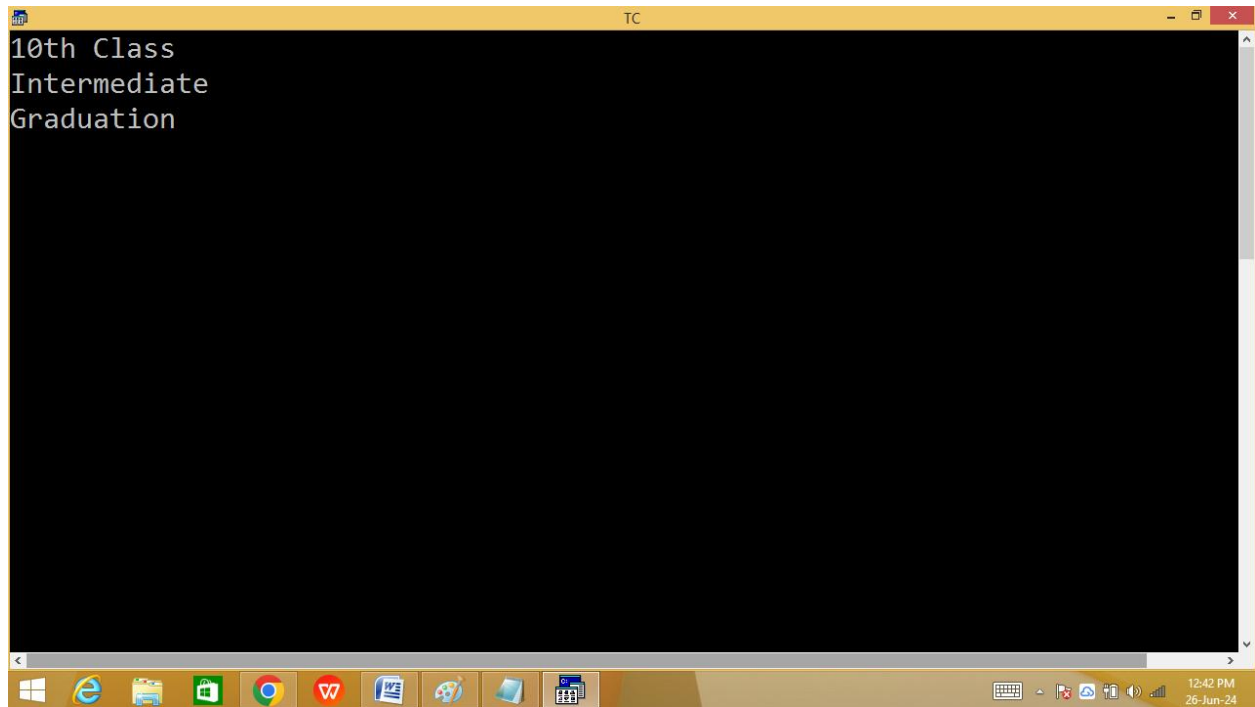
There is no space between go and to.

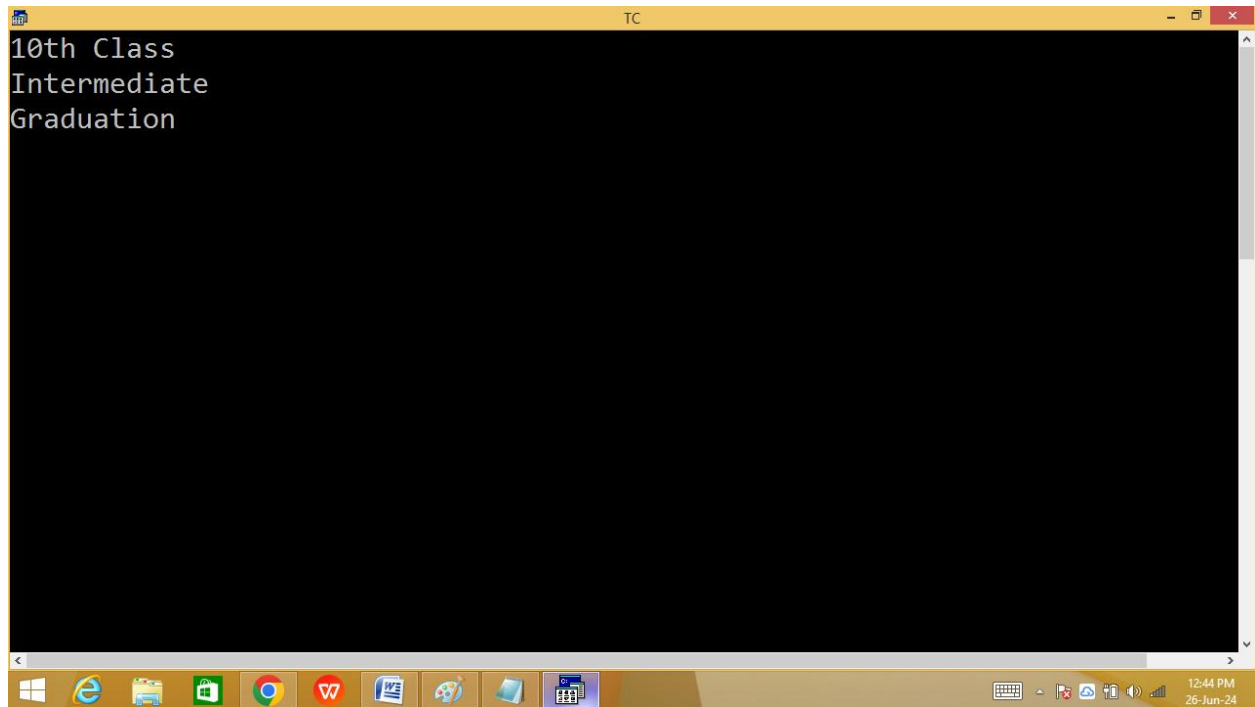
Label naming rules are similar to the identifier rules.

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

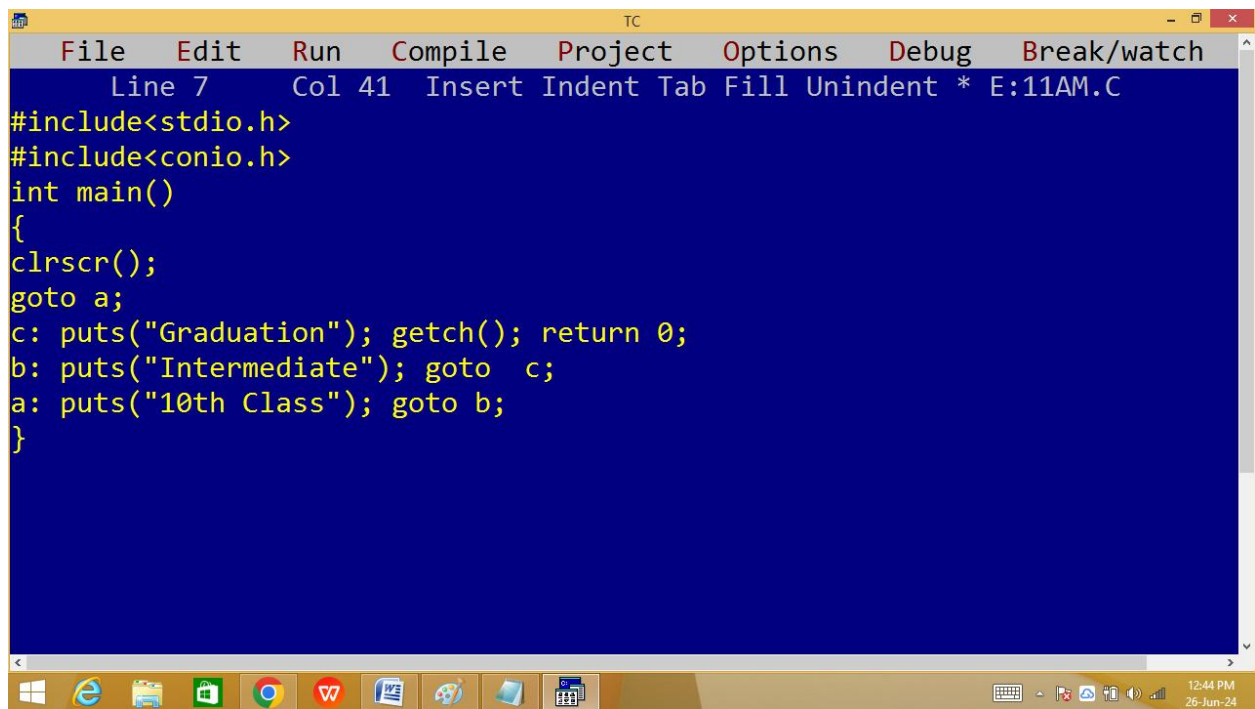


```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 7 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
goto a;
c: puts("Graduation"); goto last;
b: puts("Intermediate"); goto c;
a: puts("10th Class"); goto b;
last:
getch();
}
```

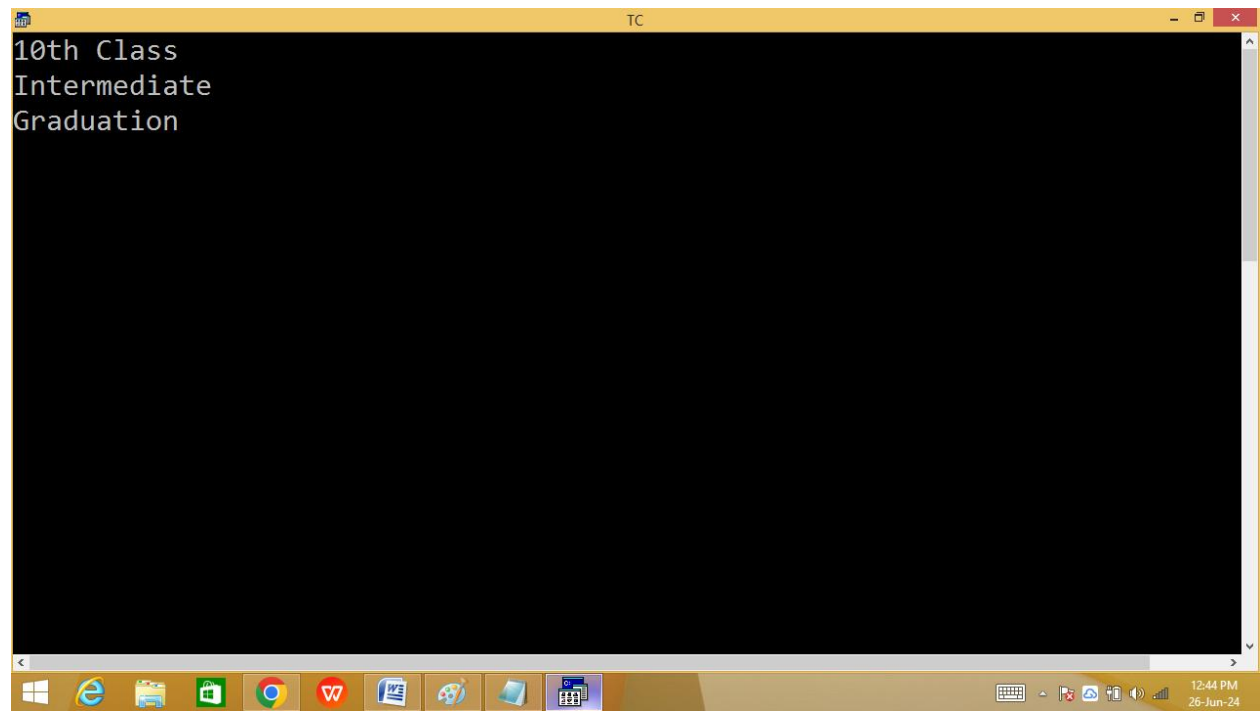




```
TC
10th Class
Intermediate
Graduation
```



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 41 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
int main()
{
clrscr();
goto a;
c: puts("Graduation"); getch(); return 0;
b: puts("Intermediate"); goto c;
a: puts("10th Class"); goto b;
}
```



The image shows a screenshot of the Turbo C++ (TC) IDE. The top window is the code editor, titled 'TC', with a menu bar (File, Edit, Run, Compile, Project, Options, Debug, Break/watch) and a status bar (Line 3, Col 45, Insert, Indent, Tab, Fill, Unindent, \* E:11AM.C). The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h> /* #include<process.h> */
int main()
{
    clrscr();
    goto a;
    c: puts("Graduation"); getch(); exit(0);
    b: puts("Intermediate"); goto c;
    a: puts("10th Class"); goto b;
}
```

The bottom window is the output console, also titled 'TC', which displays the program's output:

```
10th Class
Intermediate
Graduation
```

The Windows taskbar at the bottom of the screen shows the time as 12:44 PM on 26-Jun-24.