

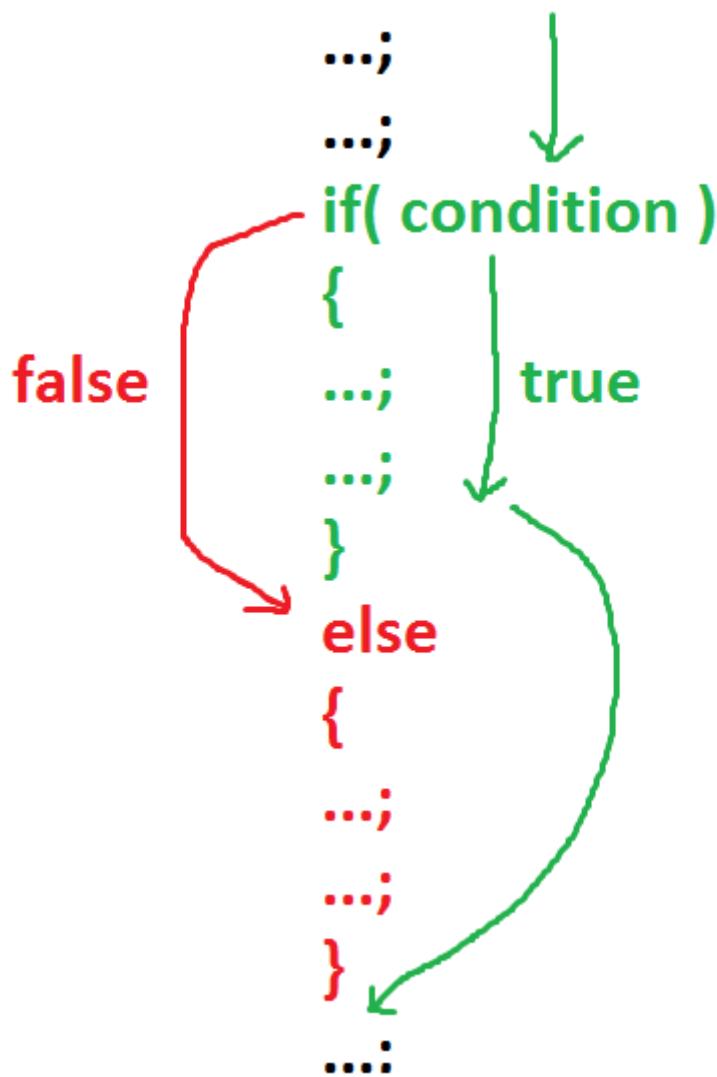
if...else:

When the program is having 2 options and we have to select one then go for if..else.

if condition true then statements in if block () are executed and else not considered.

If condition false then statements in else block {} are executed.

Else never contains a condition.



The image shows a Windows desktop environment with two terminal windows open. Both windows have a title bar labeled 'TC' and a menu bar with options: File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the bottom of each window shows 'Line 10 Col 2' and the file name 'E:2PM.C'. The top window displays the following C code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 10==10 )
{
puts("a");
puts("b");
}
else
puts("c");
puts("d");
getch();
}
```

The output of this code is displayed in the terminal below the code editor:

```
a
b
d
```

The bottom window also displays the same output:

```
a
b
d
```

TC

File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 2 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 10==10 )
{
puts("a");
puts("b");
}
else
{
puts("c");
}
puts("d");
getch();
}
```

02:30 PM
11-Aug-25

a
b
d
-

02:30 PM
11-Aug-25

TC

File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 2 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 10==10 )
{
puts("a");
puts("b");
}
else
{
puts("c");
puts("d");
}
getch();
}
```

02:31 PM
11-Aug-25

TC

```
a
b
-
```

02:30 PM
11-Aug-25

TC

File Edit Run Compile Project Options Debug Break/watch

Error: Misplaced else in function main

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 10==10 ) ;
{
puts("a");
puts("b");
}
else
{
puts("c");
puts("d");
}
getch();
}
```

TC

File Edit Run Compile Project Options Debug Break/watch

Line 11 Col 7 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 10==10 )
{
puts("a");
puts("b");
}
else ;
{
puts("c");
puts("d");
}
getch();
}
```

The image shows a Windows desktop environment with two identical terminal windows titled "TC" side-by-side. Both terminals have a black background and white text. The top terminal displays the letters "a", "b", "c", and "d" on separate lines, followed by a minus sign "-". The bottom terminal shows a C program with a syntax error. The code is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 3==3 ) puts("Yes") else puts("No");
getch();
}
```

An error message is displayed at the top of the bottom terminal window: "Error: Statement missing ; in function main". The taskbar at the bottom of the screen shows various pinned icons and the date and time as 02:33 PM, 11-Aug-25.

```
TC
File Edit Run Compile Project Options Debug Break/watch
Error: Misplaced else in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 3==3 ) else_puts("No");
getch();
}
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 19 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 3==3 ) {} else puts("No");
getch();
}
/* Blank screen */
```

The image shows a Windows desktop environment with two identical windows of a C programming IDE (TC) running side-by-side. Both windows have a dark blue background and a light gray menu bar at the top.

Top Window (Left):

- Menu Bar:** File, Edit, Run, Compile, Project, Options, Debug, Break/watch.
- Status Bar:** Line 7 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C
- Code:**

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 3==3 ); else puts("No");
getch();
}
/* Blank screen */
```
- System Tray:** Shows icons for various system applications like Task Manager, Control Panel, and Network.
- Taskbar:** Shows icons for the TC editor, a file folder, a blue square icon, a green square icon, a yellow square icon, a blue square icon, a red square icon, a blue square icon, a yellow square icon, a blue square icon, and a blue square icon. The TC icon is highlighted.
- System Clock:** 02:35 PM, 11-Aug-25

Bottom Window (Right):

- Menu Bar:** File, Edit, Run, Compile, Project, Options, Debug, Break/watch.
- Status Bar:** Line 9 Col 13 Insert Indent Tab Fill Unindent * E:2PM.C
- Code:**

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( 3==3 ); else puts("No"); puts("Thank you");
getch();
}
/* Thank you_ */
```
- System Tray:** Shows icons for various system applications like Task Manager, Control Panel, and Network.
- Taskbar:** Shows icons for the TC editor, a file folder, a blue square icon, a green square icon, a yellow square icon, a blue square icon, a red square icon, a blue square icon, a yellow square icon, a blue square icon, and a blue square icon. The TC icon is highlighted.
- System Clock:** 02:36 PM, 11-Aug-25

TC

File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 8 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
float a;
clrscr();
a=1.1;
if( a==1.1 )puts("Yes"); else puts("No");
a=1.0;
if( a==1.0 )puts("Yes"); else puts("No");
a=1.5;
if( a==1.5 )puts("Yes"); else puts("No");
a=1.2;
if( a==1.2 )puts("Yes"); else puts("No");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

02:40 PM
11-Aug-25

No
Yes
Yes
No

TC

Activate Windows
Go to PC settings to activate Windows.

02:40 PM
11-Aug-25

TC

File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
float a;
clrscr();
a=1.1;
if( a==1.1f )puts("Yes"); else puts("No");
a=1.0;
if( a==1.0 )puts("Yes"); else puts("No");
a=1.5;
if( a==1.5 )puts("Yes"); else puts("No");
a=1.2;
if( a==1.2f )puts("Yes"); else puts("No");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.



TC

```
Yes
Yes
Yes
Yes
```

Activate Windows
Go to PC settings to activate Windows.



TC

File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 13 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
float a=1.5;
double b=1.5;
clrscr();
printf("%.10f, %.10lf\n",a,b);
a=1.0, b=1.0;
printf("%.10f, %.10lf\n",a,b);
a=1.1, b=1.1;
printf("%.10f, %.10lf\n",a,b);
a=1.2, b=1.2;
printf("%.10f, %.10lf\n",a,b);
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

TC

```
1.5000000000, 1.5000000000
1.0000000000, 1.0000000000
1.100000238, 1.1000000000
1.200000477, 1.2000000000
```

Activate Windows
Go to PC settings to activate Windows.

TC

File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 13 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=32767;
clrscr();
if(a+3>=32767)puts("Yes");else puts("No");
if(sizeof(1.2)==sizeof(float))puts("Yes");else puts("No");
if(sizeof(1.2f)==sizeof(float))puts("Yes");else puts("No");
if( 5 && 5 == 5 ) puts("Yes"); else puts("No");
if( (5 && 5) == 5 ) puts("Yes"); else puts("No");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

02:56 PM
11-Aug-25

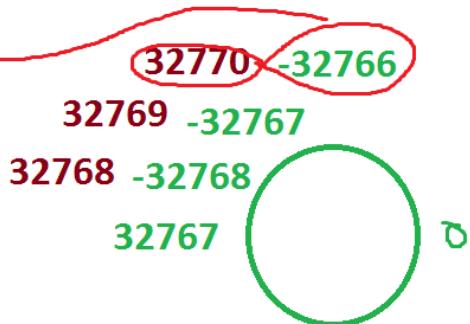
No
No
Yes
Yes
No
-

Activate Windows
Go to PC settings to activate Windows.

02:56 PM
11-Aug-25

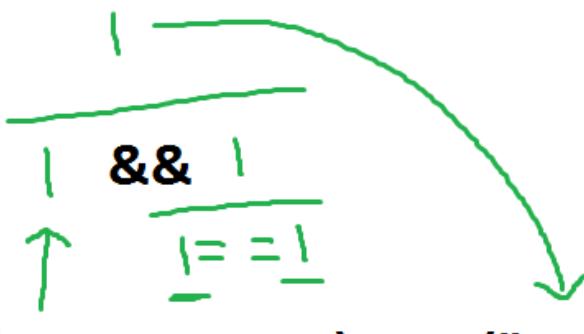
int a=32767; + 3 = 32770 ==> -32766

if(a+3 >= 32767) p(yes); else p(no);

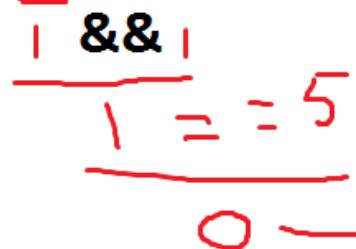


8 == 4

sizeof(1.2)==sizeof(float)



if(5 && 5 == 5) puts("Yes"); else puts("No");



TC

File Edit Run Compile Project Options Debug Break/watch

Error: Undefined symbol 'true' in function main

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( true ) puts("Yes"); else puts("No");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.



TC

File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 49 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( "false" ) puts("Yes"); else puts("No");
printf("abc addr %u, ab addr %u\n", "abc","ab");
if("abc" > "ab") puts("Yes");else puts("No");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

03:04 PM
11-Aug-25

TC

Yes
abc addr 442, ab addr 446
No

Activate Windows
Go to PC settings to activate Windows.

03:05 PM
11-Aug-25

Finding even/odd using if..else:

The image shows a Windows desktop environment with two terminal windows. The top window is a text editor titled 'TC' with the file name 'E:2PM.C'. It contains the following C code:

```
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 39 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter a no "); scanf("%d",&n);
if(n%2==0)puts("Even");else puts("Odd");
if(n%2) puts("Odd");else puts("Even");
getch();
}
```

The bottom window is a command prompt window titled 'TC'. It displays the following interaction:

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

Enter a no 5
Odd
Odd
```

The taskbar at the bottom of the screen shows various application icons, and the system tray indicates the date and time as 03:06 PM 11-Aug-25.

```
TC
Enter a no 4
Even
Even
-
Activate Windows
Go to PC settings to activate Windows.
03:07 PM
11-Aug-25
```

$3 \% 2 = 1$ →
if(n%2) p(odd); else p(even);
 $4 \% 2 = 0$ →

Without using % :

```
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter a no "); scanf("%d",&n);
if(n/2*2==n)puts("Even");else puts("Odd");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

```
Enter a no 7
Odd
```

Activate Windows
Go to PC settings to activate Windows.

```
Enter a no 8
Even
```

$8/2=4*2=8==8$

`if(n/2*2==n) p("Even"); else p("Odd");`

$9/2=4*2=8==9$

Without using arithmetic operators?

TC

File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 5 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter a no "); scanf("%d",&n);
if((n&1)==0)puts("Even");else puts("Odd");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

TC

```
Enter a no 11
Odd
```

Activate Windows
Go to PC settings to activate Windows.

03:18 PM
11-Aug-25

```
TC
Enter a no 12
Even

Activate Windows
Go to PC settings to activate Windows.

Windows Start button 03:19 PM
z3m DEV MSN Google Mail 11-Aug-25
```

4=100

1=001

000=0

if(n&1 == 0) p("Even"); else p("Odd");

3=11

1=01

01=1

$$\begin{array}{r} n \\ \underline{14} \\ 2 \end{array} \quad \begin{array}{r} n \\ \underline{13} \\ 2 \end{array} \quad \begin{array}{r} 1 \\ \underline{1} \\ 0 \end{array}$$

Finding leap year / common year?

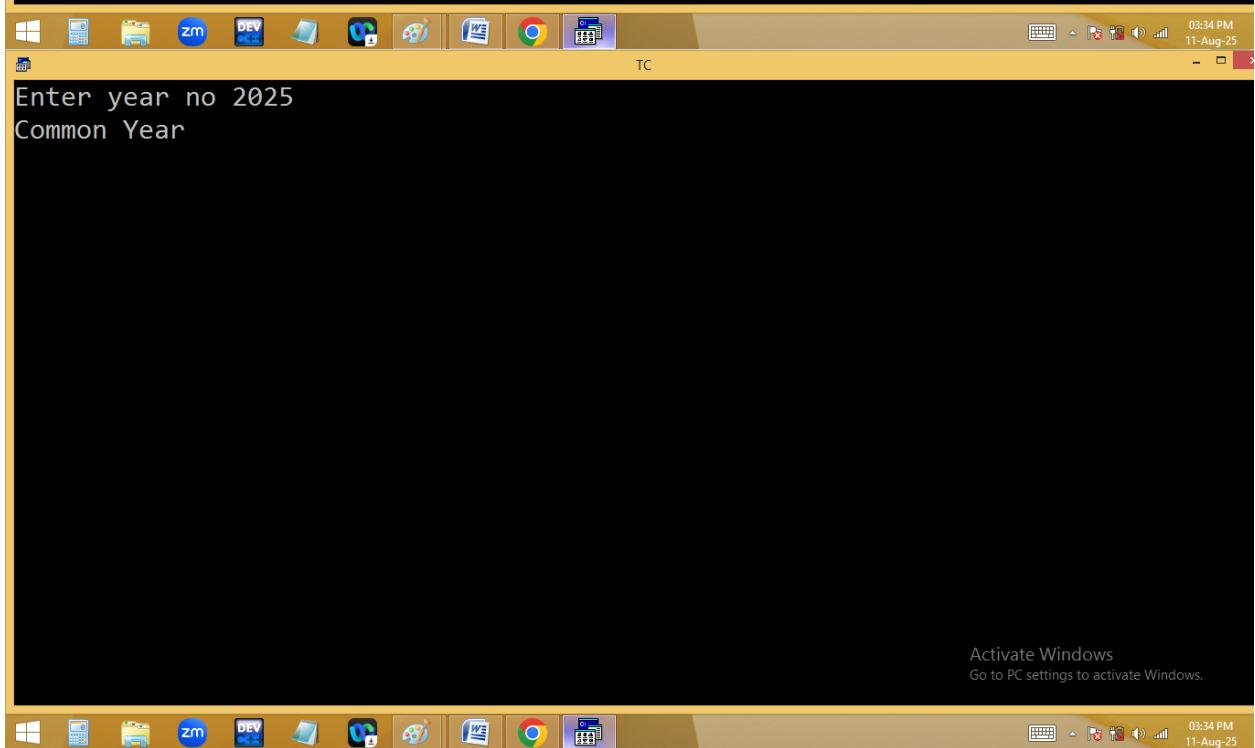
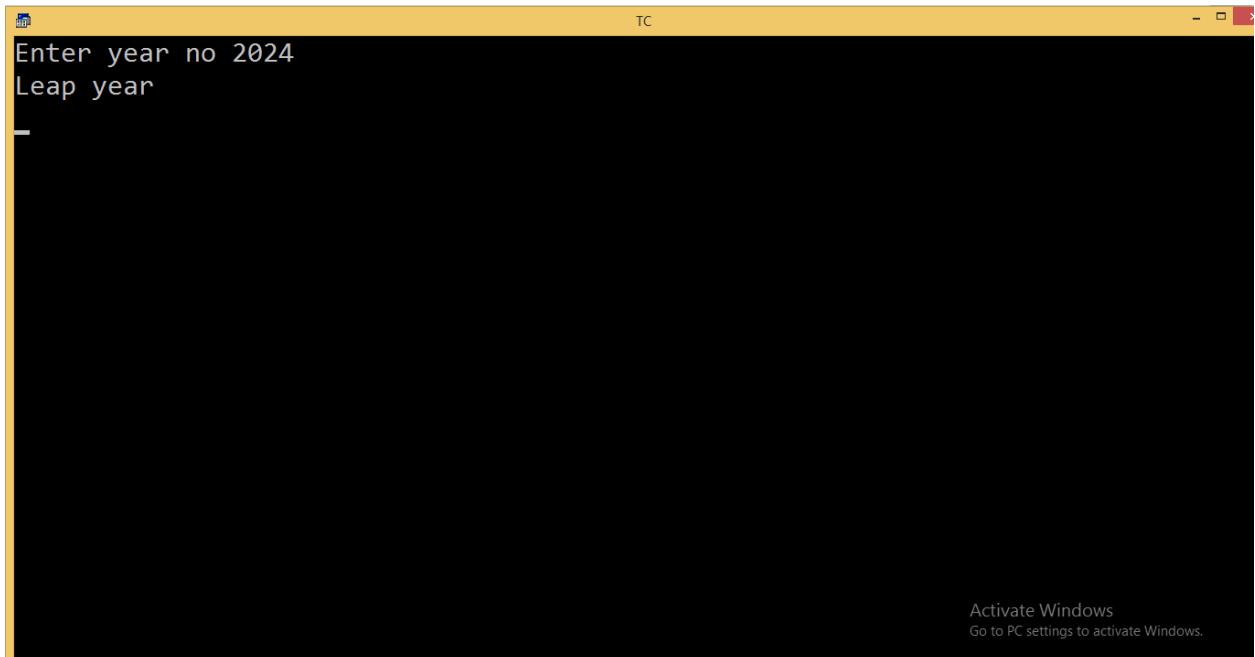
The image shows a Windows desktop environment with two windows open side-by-side.

The top window is a code editor titled "TC". The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the bottom shows "Line 8 Col 34 Insert Indent Tab Fill Unindent * E:2PM.C". The code in the editor is:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter year no "); scanf("%d",&n);
if(n%4==0 && n%100!=0 || n%400==0)puts("Leap year");else puts("Common Year");
getch();
}
```

The bottom window is a command prompt window. It displays the output of the program when run with the input "2900", which outputs "Common Year".

Both windows have standard Windows taskbars at the bottom, showing icons for various applications like File Explorer, ZM, DEV, and others. The system tray in the bottom right corner shows the date and time as "11-Aug-25" and "03:34 PM".



```
TC
Enter year no 1900
Common Year
-
Activate Windows
Go to PC settings to activate Windows.

Windows Start File Explorer ZM DEV Notepad Paint IES Google Chrome Task View
03:34 PM 11-Aug-25 TC

Enter year no 2000
Leap year
-
Activate Windows
Go to PC settings to activate Windows.

Windows Start File Explorer ZM DEV Notepad Paint IES Google Chrome Task View
03:35 PM 11-Aug-25
```

$$\begin{array}{c}
 4) 1900(475 \text{ & } 100) \quad || \quad 400) 1900(4 \\
 \underline{1900} \\
 0 = 0 \checkmark \quad F \quad X \\
 \hline
 T \quad F
 \end{array}$$

$$\begin{array}{c}
 4) 2000(500) \quad || \quad 400) 2000(5 \\
 \underline{2000} \\
 0 = 0 \quad F \\
 \hline
 T \quad F \\
 \hline
 E \quad T \\
 \hline
 T
 \end{array}$$

Finding alphabet or not?

```
#include<stdio.h>
#include<conio.h>
void main()
{
char ch;
clrscr();
printf("Enter any character "); scanf("%c",&ch);
if(ch>='a' && ch<='z' || ch>='A' && ch<='Z' )puts("It is an Alphabet");
else puts("It is not an Alphabet");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

```
Enter any character d
It is an Alphabet
```

Activate Windows
Go to PC settings to activate Windows.

```
TC
Enter any character N
It is an Alphabet

Activate Windows
Go to PC settings to activate Windows.

Windows Start icon  File  Home  ZM  DEV  Microsoft Edge  Google Chrome  Task View  03:43 PM  11-Aug-25
TC
Enter any character *
It is not an Alphabet
-
Activate Windows
Go to PC settings to activate Windows.

Windows Start icon  File  Home  ZM  DEV  Microsoft Edge  Google Chrome  Task View  03:43 PM  11-Aug-25
```

The image shows a Windows desktop environment with two terminal windows open. Both windows have a title bar labeled 'TC'.

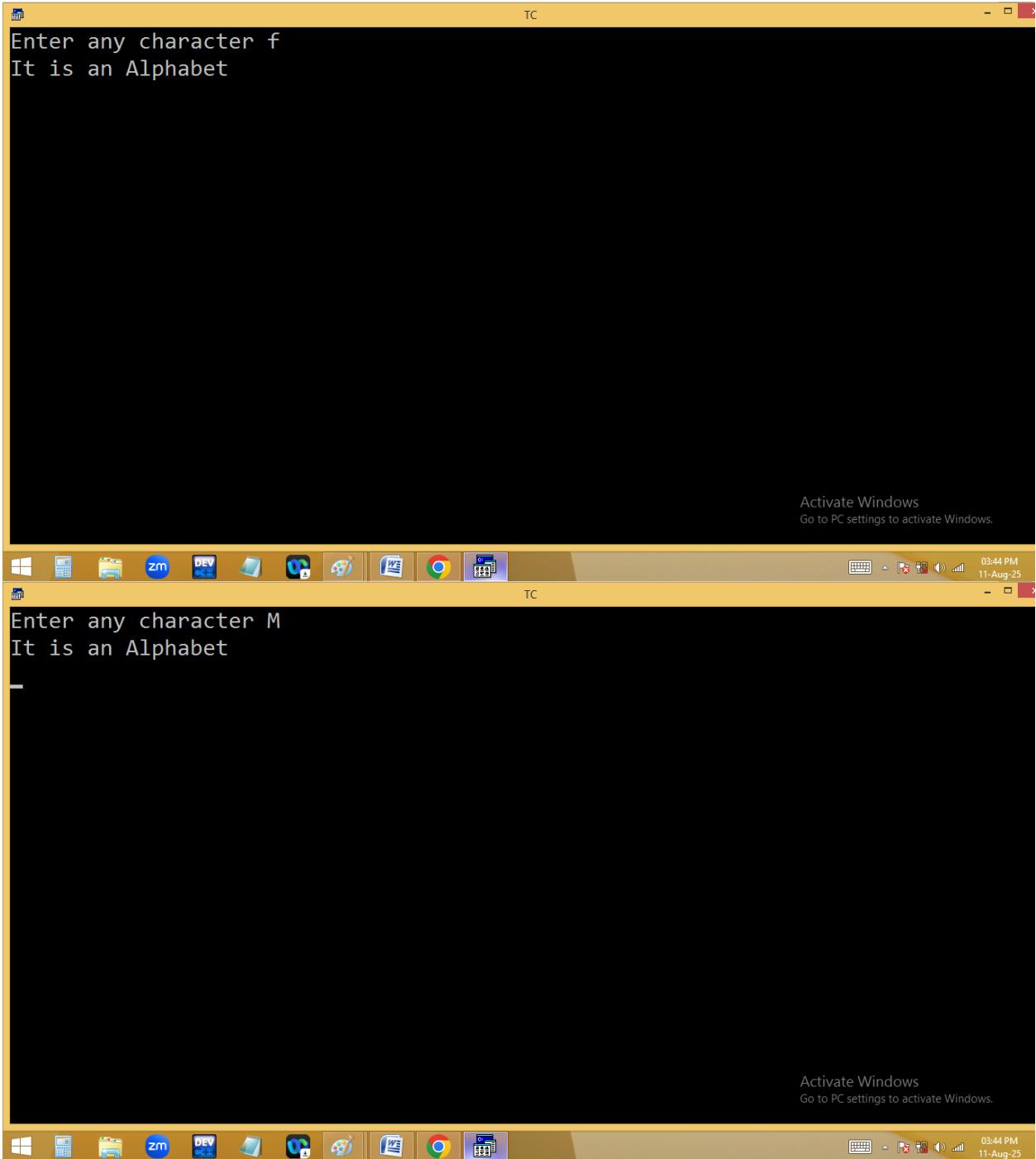
Top Terminal Window:

```
Enter any character 9
It is not an Alphabet
```

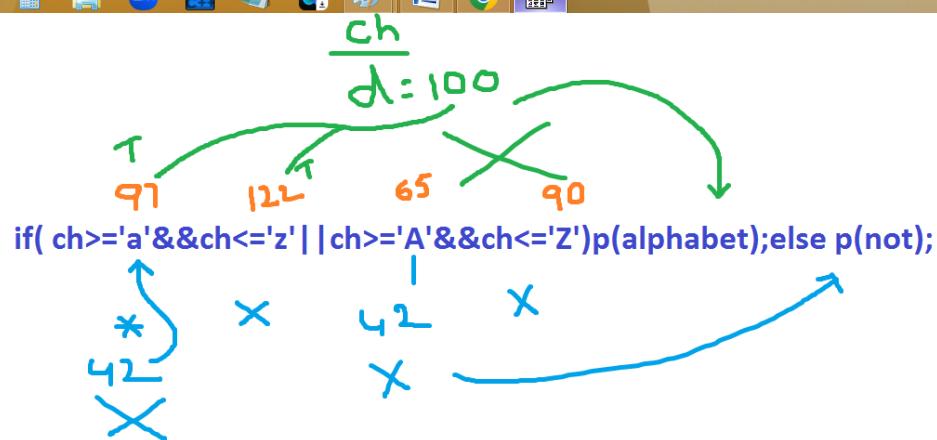
Bottom Terminal Window:

```
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 41 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
char ch;
clrscr();
printf("Enter any character "); scanf("%c",&ch);
if(ch>=97 && ch<=122 || ch>=65 && ch<=90)puts("It is an Alphabet");
else puts("It is not an Alphabet");
getch();
```

The taskbar at the bottom of the screen shows several icons, including a calculator, file explorer, and browser. The system tray indicates the date as 11-Aug-25 and the time as 03:43 PM.



```
TC
Enter any character $
It is not an Alphabet
-
Activate Windows
Go to PC settings to activate Windows.
03:44 PM
11-Aug-25
```



Home work:

Enter two number: 3 5

CHOICE

1. smaller

2. Bigger

Enter ur option: 1

3 is smaller

Enter ur option: 2

5 is bigger

2. Find the salesman gross salary using below table.

Sales>=100000	Sales<100000
Basic=10000	Basic=10000
Da=65% of basic	Da=65% of basic
Bonus=10000	Bonus=2000
Commission=10% of sales	Commission=5% of sales
Gross = basic + da + bonus + commission	

