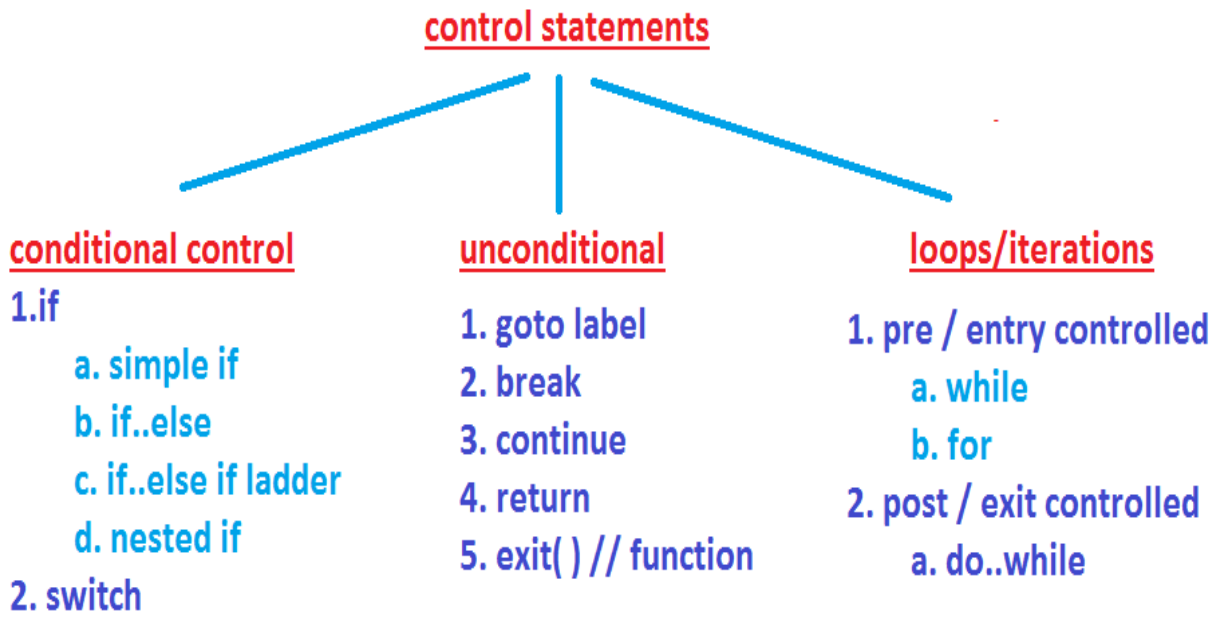
CONTROL STATEMENTS / CONTROL STRUCTURES

They are used to control program execution order [flow]. In c language we are using the following control statements.



if condition control statement: it is used to check the given condition / expression is true or false.

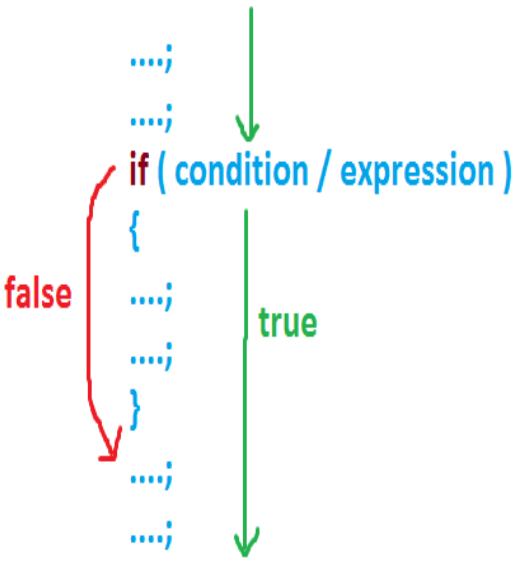
It is a decision making statement.

Note: In c compiler 0 means false and other than 0 anything is 1 i.e. true.

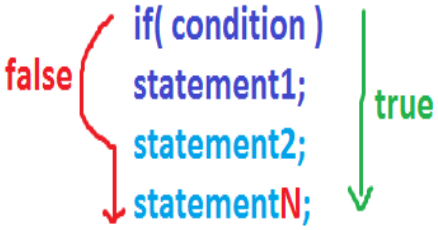
Simple if: When the program is having only one condition then go for simple if.

If condition true statements in if block { } are executed and later outer statements also executed.

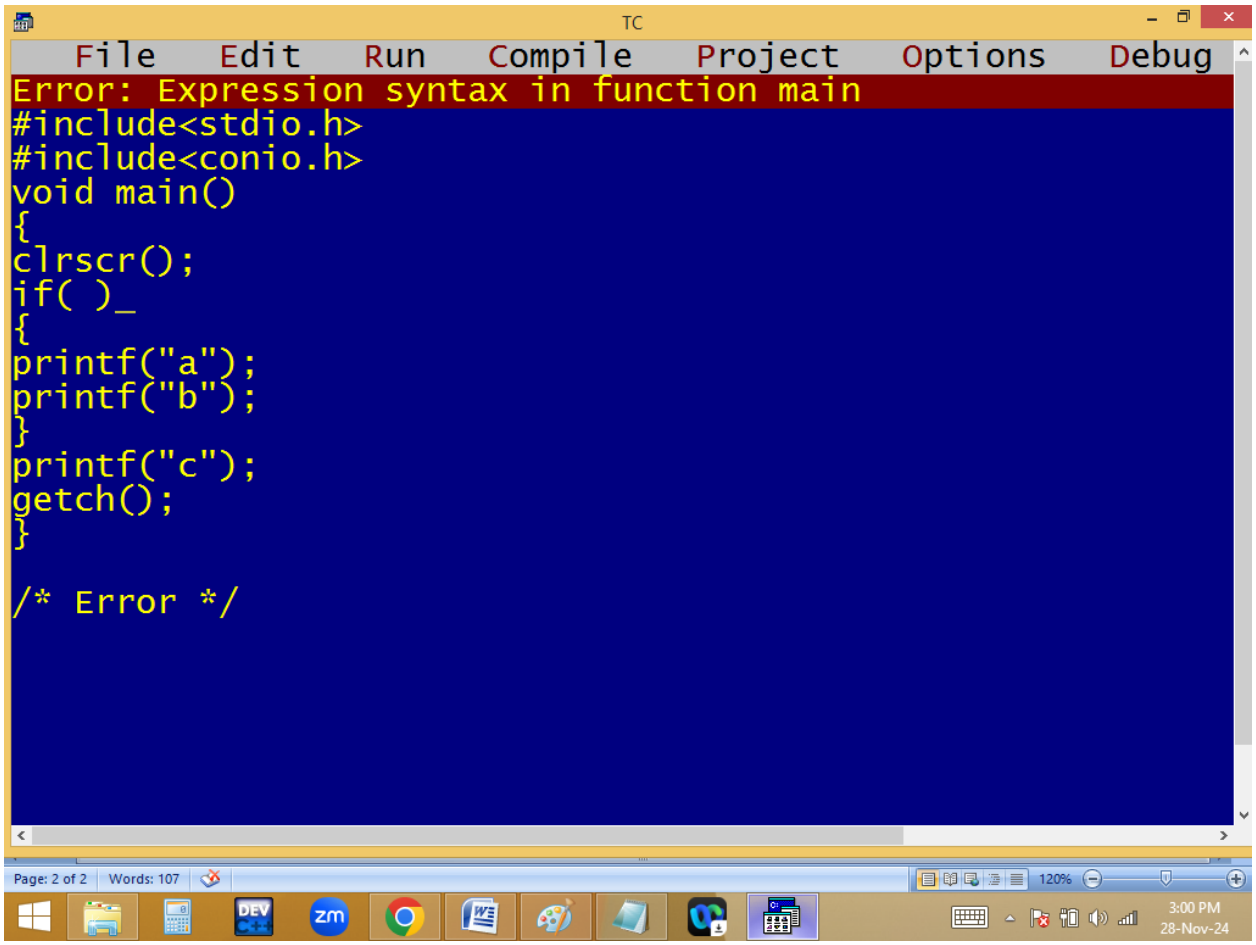
If condition false only the outside statements are executed.

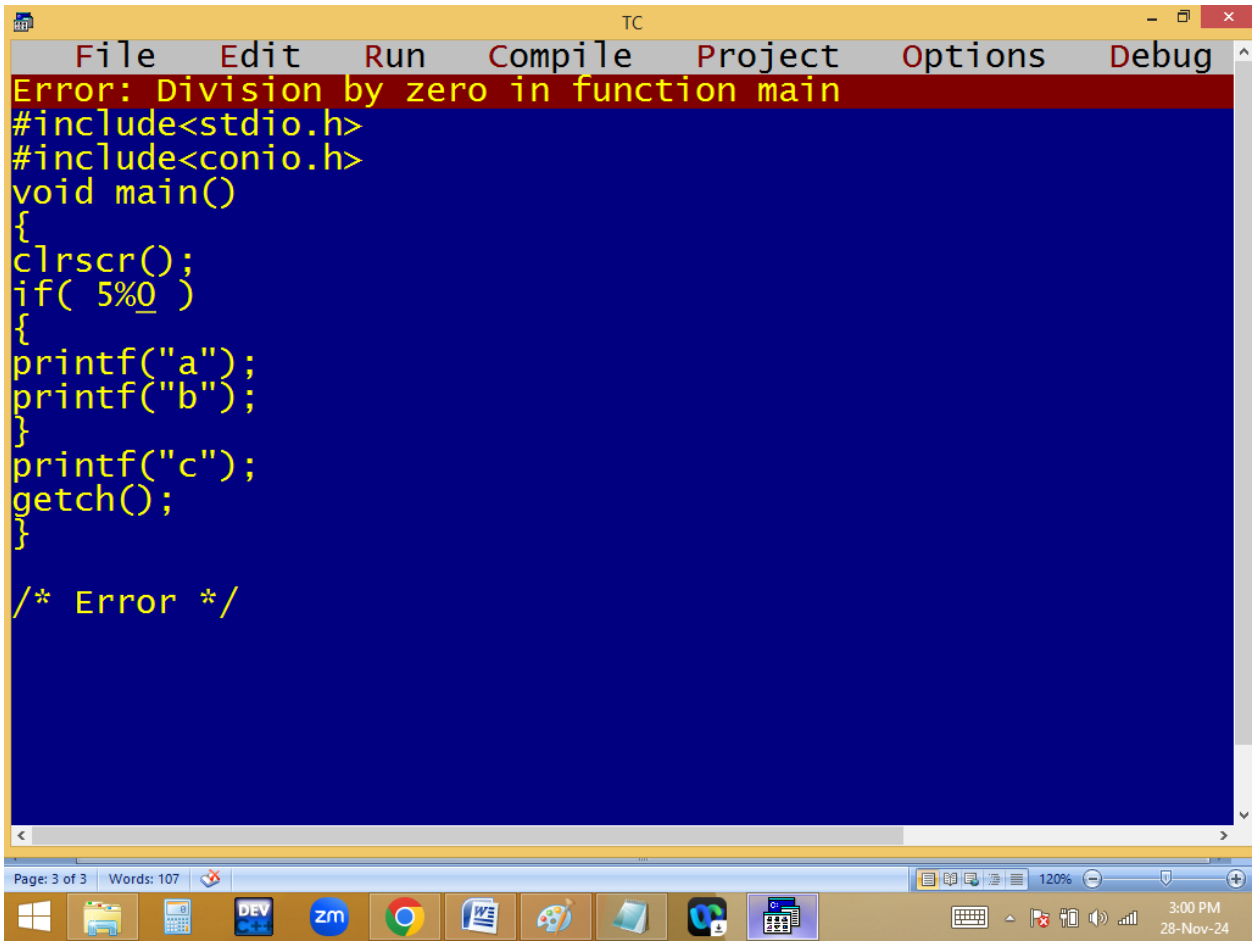


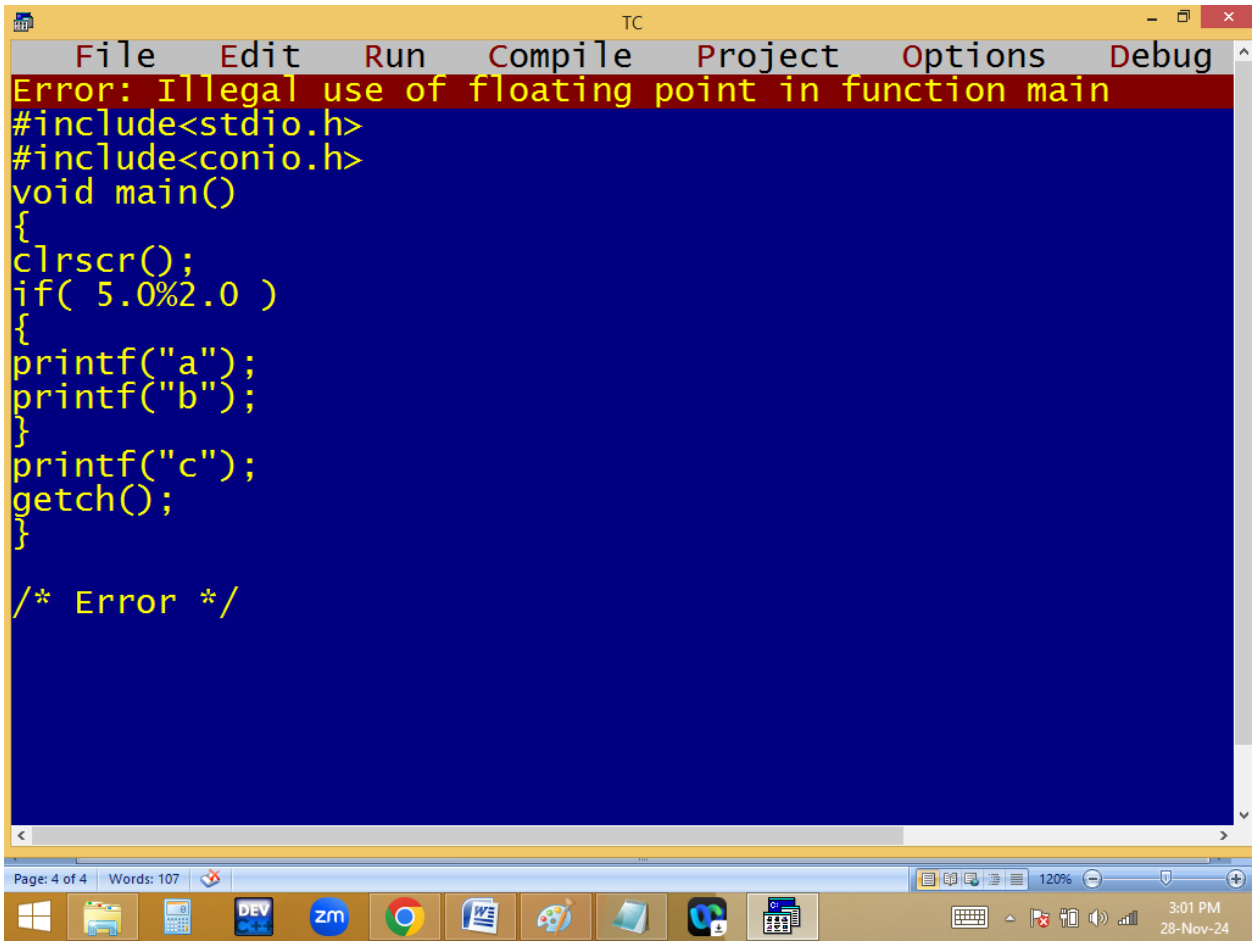

```
if( condition )
statement ;
    or
if( condition )
{
statement ;
}
    or
if(condition)statement ;
```

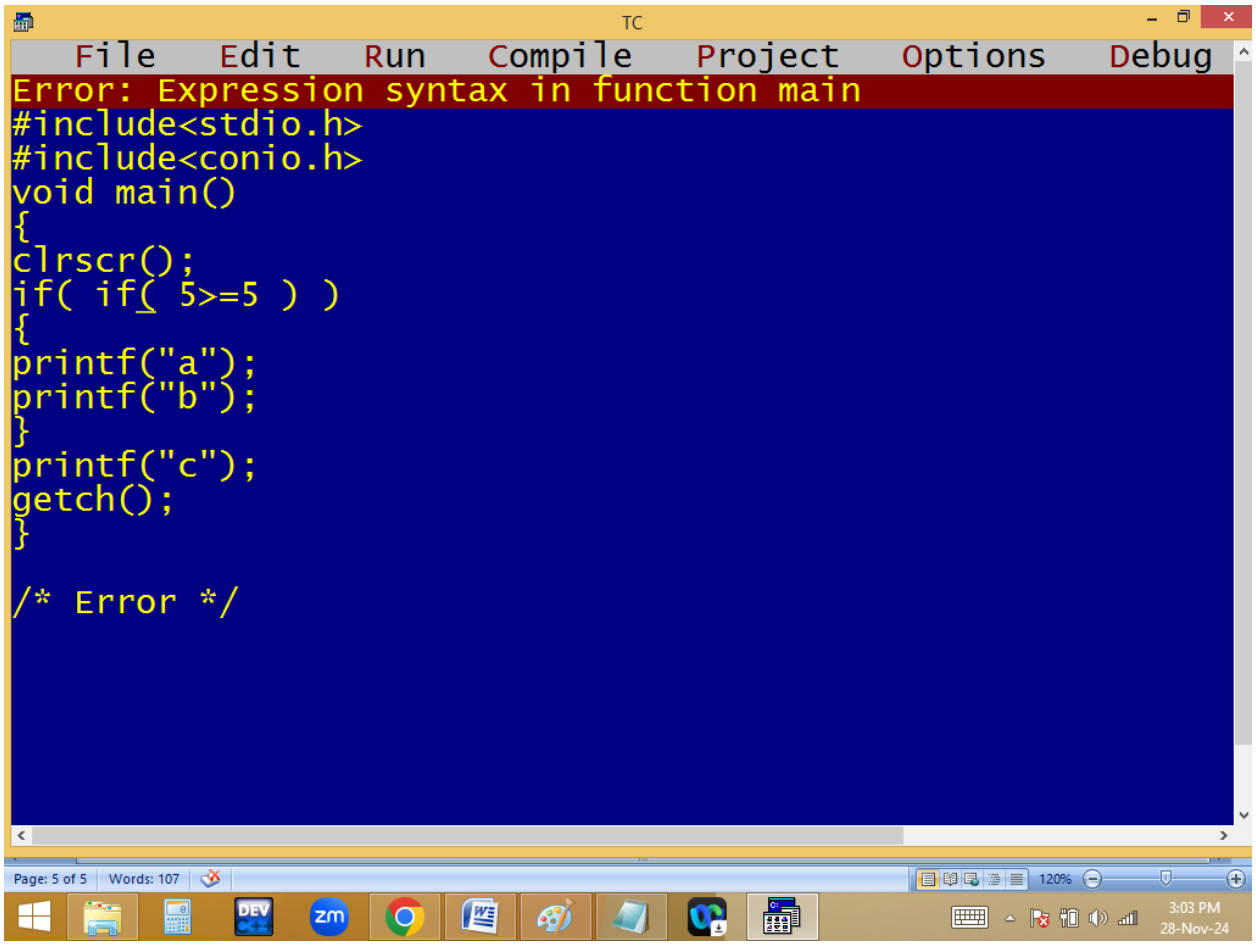


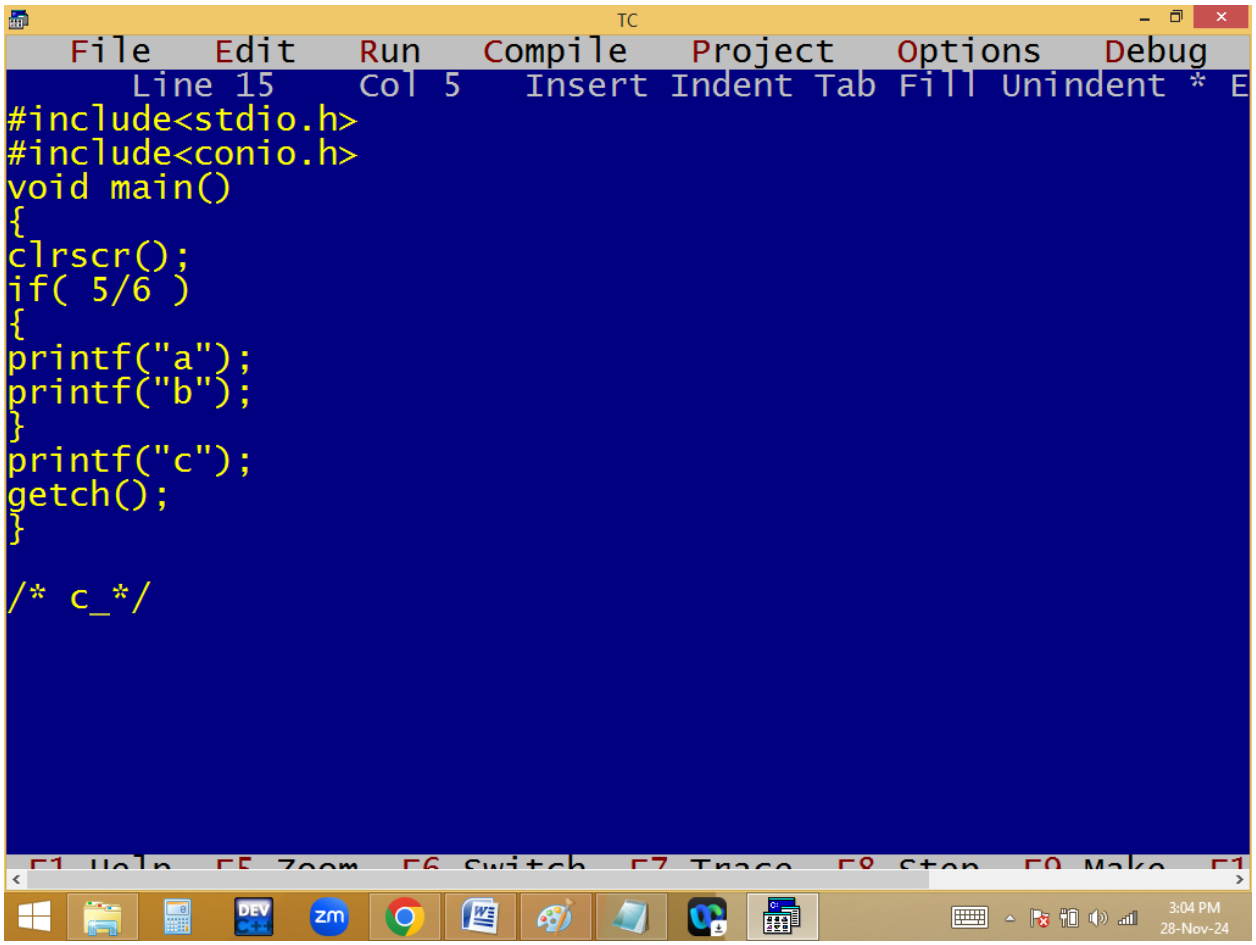

```
    or

if( condition )
{
statement1;
}
statement2;
statementN;
```

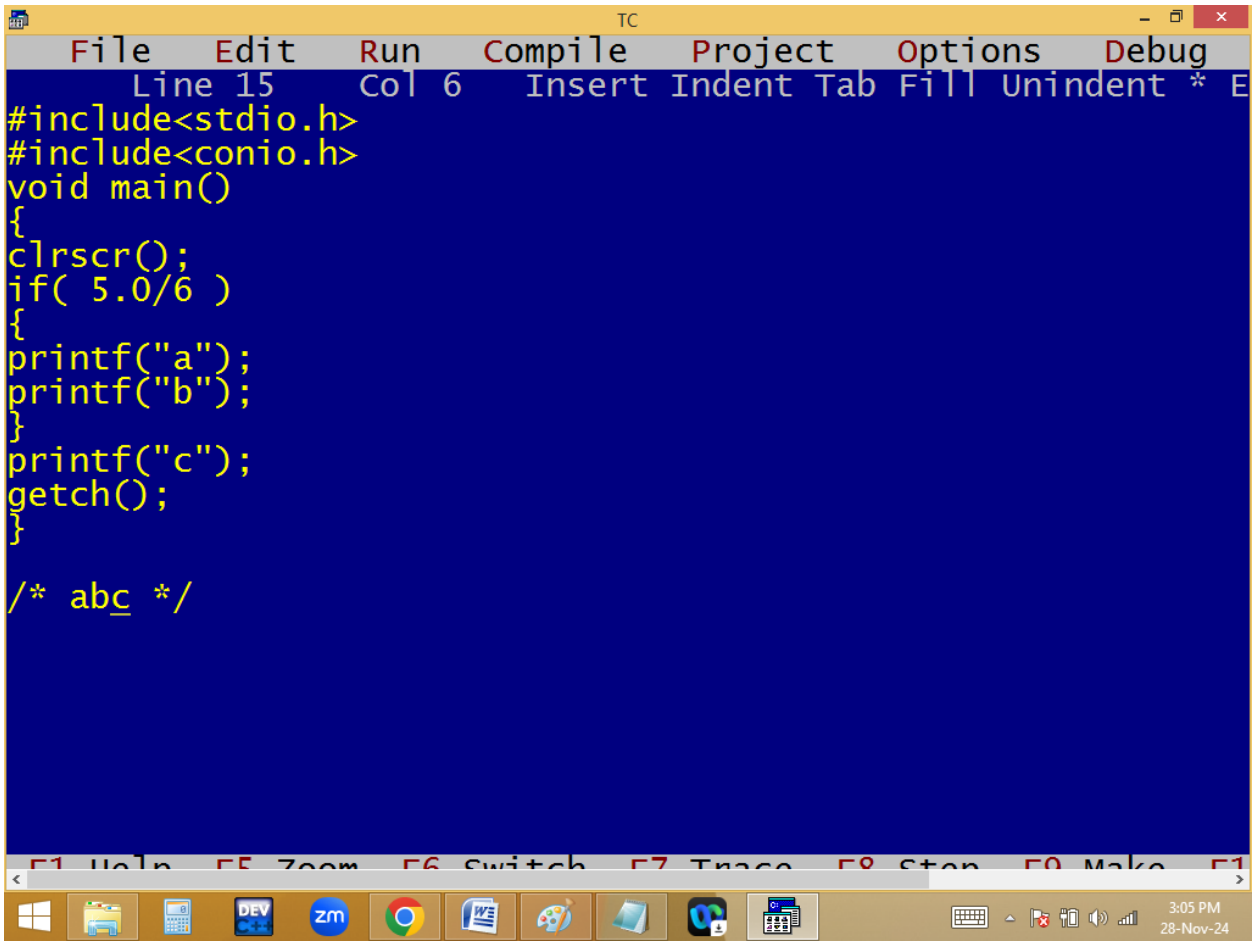

TC
File Edit Run Compile Project Options Debug
Error: Expression syntax in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if( )_
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* Error */
Page: 2 of 2
Words: 107
120%
3:00 PM
28-Nov-24

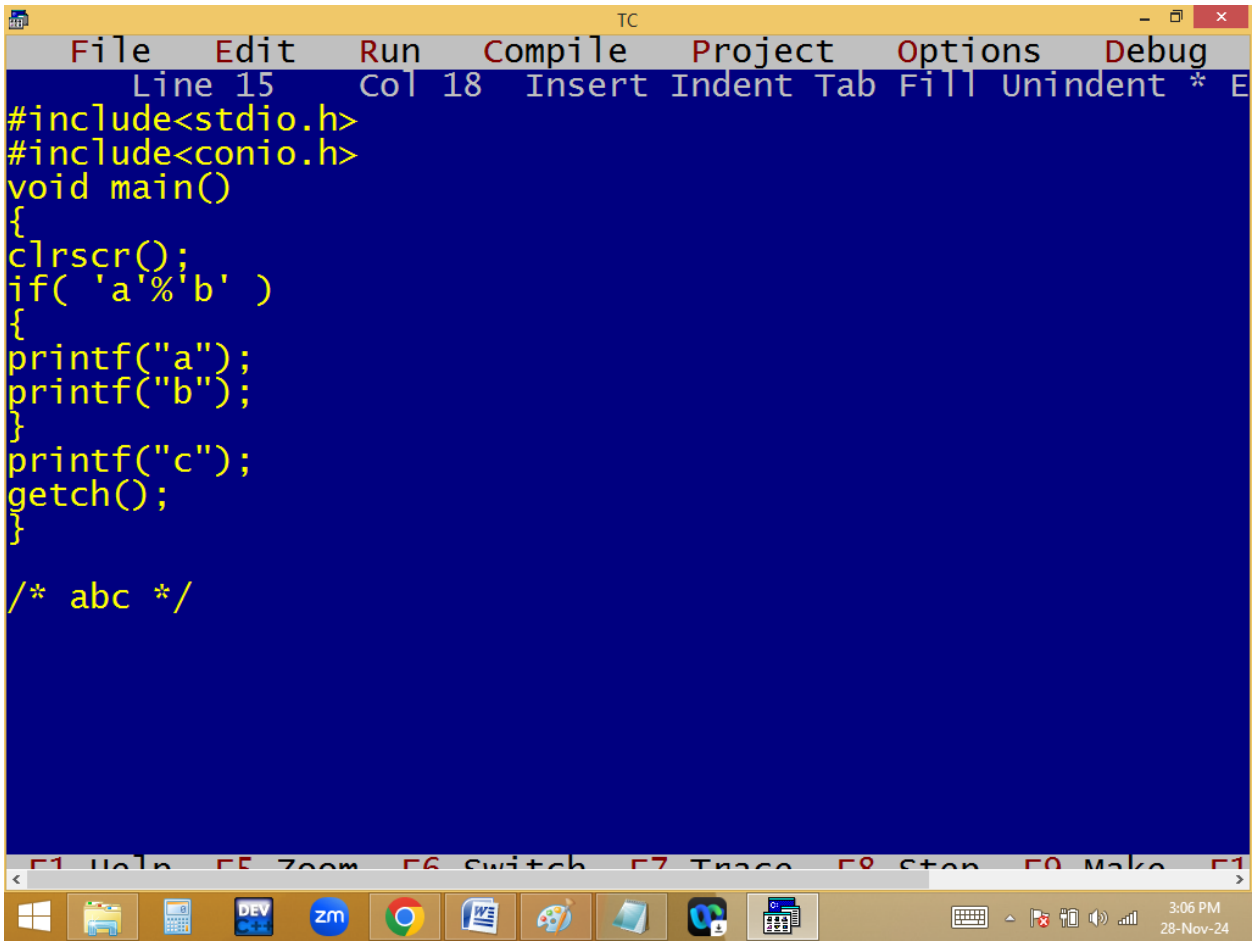

TC
File Edit Run Compile Project Options Debug
Error: Division by zero in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(5%0)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* Error */
Page: 3 of 3
Words: 107
120%
3:00 PM
28-Nov-24

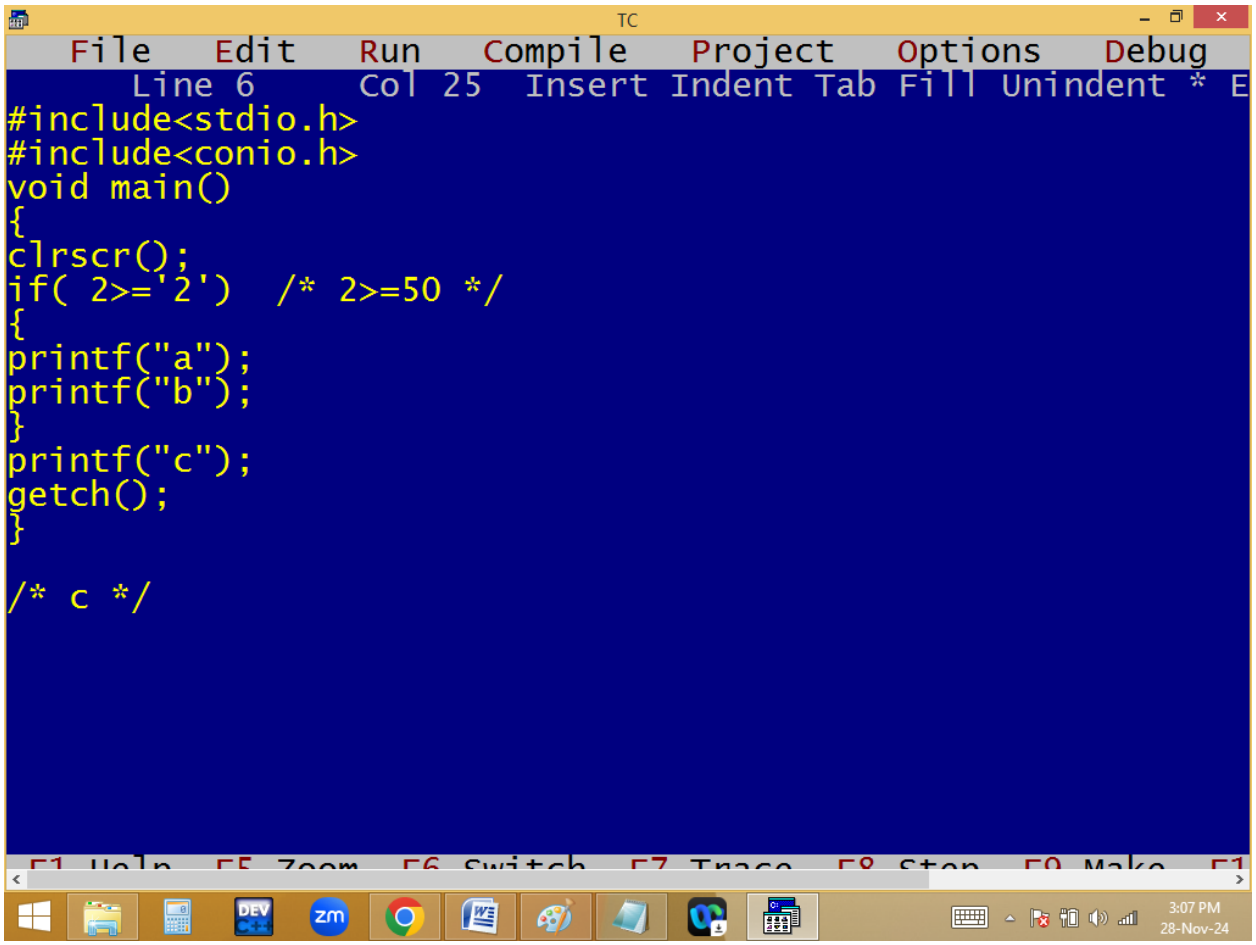

TC
File Edit Run Compile Project Options Debug
Error: Illegal use of floating point in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(5.0%2.0)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* Error */
Page: 4 of 4
Words: 107
120%
3:01 PM
28-Nov-24

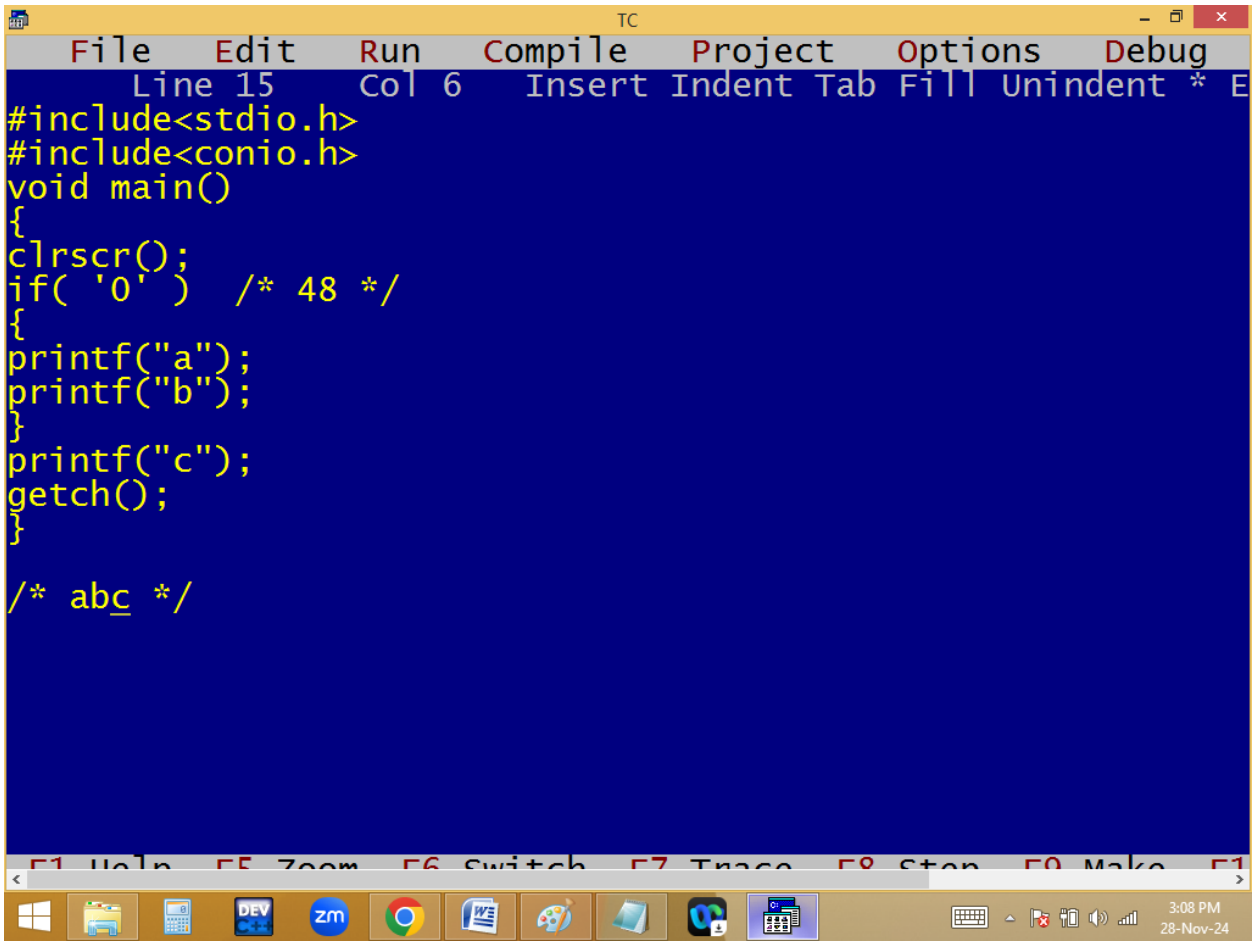

TC
File Edit Run Compile Project Options Debug
Error: Expression syntax in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(if(5>=5))
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* Error */
Page: 5 of 5
Words: 107
120%
3:03 PM
28-Nov-24

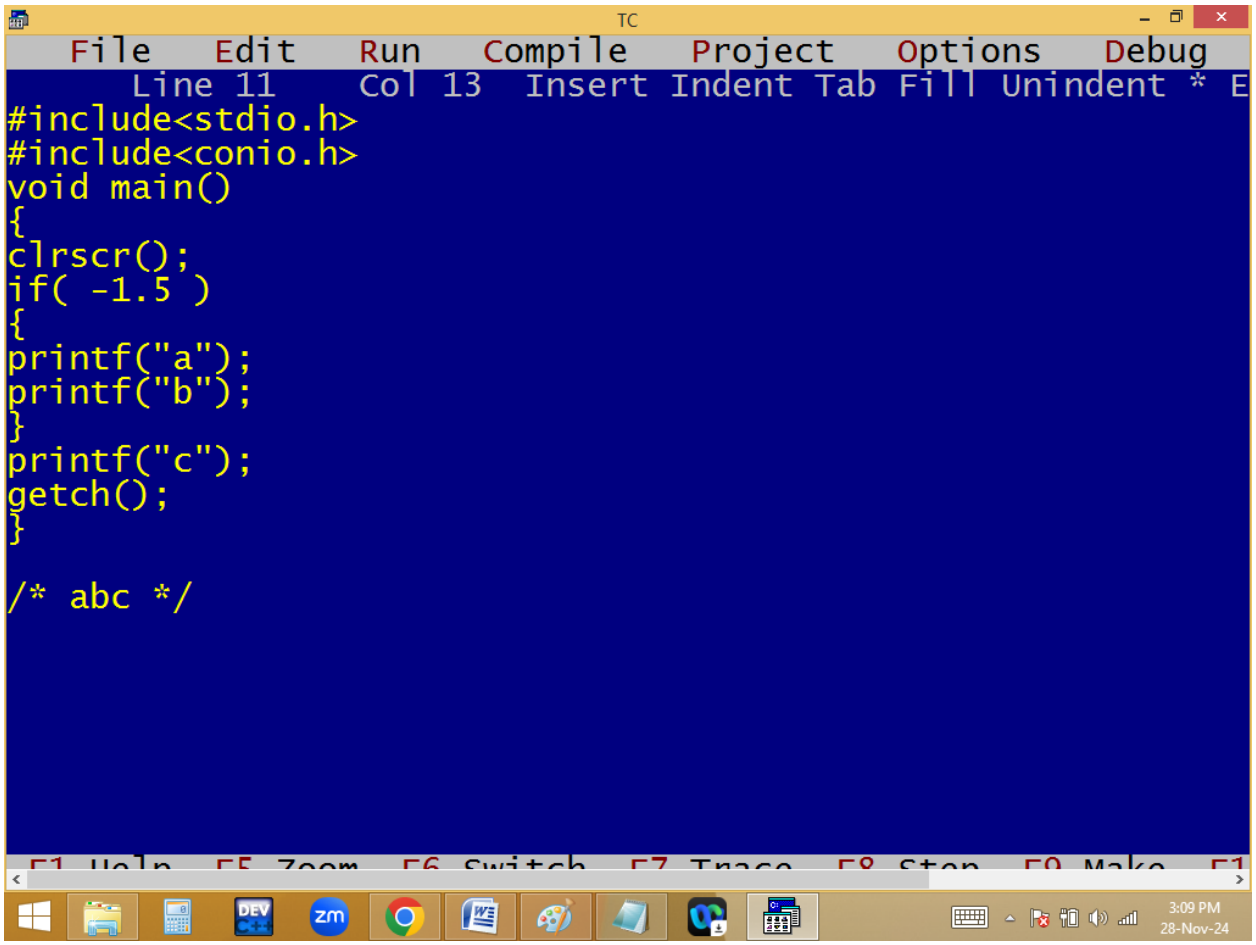

TC
File Edit Run Compile Project Options Debug
Line 15 Col 5 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(5/6)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* c_*/
3:04 PM
28-Nov-24

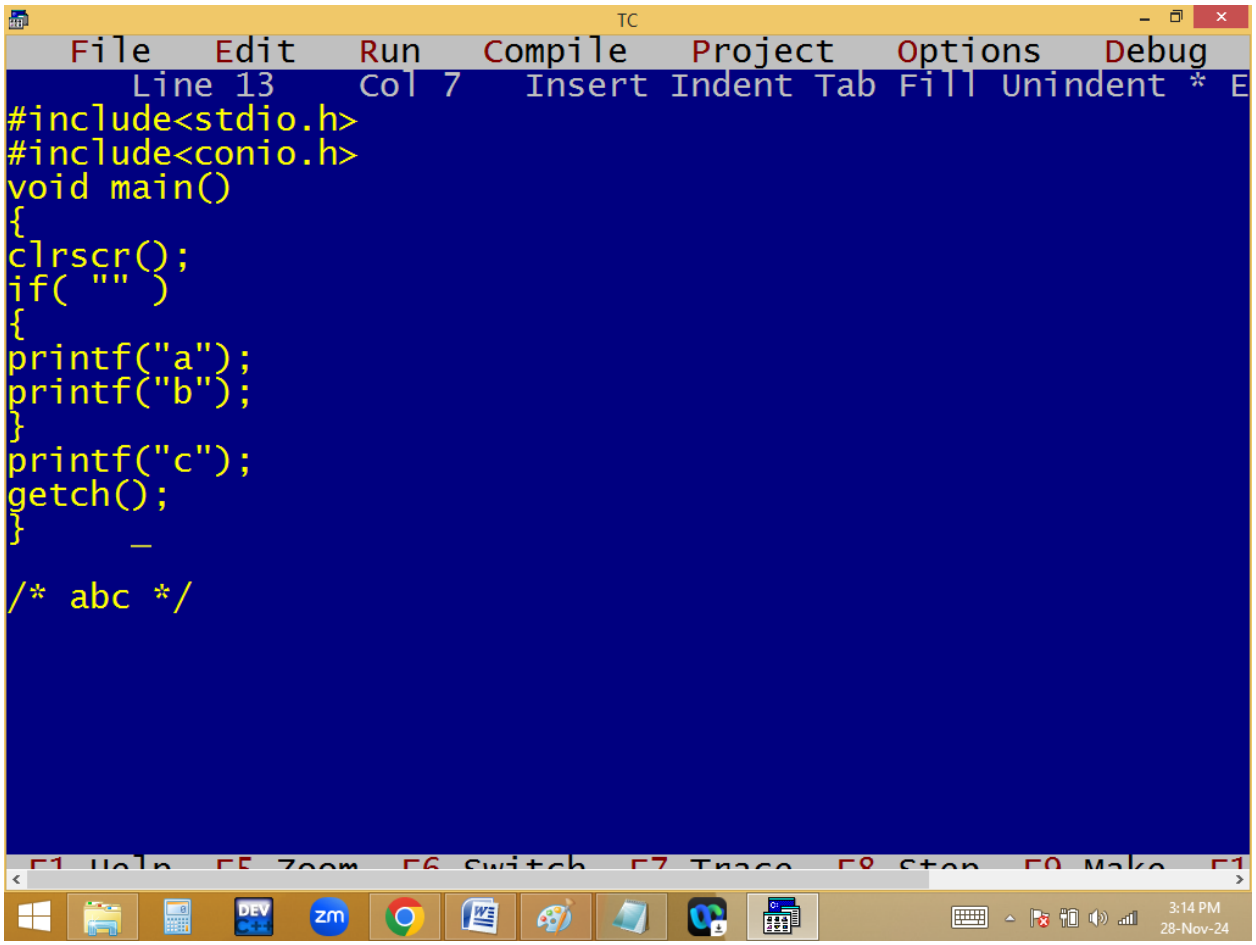

TC
File Edit Run Compile Project Options Debug
Line 15 Col 6 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(5.0/6)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
F1 Help F5 Zoom F6 Switch F7 Trace F8 Step F9 Make F1
3:05 PM
28-Nov-24

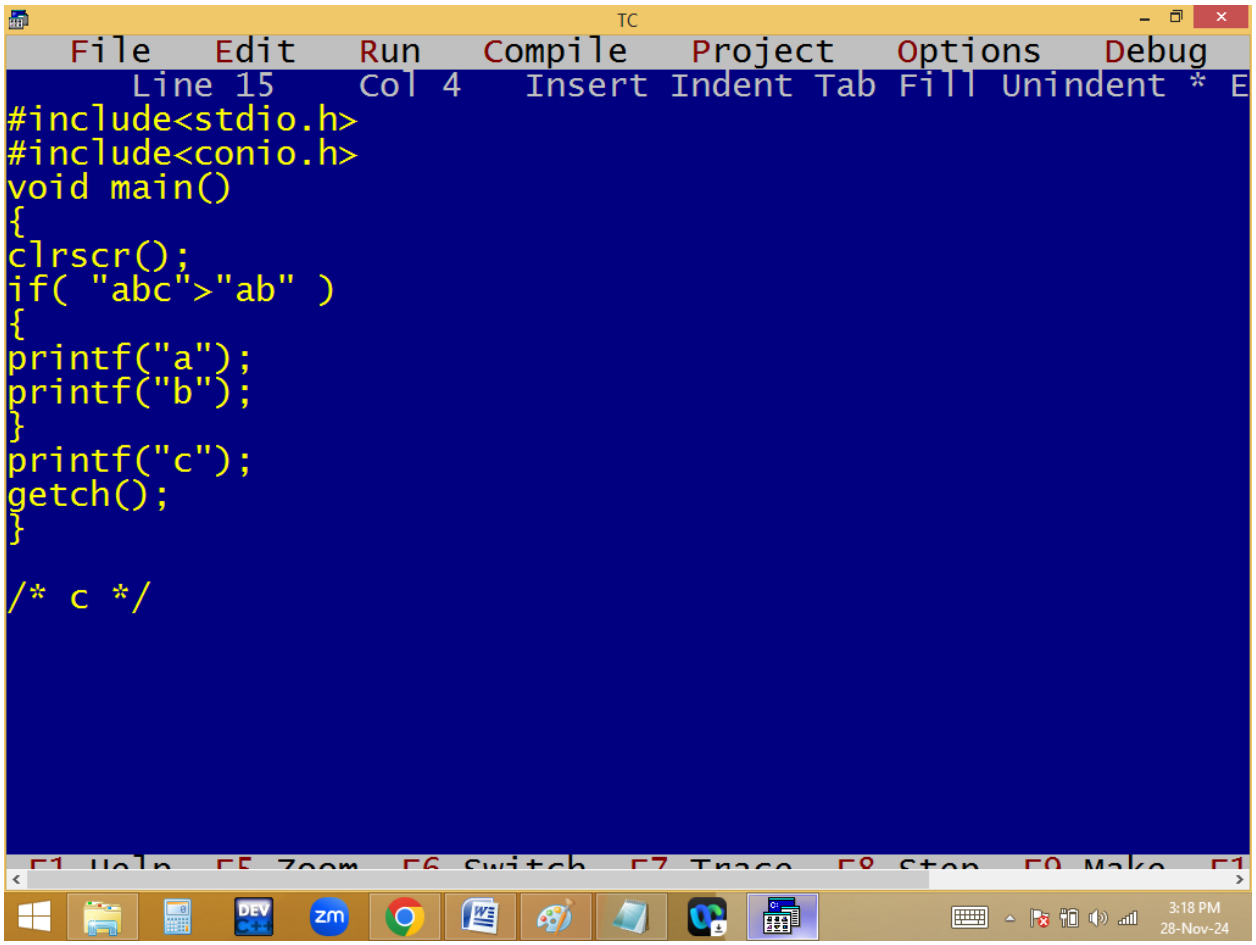

TC
File Edit Run Compile Project Options Debug
Line 15 Col 18 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if('a'%'b')
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
3:06 PM
28-Nov-24

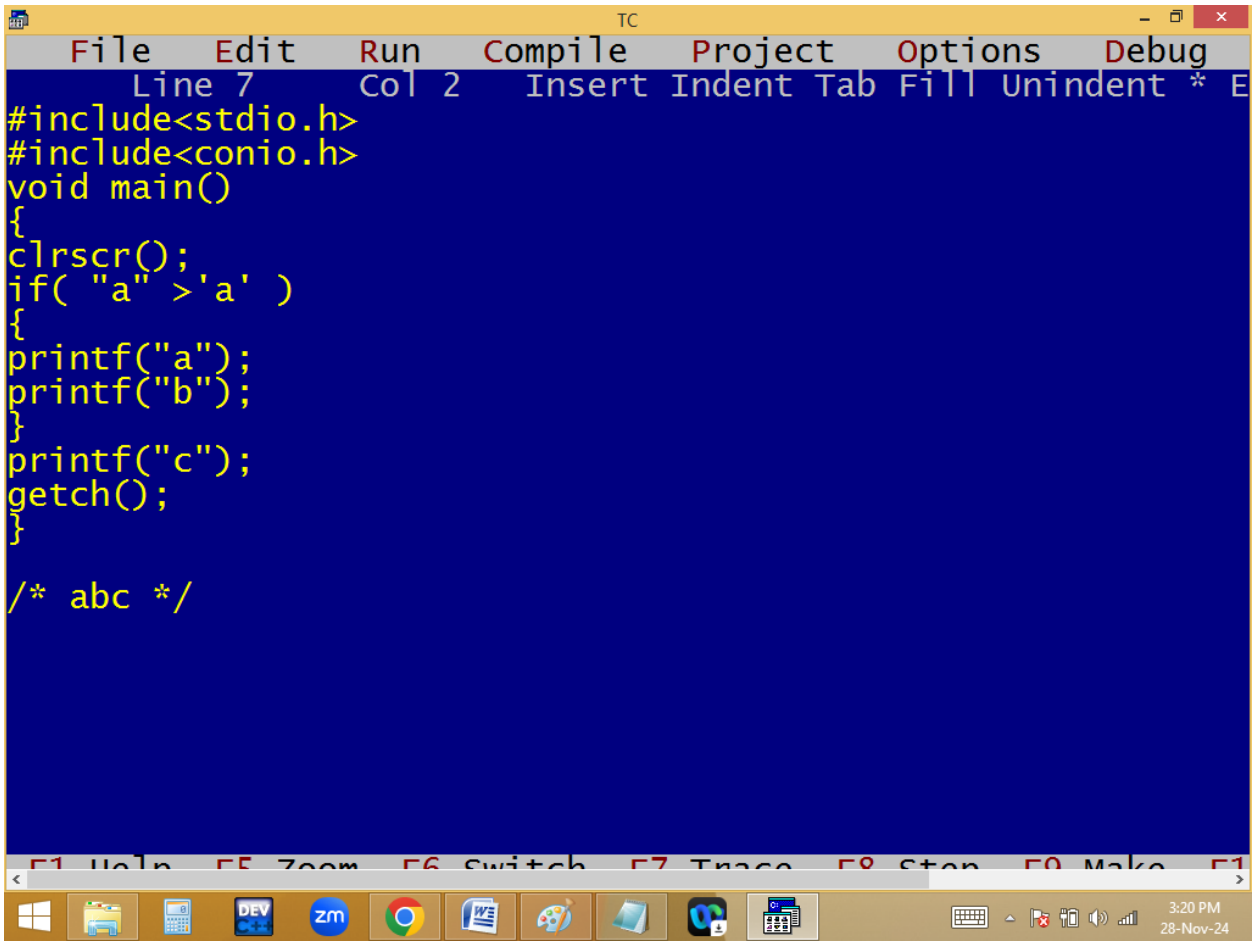

TC
File Edit Run Compile Project Options Debug
Line 6 Col 25 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(2>='2') /* 2>=50 */
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* c */
3:07 PM
28-Nov-24

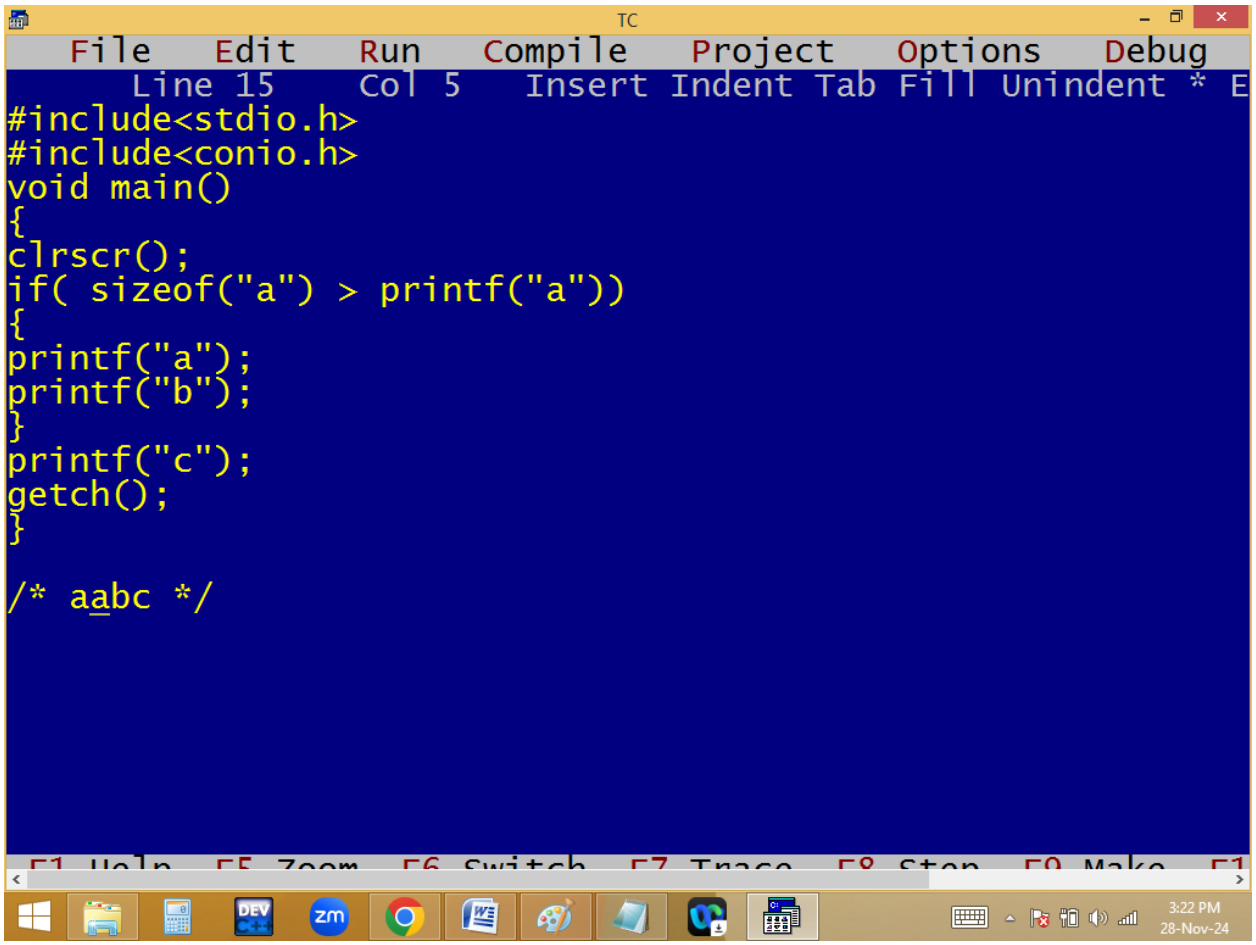

TC
File Edit Run Compile Project Options Debug
Line 15 Col 6 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if('0') /* 48 */
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
3:08 PM
28-Nov-24

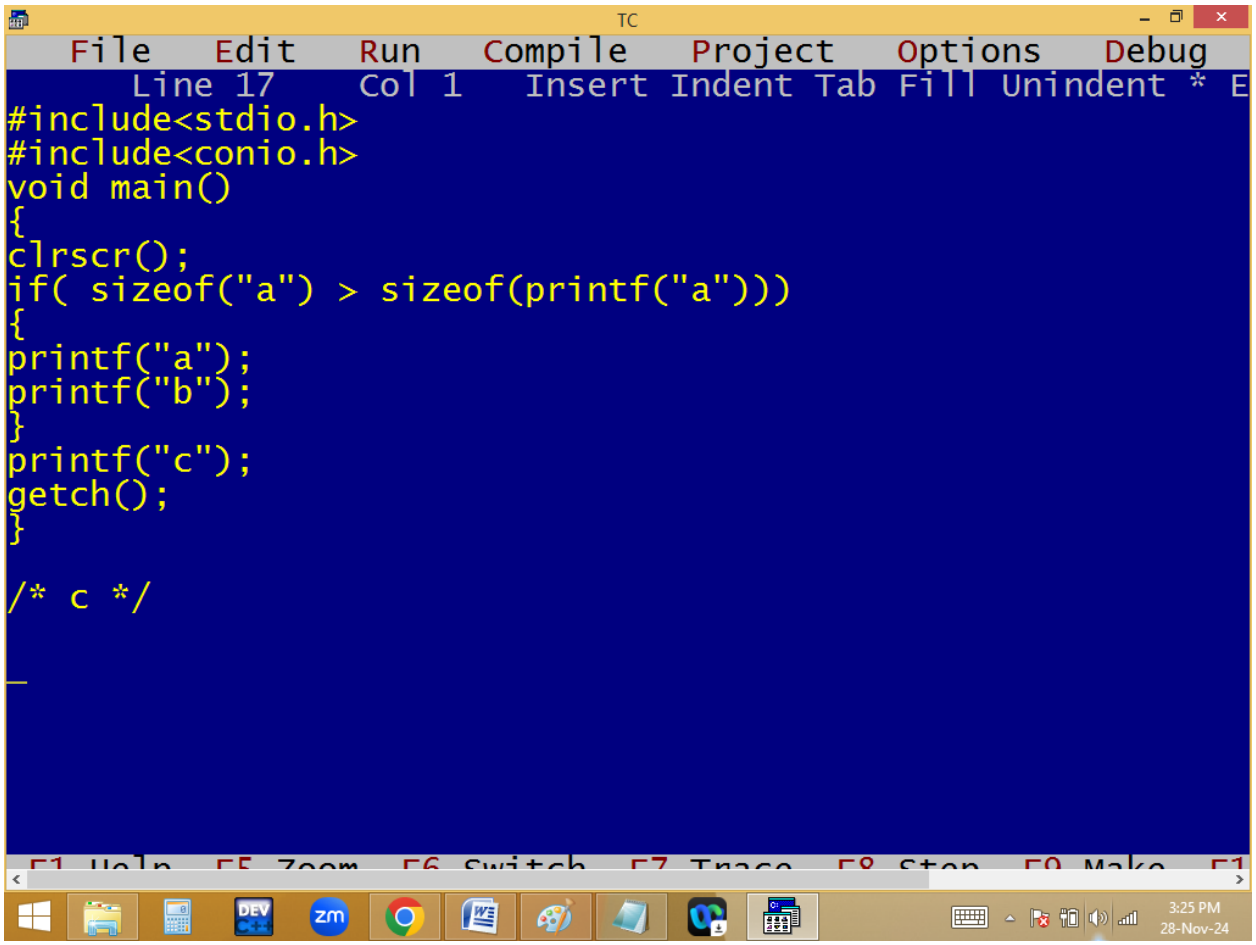

TC
File Edit Run Compile Project Options Debug
Line 11 Col 13 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(-1.5)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
3:09 PM
28-Nov-24

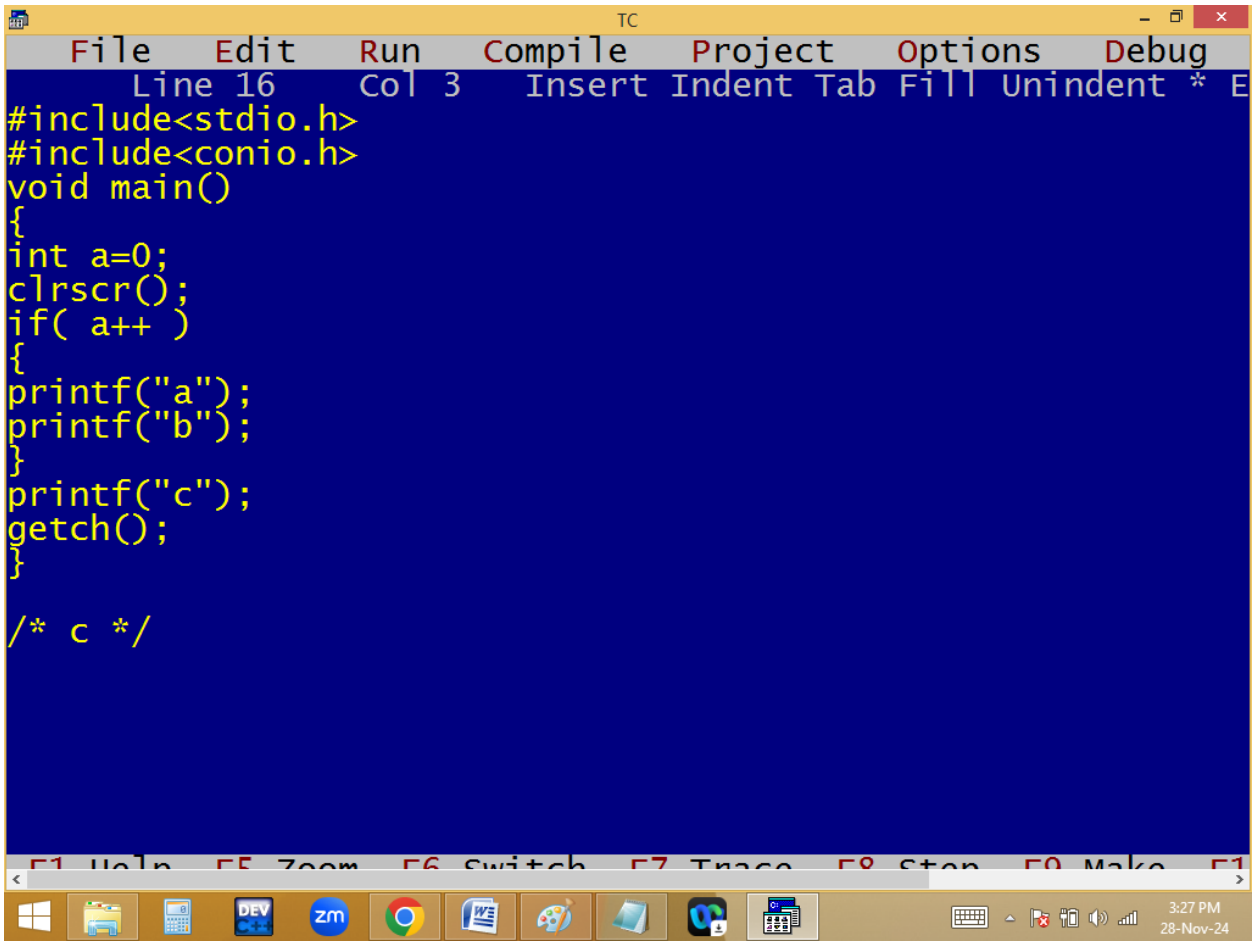

TC
File Edit Run Compile Project Options Debug
Line 13 Col 7 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if("")
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
3:14 PM
28-Nov-24

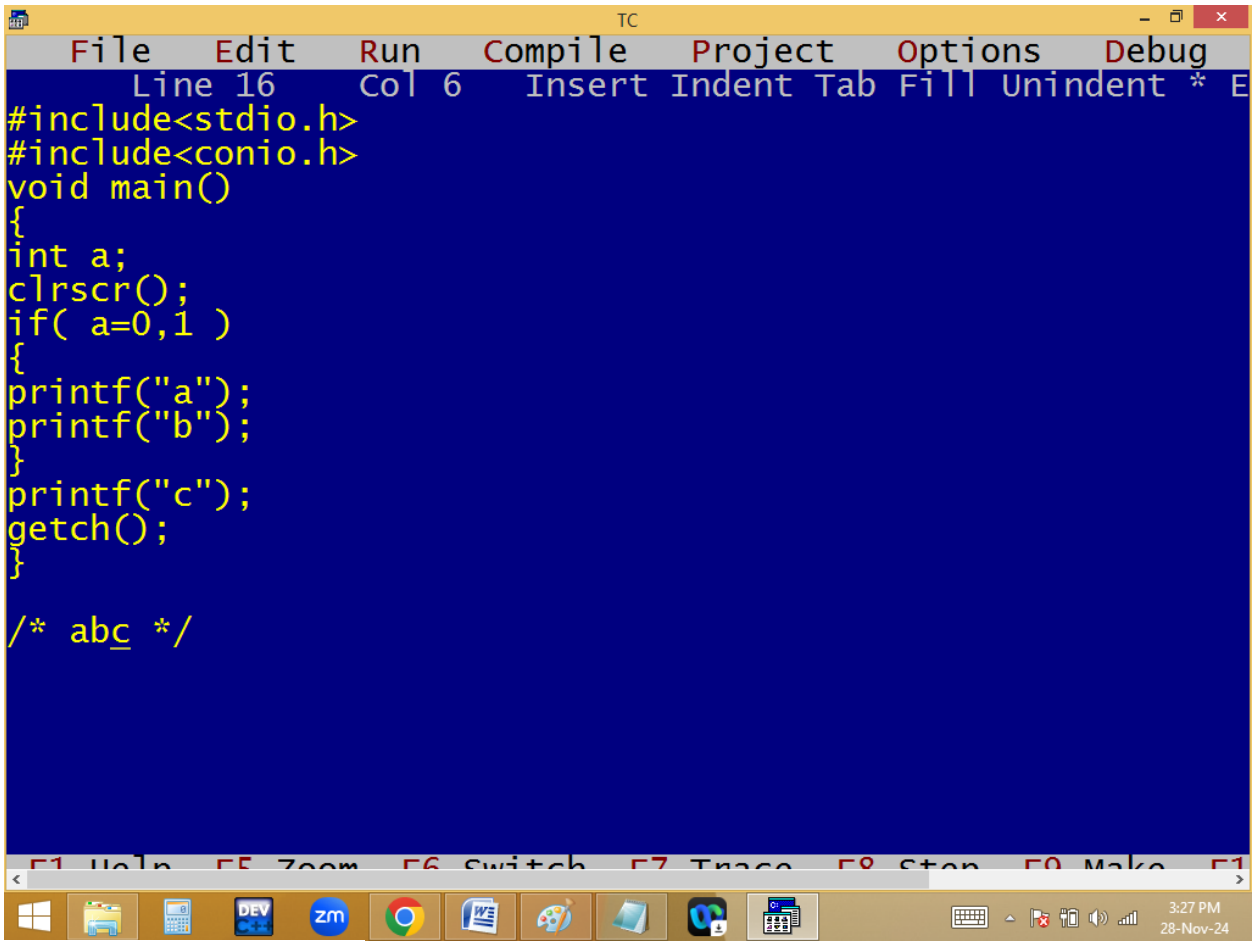

TC
File Edit Run Compile Project Options Debug
Line 15 Col 4 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if("abc">"ab")
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* c */
3:18 PM
28-Nov-24

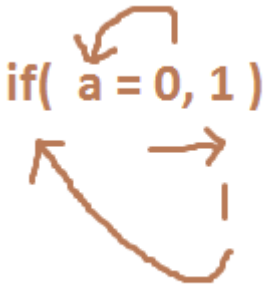

TC
File Edit Run Compile Project Options Debug
Line 7 Col 2 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if("a" >'a')
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
3:20 PM
28-Nov-24

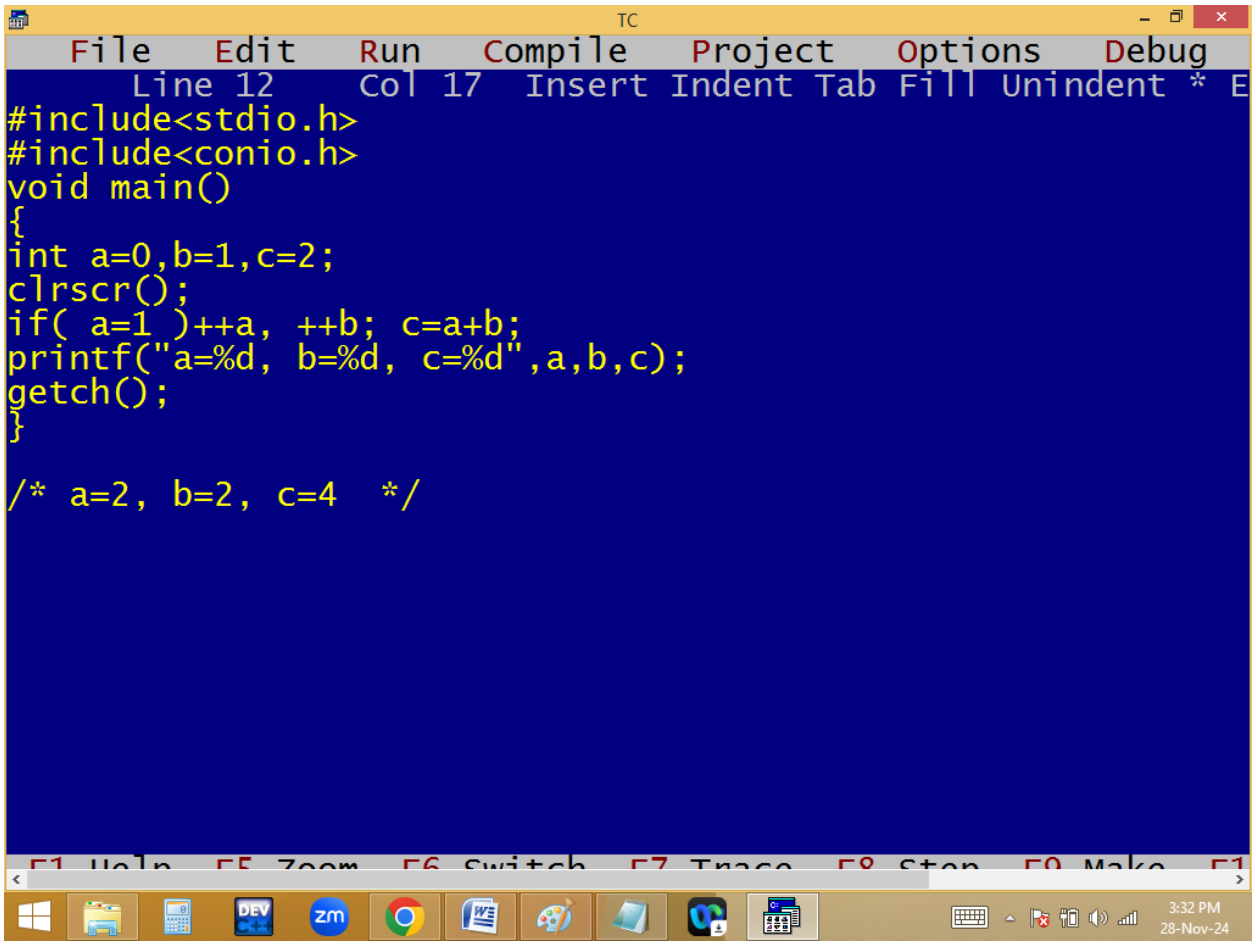

TC
File Edit Run Compile Project Options Debug
Line 15 Col 5 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(sizeof("a") > printf("a"))
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* aabc */
3:22 PM
28-Nov-24

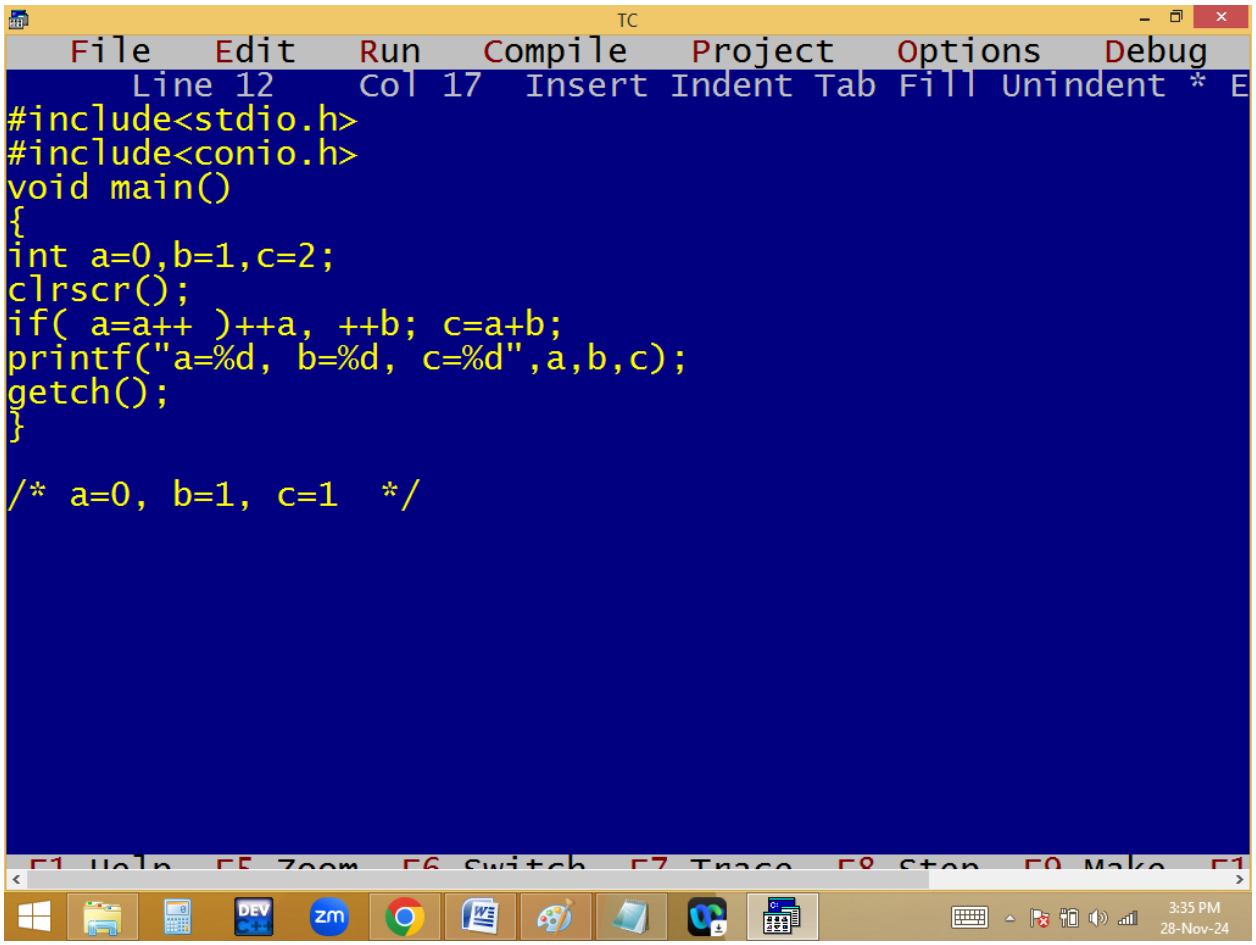

TC
File Edit Run Compile Project Options Debug
Line 17 Col 1 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
if(sizeof("a") > sizeof(printf("a")))
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* c */
3:25 PM
28-Nov-24

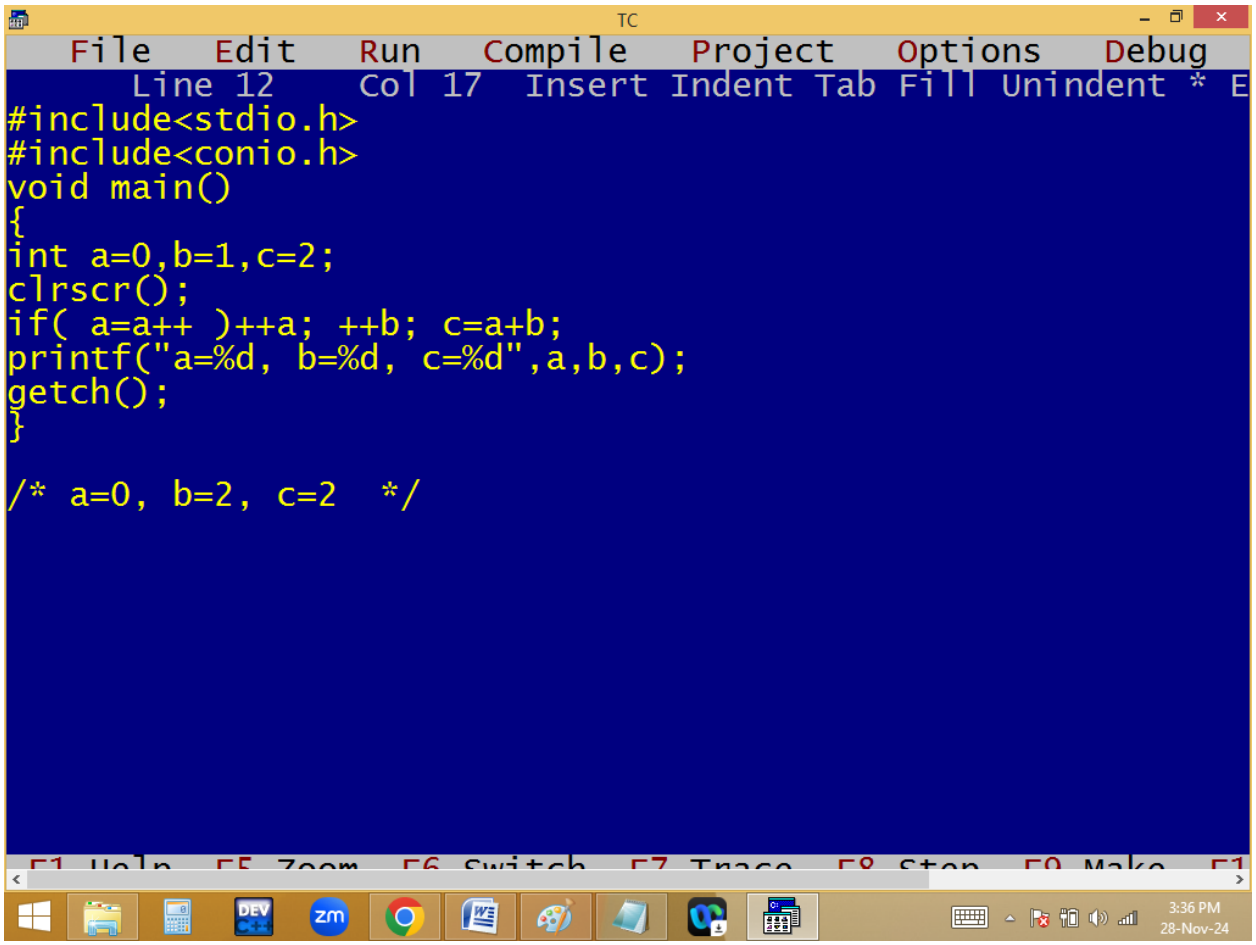

TC
File Edit Run Compile Project Options Debug
Line 16 Col 3 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
clrscr();
if(a++)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* c */
3:27 PM
28-Nov-24

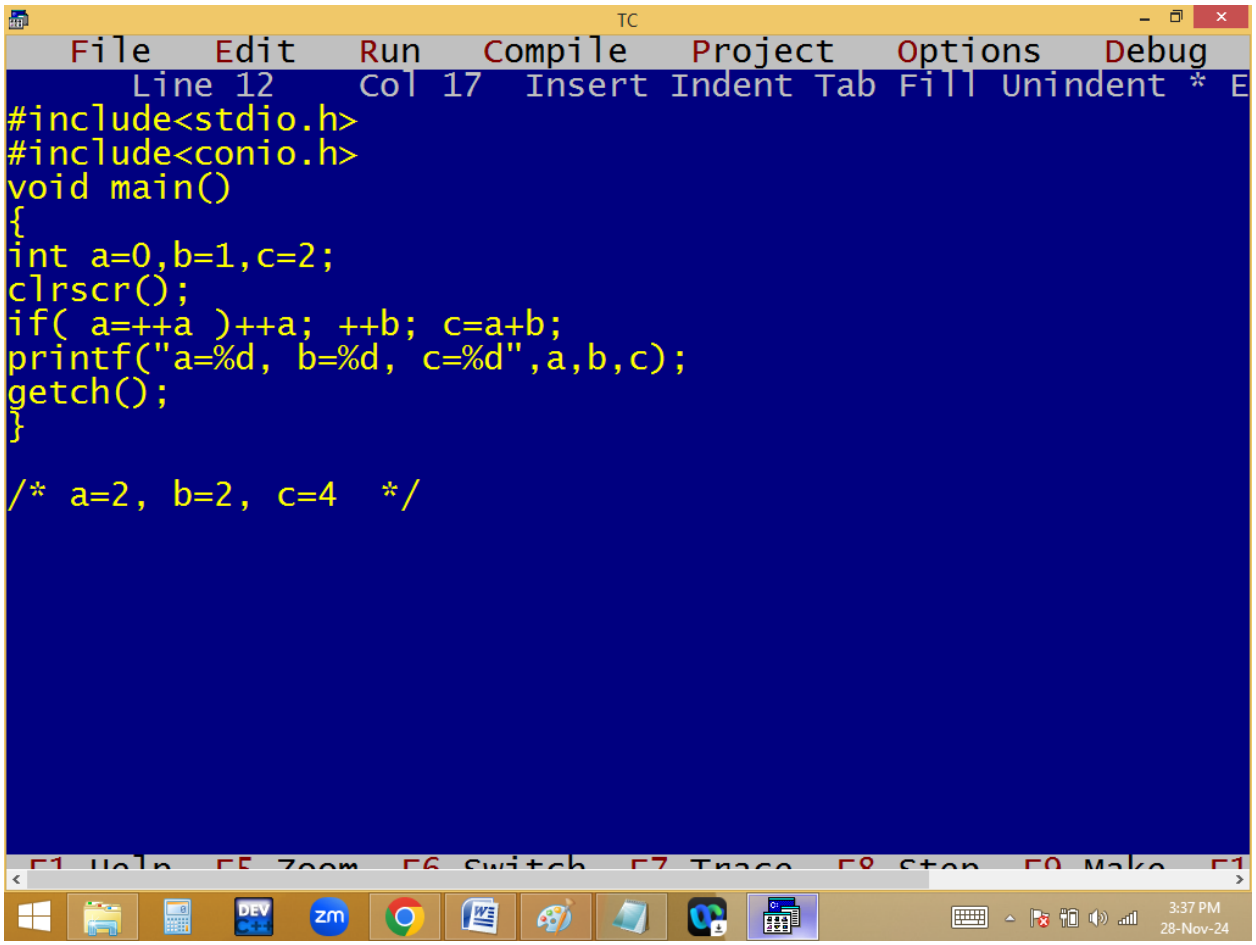

TC
File Edit Run Compile Project Options Debug
Line 16 Col 6 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
clrscr();
if(a=0,1)
{
printf("a");
printf("b");
}
printf("c");
getch();
}
/* abc */
3:27 PM
28-Nov-24


if(a = 0, 1)


TC
File Edit Run Compile Project Options Debug
Line 12 Col 17 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0,b=1,c=2;
clrscr();
if(a=1)++a, ++b; c=a+b;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=2, b=2, c=4 */
3:32 PM
28-Nov-24


TC
File Edit Run Compile Project Options Debug
Line 12 Col 17 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0,b=1,c=2;
clrscr();
if(a=a++)++a, ++b; c=a+b;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=0, b=1, c=1 */
3:35 PM
28-Nov-24


TC
File Edit Run Compile Project Options Debug
Line 12 Col 17 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0,b=1,c=2;
clrscr();
if(a=a++)++a; ++b; c=a+b;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=0, b=2, c=2 */
3:36 PM
28-Nov-24


TC
File Edit Run Compile Project Options Debug
Line 12 Col 17 Insert Indent Tab Fill Unindent * E
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0,b=1,c=2;
clrscr();
if(a=++a)++a; ++b; c=a+b;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=2, b=2, c=4 */
3:37 PM
28-Nov-24

TC

File Edit Run Compile Project Options Debug

Line 12 Col 22 Insert Indent Tab Fill Unindent * E

```
#include<stdio.h>
#include<conio.h>
void main()
{
char a=65,b=66,c=a+b;
clrscr();
if( c>=131 )++a; ++b;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}

/* a=65, b=67, c=-125_ */
```

F1 Help F5 Zoom F6 Switch F7 Trace F8 Step F9 Make F1

3:53 PM 28-Nov-24

256 characters - 256 ASCII values

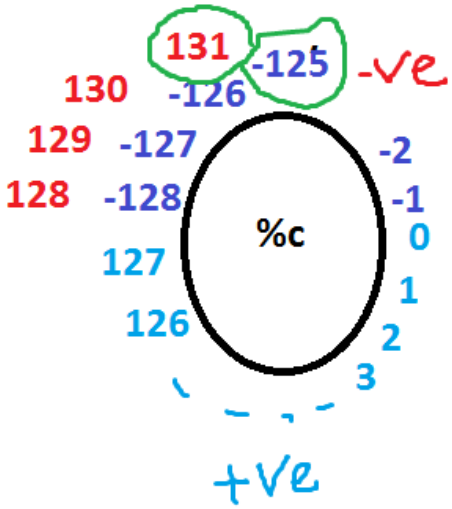
char cycle

unsigned char 0 - 255

a=65

b=66

c=131



131

-128 + 3 = -125

3

256

-131

-125