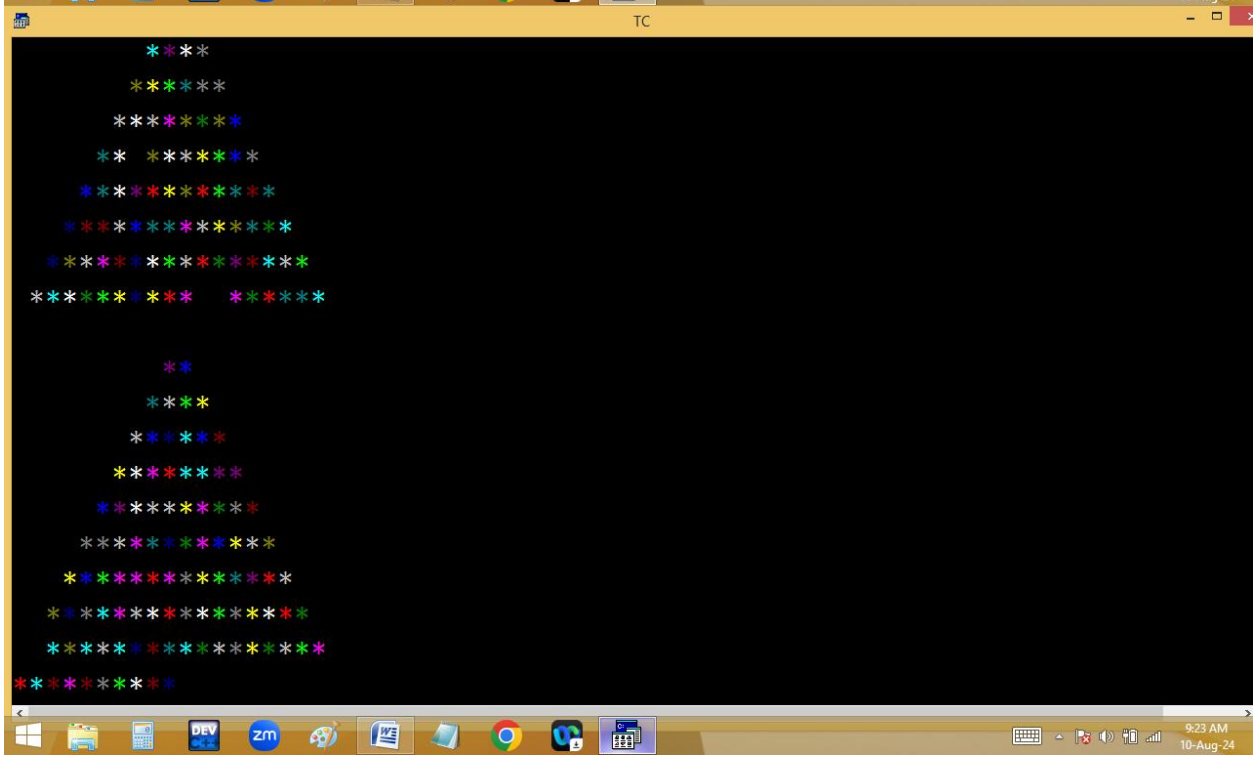
TC

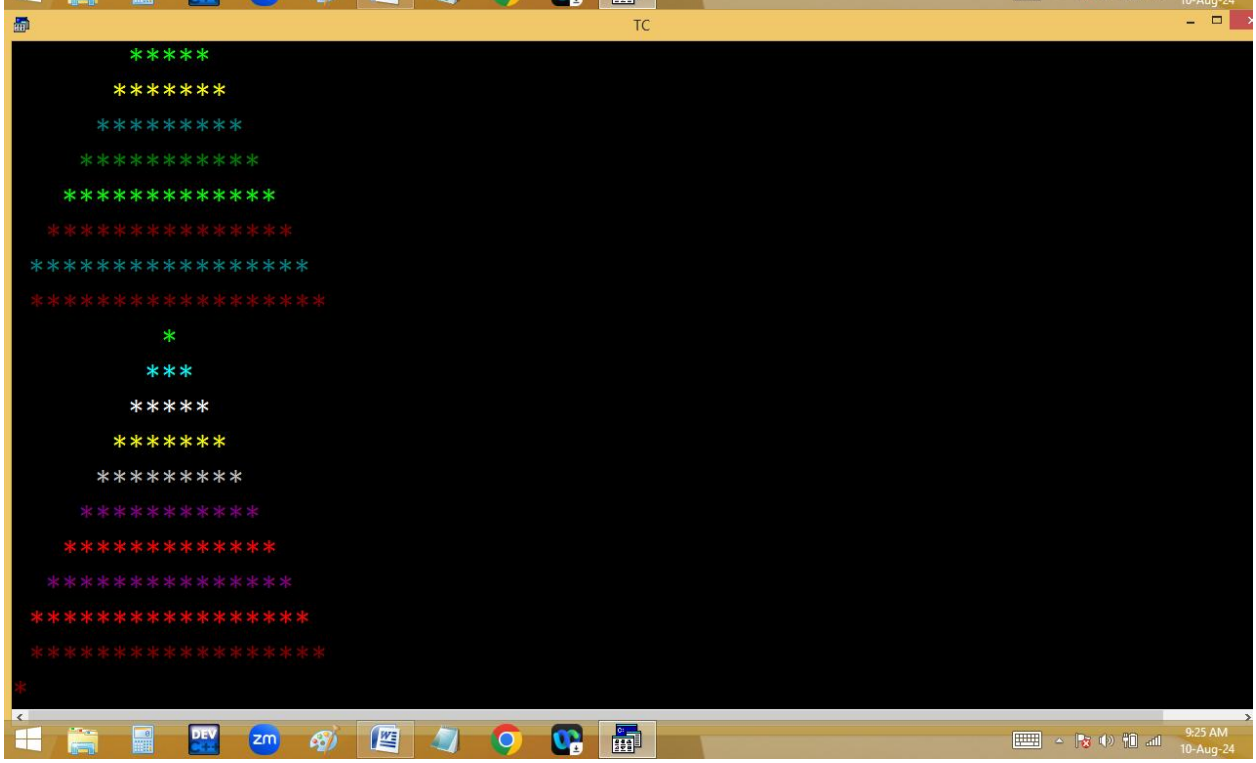
Line 18 Col 19 Insert Indent Tab Fill Unindent * E:9AM.C

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int  n, r,c,s;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
while(!kbhit())
{
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)printf(" ");
for(c=1;c<=2*r-1;c++){textcolor(random(16));cprintf("*");}
printf("\n");
}
}
}
```



TC

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int  n, r,c,s;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
while(!kbhit())
{
for(r=1;r<=n;r++)
{
textcolor(random(16));
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)cprintf("*");
printf("\n");
}
}
}
```

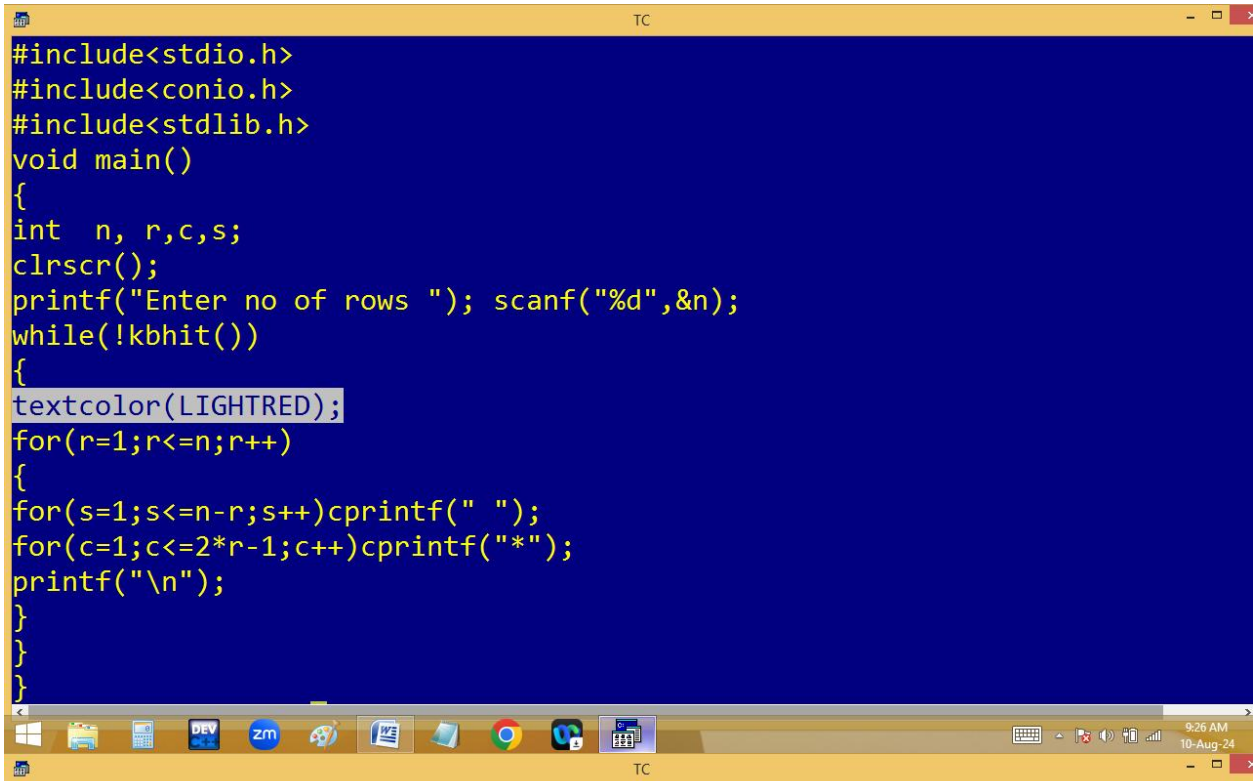


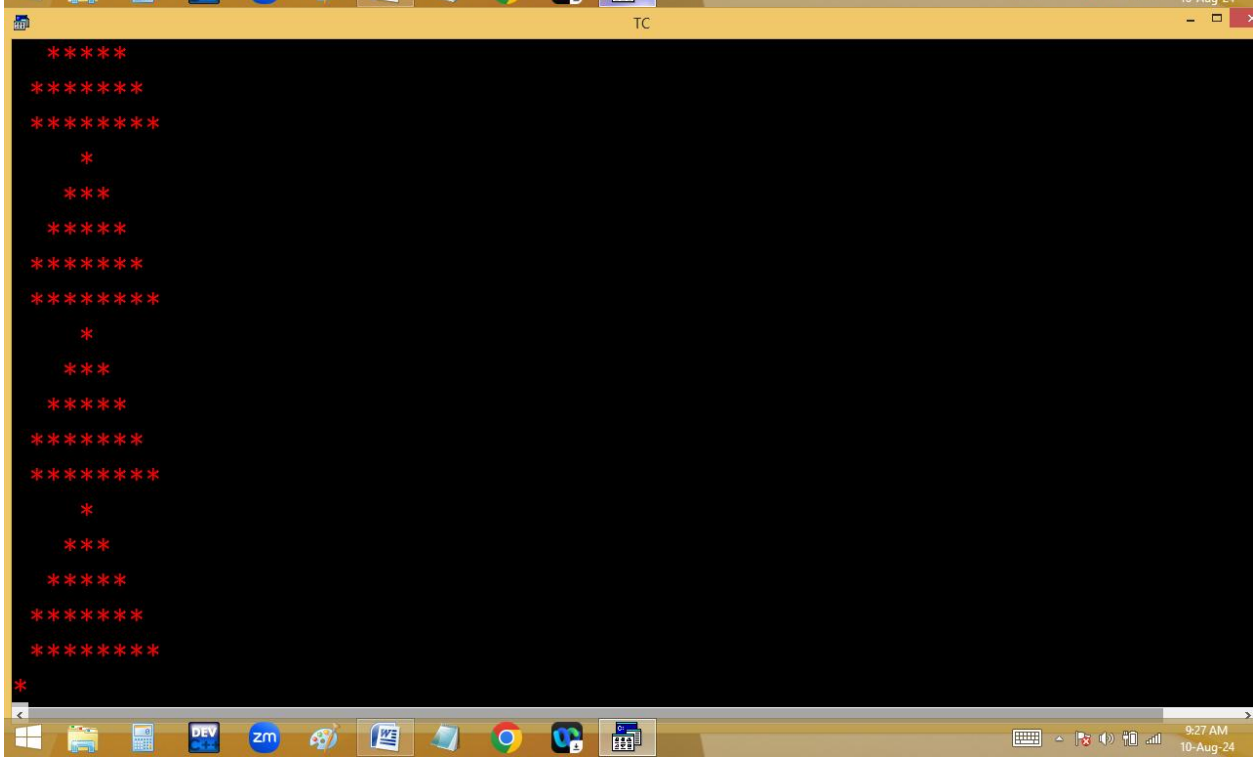
TC

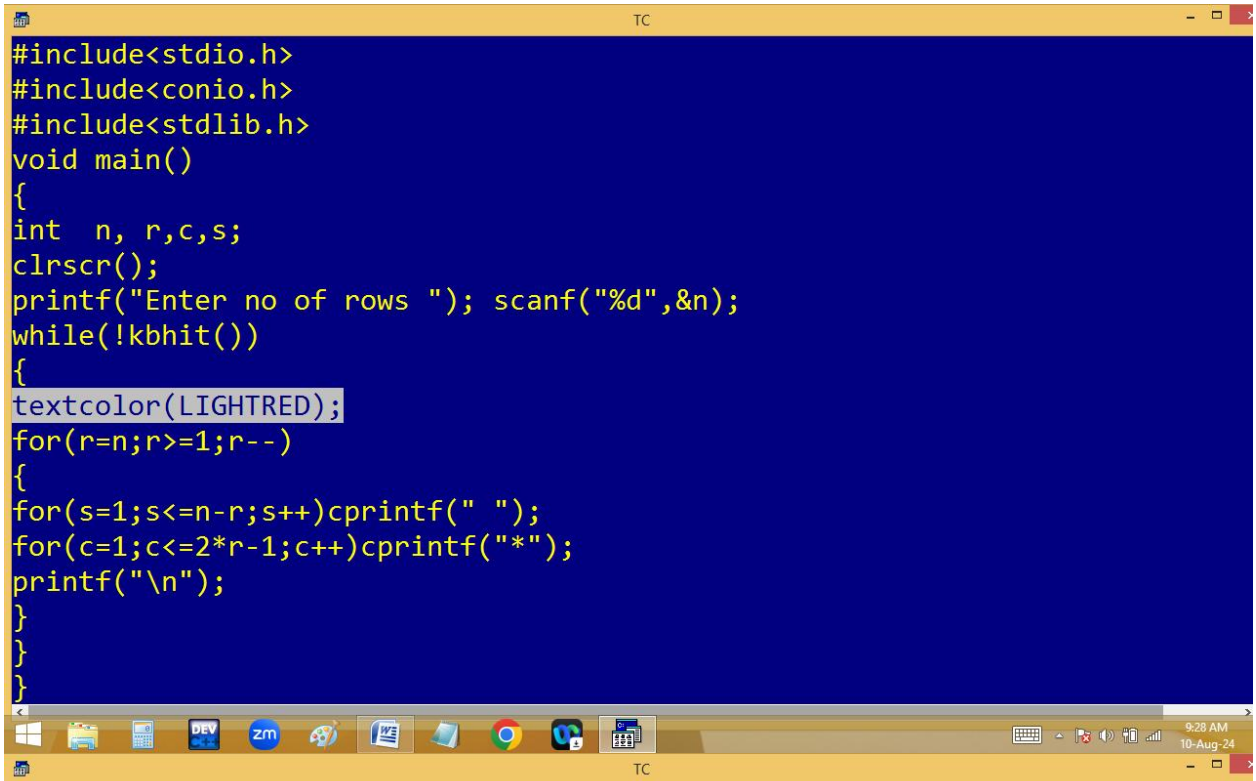
```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int  n, r,c,s;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
while(!kbhit())
{
textcolor(random(16));
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)cprintf("*");
printf("\n");
}
}
}
```

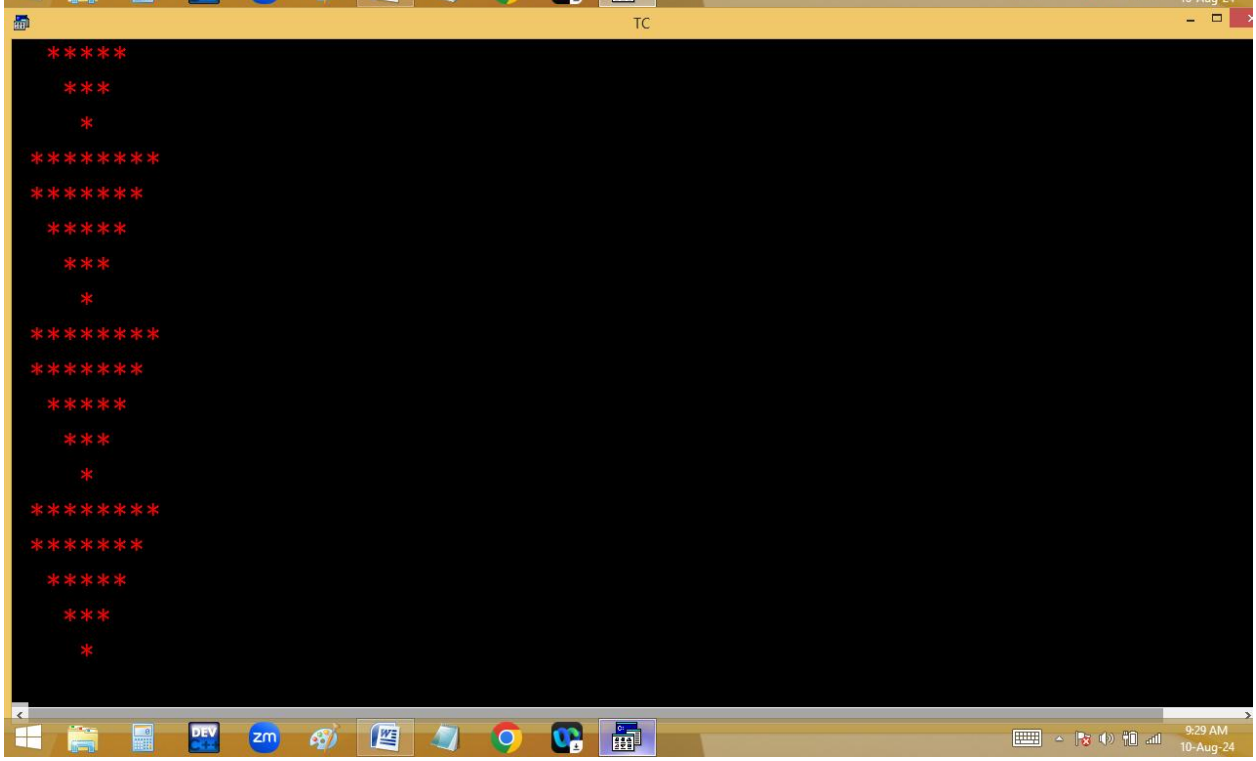

TC

```
       *****
      *******
     *********
    ***********
   *************
  ***************
 *****************
 *****************
         *
        ***
       *****
      *******
     *********
    ***********
   *************
  ***************
 *****************
 *****************
*
```


TC
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int n, r,c,s;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
while(!kbhit())
{
textcolor(LIGHTRED);
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)cprintf("*");
printf("\n");
}
}
}
9:26 AM
10-Aug-24


TC
*****
****
****
*
***
*****
****
****
*
***
*****
****
****
*
***
*****
****
****
*
9:27 AM
10-Aug-24



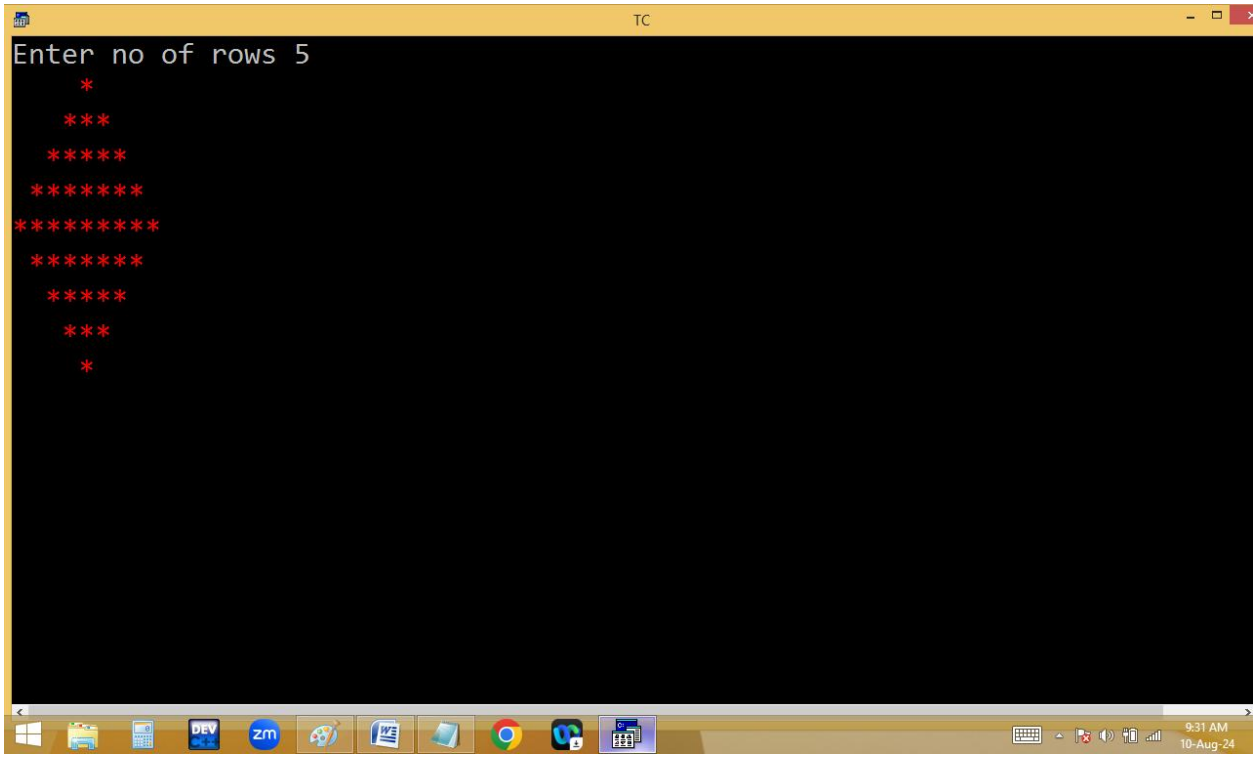


#include<stdio.h>

#include<conio.h>

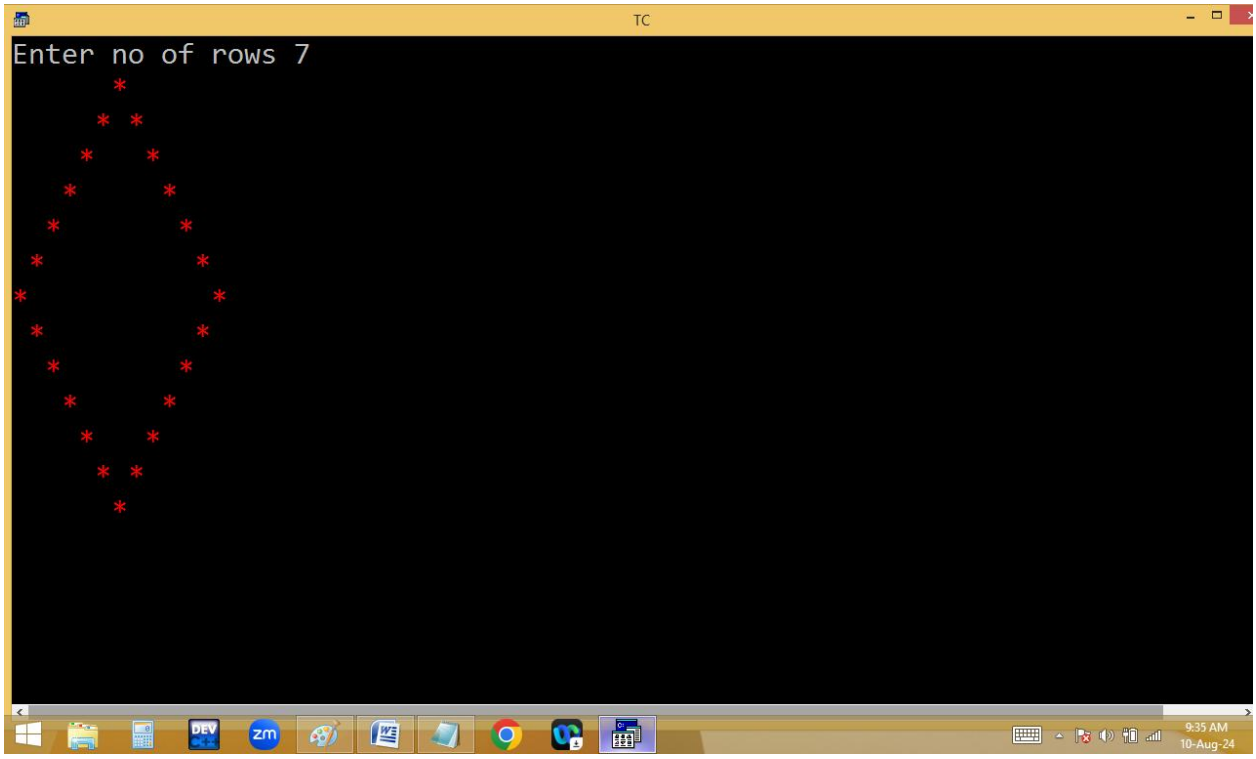
#include<stdlib.h>

```
void main()
{
int  n, r,c,s;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
textcolor(LIGHTRED);
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)cprintf("*");
printf("\n");
}
for(r=n-1;r>=1;r--)
{
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)cprintf("*");
printf("\n");
}
getch();
}
```




```
#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

void main()

{

int  n, r,c,s;

clrscr();

printf("Enter no of rows "); scanf("%d",&n);

textcolor(LIGHTRED);
```

```
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)if(c==1||c==r)cprintf("* ");else
printf("  ");
printf("\n");
}
for(r=n-1;r>=1;r--)
{
for(s=1;s<=n-r;s++)cprintf(" ");
for(c=1;c<=2*r-1;c++)if(c==1||c==r)cprintf("* ");else
printf("  ");
printf("\n");
}
getch();
}
```


TC
Enter no of rows 7
9:35 AM
10-Aug-24

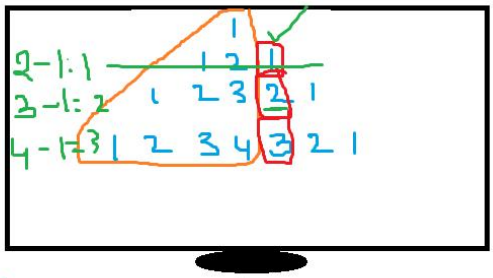
TC

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int  n, r,c,s;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)printf("   ");
for(c=1;c<=r;c++)printf("%3d",c);
for(c=r-1;c>=1;c--)printf("%3d",c);
printf("\n");
}
getch();
}
```


TC

```
Enter no of rows 12
                                    1
                                  1 2 1
                                1 2 3 2 1
                              1 2 3 4 3 2 1
                            1 2 3 4 5 4 3 2 1
                          1 2 3 4 5 6 5 4 3 2 1
                        1 2 3 4 5 6 7 6 5 4 3 2 1
                      1 2 3 4 5 6 7 8 7 6 5 4 3 2 1
                    1 2 3 4 5 6 7 8 9 8 7 6 5 4 3 2 1
                  1 2 3 4 5 6 7 8 9 10 9 8 7 6 5 4 3 2 1
                1 2 3 4 5 6 7 8 9 10 11 10 9 8 7 6 5 4 3 2 1
              1 2 3 4 5 6 7 8 9 10 11 12 11 10 9 8 7 6 5 4 3 2 1
```

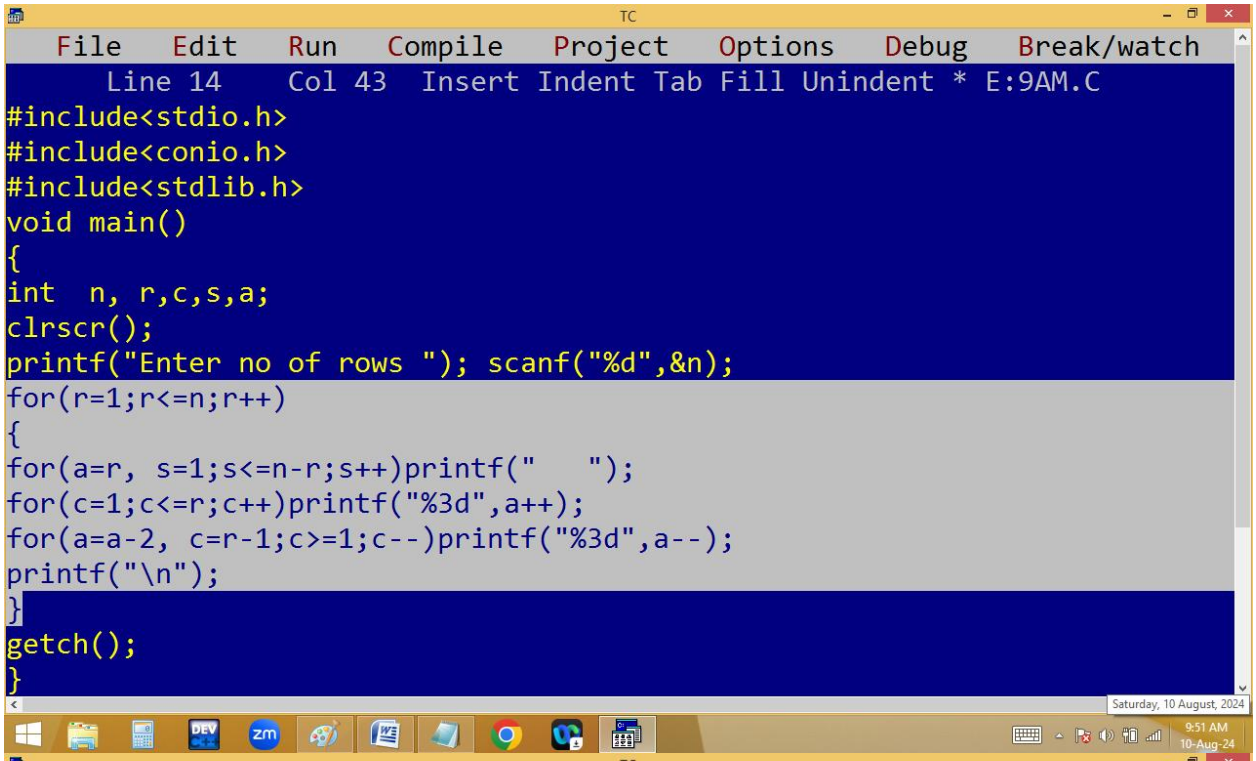
```
for( r=1; r<=4;r++ )
{
for(s=1;s<=n-r;s++)p(" ");
for(c=1;c<=r;c++)p(c);
for( c=r-1;c>=1;c--)p(c);
p("\n");
}
```

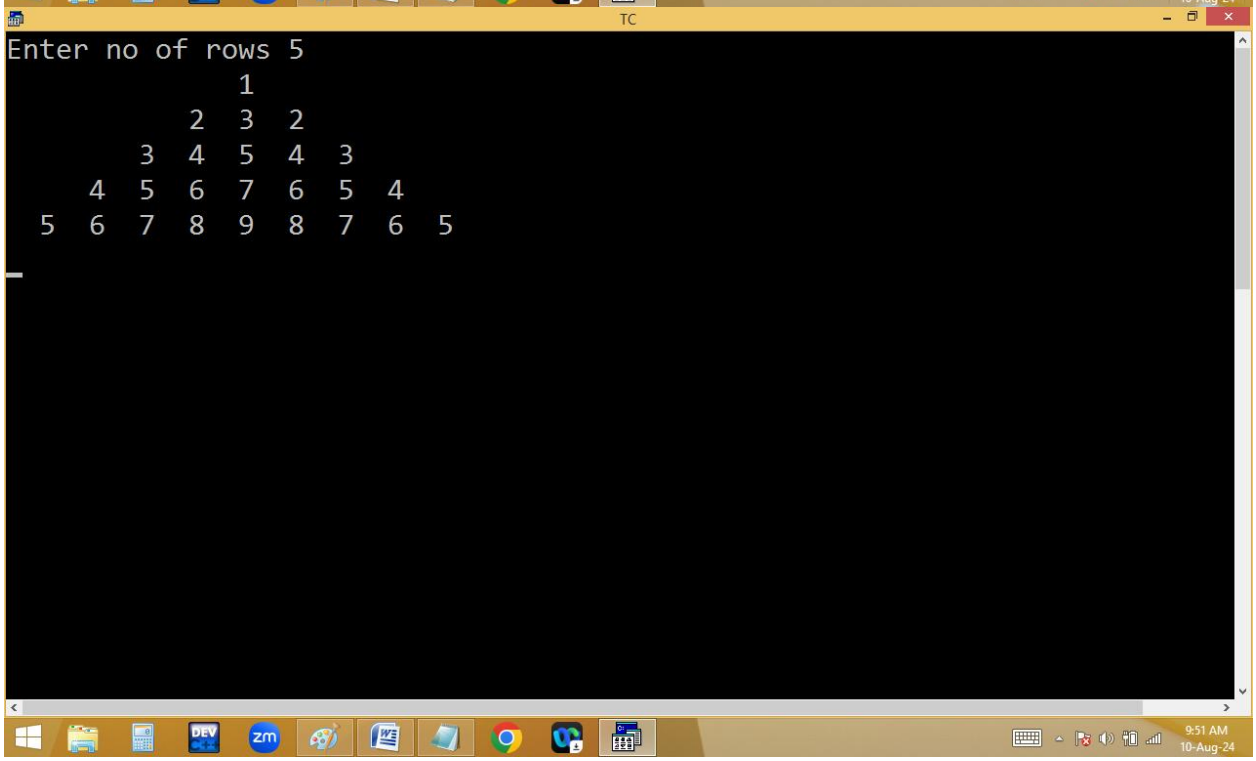


n / 4

c = 1 to r

1 - 1
1 - 2
1 - 3
1 - 4


TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 43 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int n, r,c,s,a;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(a=r, s=1;s<=n-r;s++)printf(" ");
for(c=1;c<=r;c++)printf("%3d",a++);
for(a=a-2, c=r-1;c>=1;c--)printf("%3d",a--);
printf("\n");
}
getch();
}
Saturday, 10 August, 2024
9:51 AM
10-Aug-24


TC
Enter no of rows 5
1
2 3 2
3 4 5 4 3
4 5 6 7 6 5 4
5 6 7 8 9 8 7 6 5
9:51 AM
10-Aug-24

```
for( r=1; r<=4;r++ )
{  a=r;
for(s=1;s<=n-r;s++)p(" ");
for(c=1;c<=r;c++)p( a++ );
a=a-2;
for( c=r-1;c>=1;c--)p( a-- );
p("\n");
}
```

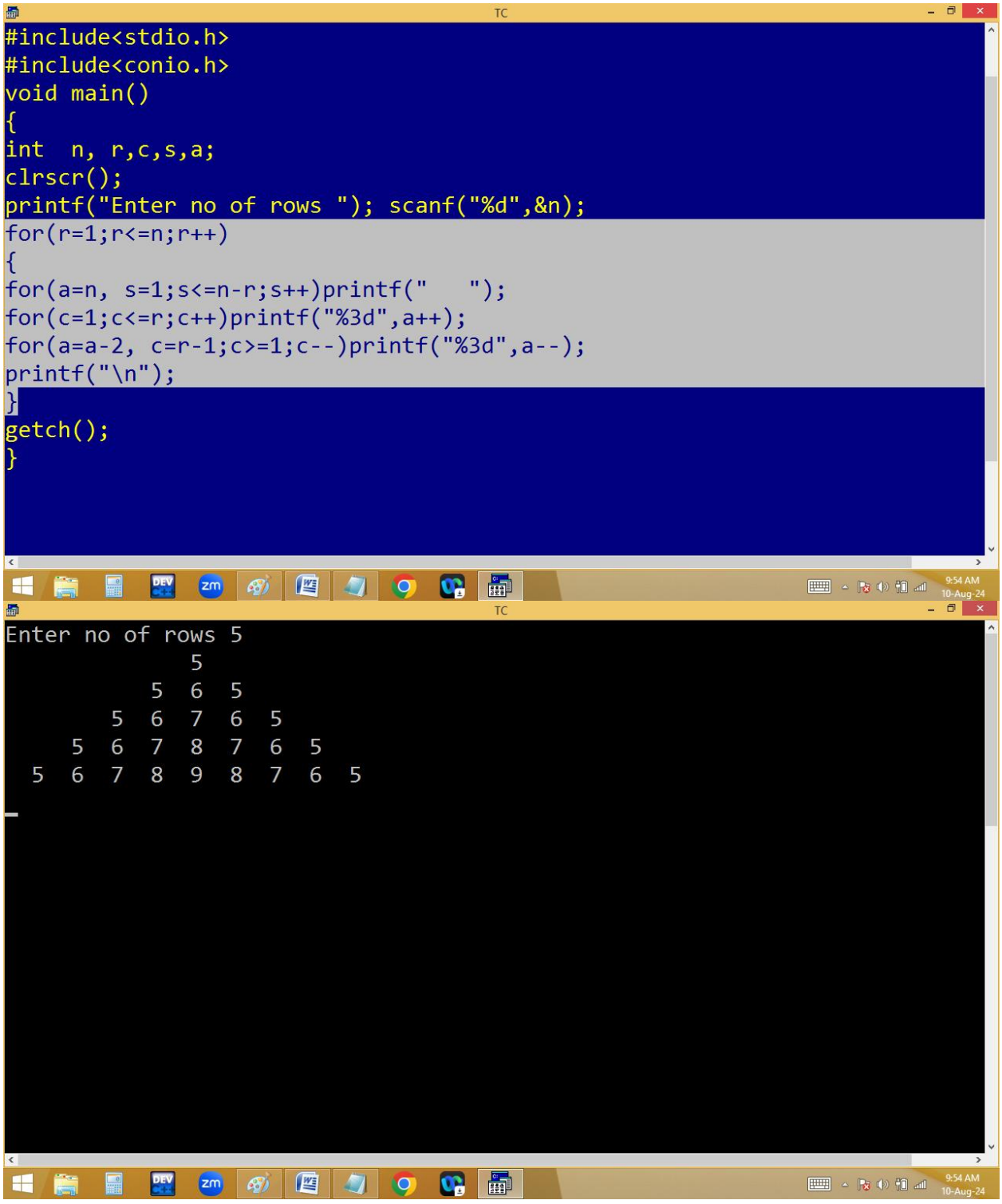
r	a
1	1
2	2 3 4
3	3 4 5 6
4	4 5 6 7 8

```
   1
  2 3 2
 3 4 5 4 3
4 5 6 7 6 5 4
```

n = 4

c = 1 to r

1 - 1
1 - 2
1 - 3
1 - 4


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int n, r,c,s,a;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(a=n, s=1;s<=n-r;s++)printf("   ");
for(c=1;c<=r;c++)printf("%3d",a++);
for(a=a-2, c=r-1;c>=1;c--)printf("%3d",a--);
printf("\n");
}
getch();
}
TC
Enter no of rows 5
5
5 6 5
5 6 7 6 5
5 6 7 8 7 6 5
5 6 7 8 9 8 7 6 5

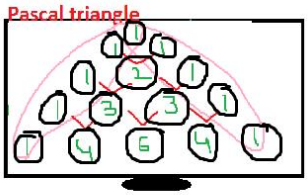
TC

```
#include<stdio.h>
#include<conio.h>
void main()
{
int  n, r,c,s,a;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=0;r<n;r++)
{
for(s=1;s<n-r;s++)printf("   ");
for(c=0;c<=r;c++)
{
if(c==0||c==r)a=1; else a=a*(r-c+1)/c;
printf("%4d",a);
}
printf("\n");
}
getch();
}
```

TC

```
Enter no of rows 12
                        1
                     1   1
                   1   2   1
                 1   3   3   1
               1   4   6   4   1
             1   5  10  10   5   1
           1   6  15  20  15   6   1
         1   7  21  35  35  21   7   1
       1   8  28  56  70  56  28   8   1
     1   9  36  84 126 126  84  36   9   1
   1  10  45 120 210 252 210 120  45  10   1
 1  11  55 165 330 462 462 330 165  55  11   1
```

```
for(r=0;r<n;r++)
{
for(s=1;s<n-r;s++)p(" ");
for(c=0;c<=r;c++)
{
if( c==0||c==r ) a=1; else a=a*(r-c+1)/c;
p(a);
}
p("\n");
}
```



n r c a

5 0 0 1

1 0 1 1 1

2 0 1 2 1*(2-1+1)/1=2

3 0 1 2 3 1*(3-1+1)/1=3

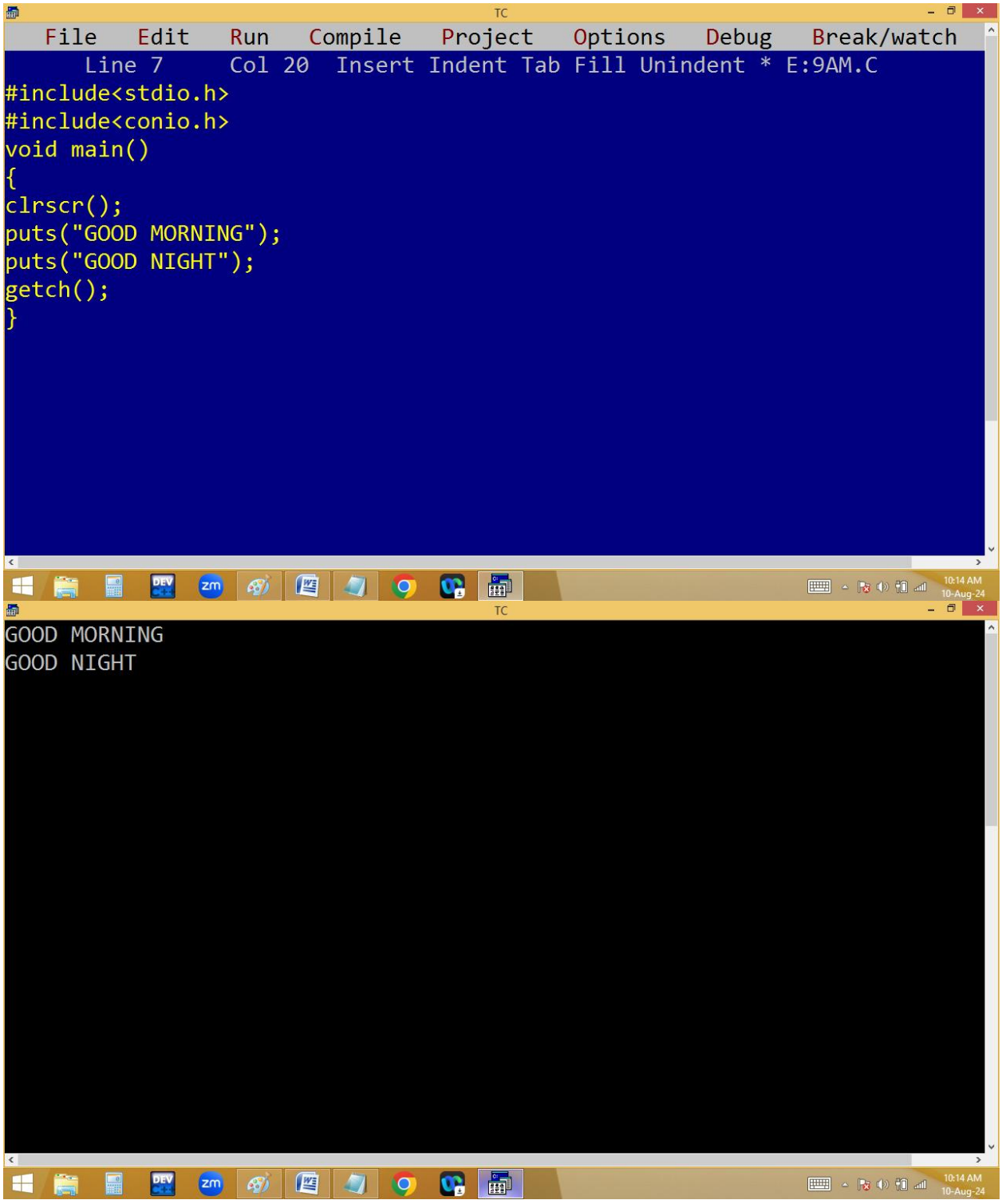
4 0 1 2 3 4 3*(3-2+1)/2=3

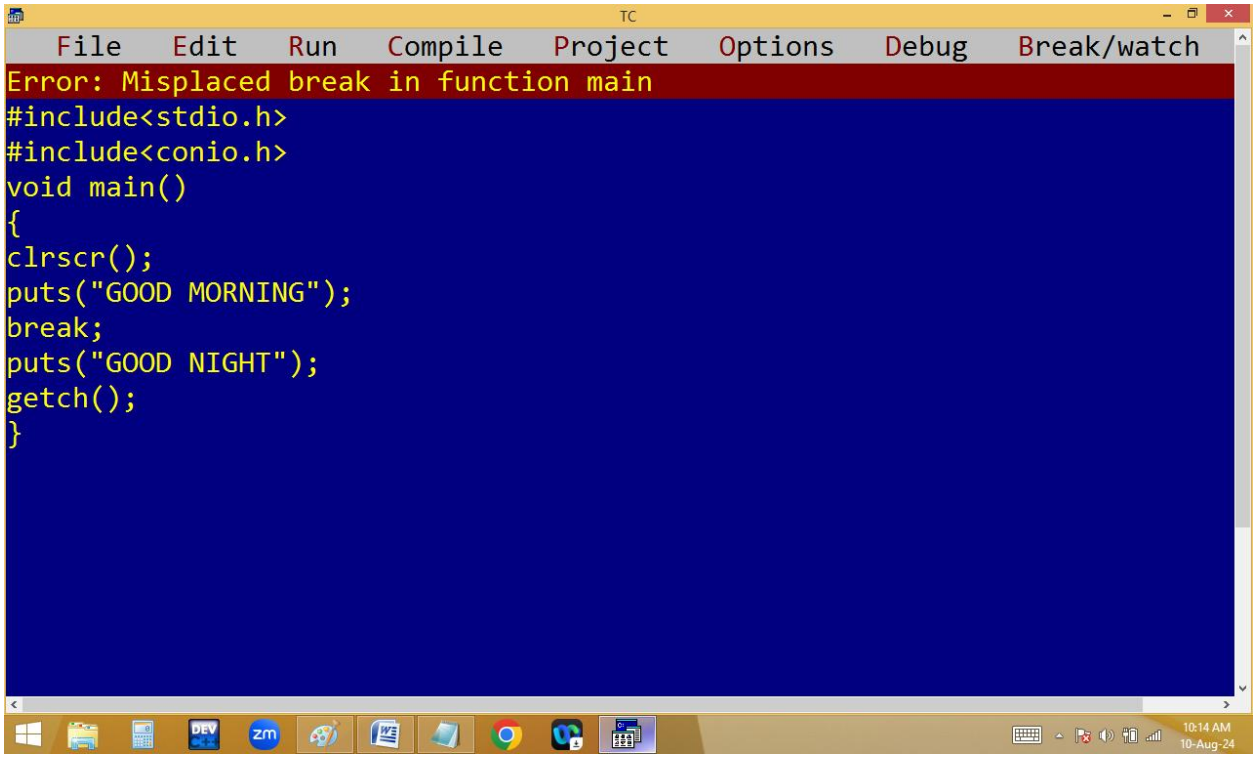
1*(4-1+1)/1=4

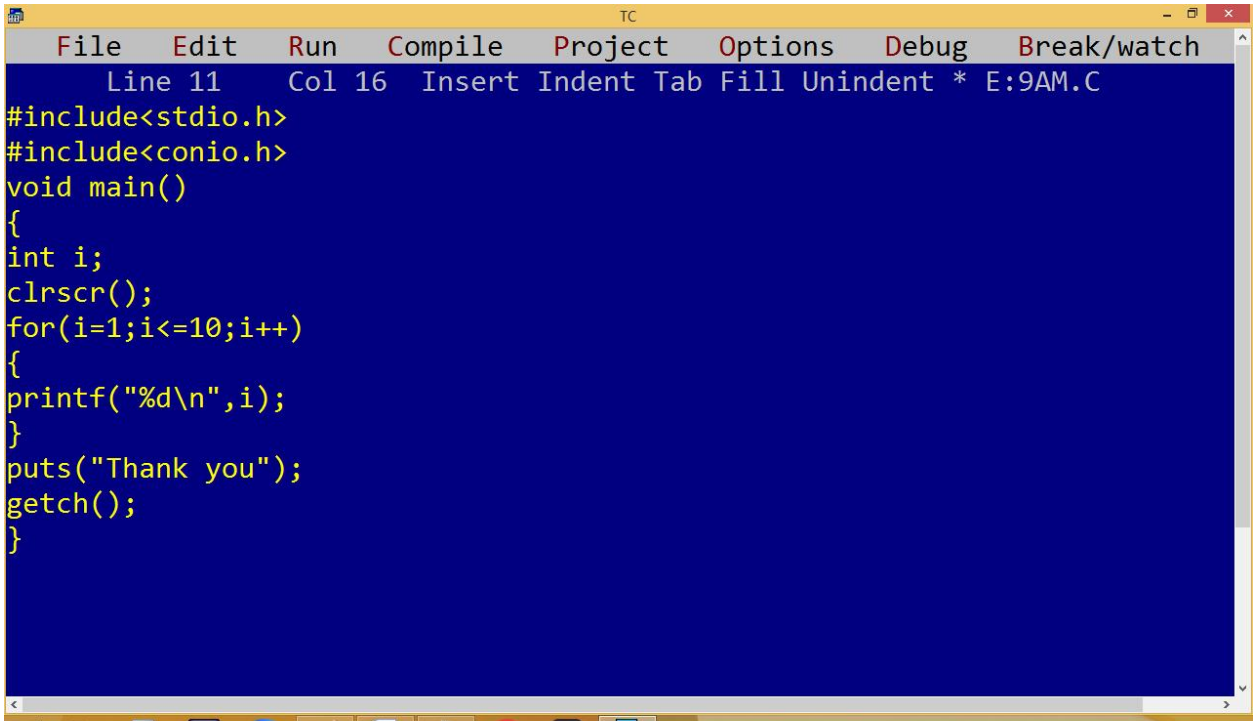
4*(4-2+1)/2=6

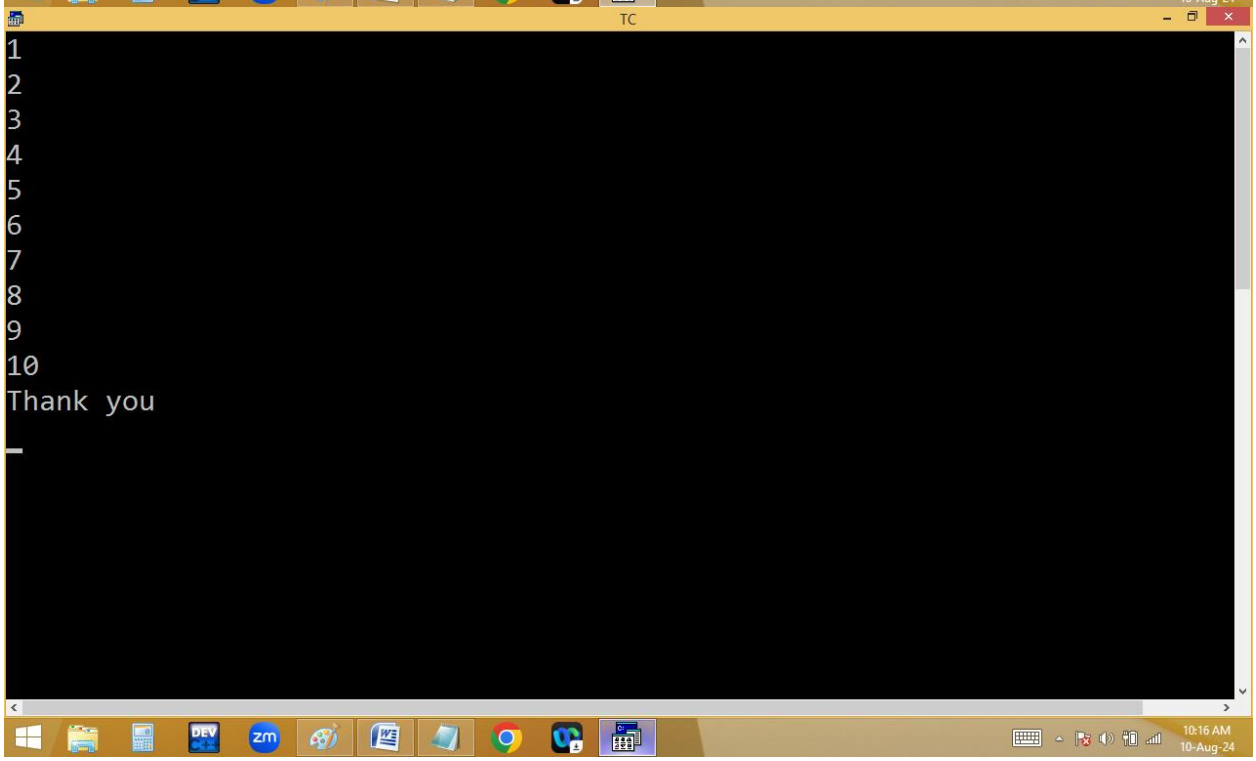
6*(4-3+1)/3=4

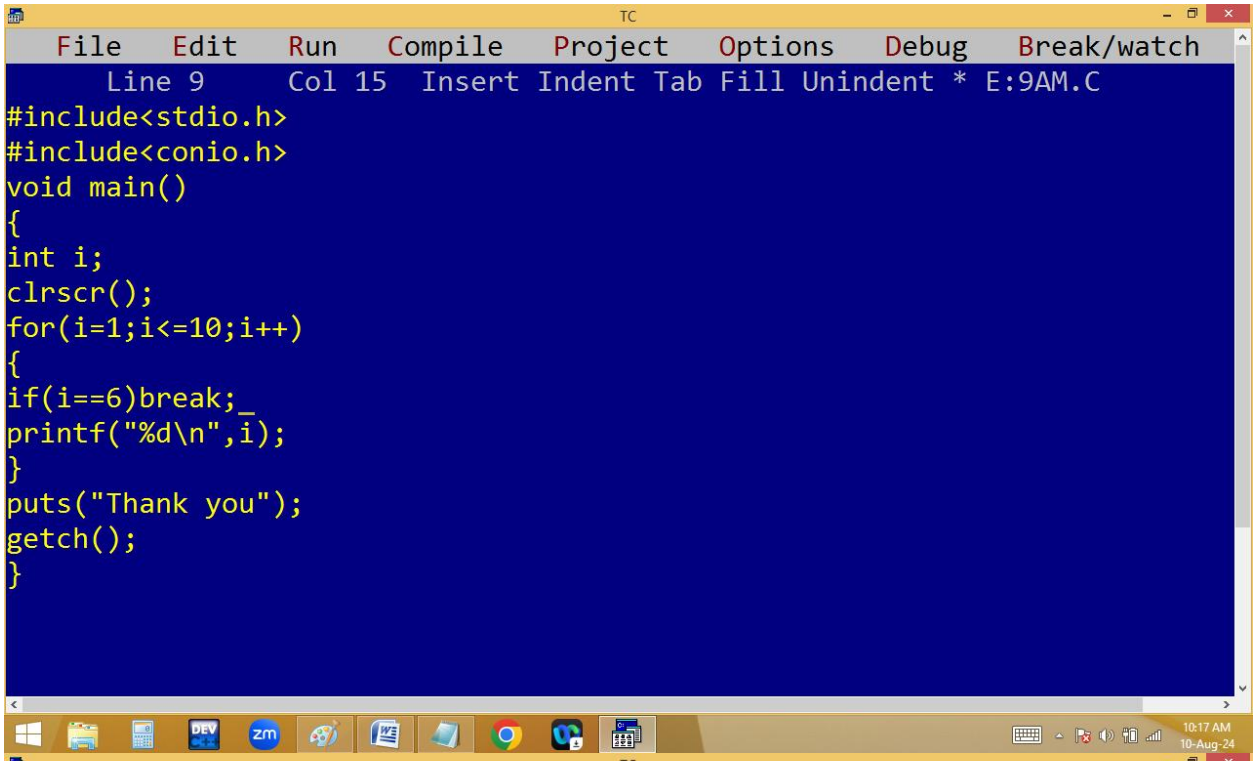
break: It is a keyword used to stop the switch / loop. When break occurred, the program execution jumped to the first line after the switch or loop.

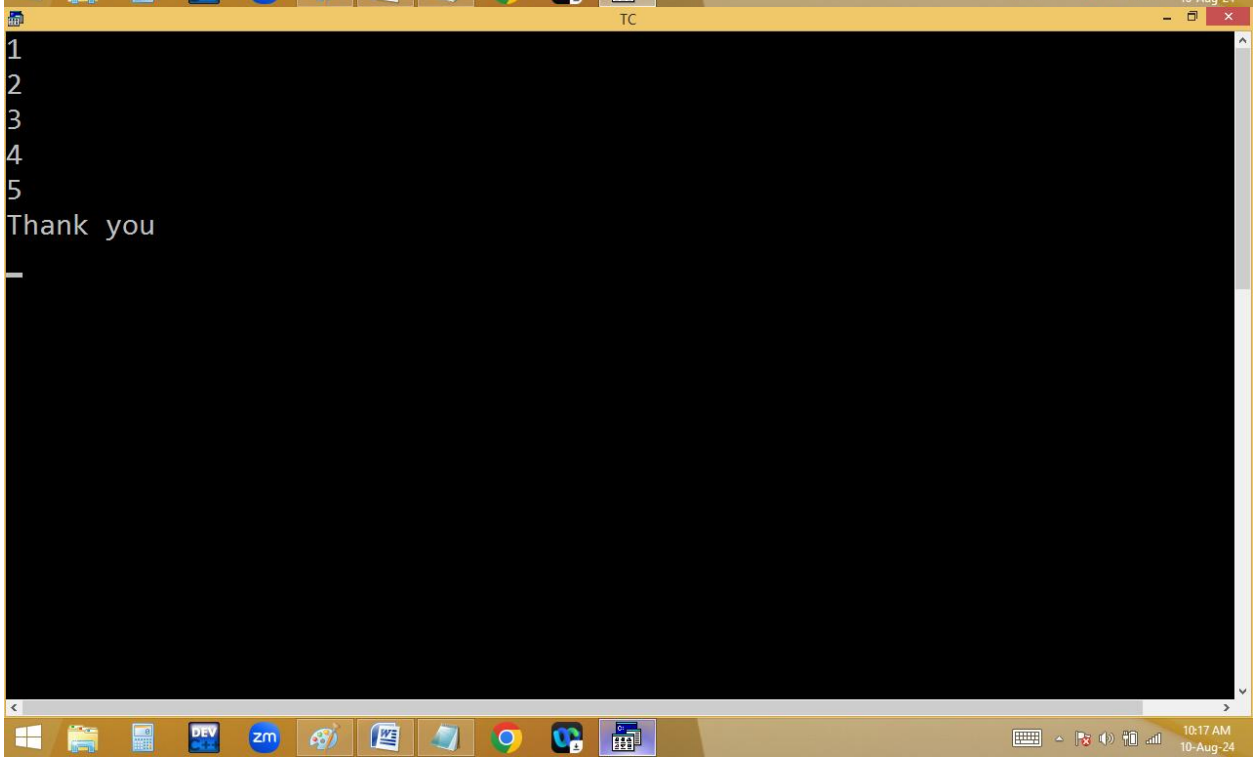

TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 20 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
puts("GOOD MORNING");
puts("GOOD NIGHT");
getch();
}
10:14 AM
10-Aug-24
TC
GOOD MORNING
GOOD NIGHT
10:14 AM
10-Aug-24

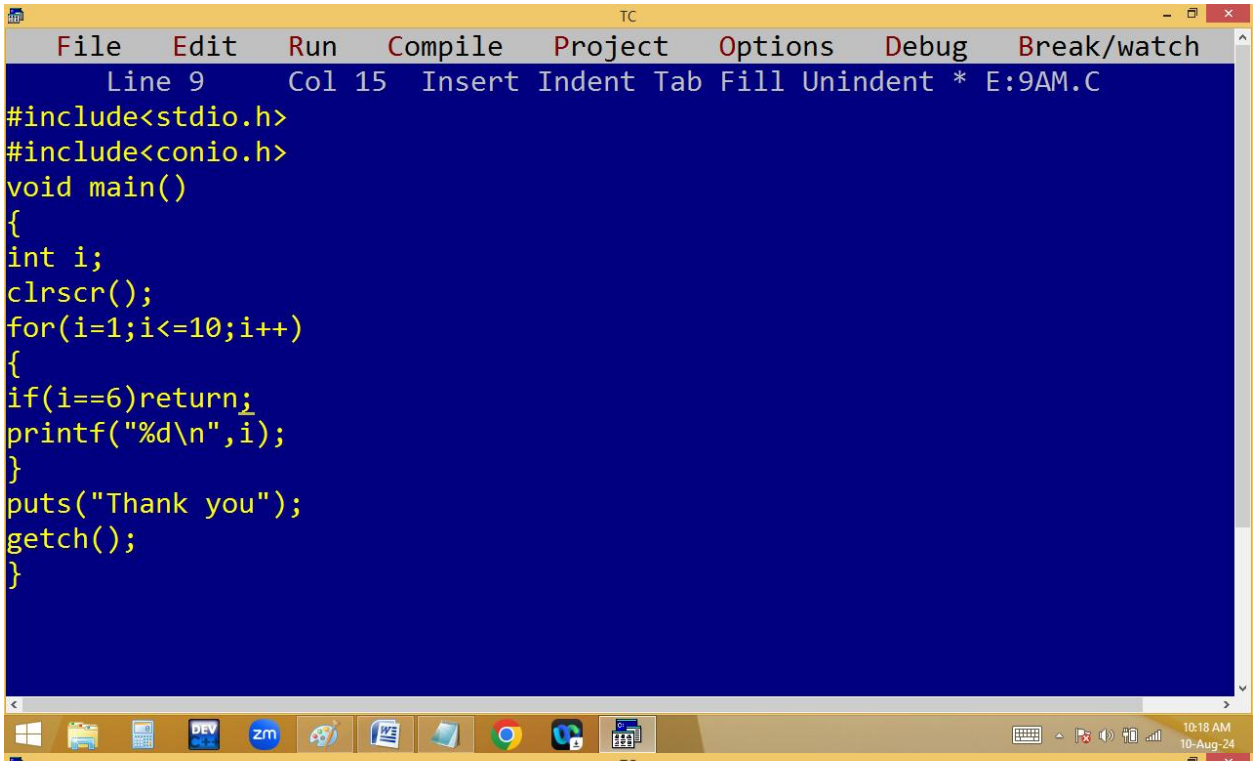

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Misplaced break in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
puts("GOOD MORNING");
break;
puts("GOOD NIGHT");
getch();
}
10:14 AM
10-Aug-24

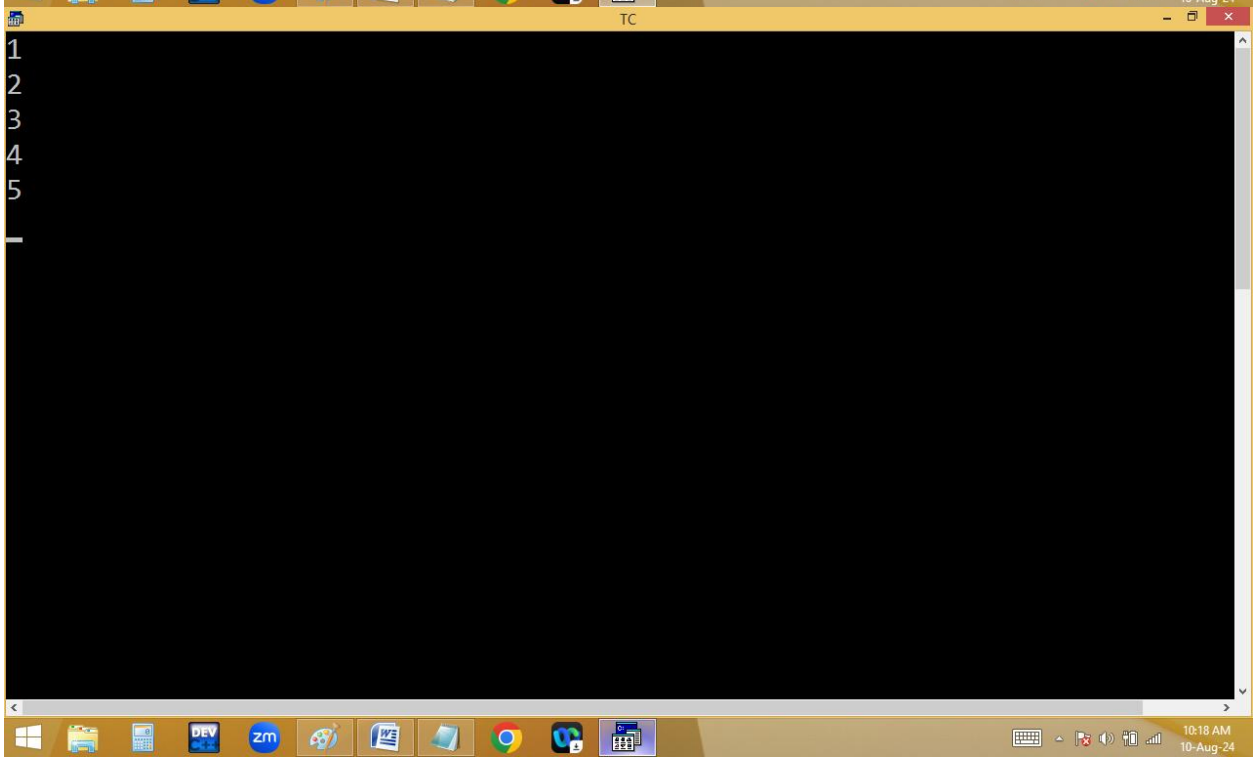

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 16 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int i;
clrscr();
for(i=1;i<=10;i++)
{
printf("%d\n",i);
}
puts("Thank you");
getch();
}

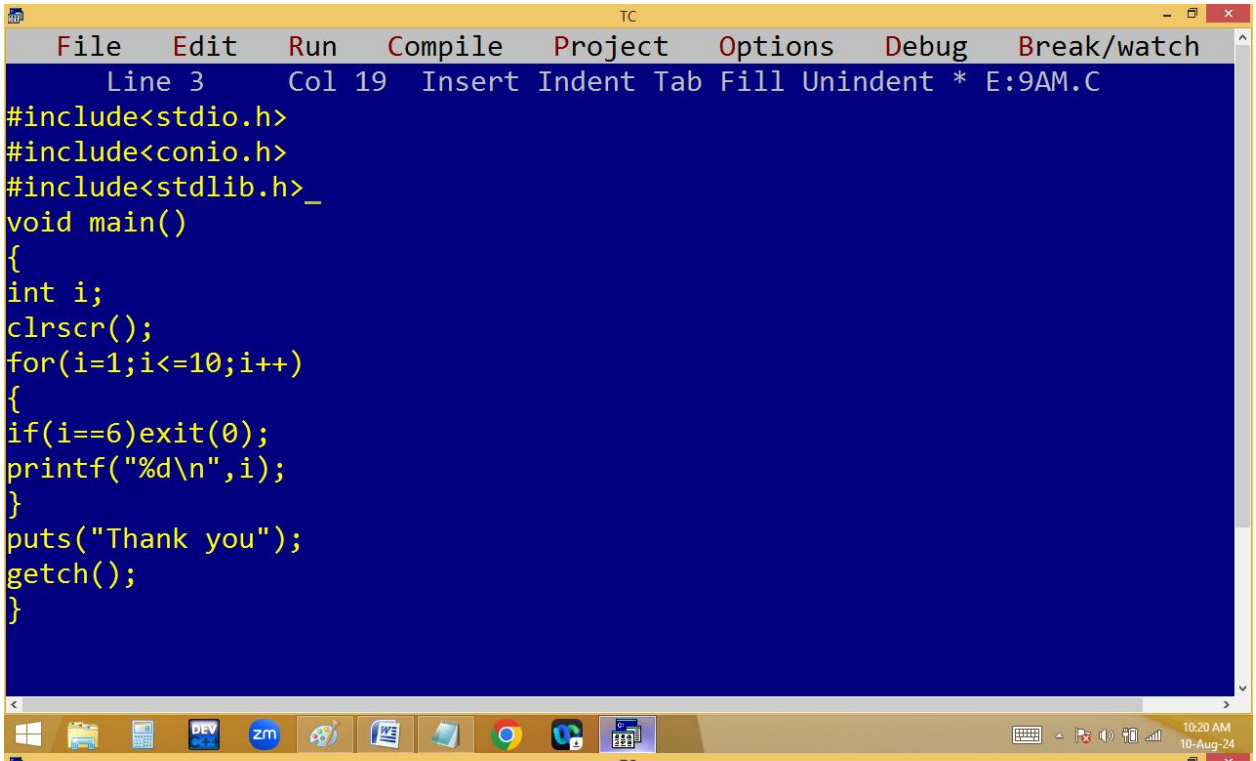

TC
1
2
3
4
5
6
7
8
9
10
Thank you

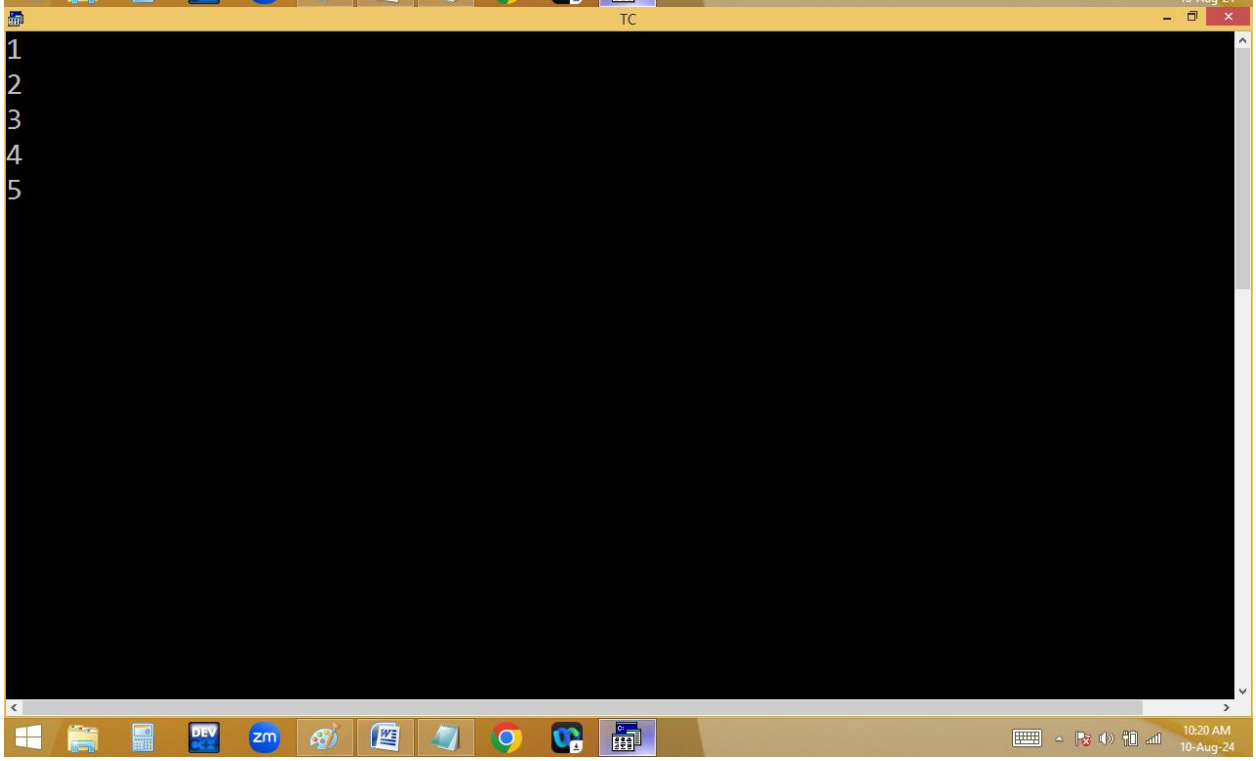

TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 15 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int i;
clrscr();
for(i=1;i<=10;i++)
{
if(i==6)break;
printf("%d\n",i);
}
puts("Thank you");
getch();
}

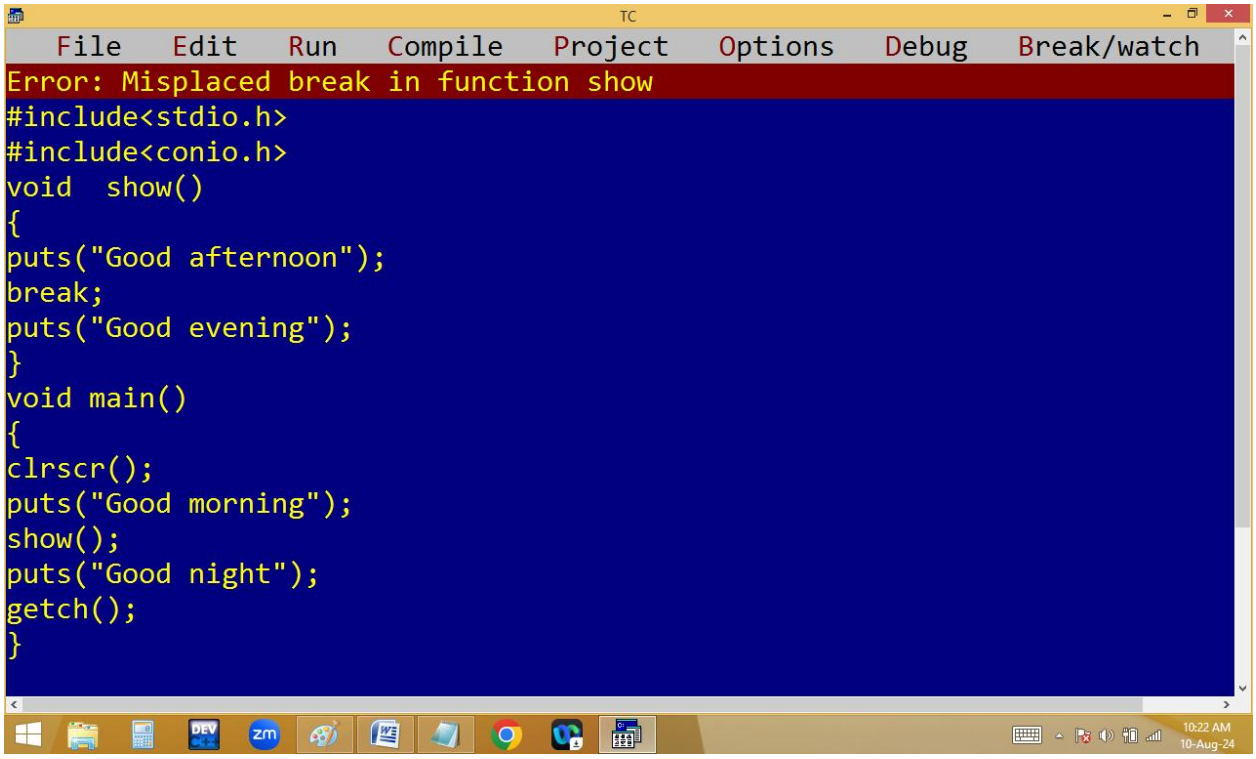

TC
1
2
3
4
5
Thank you

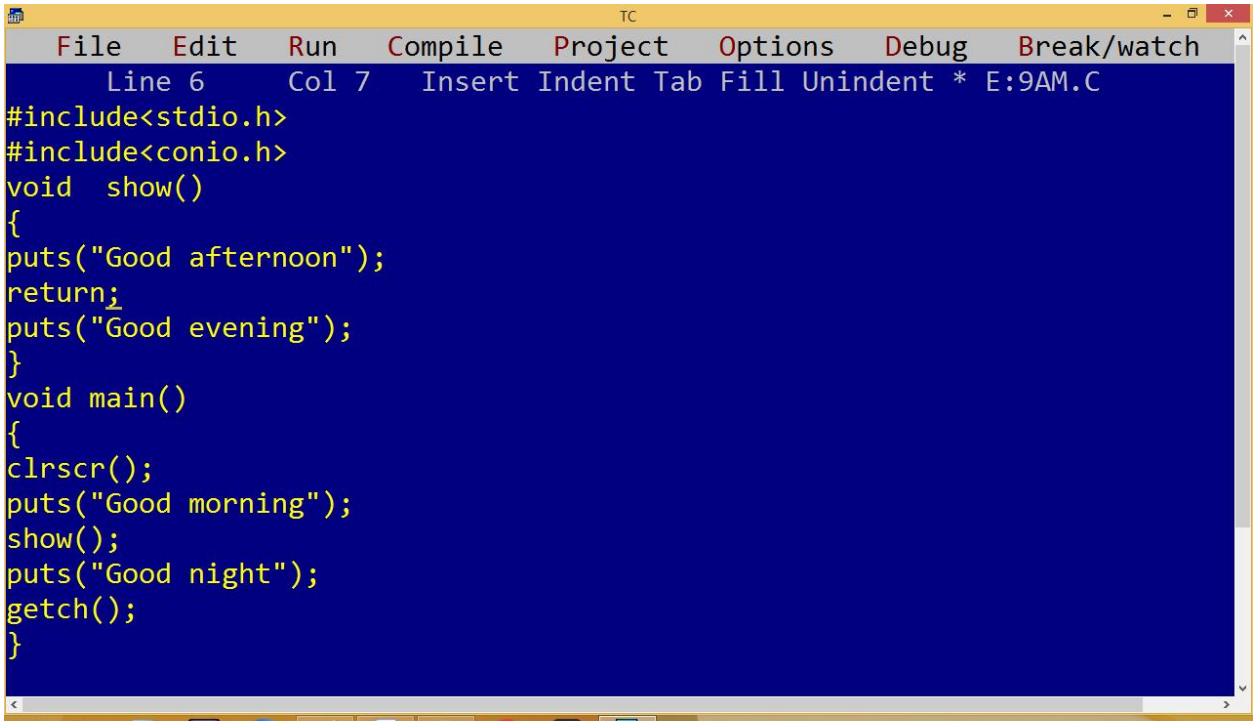

TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 15 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int i;
clrscr();
for(i=1;i<=10;i++)
{
if(i==6)return;
printf("%d\n",i);
}
puts("Thank you");
getch();
}

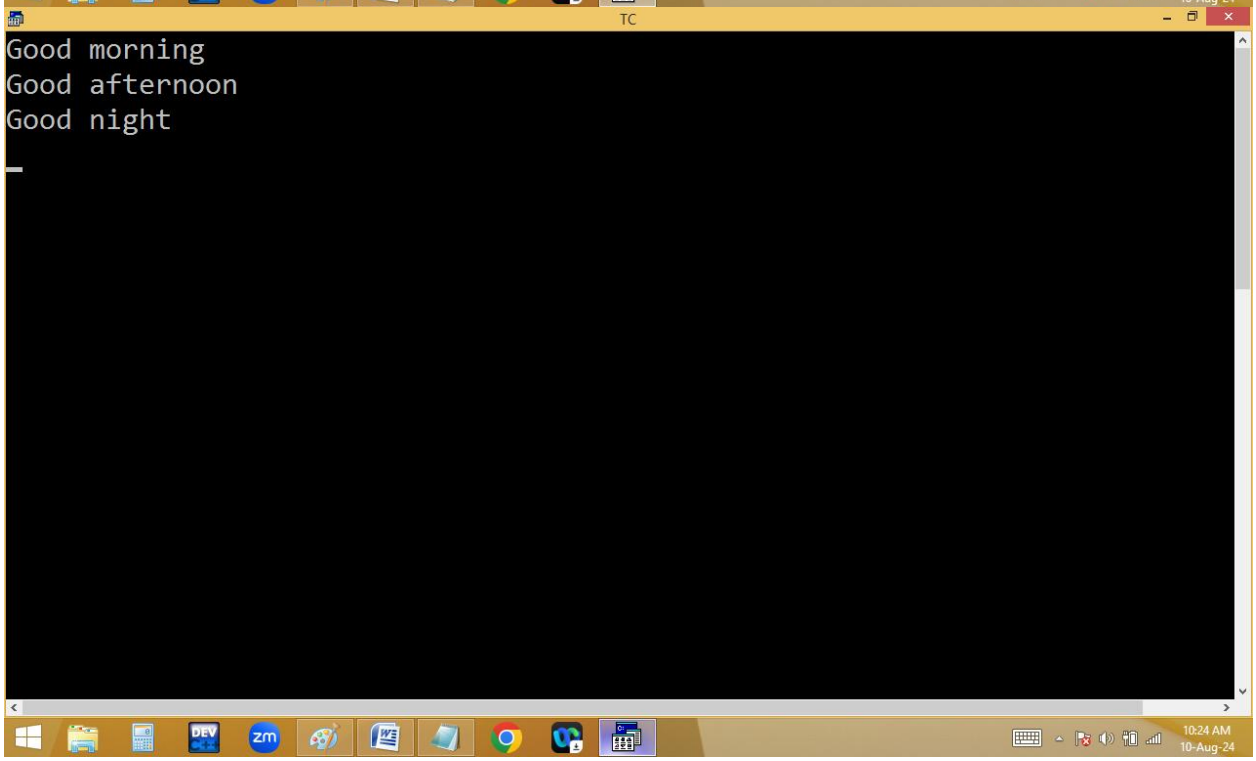

TC
1
2
3
4
5

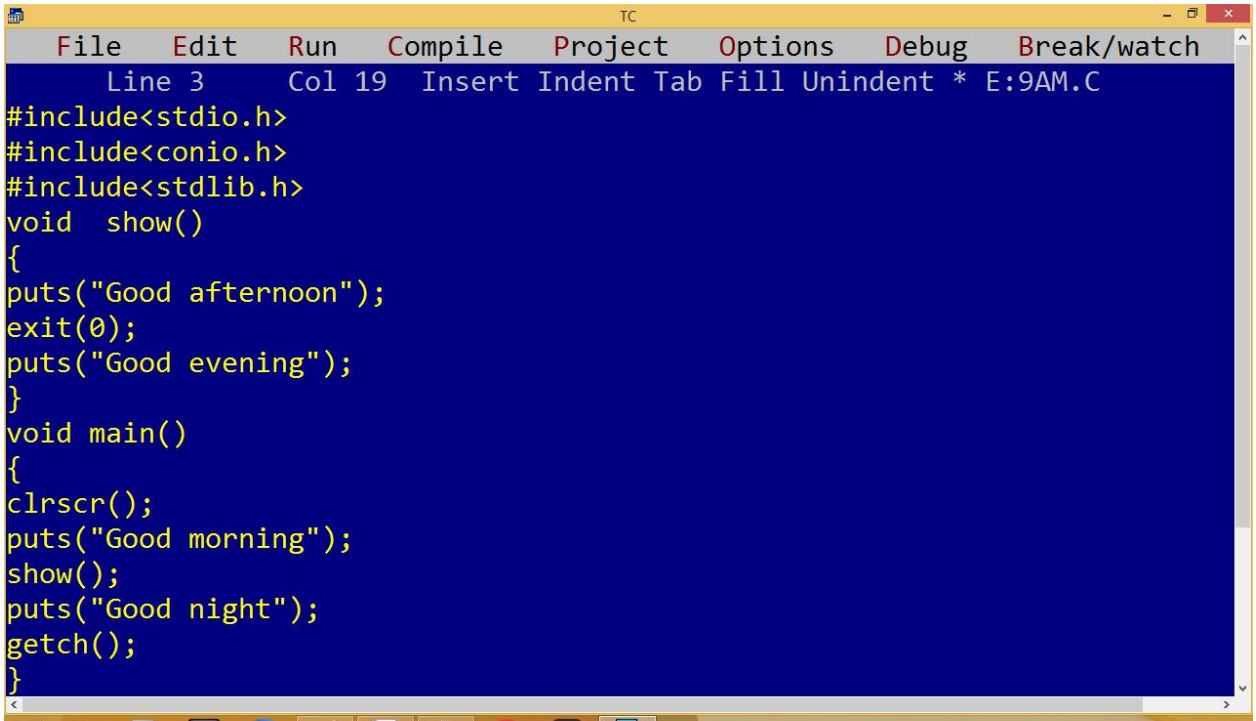

TC
File Edit Run Compile Project Options Debug Break/watch
Line 3 Col 19 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
int i;
clrscr();
for(i=1;i<=10;i++)
{
if(i==6)exit(0);
printf("%d\n",i);
}
puts("Thank you");
getch();
}

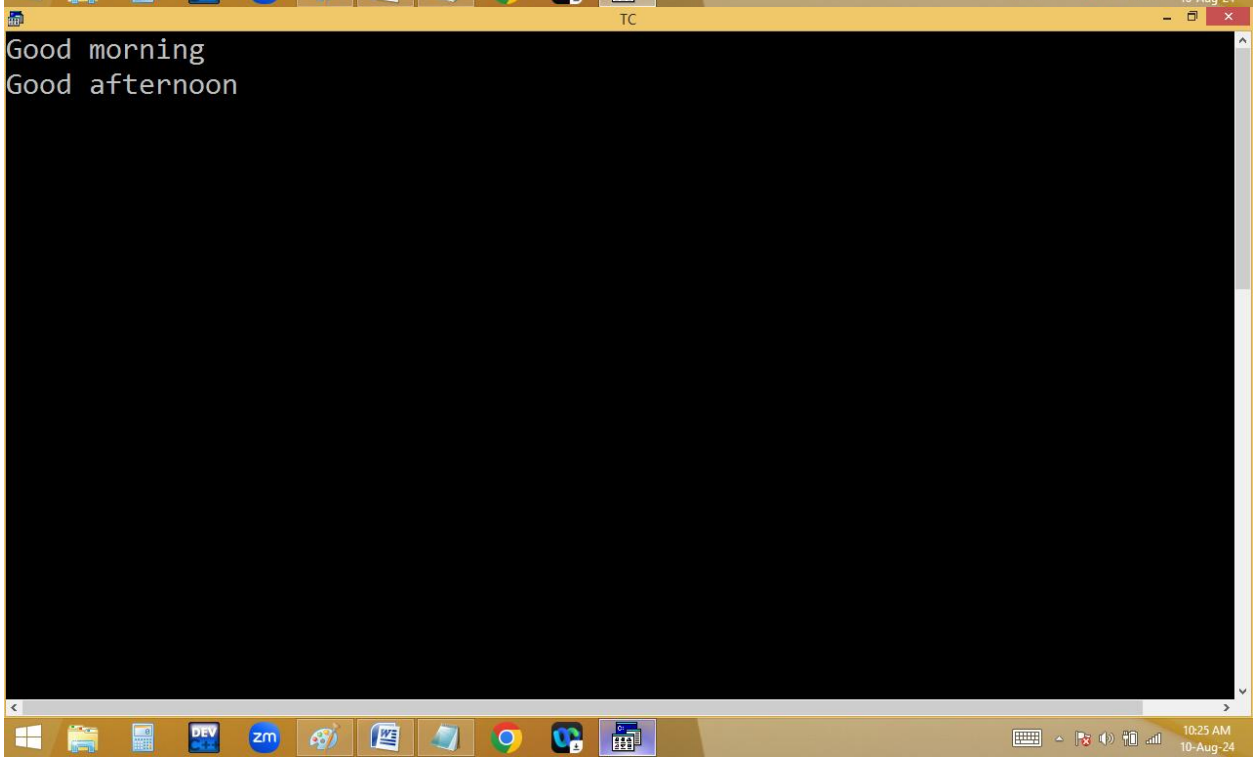

TC
1
2
3
4
5


TC
File Edit Run Compile Project Options Debug Break/watch
Error: Misplaced break in function show
#include<stdio.h>
#include<conio.h>
void show()
{
puts("Good afternoon");
break;
puts("Good evening");
}
void main()
{
clrscr();
puts("Good morning");
show();
puts("Good night");
getch();
}
10:22 AM
10-Aug-24


TC
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 7 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void show()
{
puts("Good afternoon");
return;
puts("Good evening");
}
void main()
{
clrscr();
puts("Good morning");
show();
puts("Good night");
getch();
}


TC
Good morning
Good afternoon
Good night

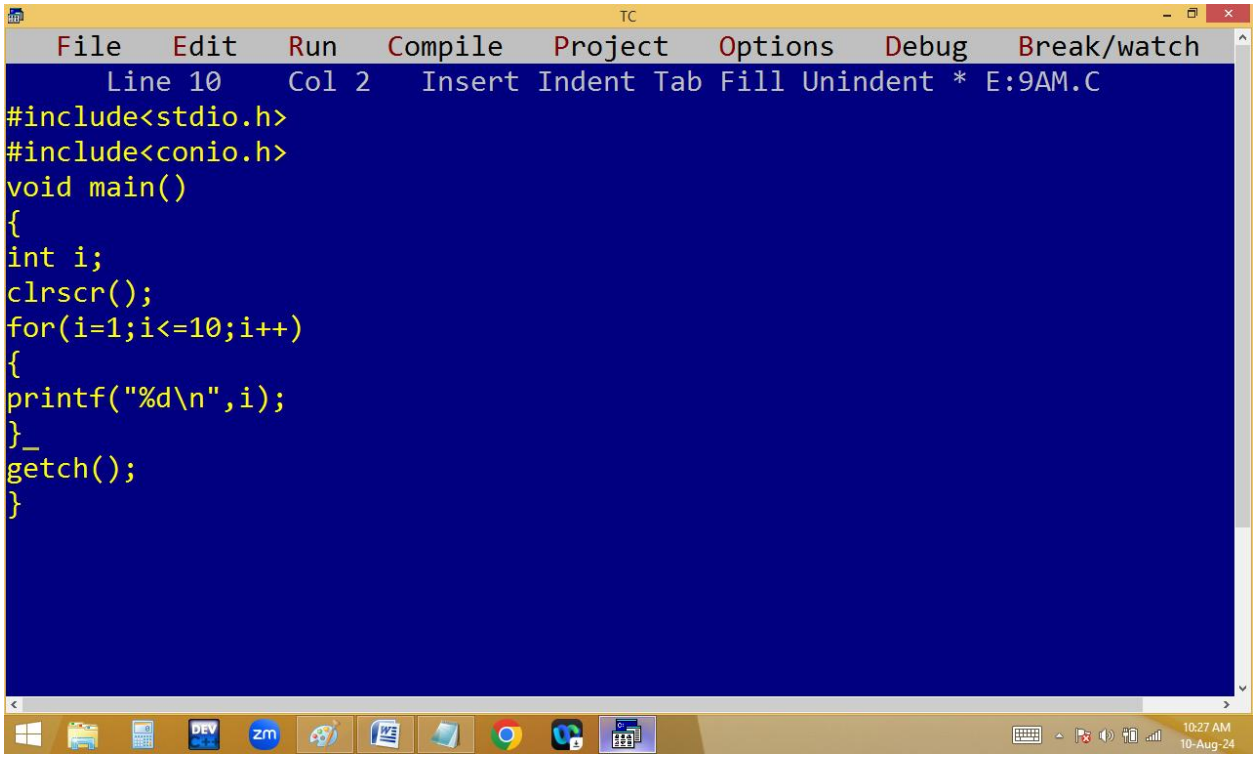


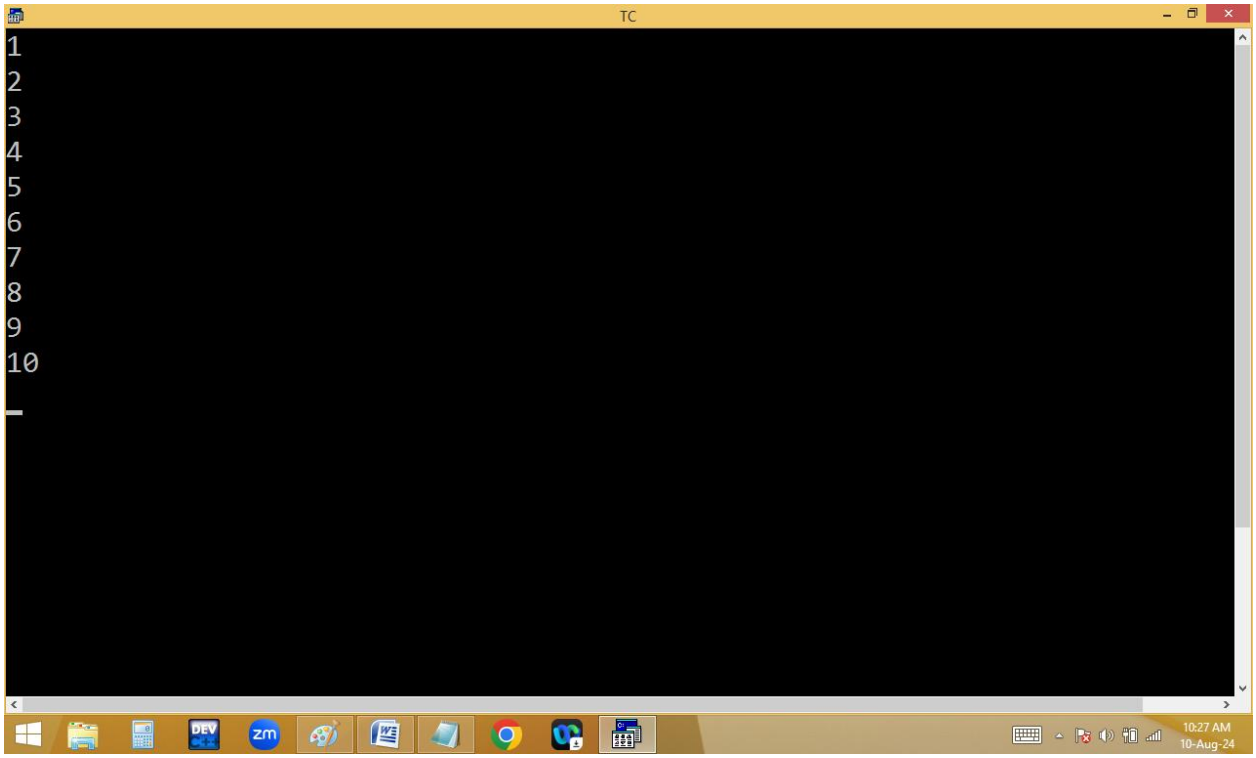


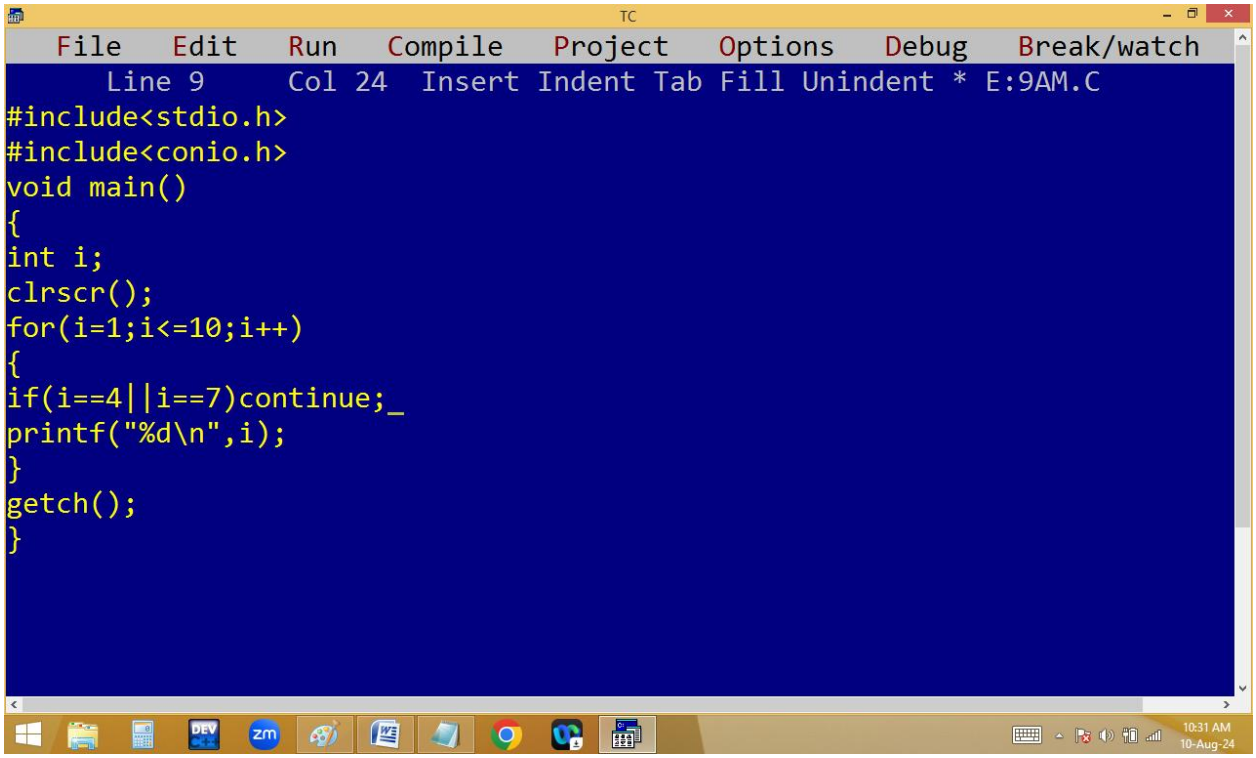
break	exit()	Return
Keyword	Function	Keyword
Header file not required	stdlib.h / process.h required	Header file not required

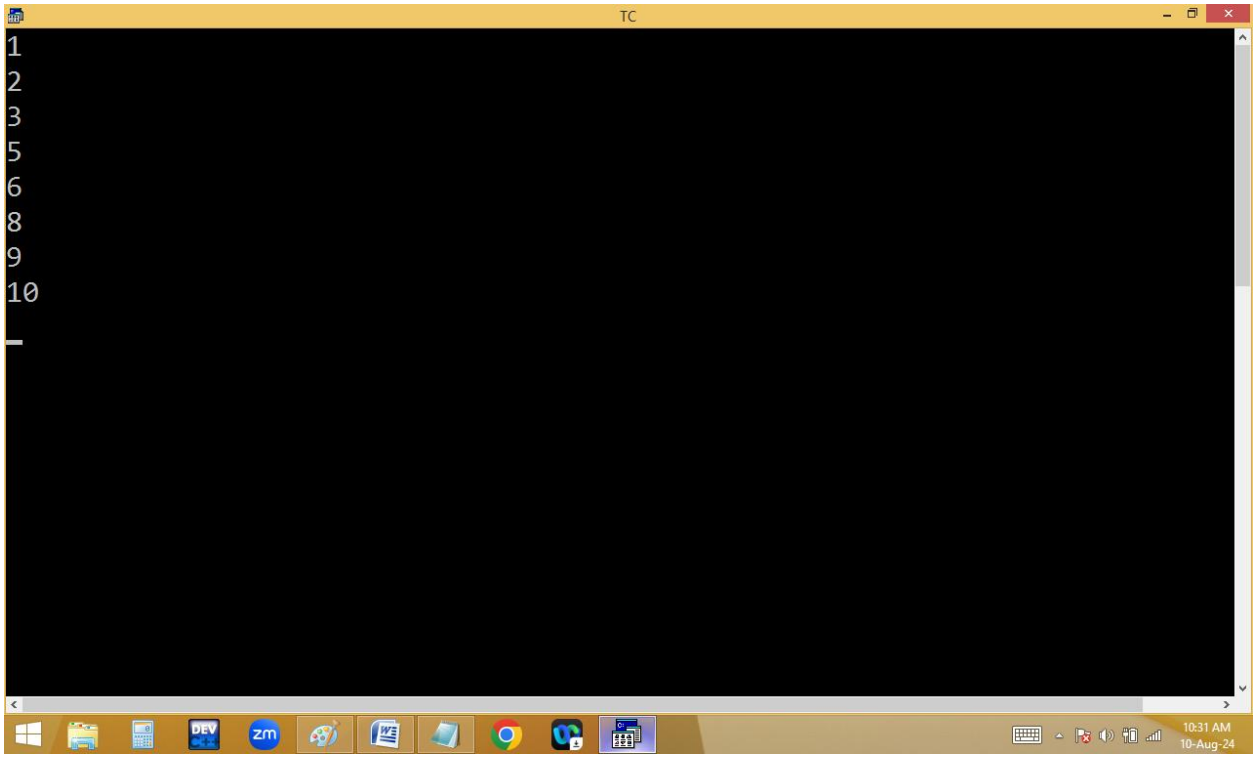
Terminates switch / loop	Terminates total program	Closes that function only
Should be used within switch/loop	Used any where	Used any where

continue: It is a keyword is used within loop to skip some of the iterations. When continue occurred, the program execution jumped to loop ending and later to beginning.

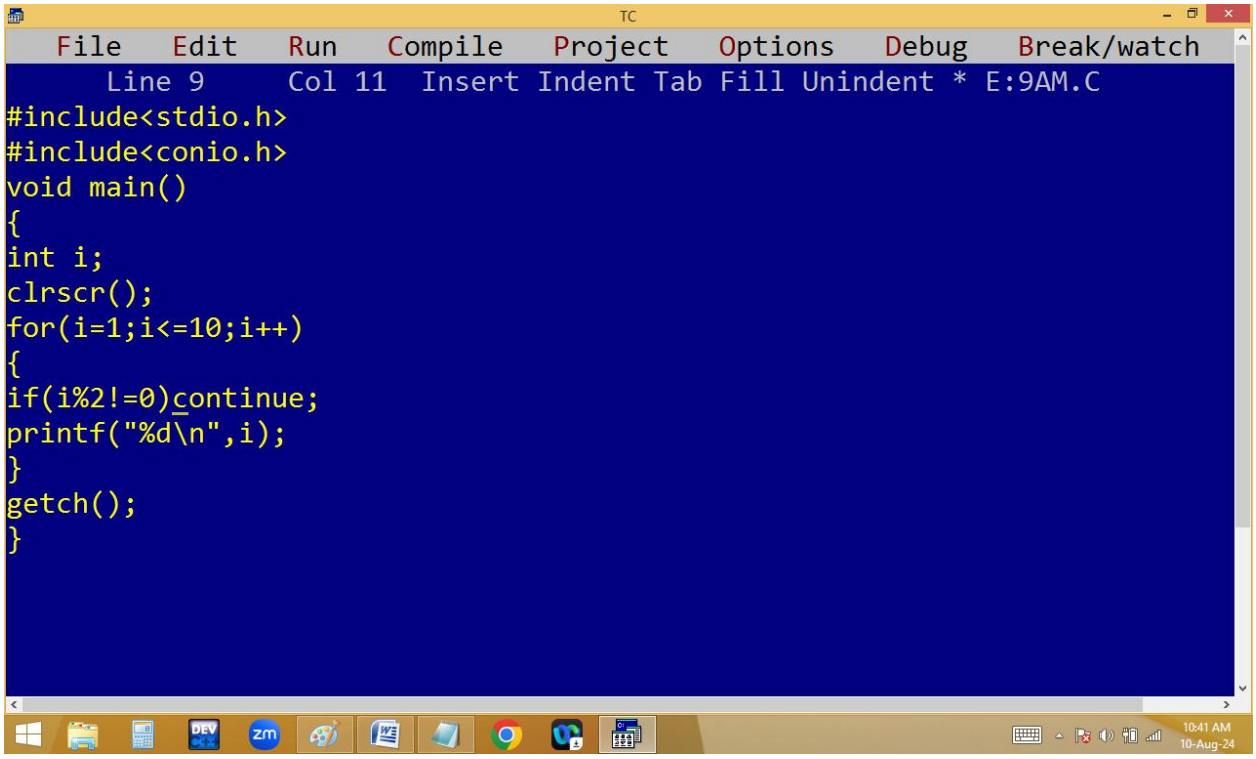


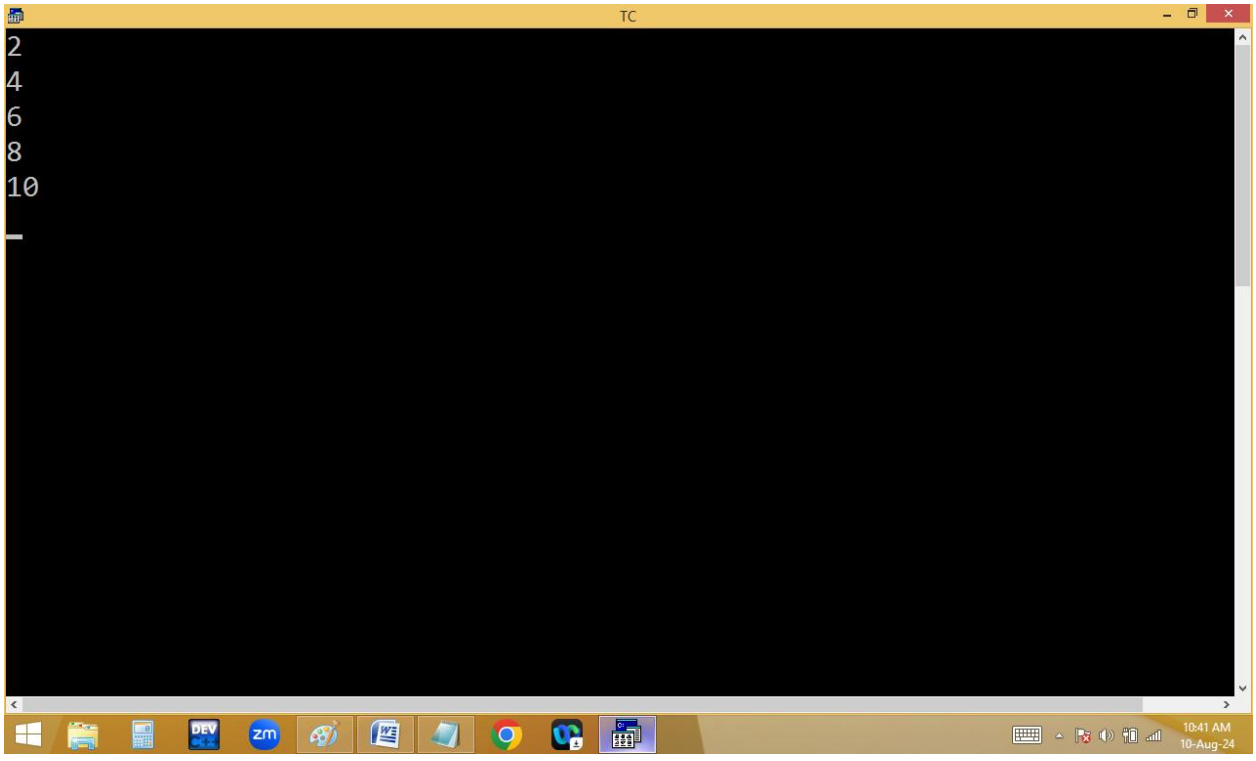

TC
1
2
3
4
5
6
7
8
9
10
10:27 AM
10-Aug-24





Printf 1..10 even no's using continue:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 11 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int i;
clrscr();
for(i=1;i<=10;i++)
{
if(i%2!=0)continue;
printf("%d\n",i);
}
getch();
}


TC
2
4
6
8
10