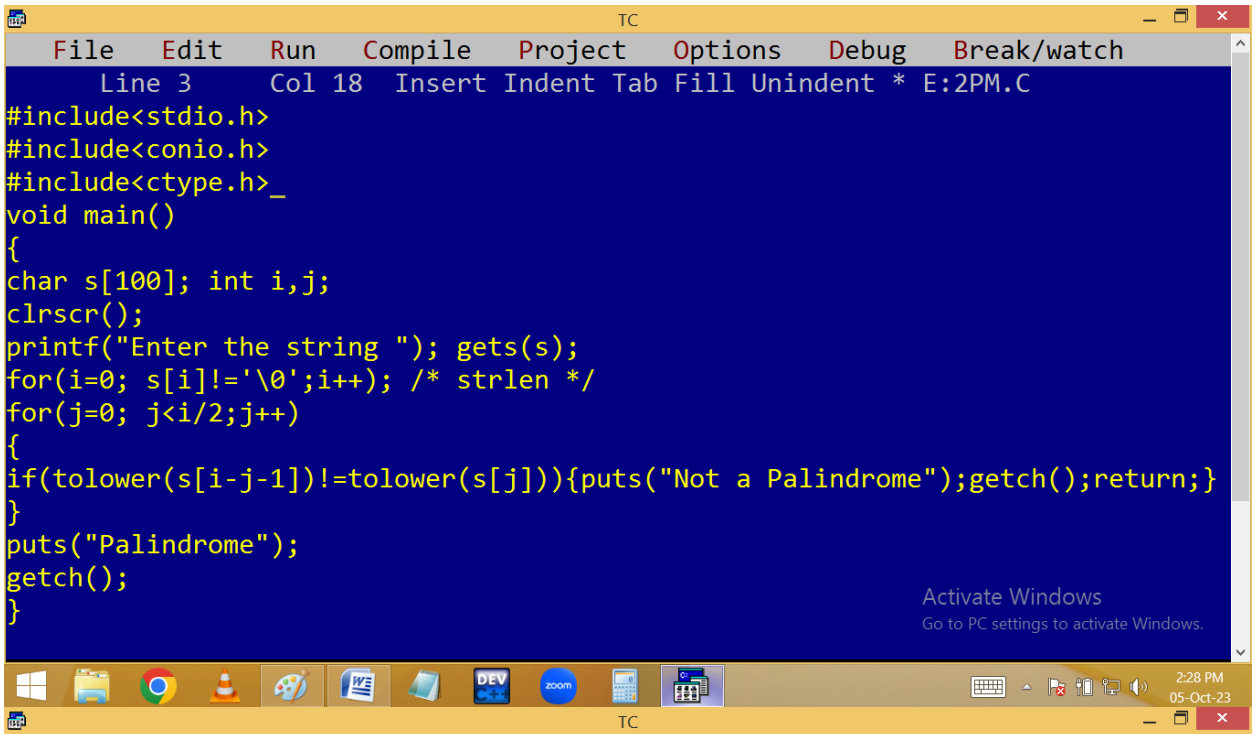
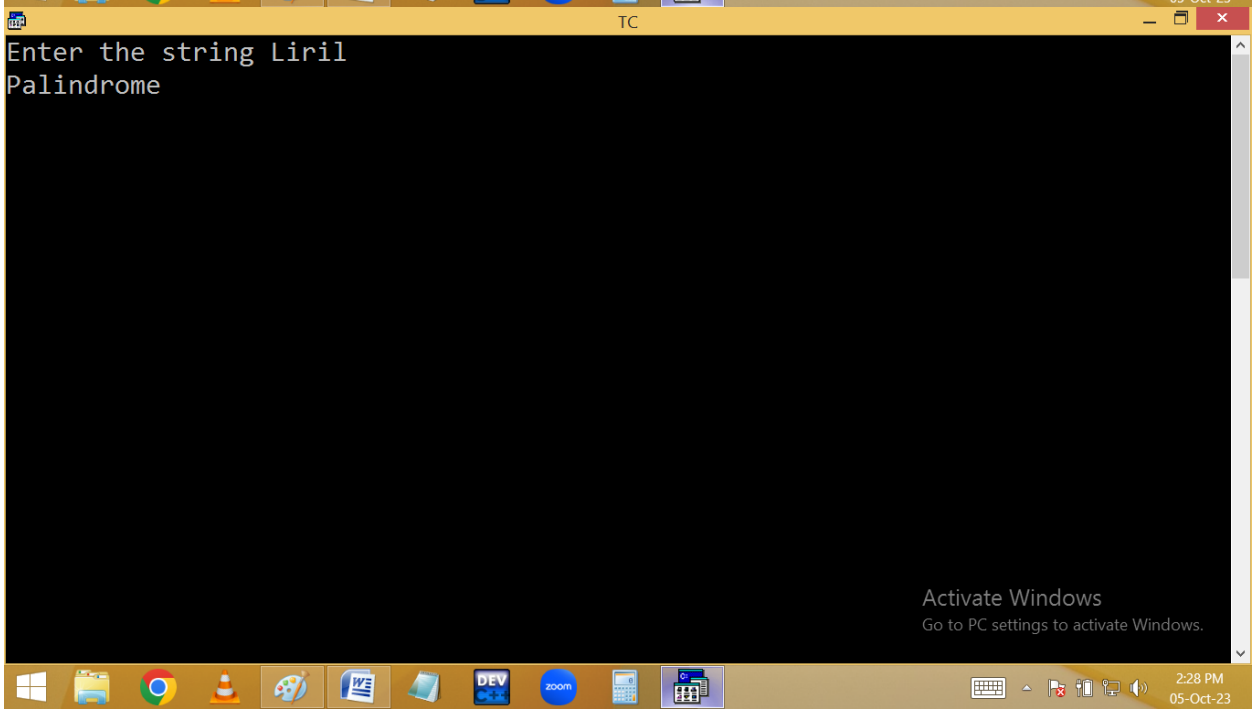
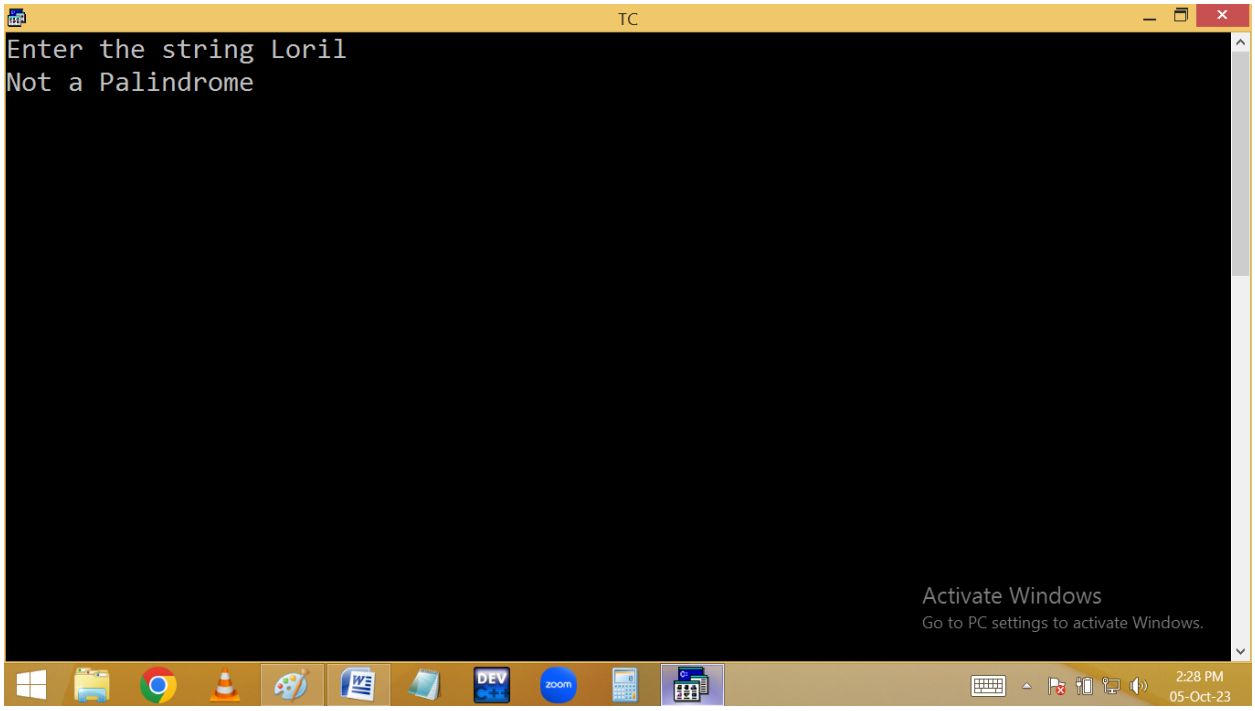
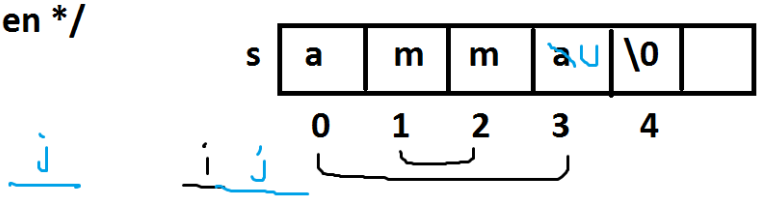
Finding palindrome or not using single string:







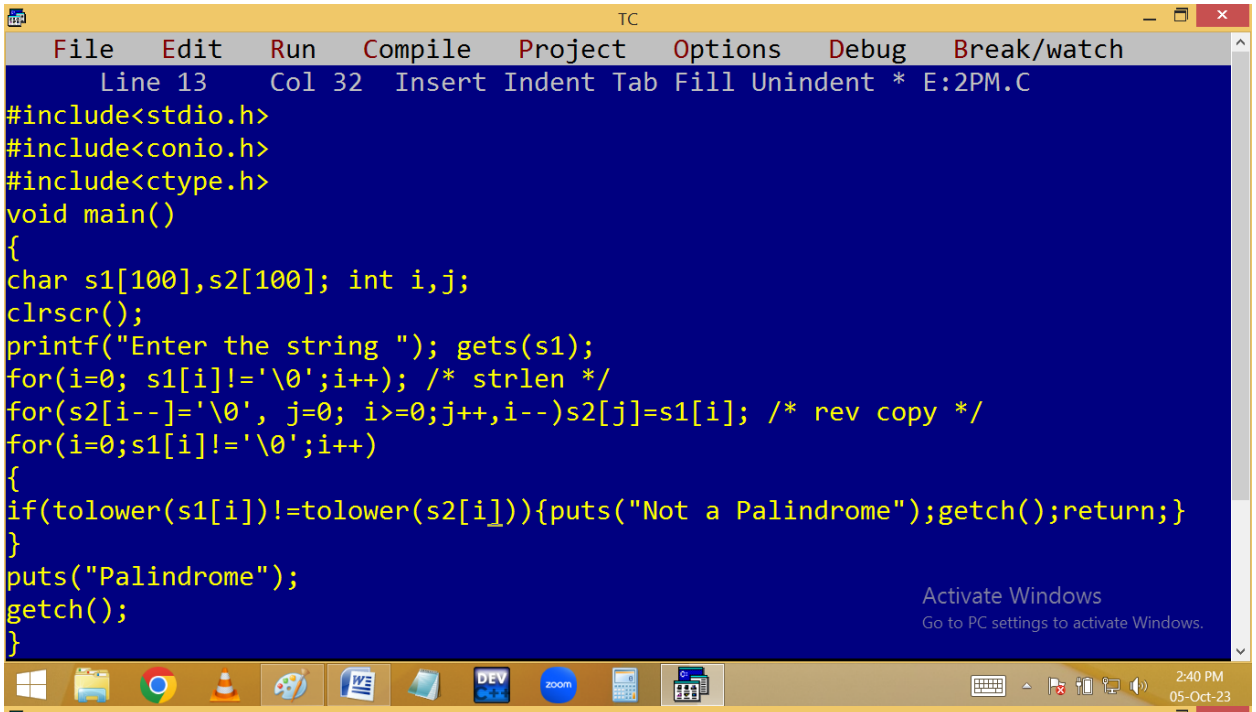

```
for( i=0; s[i]!='\0';i++) ; /* strlen */

for( j=0; j<i/2; j++)
{
 if(s[j] != s[i-j-1] )
 { p("Not a palindrome");
   getch(); return; }
 } p("Palindrome");
```

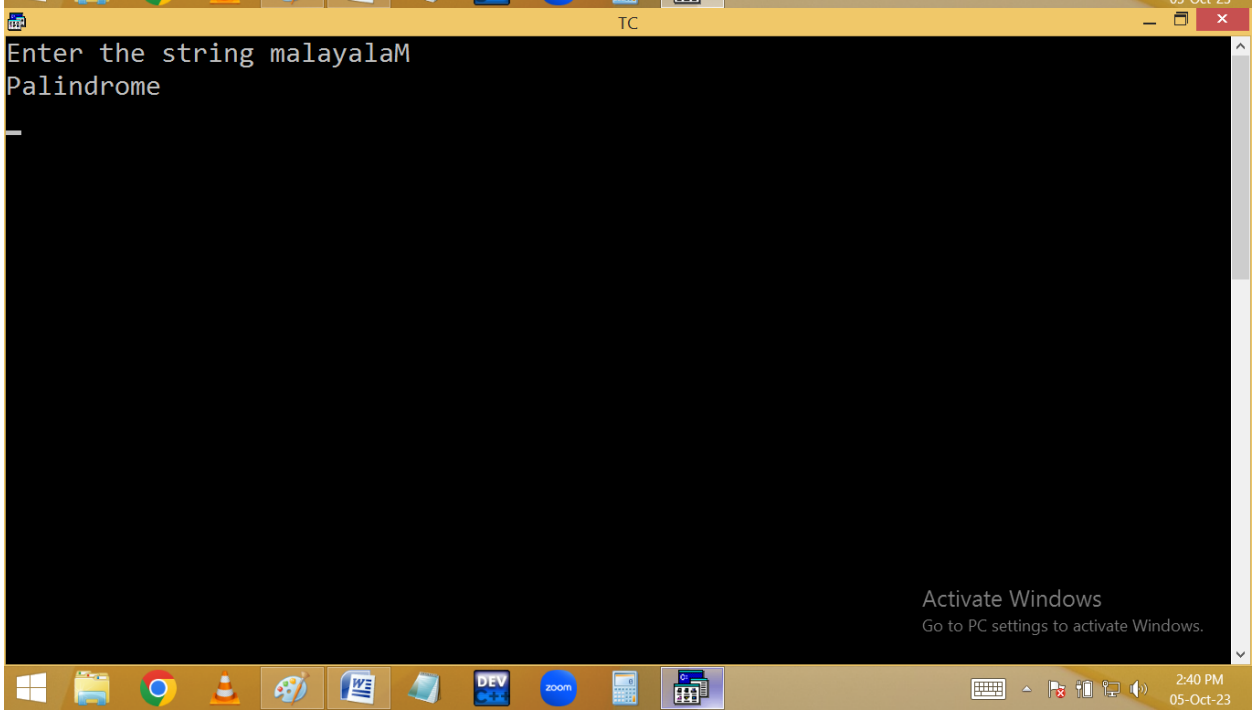


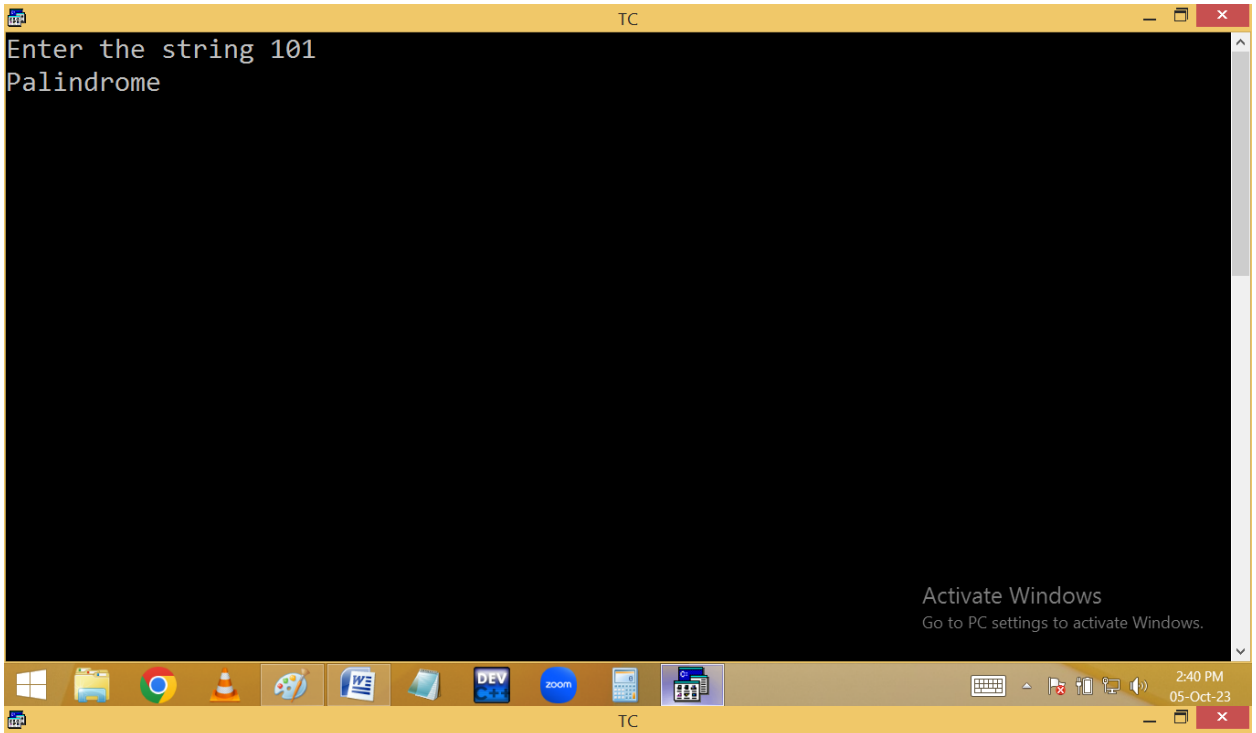
i j

4 − 0 − 1 = 3

4 − 1 − 1 = 2


TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 32 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char s1[100],s2[100]; int i,j;
clrscr();
printf("Enter the string "); gets(s1);
for(i=0; s1[i]!='\0';i++); /* strlen */
for(s2[i--]='\0', j=0; i>=0;j++,i--)s2[j]=s1[i]; /* rev copy */
for(i=0;s1[i]!='\0';i++)
{
if(tolower(s1[i])!=tolower(s2[i])){puts("Not a Palindrome");getch();return;}
}
puts("Palindrome");
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:40 PM
05-Oct-23


TC
Enter the string malayalaM
Palindrome
Activate Windows
Go to PC settings to activate Windows.
2:40 PM
05-Oct-23

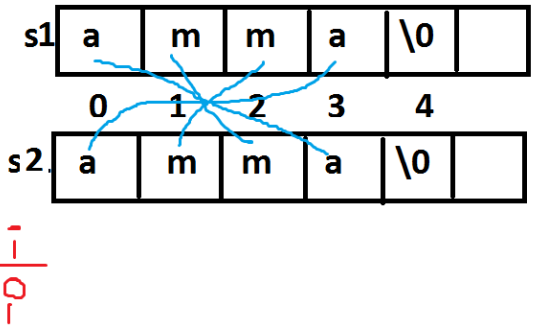

TC
Enter the string 101
Palindrome
Activate Windows
Go to PC settings to activate Windows.
2:40 PM
05-Oct-23


TC
Enter the string akki
Not a Palindrome
Activate Windows
Go to PC settings to activate Windows.
2:40 PM
05-Oct-23

```
for( i=0; s[i]!='\0';i++) ; /* strlen */
s2[i--]='\0';
for( j=0; i>=0; j++,i--)
s2[j]=s1[i]; /* rev copy */
for(i=0; s1[i]!='\0';i++)
{
if(s1[i]!=s2[i]) /* strcmp */
{p("Not");getch();return;}
} p(palindrome);
```

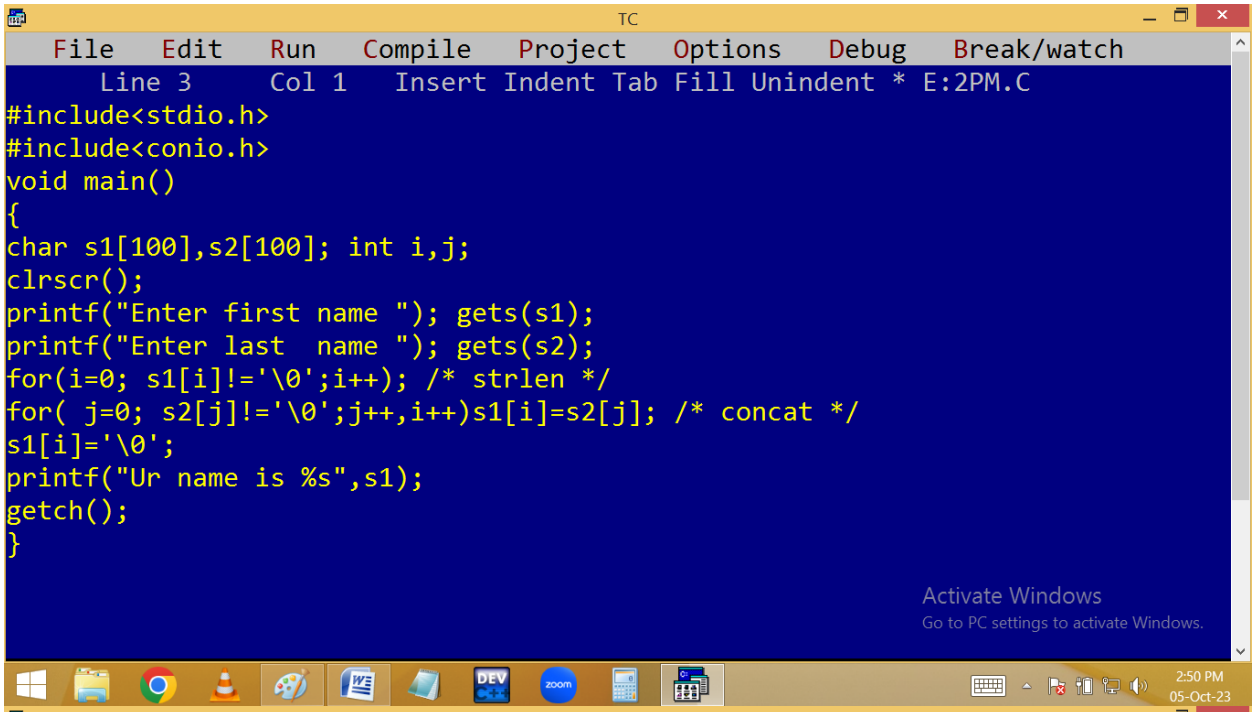
i: 4 → 3 → 2 → 1 → 0 → -1

j: 0 → 1 → 2 → 3 → 4

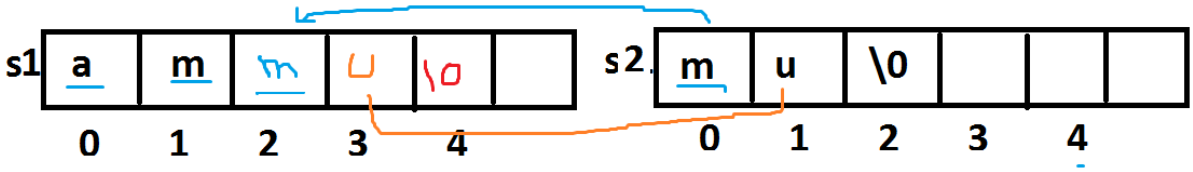


i: -1 → 0

String concatenation [Adding of two strings]:

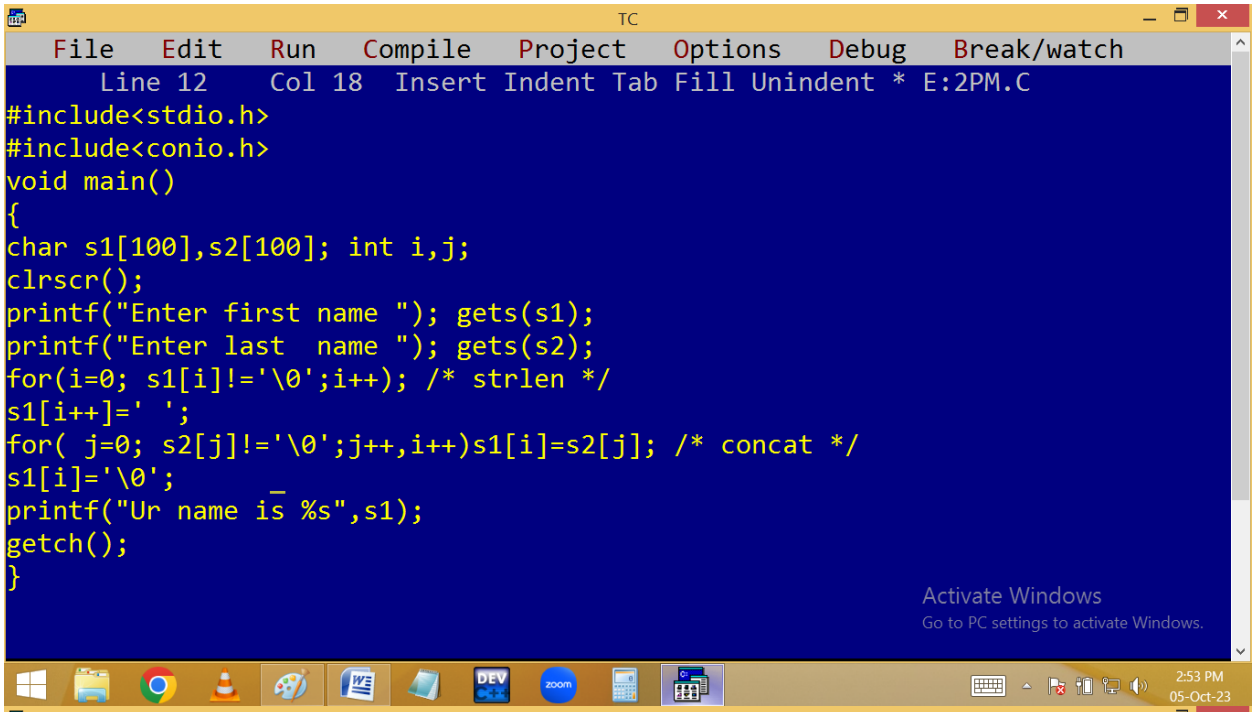

TC
File Edit Run Compile Project Options Debug Break/watch
Line 3 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s1[100],s2[100]; int i,j;
clrscr();
printf("Enter first name "); gets(s1);
printf("Enter last name "); gets(s2);
for(i=0; s1[i]!='\0';i++); /* strlen */
for(j=0; s2[j]!='\0';j++,i++)s1[i]=s2[j]; /* concat */
s1[i]='\0';
printf("Ur name is %s",s1);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
2:50 PM
05-Oct-23

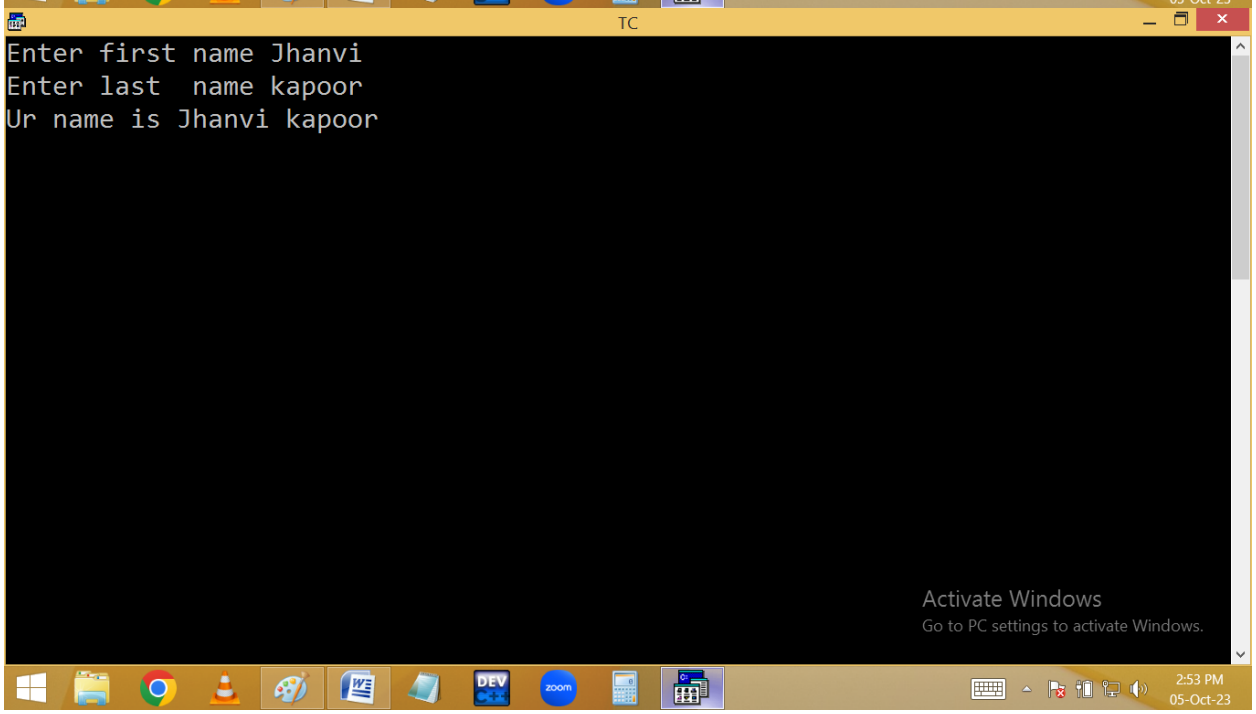

TC
Enter first name Kishore
Enter last name Naidu
Ur name is KishoreNaidu
Activate Windows
Go to PC settings to activate Windows.
2:50 PM
05-Oct-23




```
for( i=0;s1[i]!='\0';i++) ; /* strlen */
for( j=0; s2[j]!='\0';i++,j++) s1[i]=s2[j];
s1[i]='\0';
p(s1);
```

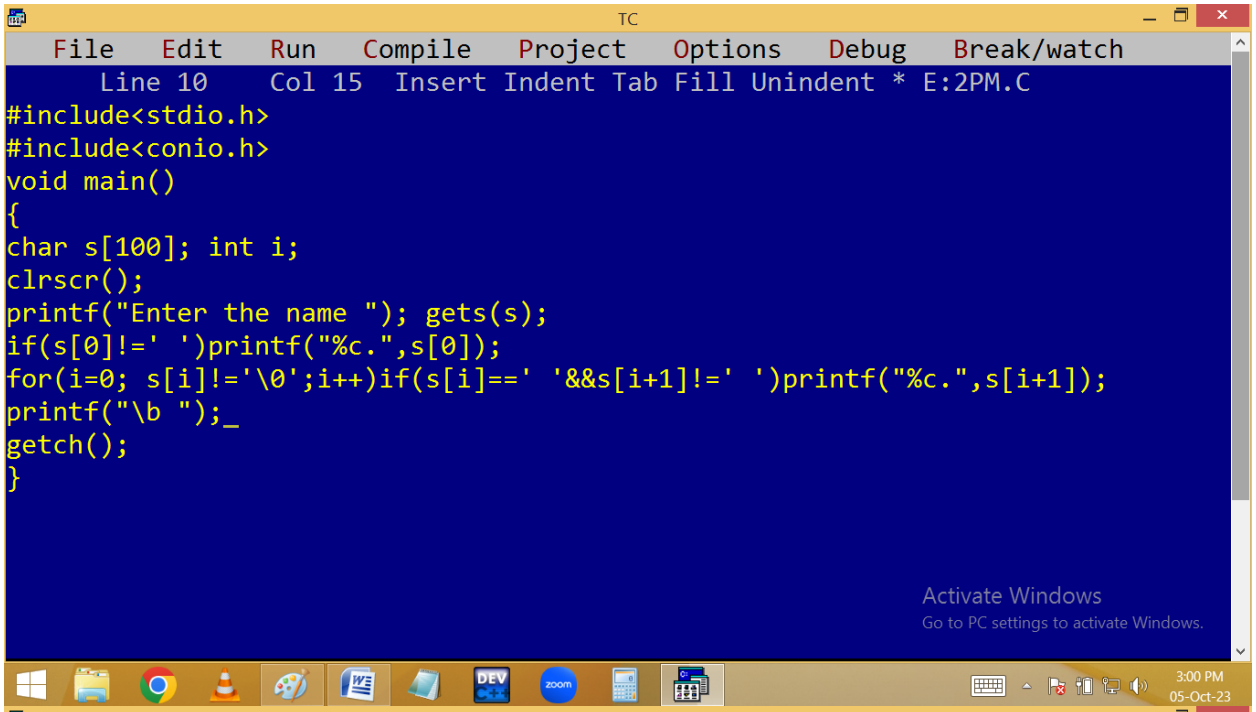
With space:

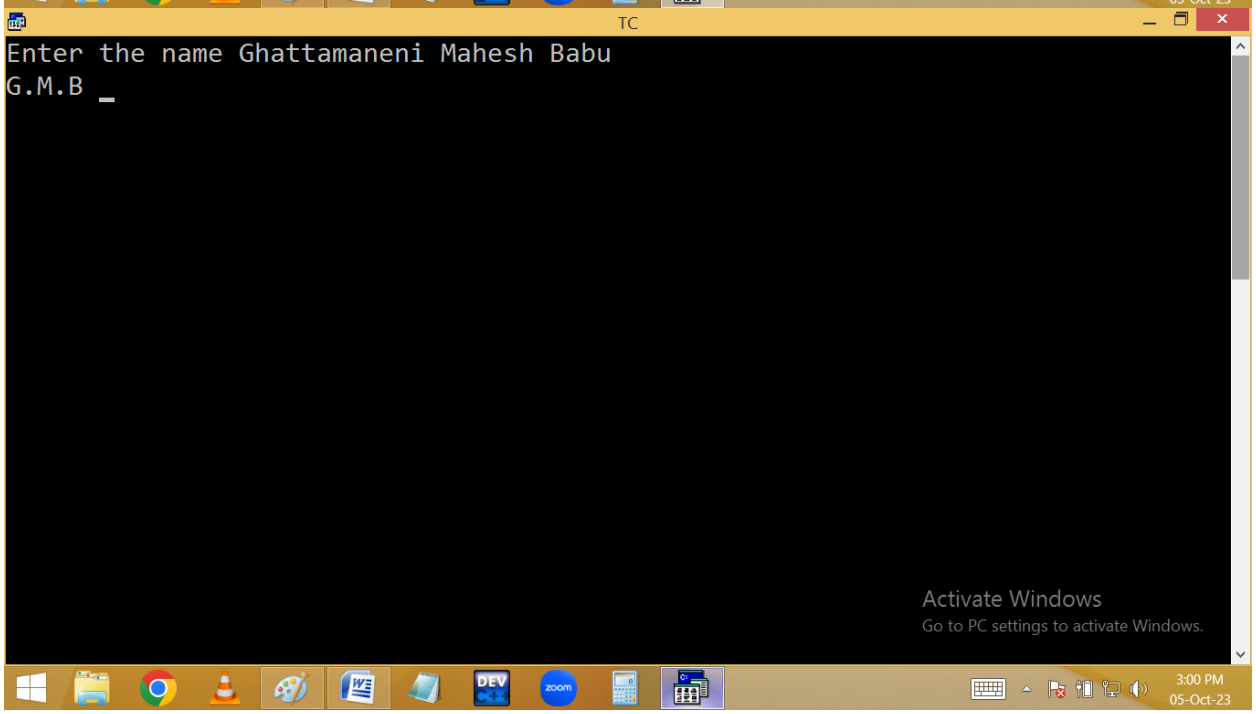


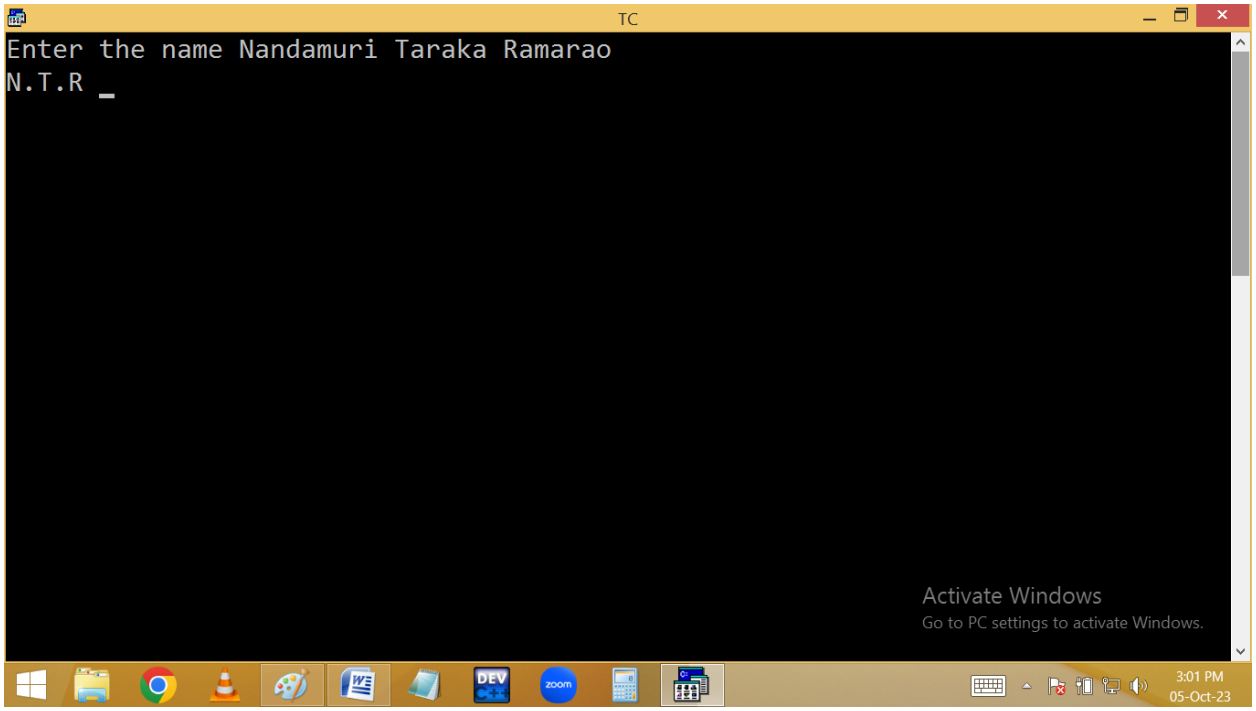


Abbreviation:

Surya kumar yadav ➔ S k y


TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 15 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s[100]; int i;
clrscr();
printf("Enter the name "); gets(s);
if(s[0]!=' ')printf("%c.",s[0]);
for(i=0; s[i]!='\0';i++)if(s[i]==' '&&s[i+1]!=' ')printf("%c.",s[i+1]);
printf("\b ");
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:00 PM
05-Oct-23

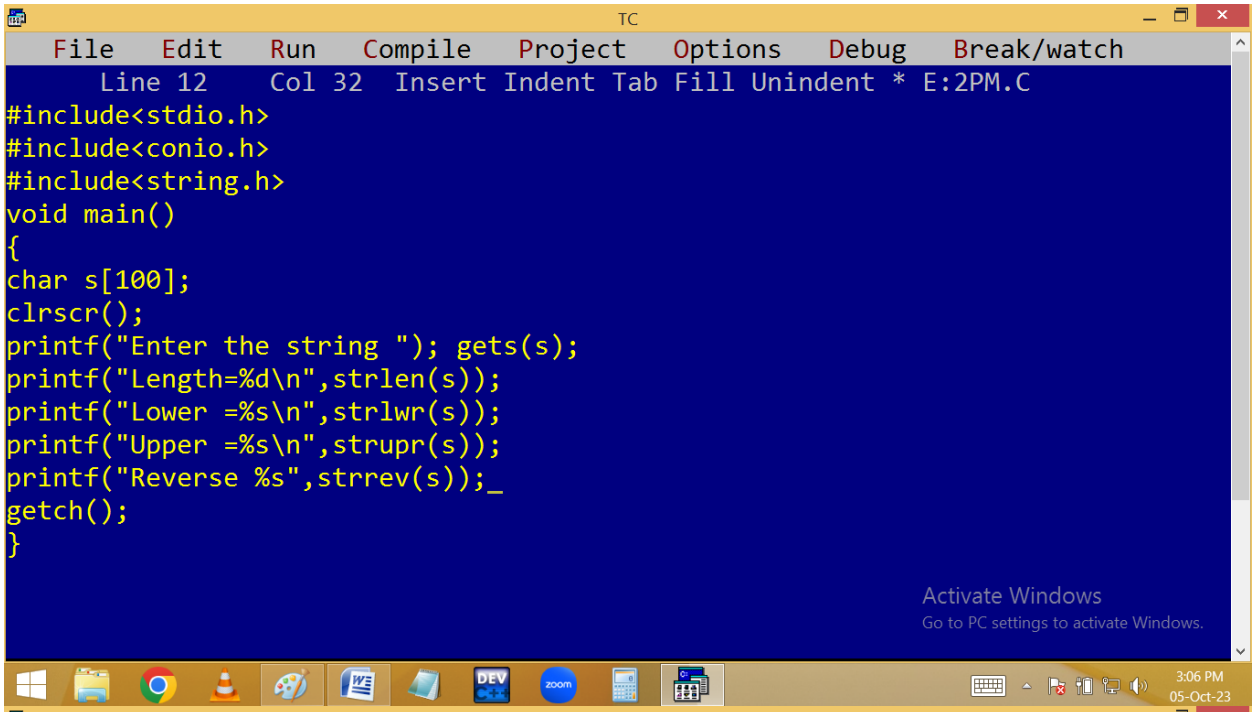

TC
Enter the name Ghattamaneni Mahesh Babu
G.M.B
Activate Windows
Go to PC settings to activate Windows.
3:00 PM
05-Oct-23

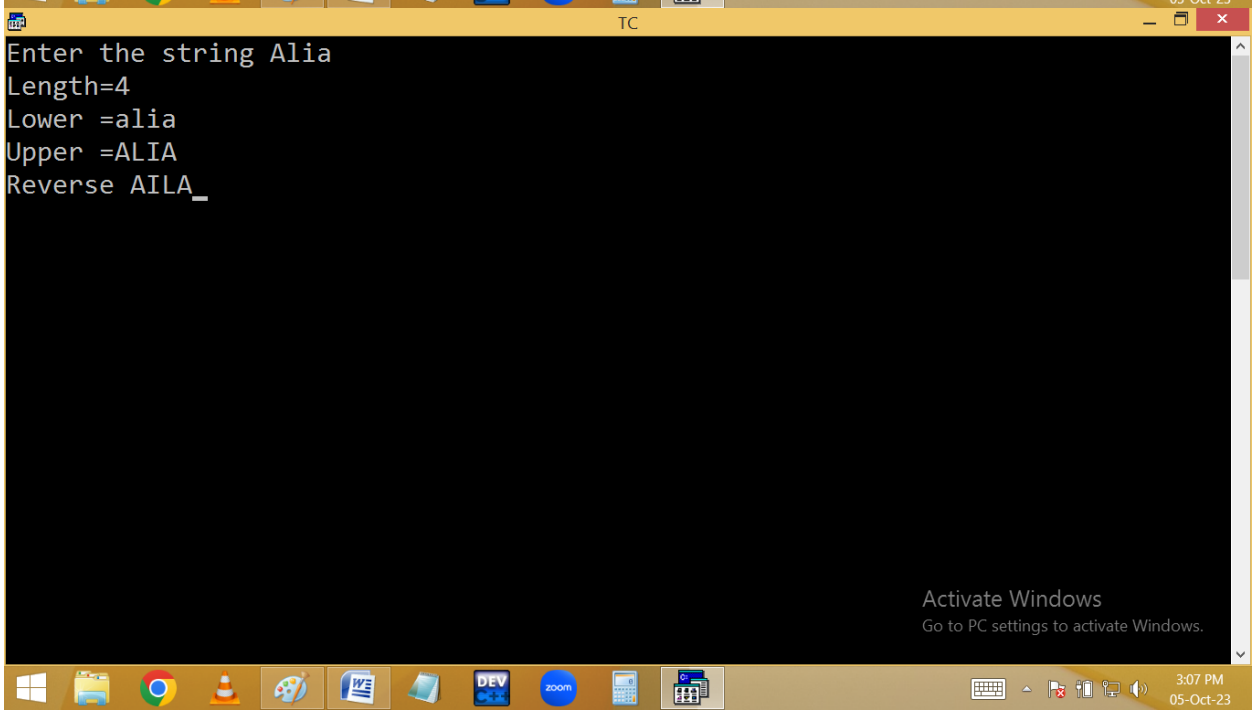


String library functions:

To manage string operations, c language provides some predefined functions available in <string.h>

1. **strlen()**: It return the string length.
2. **strrev()**: Return reverse string.
3. **strlwr()**: Converts into lower case.
4. **strupr()**: Converts into upper case.



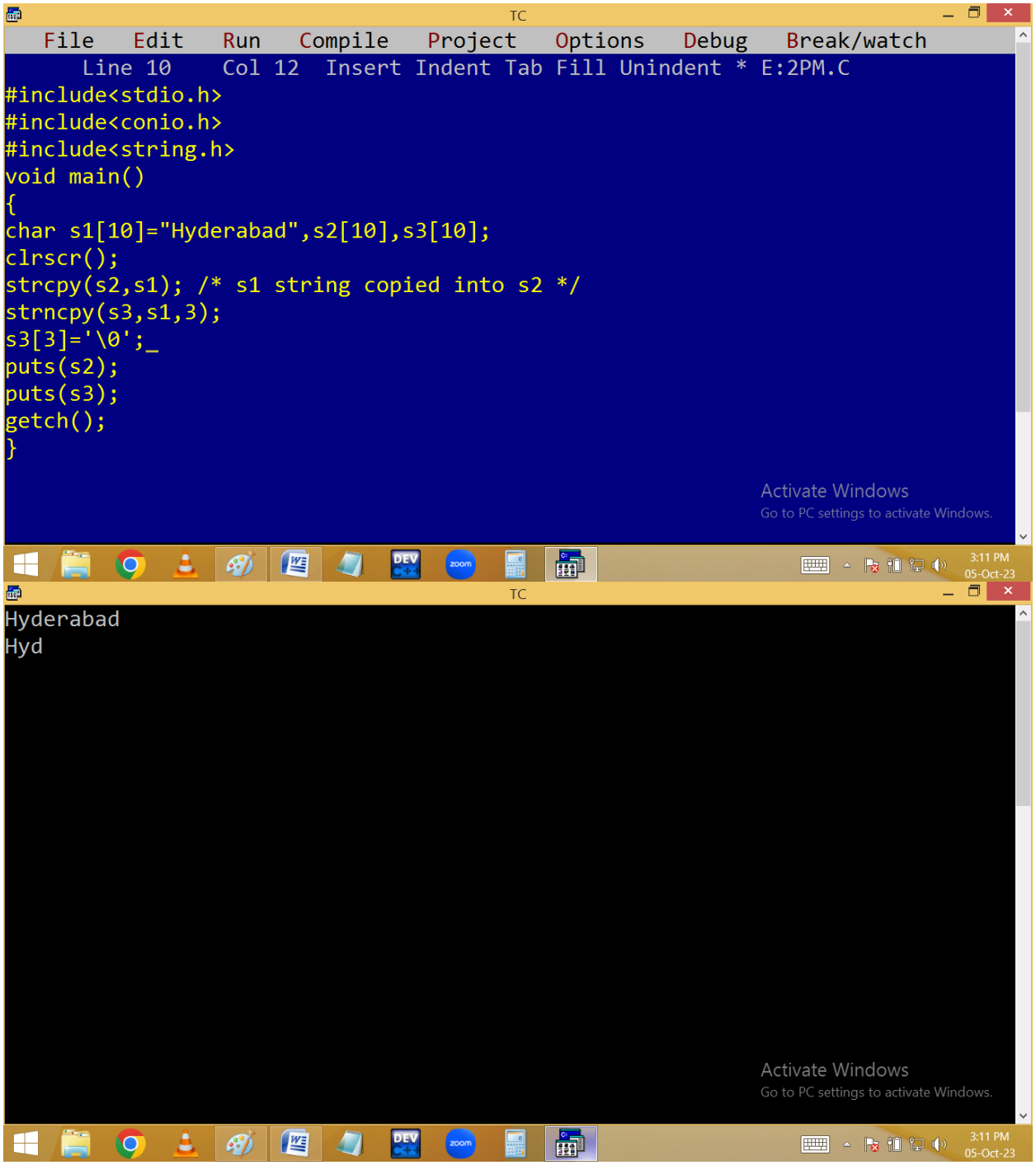


5. **strcpy(): It copies the source string into the destination string.**

   Strcpy(destination string, source string);

6. **strncpy(): It copies specified no of characters into destination string.**

   strcpy(dest string, source string, no of char's);

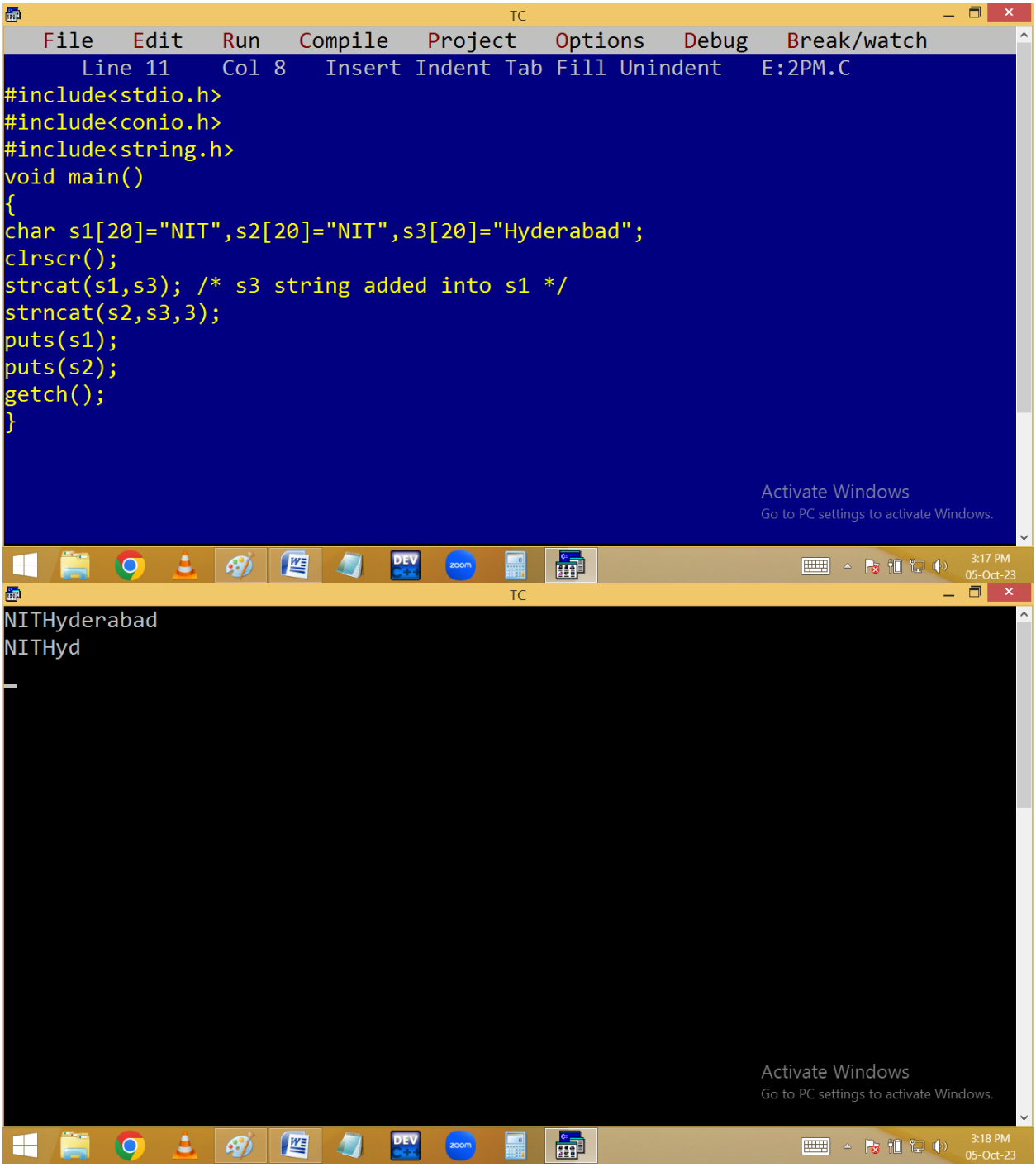


7. **strcat(): It adds string2 to string1.**

   strcat(string1, string2);

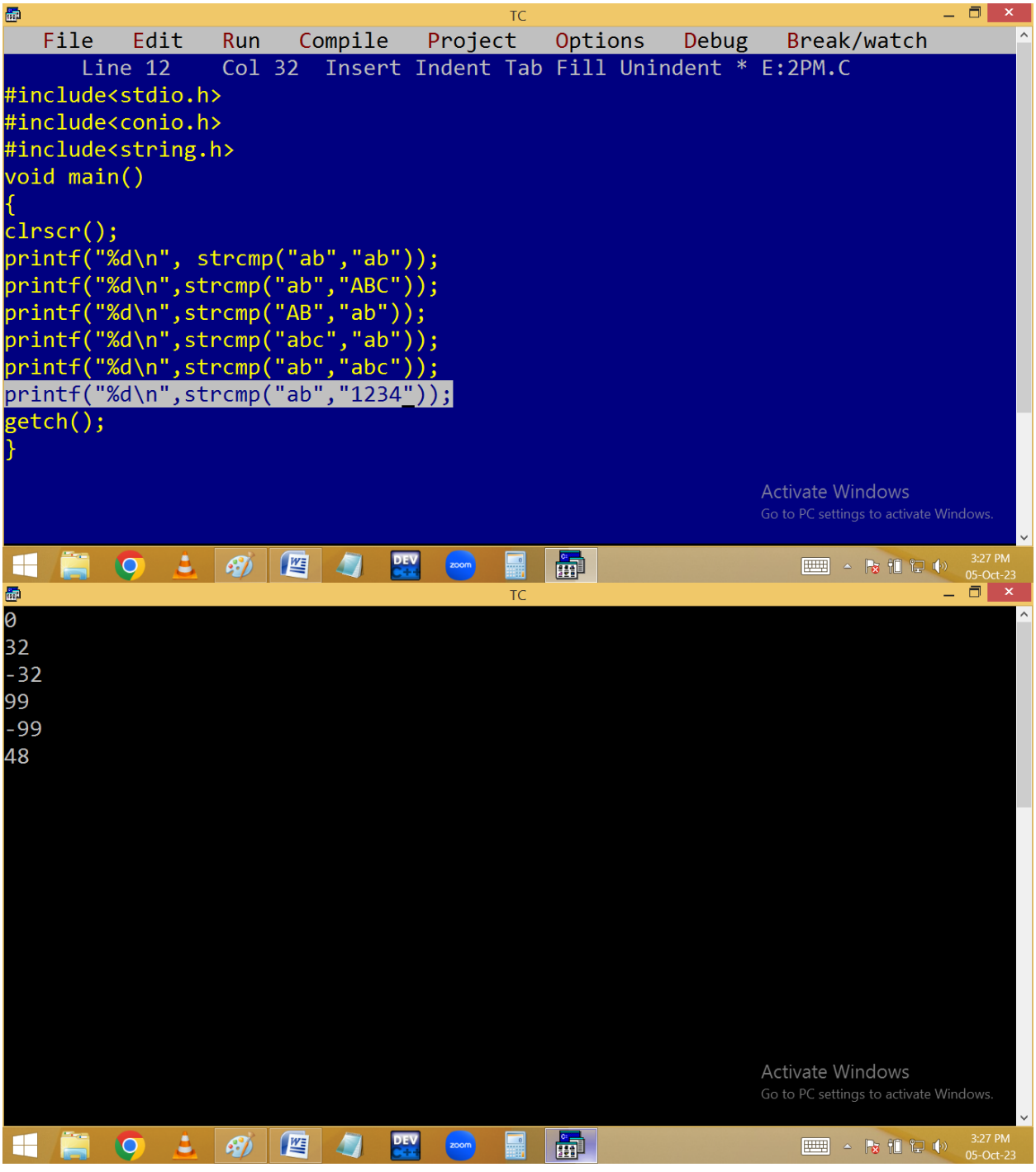
8. **strncat(): It adds specified no of char to string1.**

   Strncat(string1, string2, no of char's);



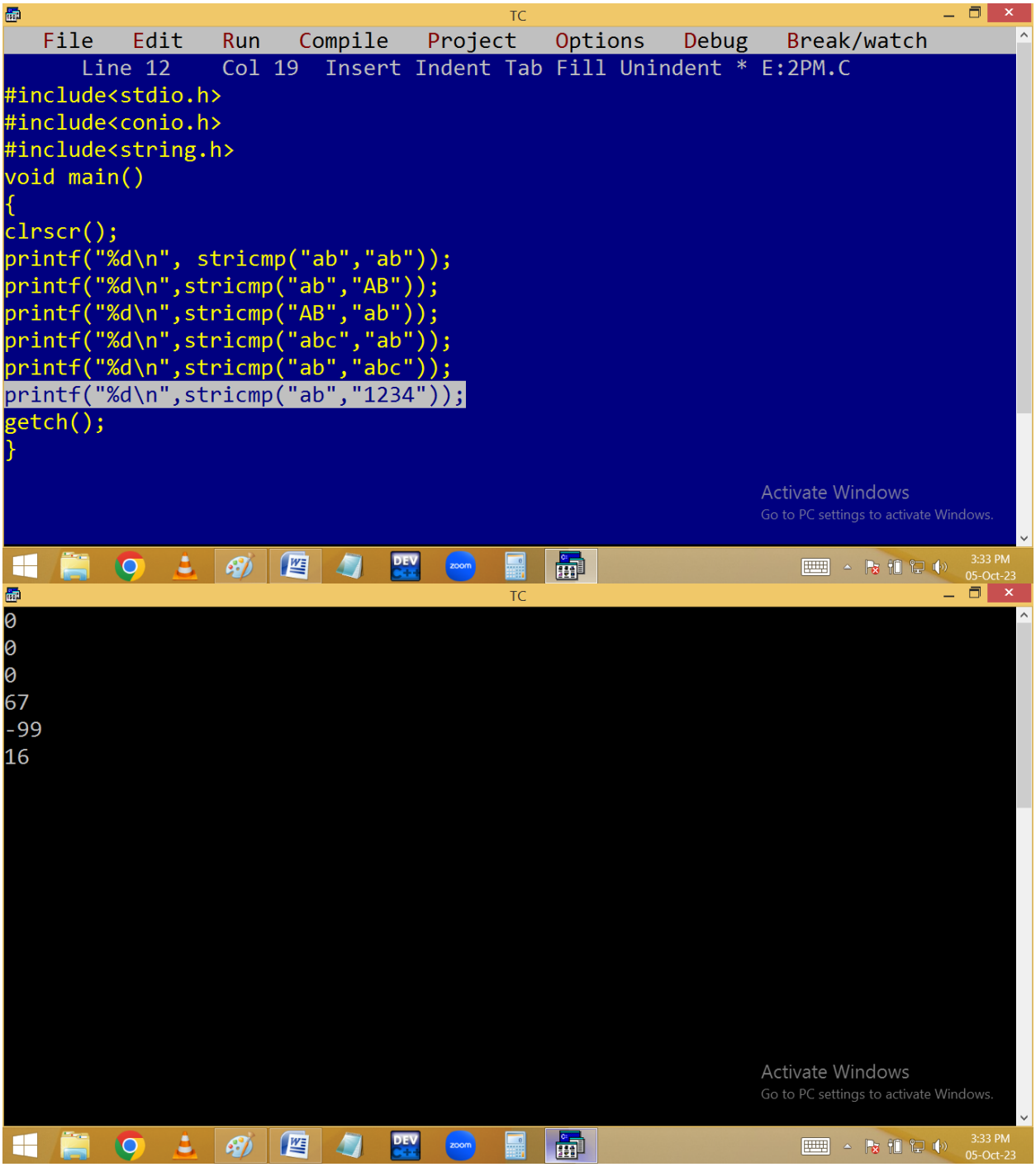
9. **strcmp(): It compare two string based on ASCII values and when 1st difference found, it returns the difference value.**

Strcmp(string1, string2);

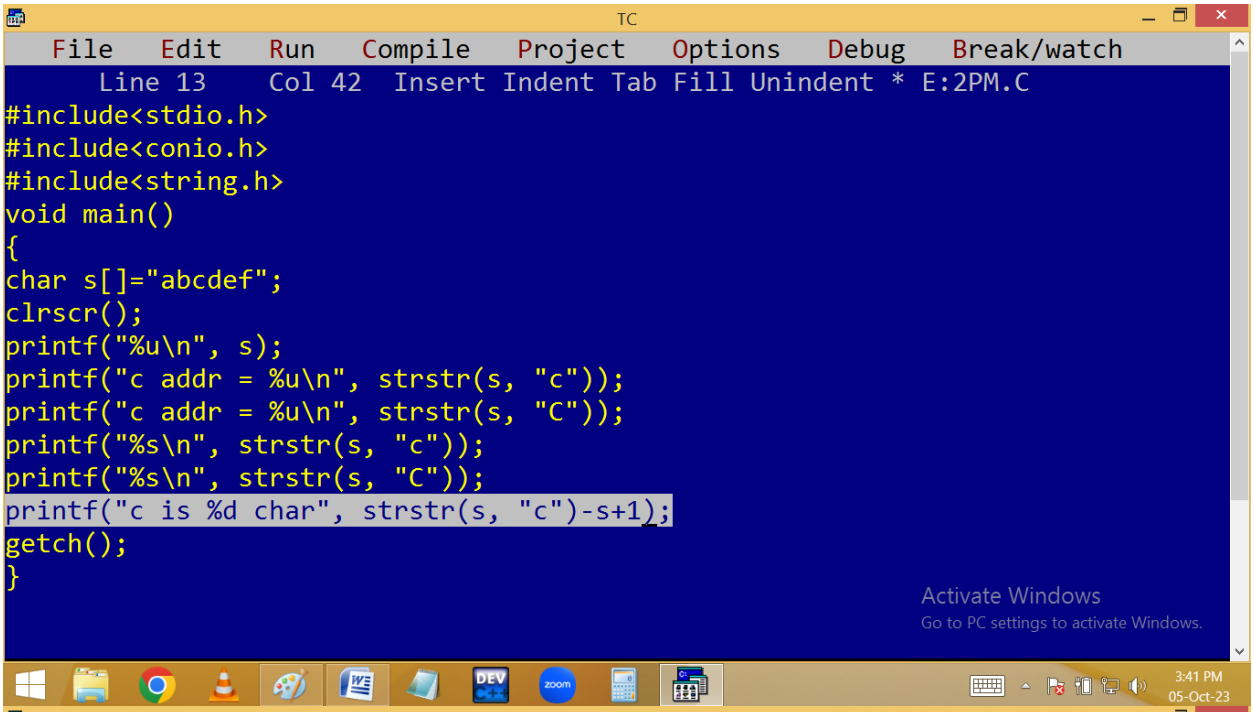


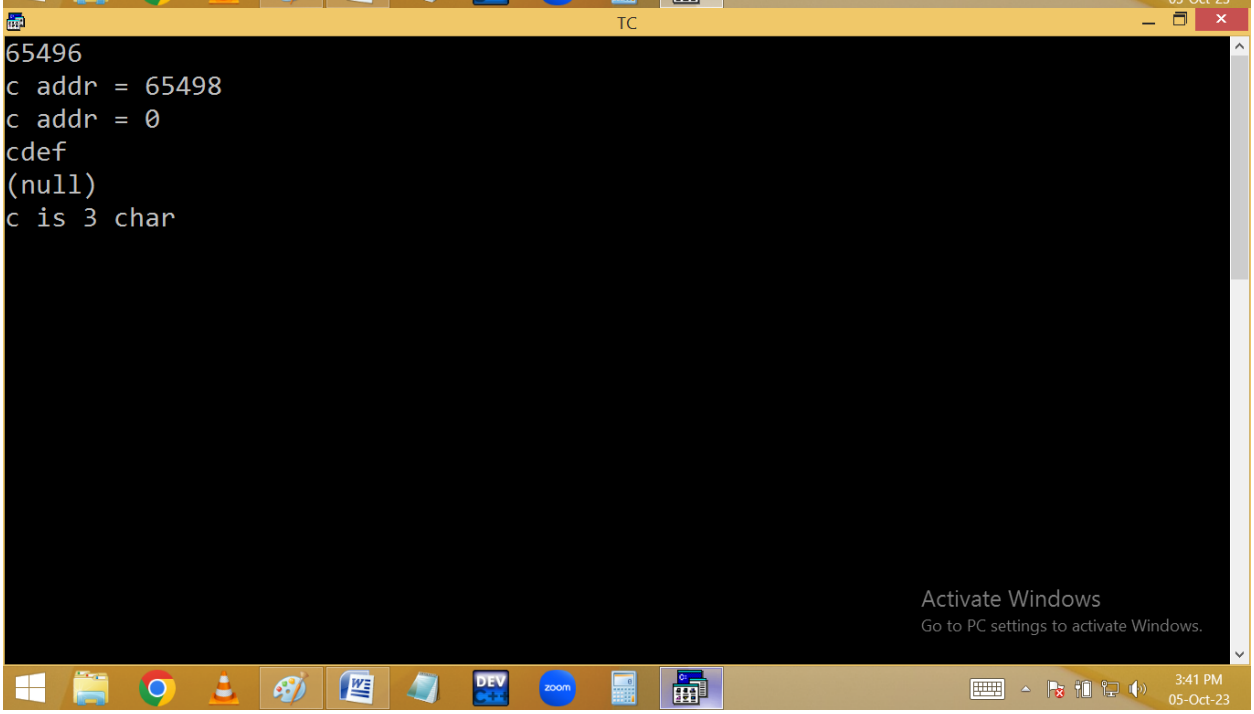
10. **stricmp():** it compare two strings by ignoring case. i.e. in stricmp() lower and upper are same. If matching char not found or different data type available in 2nd string, the first string char taken in upper case.

Stricmp(string1, string2);



11. **strstr(): It searches the sub string availability in main string and it found, it returns the sub string address. If sub string not found, it return null.**


TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 42 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char s[]="abcdef";
clrscr();
printf("%u\n", s);
printf("c addr = %u\n", strstr(s, "c"));
printf("c addr = %u\n", strstr(s, "C"));
printf("%s\n", strstr(s, "c"));
printf("%s\n", strstr(s, "C"));
printf("c is %d char", strstr(s, "c")-s+1);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:41 PM
05-Oct-23


TC
65496
c addr = 65498
c addr = 0
cdef
(null)
c is 3 char
Activate Windows
Go to PC settings to activate Windows.
3:41 PM
05-Oct-23