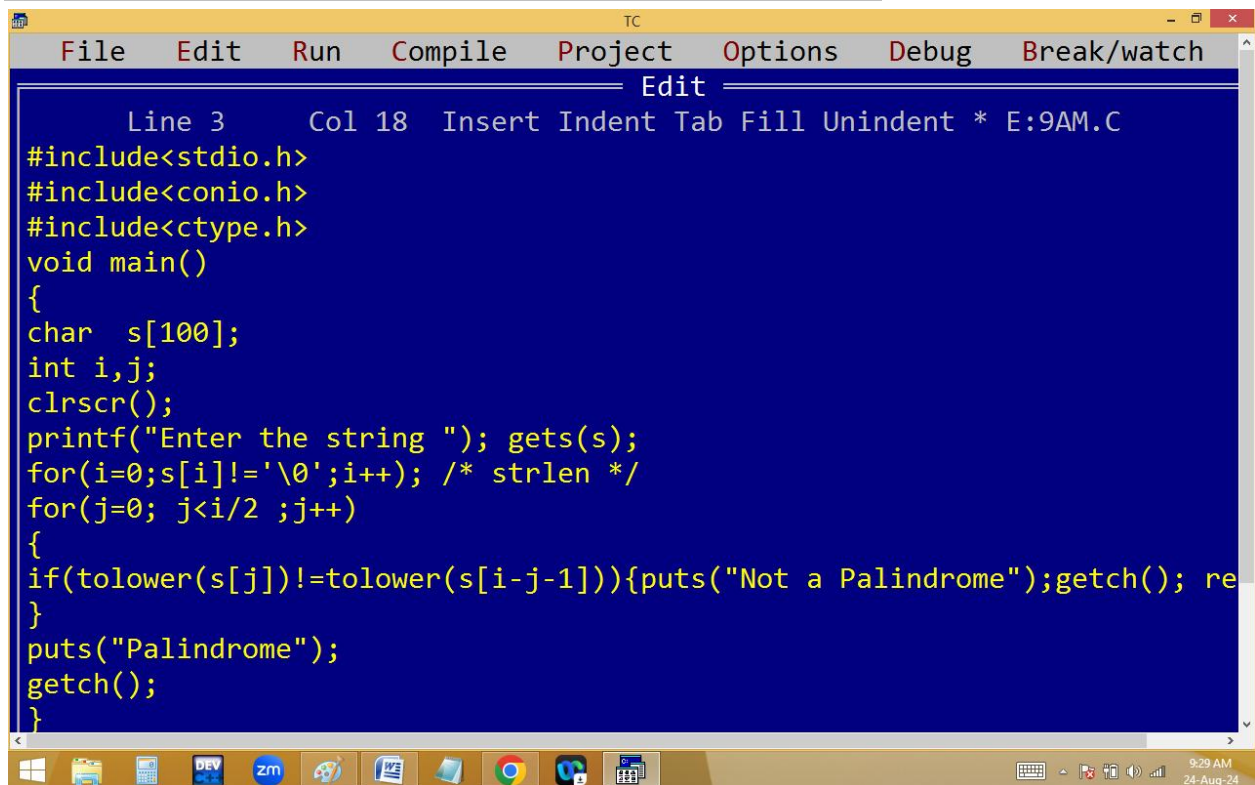
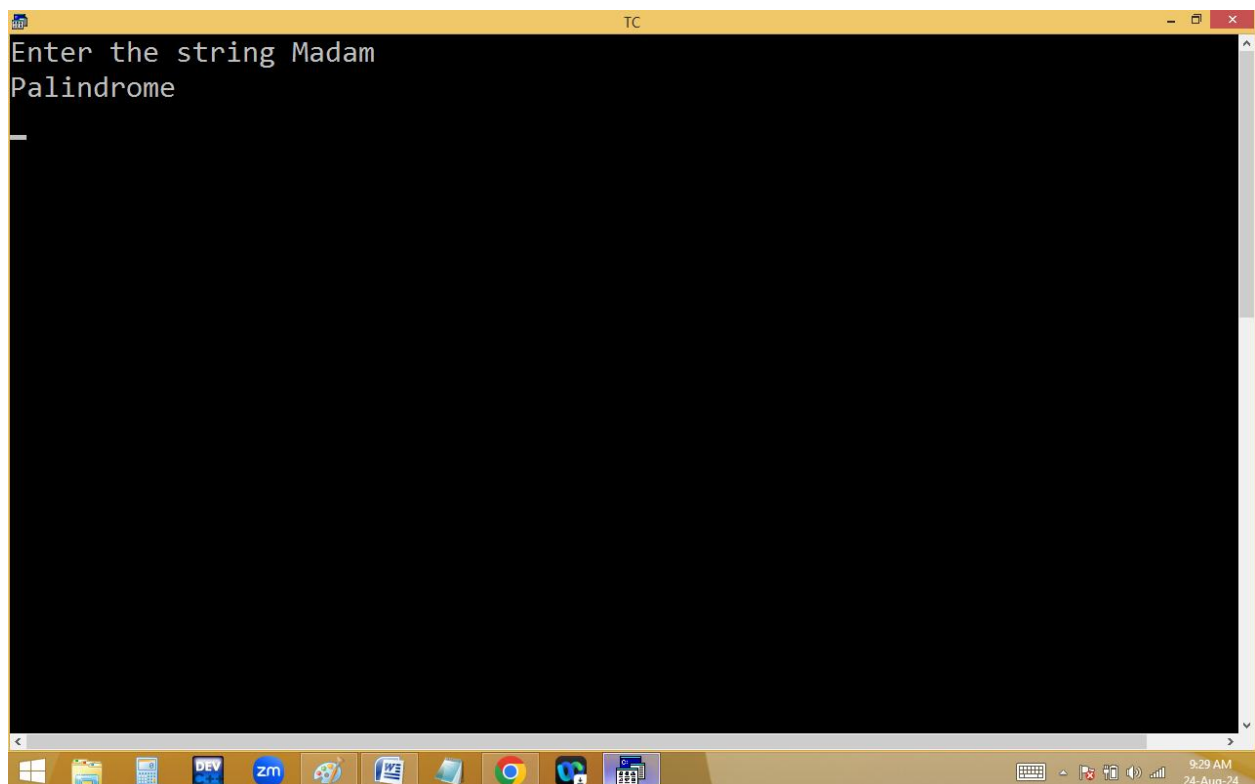


## Finding palindrome string using single string:



```
TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 3 Col 18 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char s[100];
int i,j;
clrscr();
printf("Enter the string "); gets(s);
for(i=0;s[i]!='\0';i++); /* strlen */
for(j=0; j<i/2 ;j++)
{
if(tolower(s[j])!=tolower(s[i-j-1])){puts("Not a Palindrome");getch(); return;}
}
puts("Palindrome");
getch();
}
```



```
TC
Enter the string Madam
Palindrome
```

```

Enter the string modem
Not a Palindrome

```

for(i=0; s[i]!='\0';i++); len=4

$\overset{2}{\text{for( j=0; j<len/2;j++)}}$  ✓  
 {  
   if(a[i]!=a[i-j-1]){p(not);return;}  
 }  
p(palin); ✓

s	a	m	n	a	\0	
	0	1	2	3	4	

$$\frac{i}{4}$$

$$\frac{j}{0} \quad \frac{i-j-1}{4-0-1=3}$$

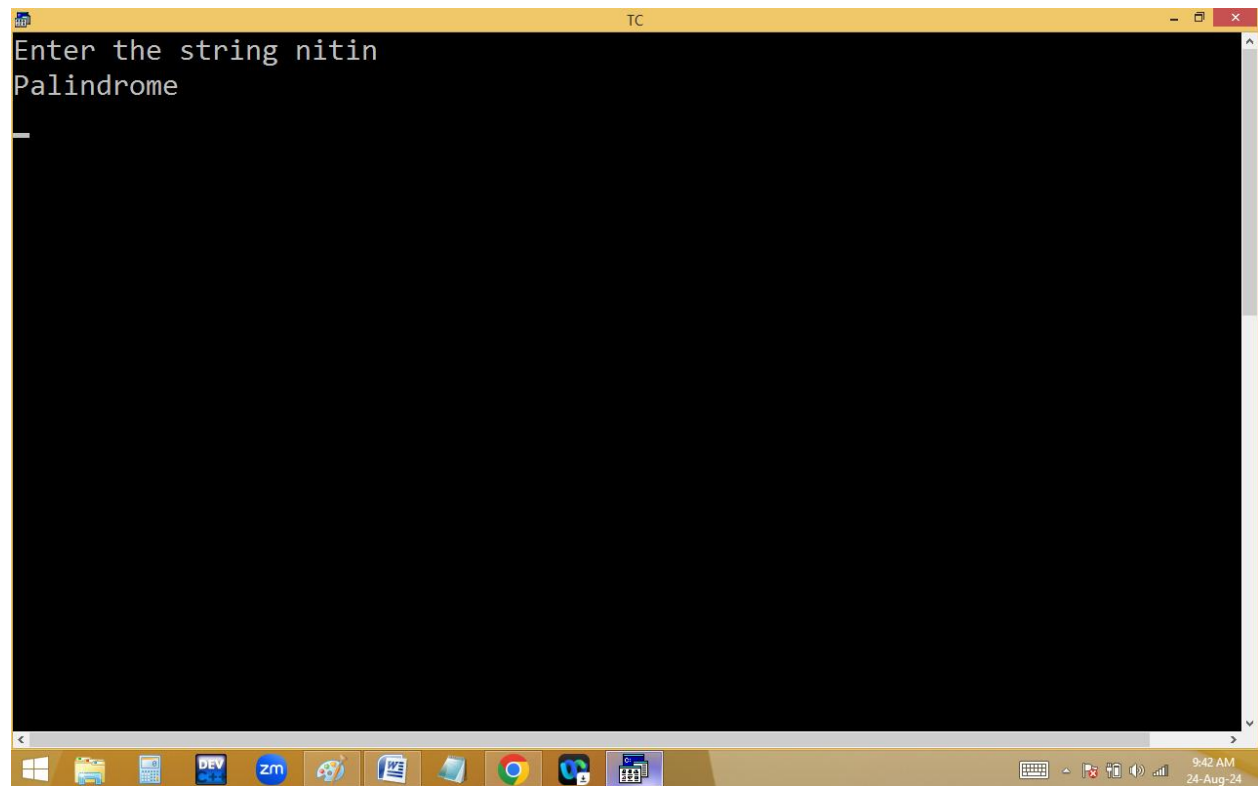
$$1 \quad 4-1-1=2$$

$$2 < 2$$

Using 2 strings:

```
TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 6 Col 24 Insert Indent Tab Fill Unindent * E:9AM.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;i--,j++)s2[j]=s1[i];/* strrev + copy */
for(i=0;s1[i]!='\0' ;i++)
{
if(tolower(s1[i])!=tolower(s2[i])){puts("Not a Palindrome");getch(); return;}
}
puts("Palindrome");
getch();
}
```

```
TC
Enter the string Malayalam
Palindrome
```



```

Enter the string pappu
Not a Palindrome

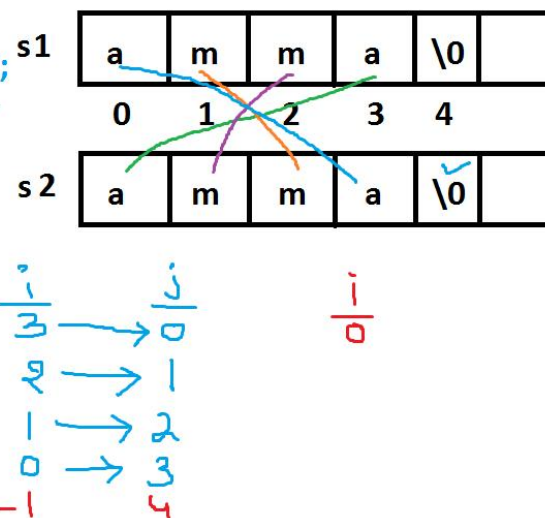
```

for(i=0; s[i]!='\0';i++); len=4

for(s2[i--]='\0',j=0;i>=0;i--,j++)s2[j]=s1[i];  
str rev + copy

for( i=0; s1[i]!='\0';i++)  
{

if(s1[i] != s2[i]) {p(not);return;} strcmp  
}  
p(palin); ✓

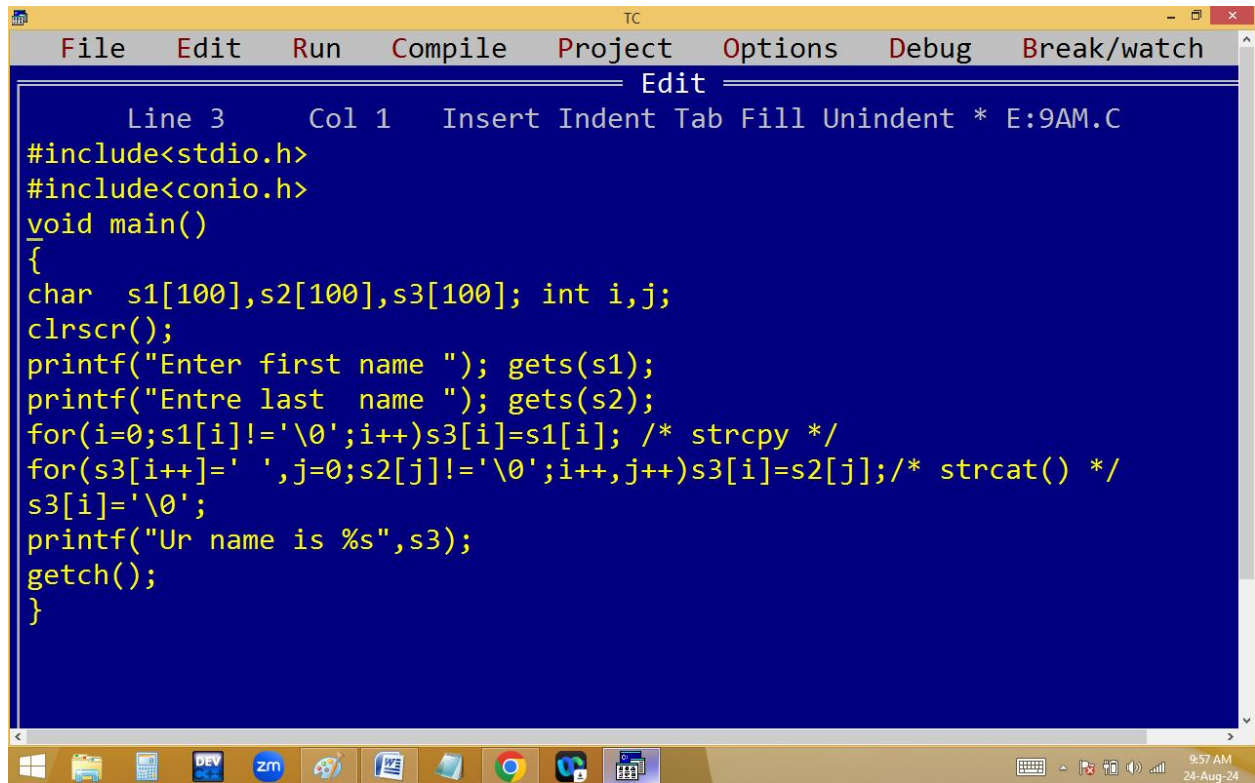


## String concatenation:

Enter first name: Kishore

Enter last name: Naidu

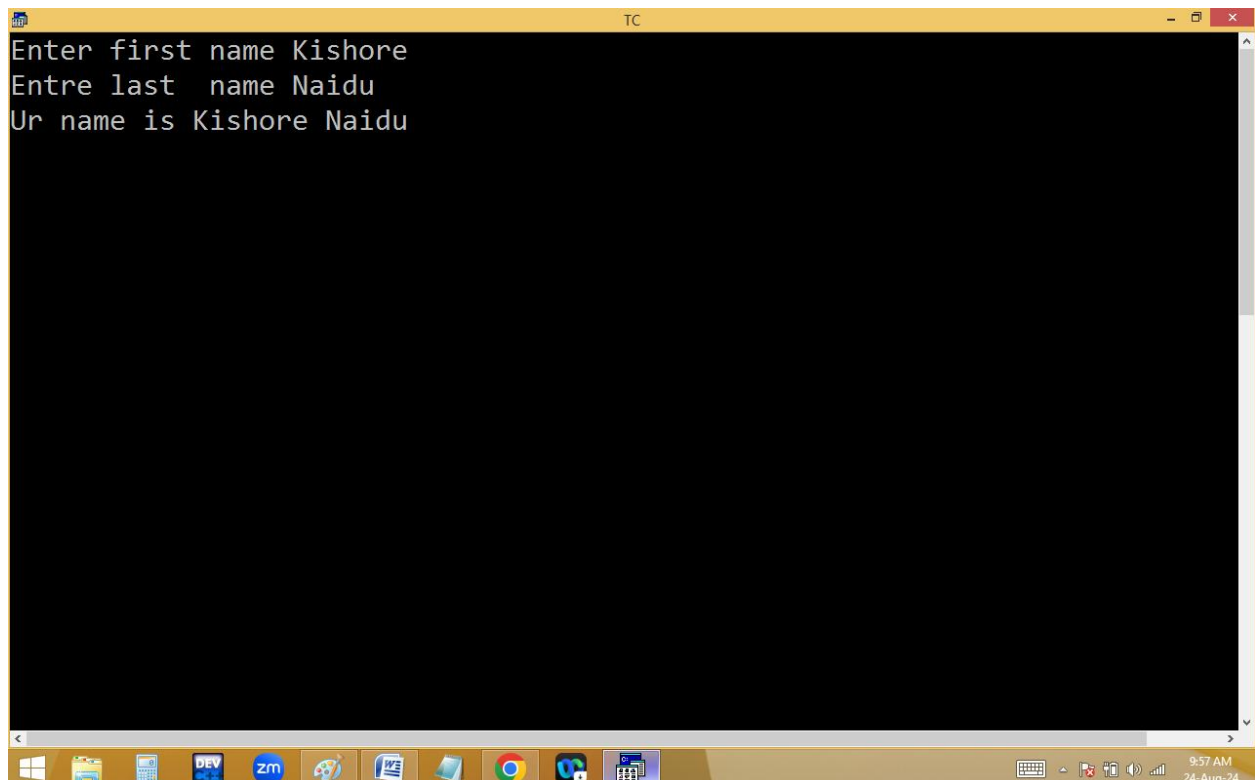
Ur name is Kishore Naidu



The screenshot shows the Turbo C++ (TC) IDE with the following code in the editor:

```
Line 3      Col 1      Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
char  s1[100],s2[100],s3[100]; int i,j;
clrscr();
printf("Enter first name "); gets(s1);
printf("Entre last  name "); gets(s2);
for(i=0;s1[i]!='\0';i++)s3[i]=s1[i]; /* strcpy */
for(s3[i++]=' ',j=0;s2[j]!='\0';i++,j++)s3[i]=s2[j];/* strcat() */
s3[i]='\0';
printf("Ur name is %s",s3);
getch();
}
```

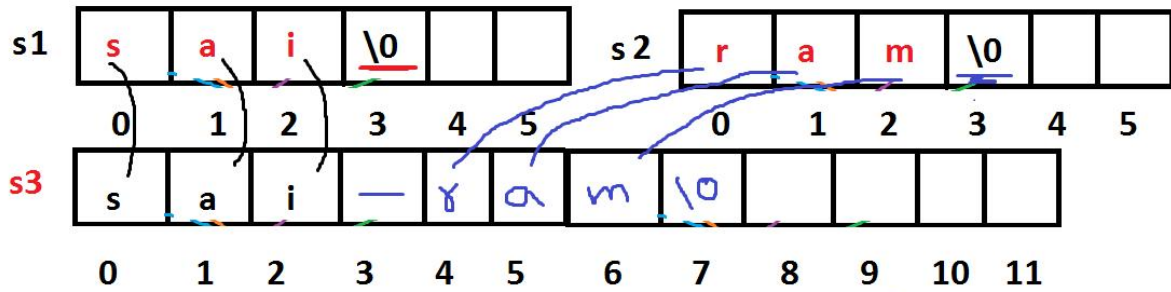
The IDE's status bar at the bottom indicates the time is 9:57 AM on 24-Aug-24.



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

```
Enter first name Kishore
Entre last  name Naidu
Ur name is Kishore Naidu
```

The IDE's status bar at the bottom indicates the time is 9:57 AM on 24-Aug-24.

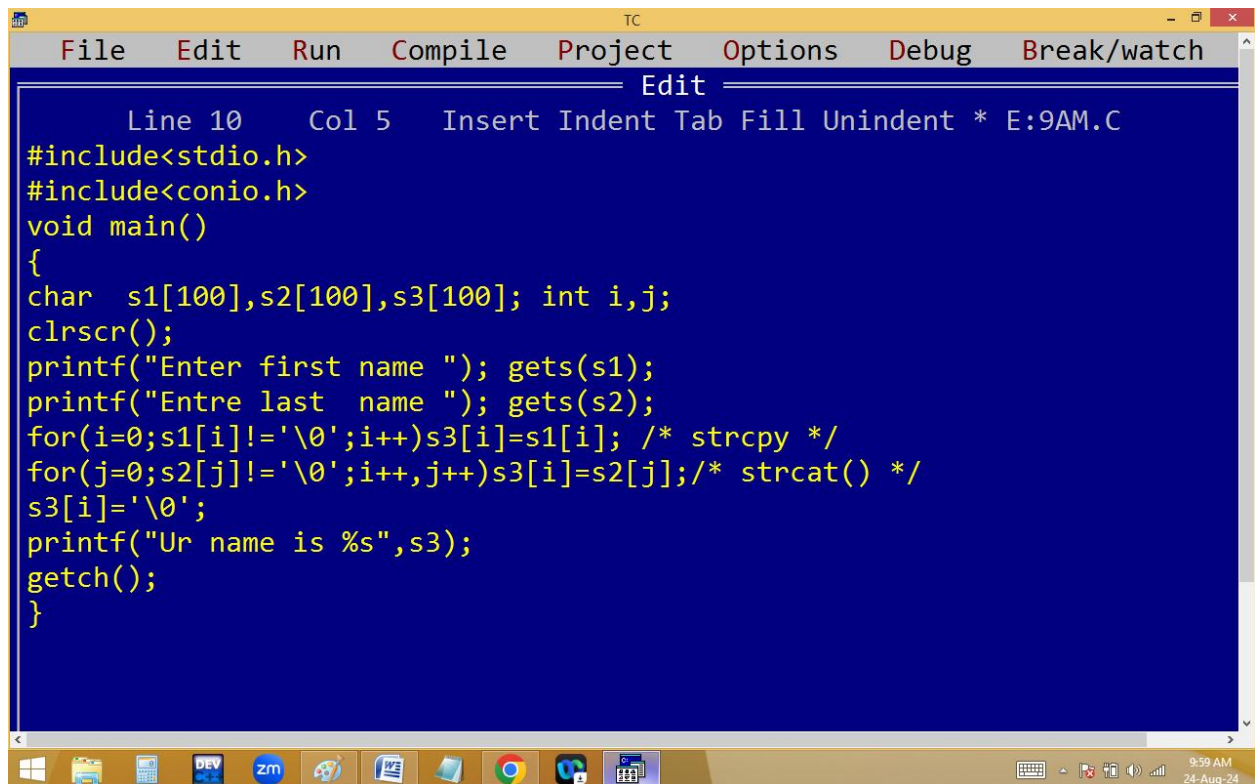


```

for(i=0;s1[i]!='\0';i++) s3[i]=s1[i]; copy      i  2  3      i ← j
for( s3[i++]=' ', j=0; s2[j]!='\0';j++,i++)s3[i]=s2[j];
s3[i]='\0'; p(s3);                                5 ← 1
                                                6 ← 2
                                                7   3
strcat():

```

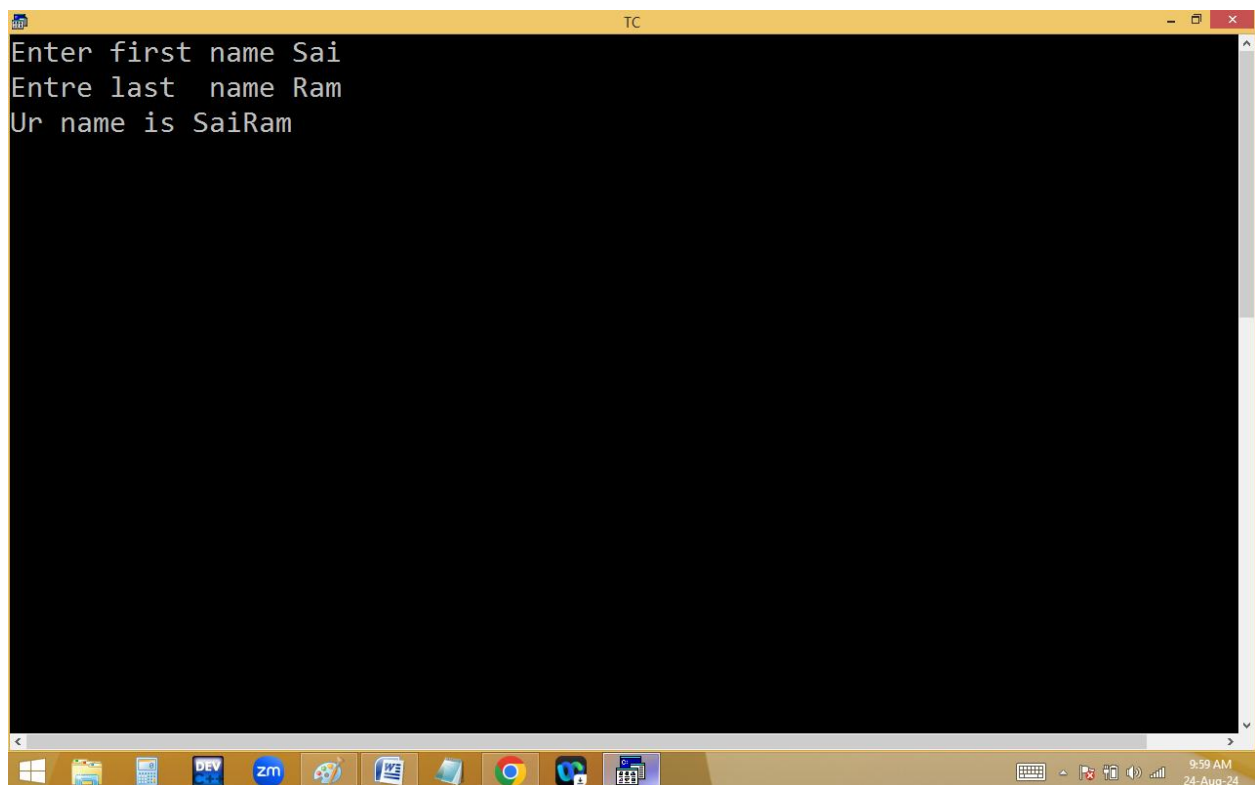
**Without space:**



The screenshot shows the Turbo C++ (TC) IDE with the following code in the editor:

```
Line 10 Col 5 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
char s1[100],s2[100],s3[100]; int i,j;
clrscr();
printf("Enter first name "); gets(s1);
printf("Entre last name "); gets(s2);
for(i=0;s1[i]!='\0';i++)s3[i]=s1[i]; /* strcpy */
for(j=0;s2[j]!='\0';i++,j++)s3[i]=s2[j];/* strcat() */
s3[i]='\0';
printf("Ur name is %s",s3);
getch();
}
```

The taskbar at the bottom shows the Windows Start button, several application icons (including DEV, zm, and a folder), and system icons on the right indicating the time is 9:59 AM on 24-Aug-24.



The screenshot shows the output of the program in the TC IDE:

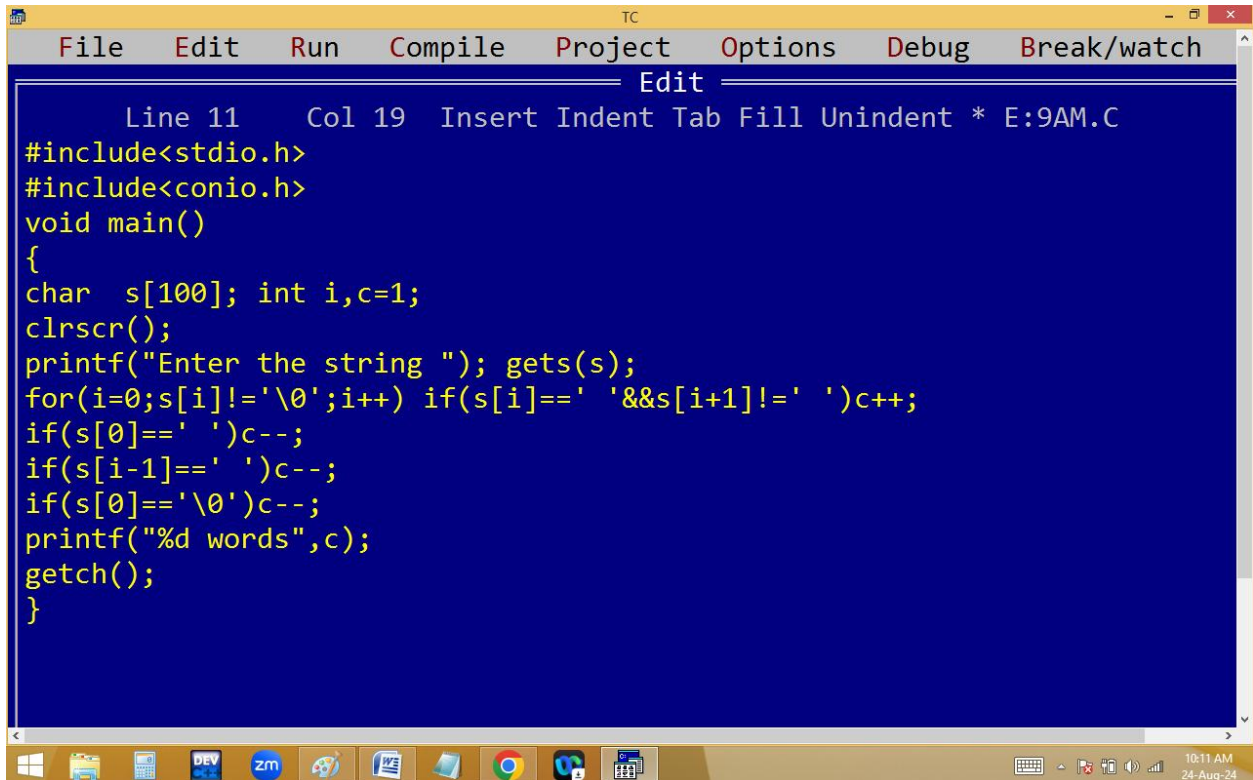
```
Enter first name Sai
Entre last name Ram
Ur name is SaiRam
```

The taskbar at the bottom is identical to the first screenshot, showing the same application icons and system status (9:59 AM, 24-Aug-24).



## Finding no of words in given string:

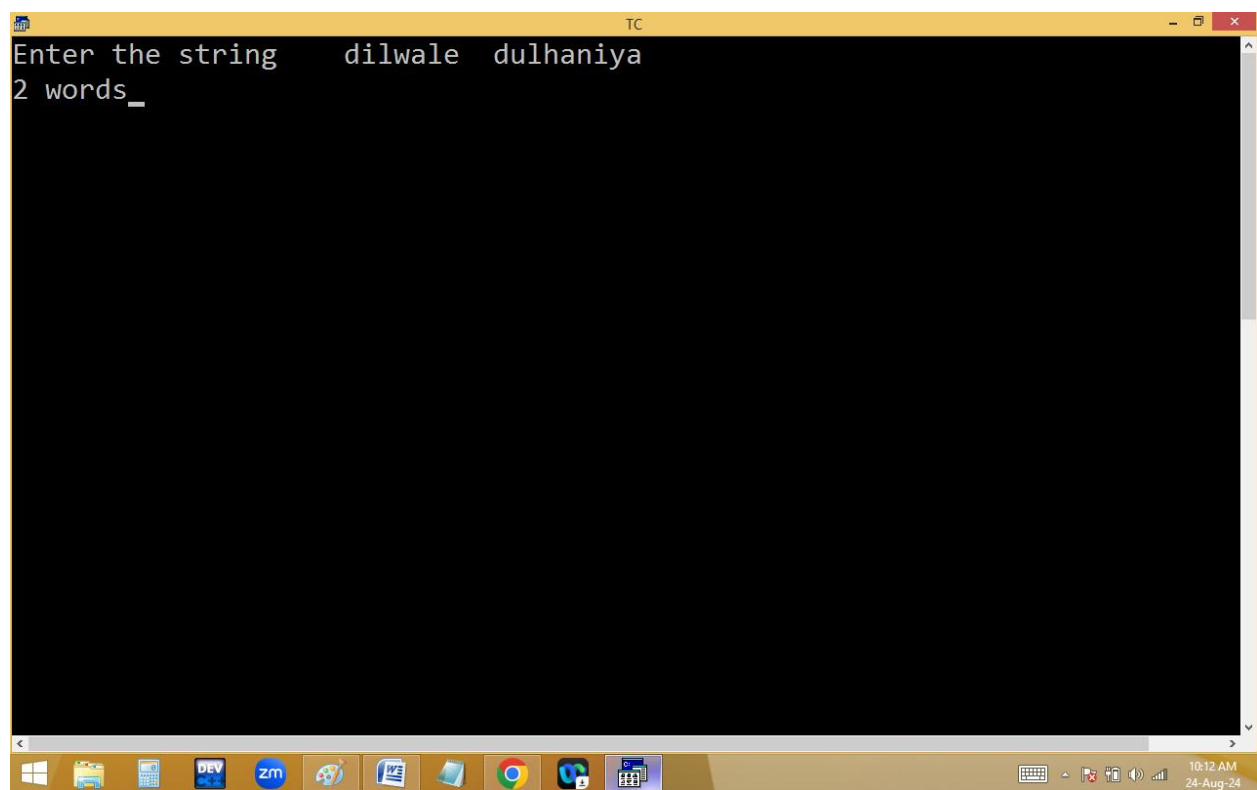
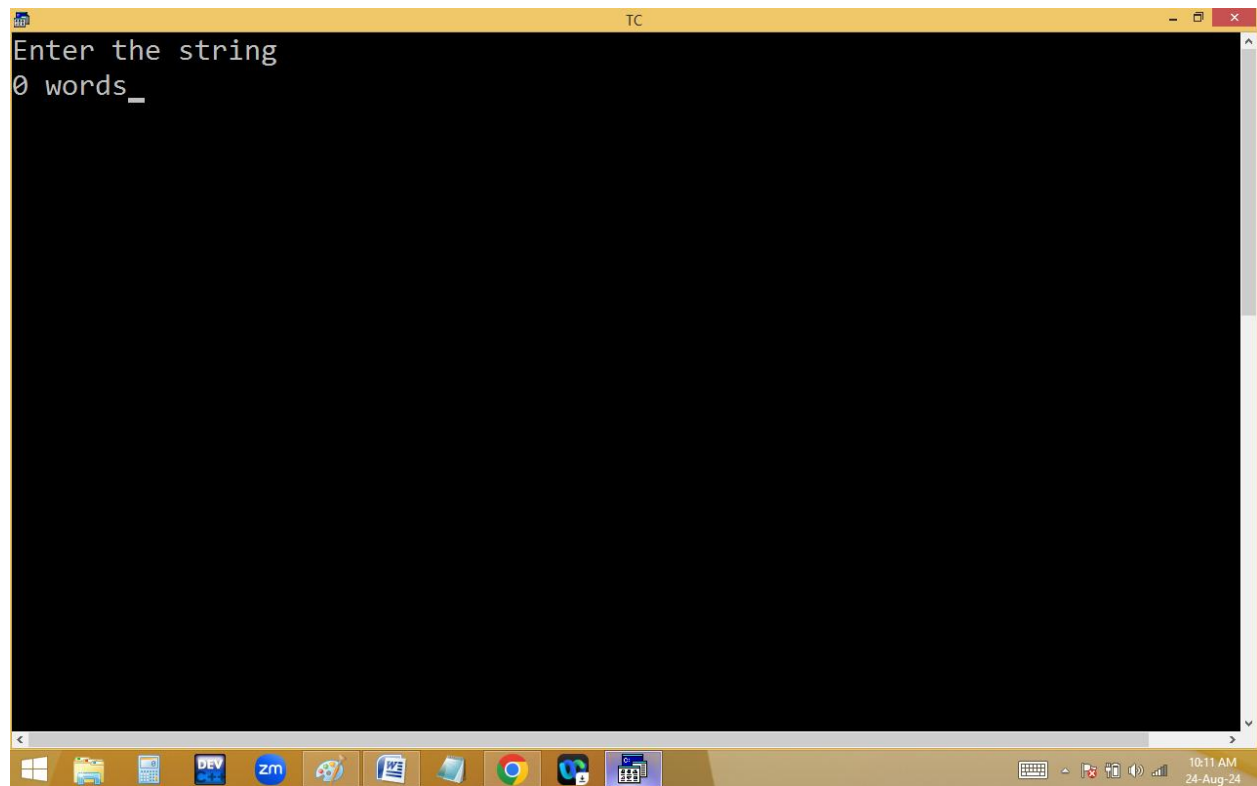
Eg: jaanu I miss you → 4 words



The screenshot shows a Turbo C++ IDE window titled "TC". The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the top indicates "Line 11 Col 19 Insert Indent Tab Fill Unindent \* E:9AM.C". The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
    char s[100]; int i,c=1;
    clrscr();
    printf("Enter the string "); gets(s);
    for(i=0;s[i]!='\0';i++) if(s[i]==' ' && s[i+1]!=' ')c++;
    if(s[0]==' ')c--;
    if(s[i-1]==' ')c--;
    if(s[0]=='\0')c--;
    printf("%d words",c);
    getch();
}
```

The Windows taskbar at the bottom shows the Start button, several application icons (including DEV, zm, and a folder), and the system clock displaying "10:11 AM 24-Aug-24".



## Captcha code generation:

```
#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

void main()

{

char s[10],sp[]="@#$%^*",ch; int i,n;

clrscr();

while(1)

{ randomize();

for(i=0;i<5;i++)

{

n=random(4);

if(n==0)s[i]=97+random(26);

else if(n==1)s[i]=65+random(26);

else if(n==2)s[i]=48+random(10);

else s[i]=sp[random(6)];

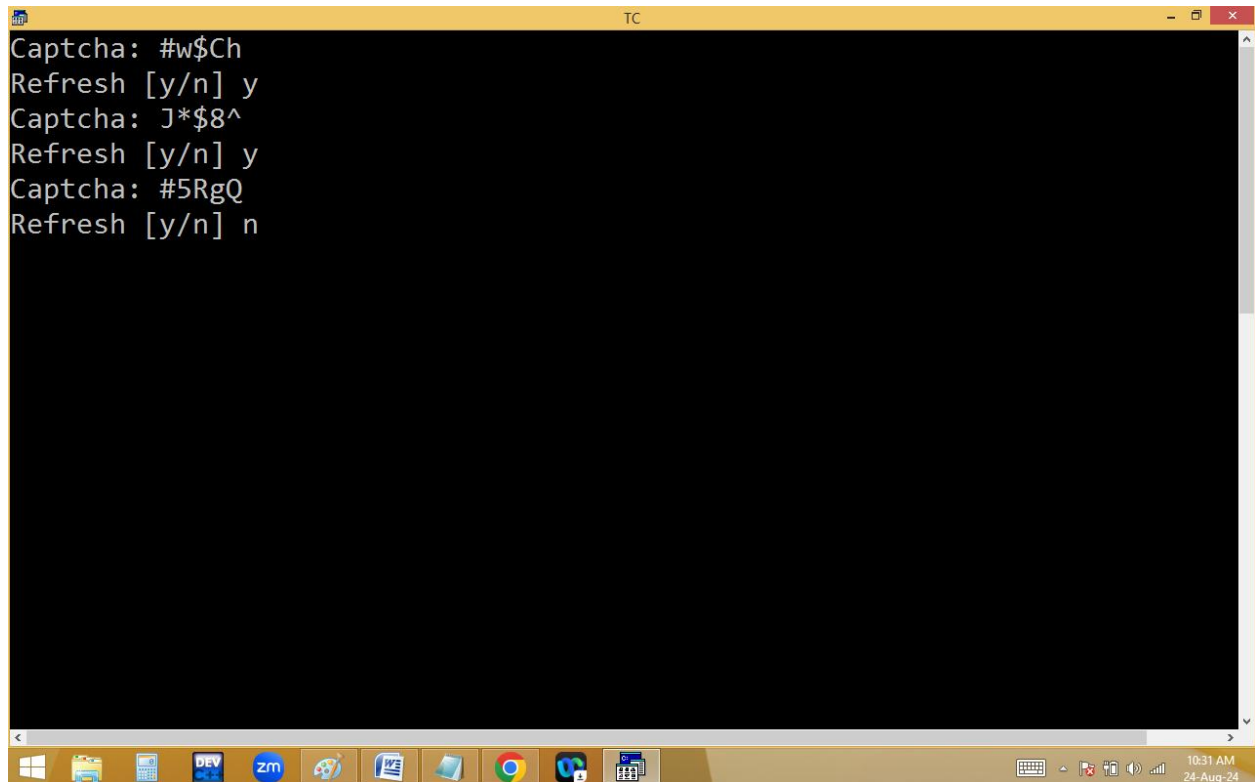
} s[i]='\0'; printf("Captcha: %s\n", s);
```

```
flushall());printf("Refresh [y/n] ");scanf("%c",&ch);
```

```
if(ch=='n' || ch=='N') break;
```

```
}
```

```
}
```



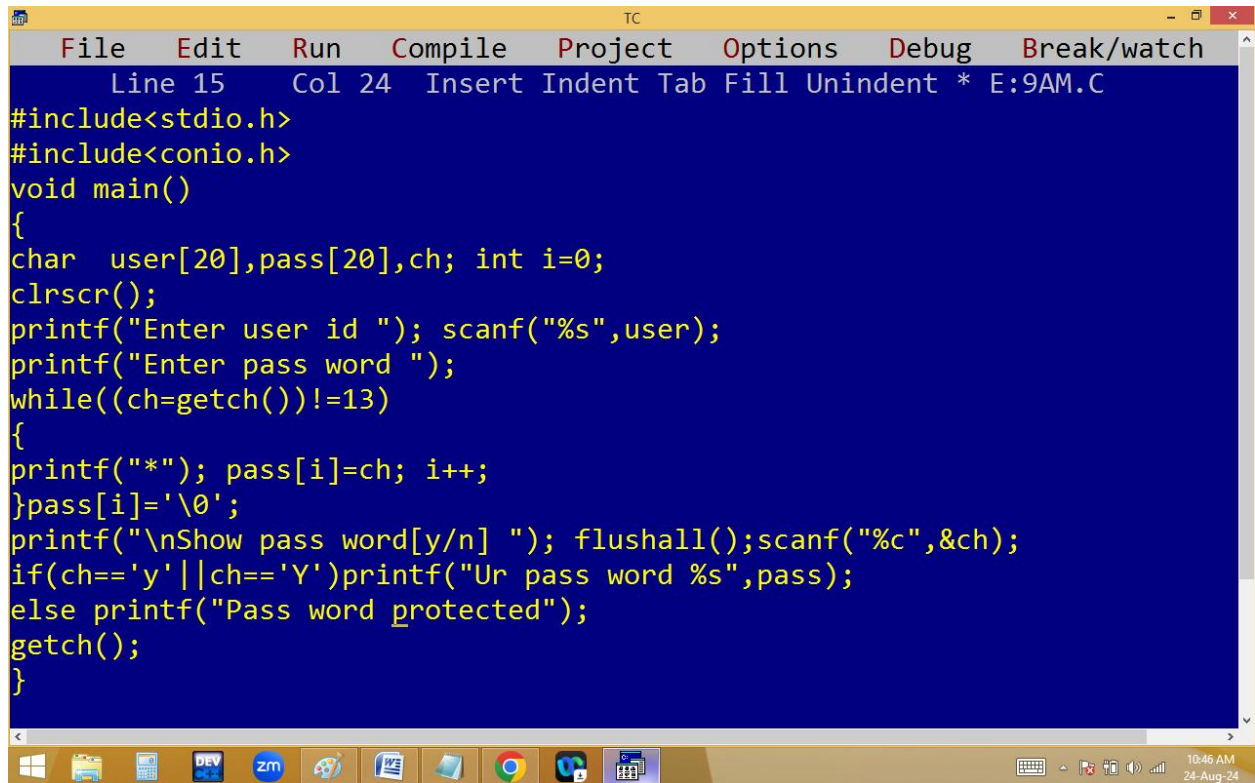
```
TC
Captcha: #w$Ch
Refresh [y/n] y
Captcha: J*$8^
Refresh [y/n] y
Captcha: #5RgQ
Refresh [y/n] n
```

**OTP Generation:**

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 12 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
char s[10],ch; int i;
clrscr();
while(1)
{ randomize();
for(i=0;i<8;i++)
{
s[i]=48+random(10);
} s[i]='\0'; printf("O T P: %s\n", s);
flushall();printf("Resend O T P [y/n] ");scanf("%c",&ch);
if(ch=='n' || ch=='N') break;
}}
```

```
TC
O T P: 21953310
Resend O T P [y/n] y
O T P: 92344584
Resend O T P [y/n] y
O T P: 40259721
Resend O T P [y/n] n
```

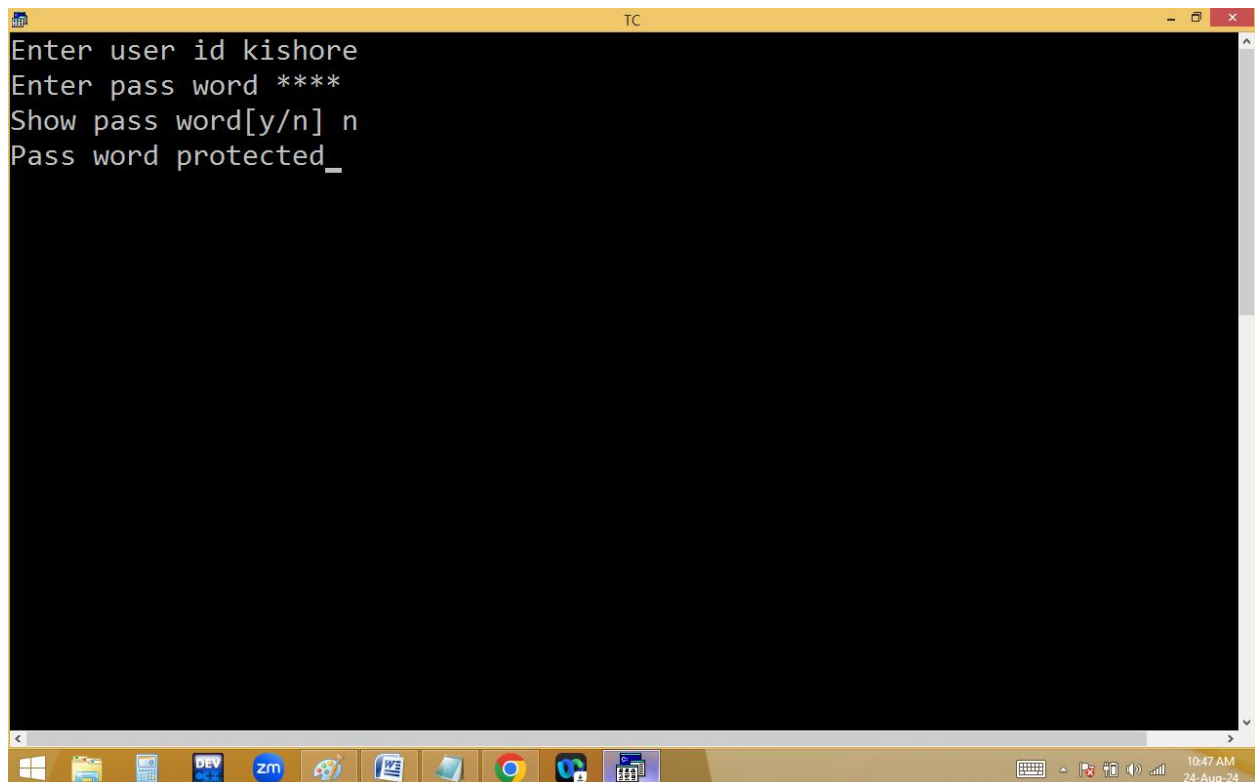
## Password generation:



The screenshot shows the Turbo C++ (TC) 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 15 Col 24 Insert Indent Tab Fill Unindent \* E:9AM.C'. The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
char  user[20],pass[20],ch; int i=0;
clrscr();
printf("Enter user id "); scanf("%s",user);
printf("Enter pass word ");
while((ch=getch())!=13)
{
printf("*"); pass[i]=ch; i++;
}pass[i]='\0';
printf("\nShow pass word[y/n] "); fflush();scanf("%c",&ch);
if(ch=='y' || ch=='Y')printf("Ur pass word %s",pass);
else printf("Pass word protected");
getch();
}
```

The Windows taskbar at the bottom shows icons for Windows, File Explorer, DEV, zm, and other applications. The system clock in the bottom right corner shows 10:46 AM on 24-Aug-24.



The screenshot shows the Turbo C++ (TC) IDE with a black background, displaying the output of the program. The text shown is:

```
Enter user id kishore
Enter pass word ****
Show pass word[y/n] n
Pass word protected_
```

The Windows taskbar at the bottom is the same as in the first screenshot, with the system clock now showing 10:47 AM on 24-Aug-24.

```
TC
Enter user id kishore
Enter pass word *****
Show pass word[y/n] y
Ur pass word jasmine
```

