

STRING HANDLING FUNCTIONS IN C

What are strings?

A string is a datatype used in c programming, such as an integer and floating point unit, but it is used to represent text rather than numbers. It is comprised of a set of characters that can also contain spaces and numbers. The length of a string is often determined by using a null character.

- C language supports a large number of string handling functions that can be used to carry out many of the string manipulations.

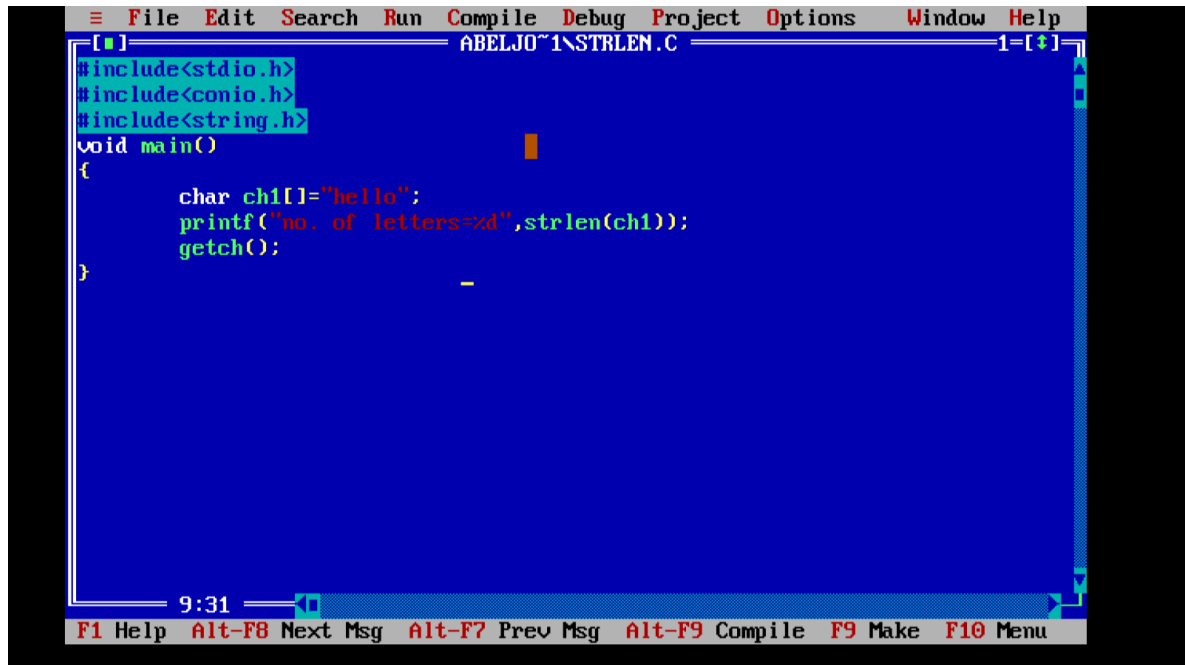
- These functions are packaged in string.h library.

- Hence we must include string.h header file in our programs to use these functions.

There are 18 types of string handling function. In this assignment, there are 12 functions because they are major functions in string.

1. strlen()

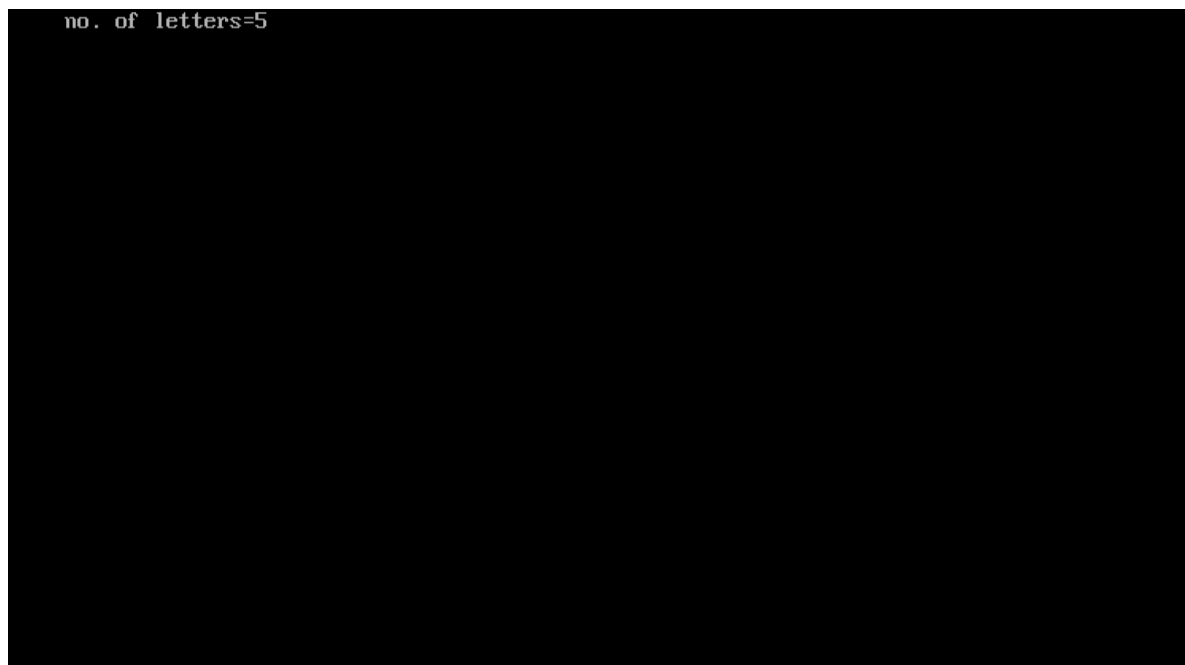
This function is used to show the length of a string.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRLEN.C 1=1
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char ch1[]="hello";
    printf("no. of letters=%d",strlen(ch1));
    getch();
}
```

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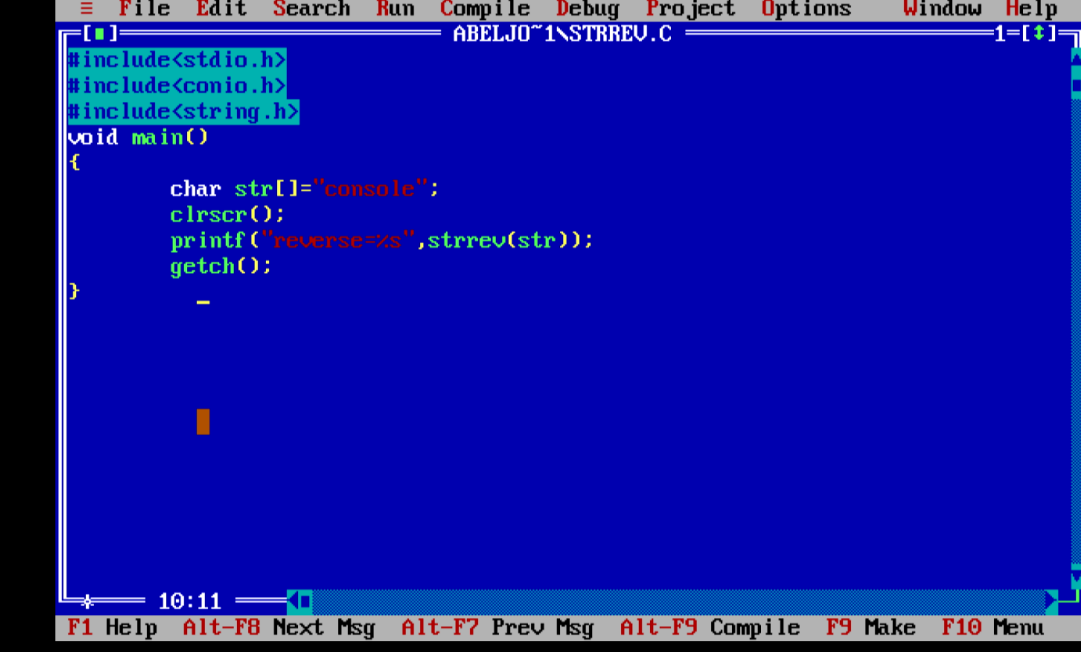
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu



```
no. of letters=5
```

2. strrev()

This function is used to show the reverse of a string.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STREVE.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char str[]="console";
    clrscr();
    printf("reverse=%s",strrev(str));
    getch();
}
```

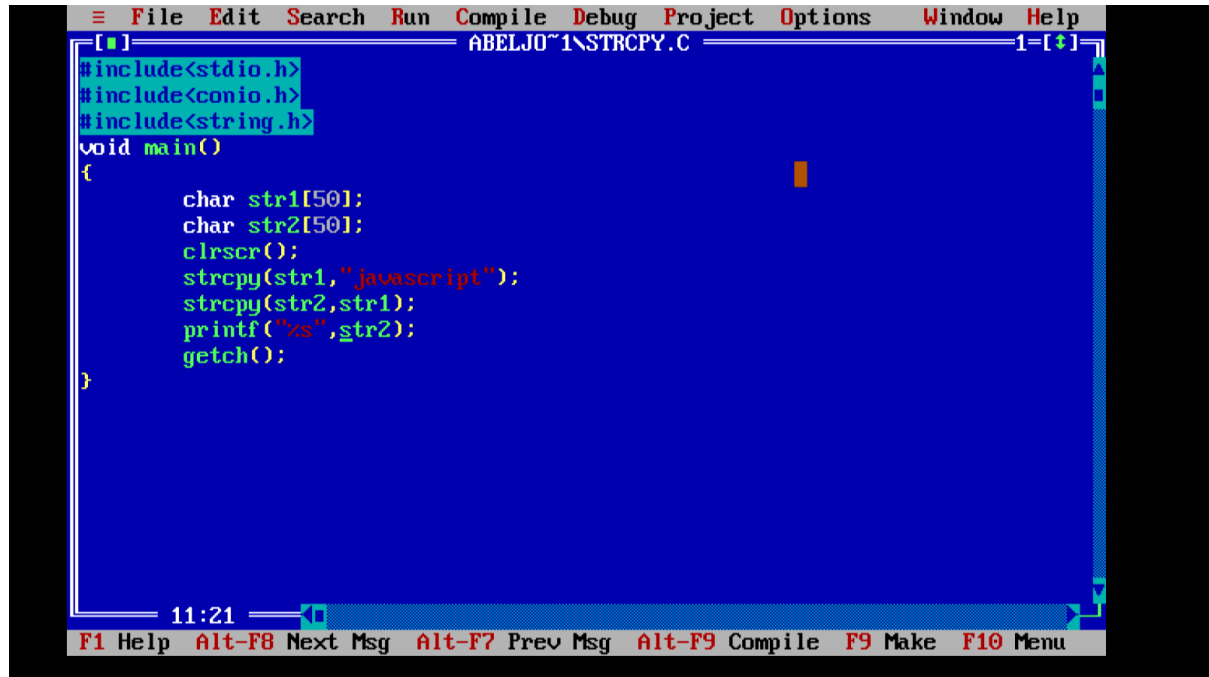
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reverse=elonsoc_

3. strcpy()

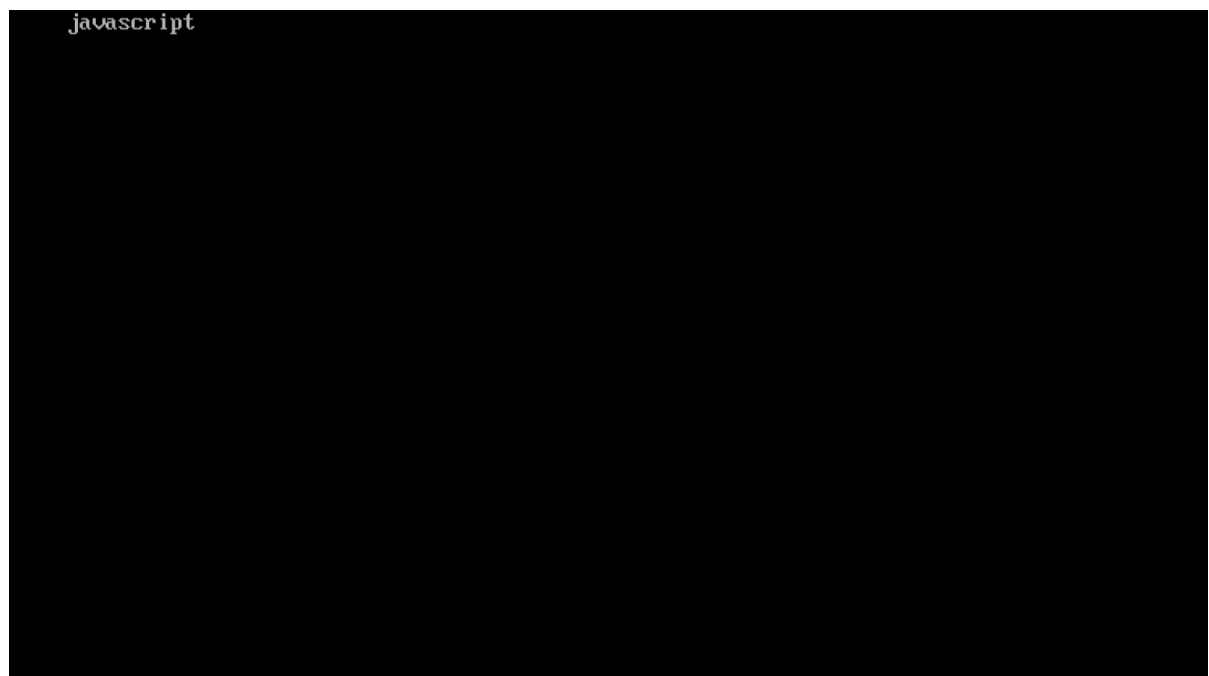
This string function copies one string into another.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRCPY.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char str1[50];
    char str2[50];
    clrscr();
    strcpy(str1,"javascript");
    strcpy(str2,str1);
    printf("%s",str2);
    getch();
}
```

11:21

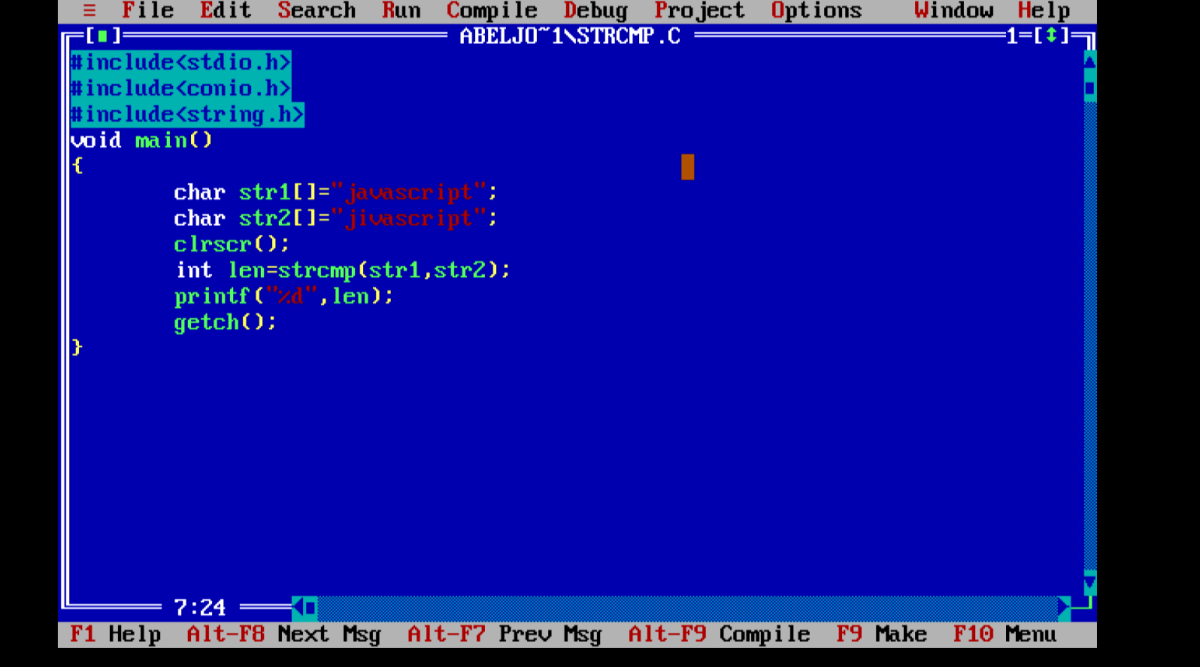
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```
javascript
```

4. strcmp()

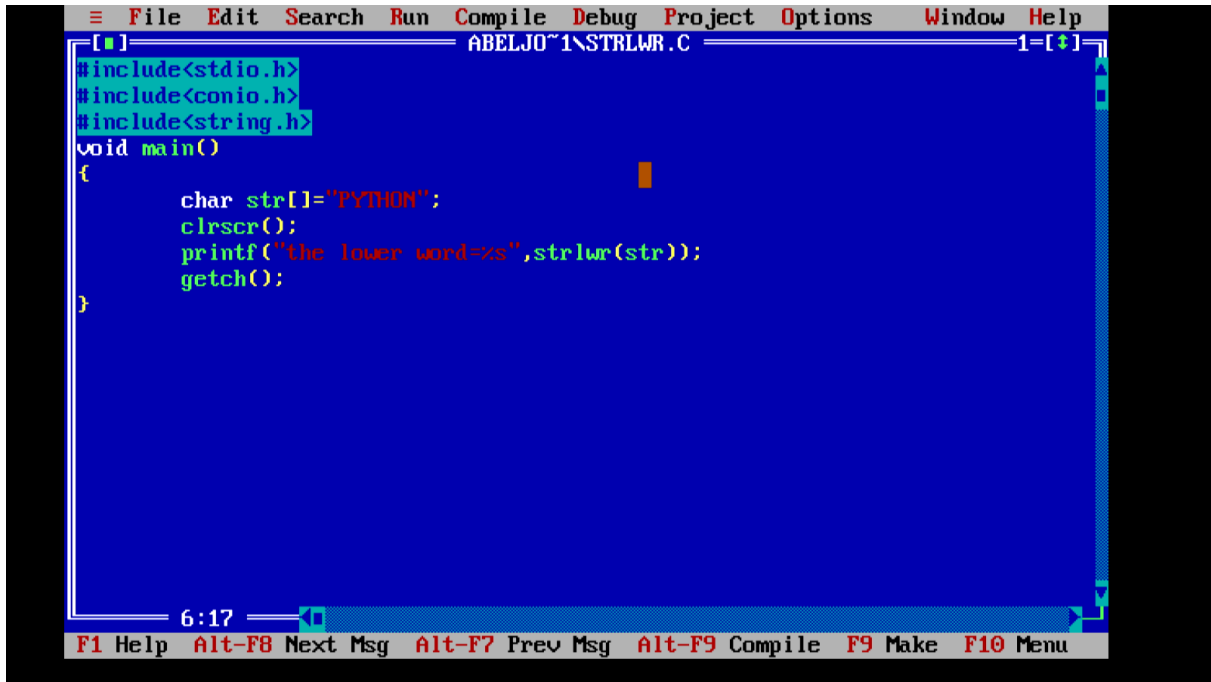
This function is used to compare two strings.



```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char str1[]="javascript";
    char str2[]="javascript";
    clrscr();
    int len=strcmp(str1,str2);
    printf("%d",len);
    getch();
}
```

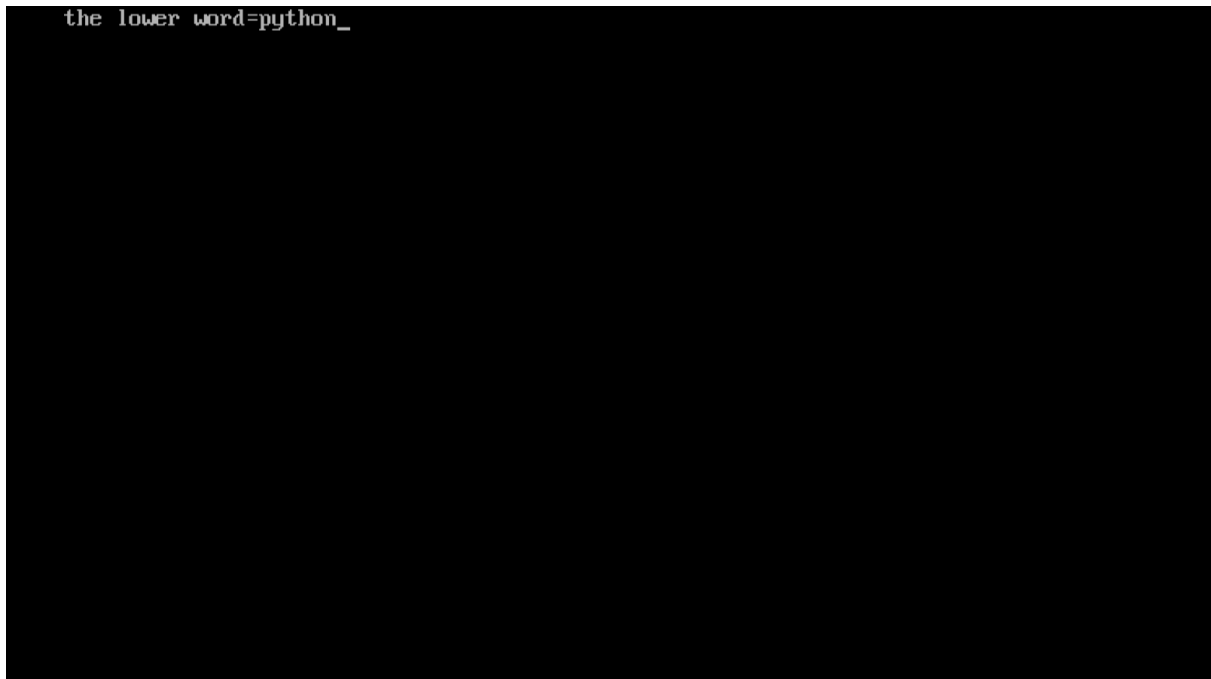
5. strlwr()

This function is used to convert the given input to lowercase.



```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char str[]="PYTHON";
    clrscr();
    printf("the lower word=%s",strlwr(str));
    getch();
}
```

The screenshot shows a Turbo C++ IDE window titled 'ABELJO~1\STRLWR.C'. The code defines a character array 'str' with the value 'PYTHON', clears the screen, prints the lowercase version of 'str' using 'strlwr(str)', and then waits for a key press. The status bar at the bottom shows function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

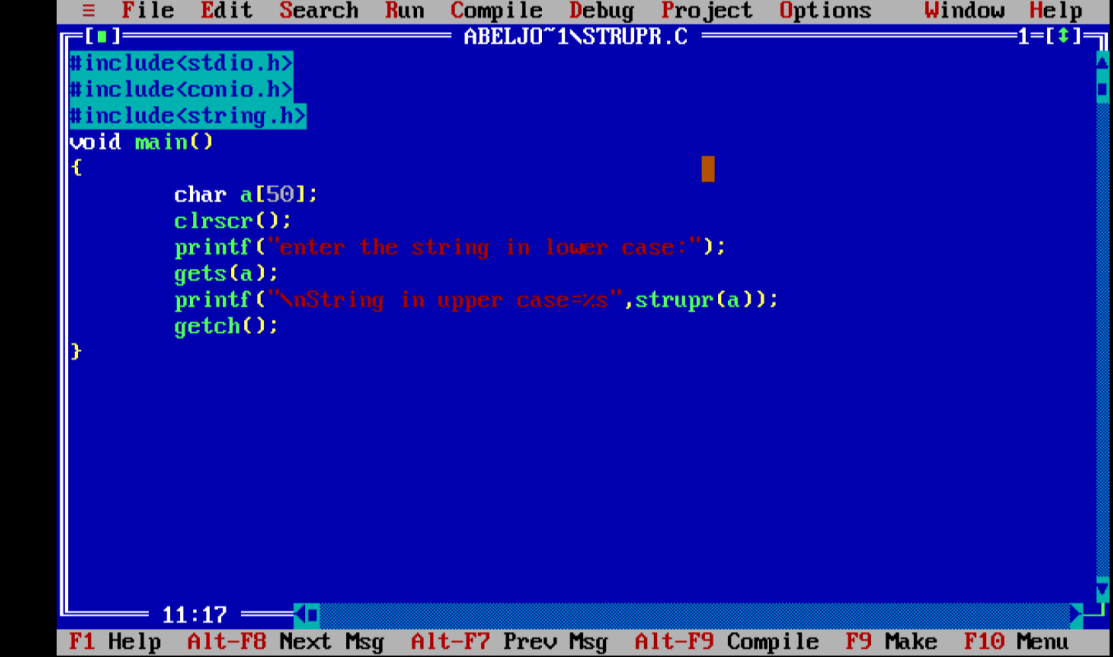


```
the lower word=python_
```

The screenshot shows the output window of the Turbo C++ IDE. The text 'the lower word=python_' is displayed, which is the result of the 'printf' statement in the source code. The trailing underscore indicates that the program is waiting for a key press before exiting.

6. strupr()

This function is used to convert the given input to upper case Letter.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRUPR.C 1=[ ]
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char a[50];
    clrscr();
    printf("enter the string in lower case:");
    gets(a);
    printf("\nString in upper case=%s",strupr(a));
    getch();
}
```

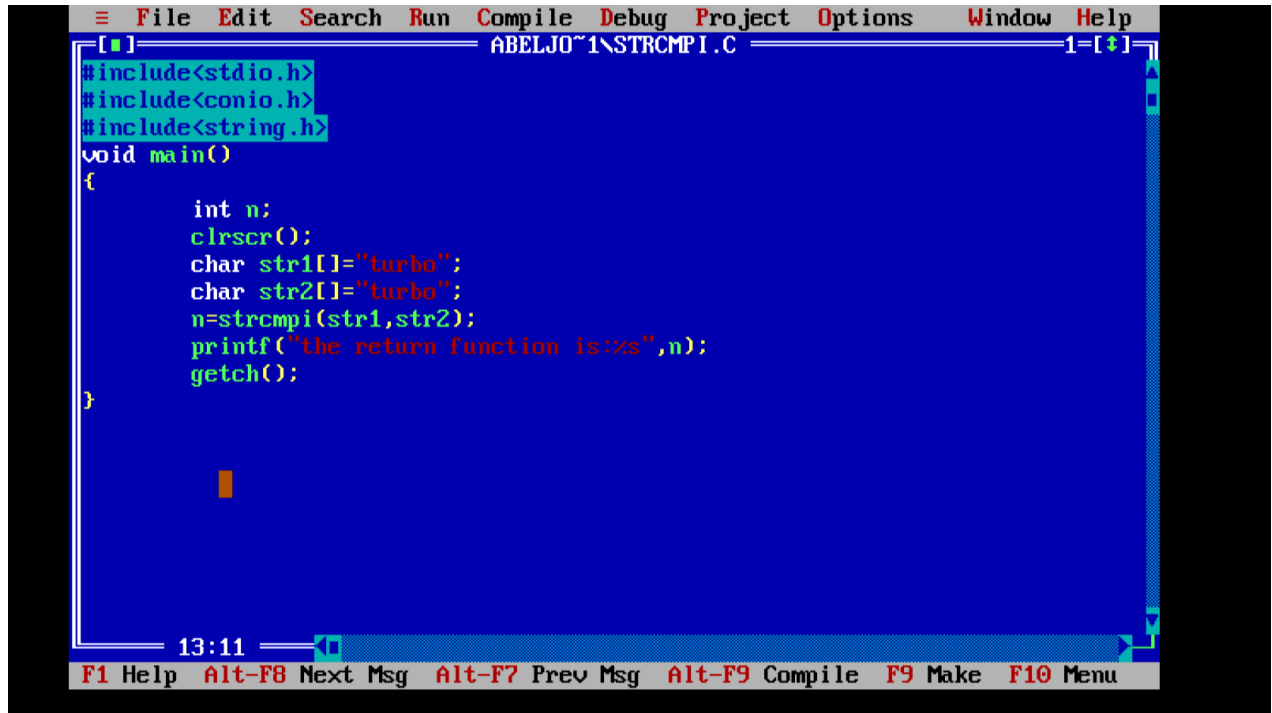
11:17

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
enter the string in lower case:hello world
String in upper case=HELLO WORLD_
```

7. strcmpi()

This function is same to strcmp, but strcmpi negotiates case “A” and “a” are treated as same.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRCMP1.C 1-[+]
```

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    int n;
    clrscr();
    char str1[]="turbo";
    char str2[]="turbo";
    n=strcmpi(str1,str2);
    printf("the return function is:%s",n);
    getch();
}
```

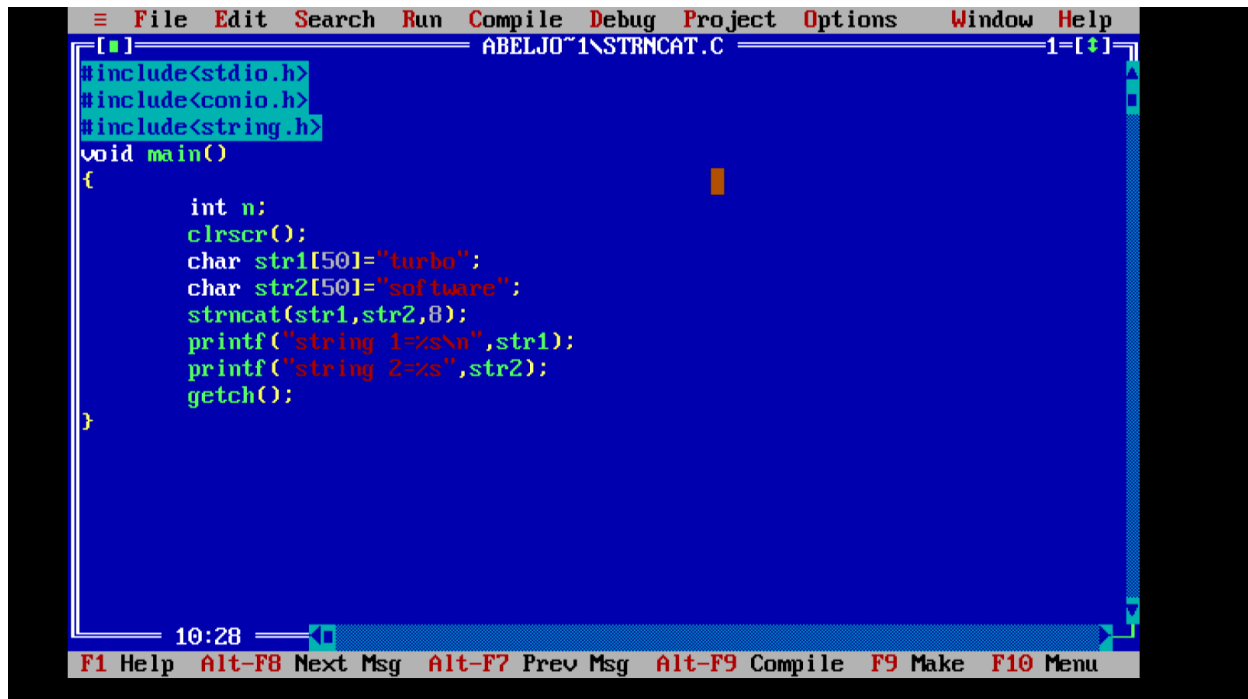
```
13:11
```

```
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

```
the return function is:(null)_
```


8. strncat()

Used to combine n characters of second string to first string.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRNCAT.C 1-[+]
```

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    int n;
    clrscr();
    char str1[50]="turbo";
    char str2[50]="software";
    strncat(str1,str2,8);
    printf("string 1=%s\n",str1);
    printf("string 2=%s",str2);
    getch();
}
```

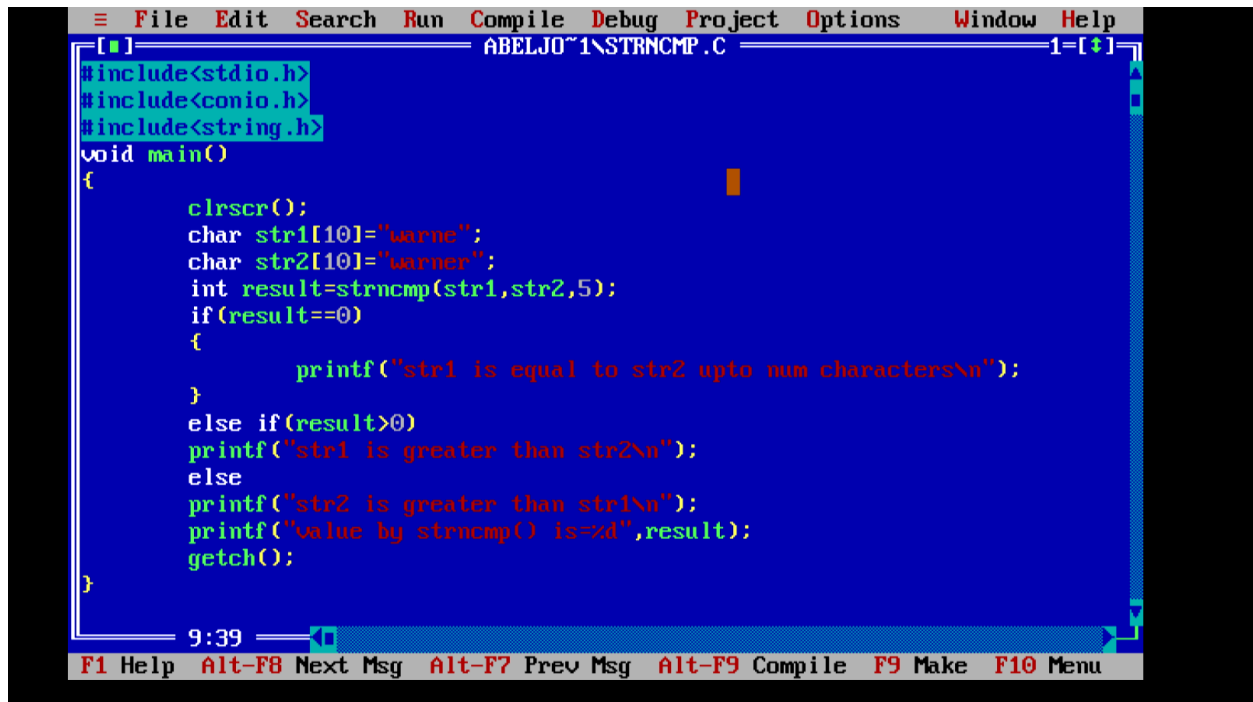
```
10:28
```

```
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

```
string 1=turbosoftware
string 2=software
```

9. strncmp()

Used to compare n characters of second string to first string.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRNCMP.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    clrscr();
    char str1[10]="warne";
    char str2[10]="warner";
    int result=strncmp(str1,str2,5);
    if(result==0)
    {
        printf("str1 is equal to str2 upto num characters\n");
    }
    else if(result>0)
        printf("str1 is greater than str2\n");
    else
        printf("str2 is greater than str1\n");
    printf("value by strncmp() is=%d",result);
    getch();
}
```

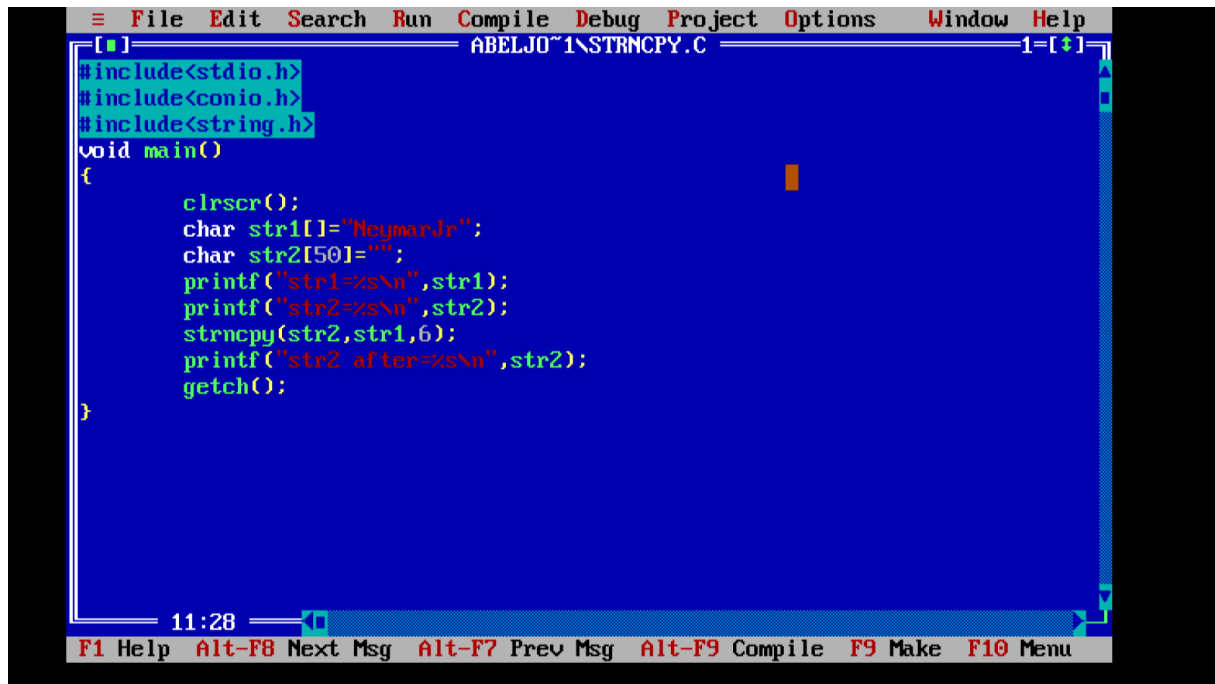
9:39

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
str1 is equal to str2 upto num characters
value by strncmp() is=0_
```

10. strncpy()

Copies given number of characters of one string to another.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRNCPY.C 1=[+]-
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    clrscr();
    char str1[]="Neymar Jr";
    char str2[50]="";
    printf("str1=%s\n",str1);
    printf("str2=%s\n",str2);
    strncpy(str2,str1,6);
    printf("str2 after=%s\n",str2);
    getch();
}
```

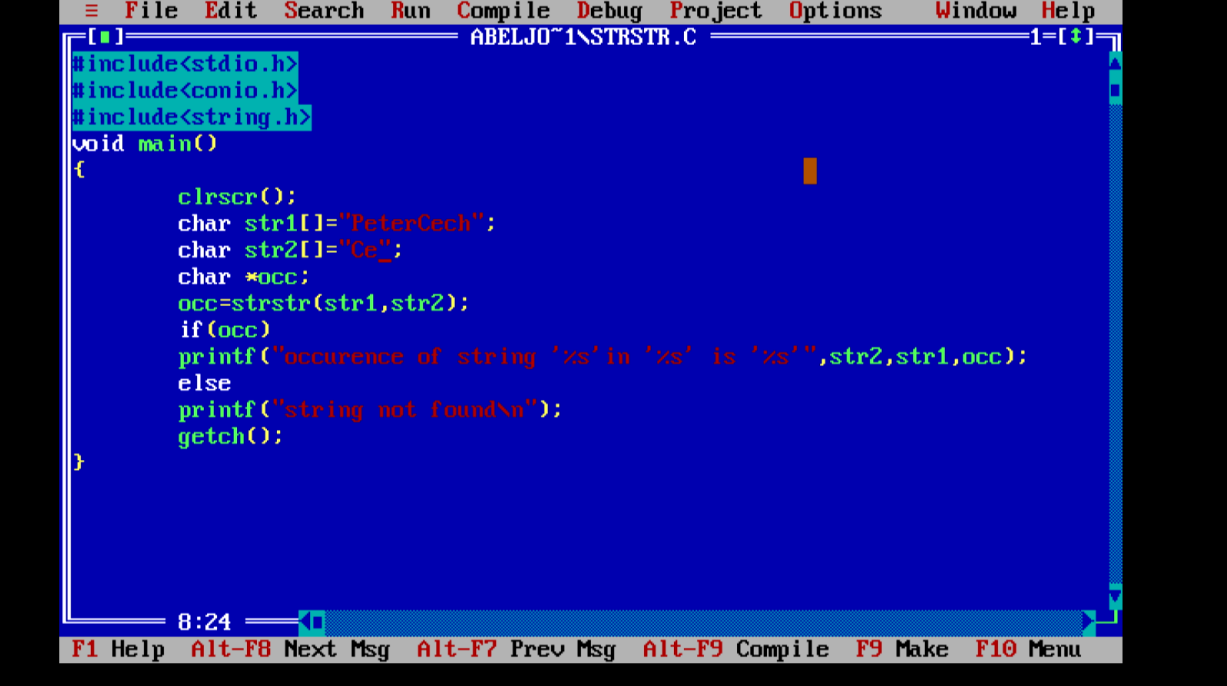
11:28

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
str1=Neymar Jr
str2=
str2 after=Neymar
```

11. strstr()

This function returns pointer to first occurrence of str2 and str1.

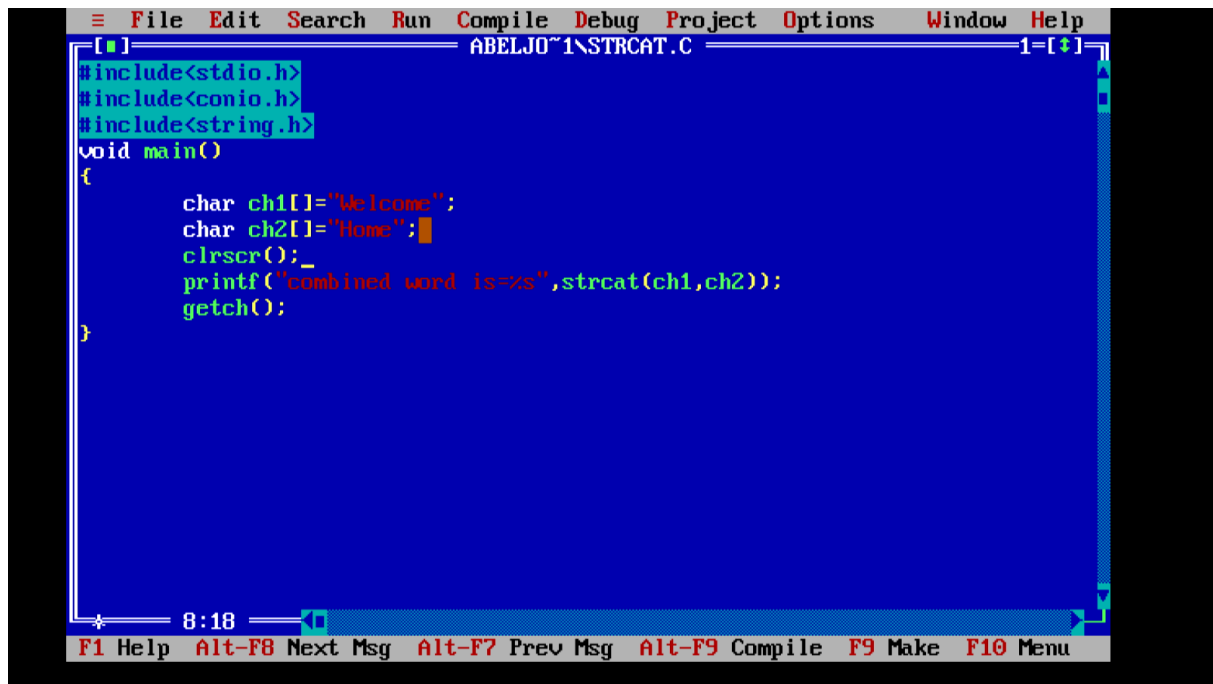


```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    clrscr();
    char str1[]="PeterCech";
    char str2[]="Ce";
    char *occ;
    occ=strstr(str1,str2);
    if(occ)
        printf("occurence of string '%s' in '%s' is '%s'",str2,str1,occ);
    else
        printf("string not found\n");
    getch();
}
```

occurence of string 'Ce' in 'PeterCech' is 'Cech'

12.strcat()

This string function is used to combine two strings.



```
File Edit Search Run Compile Debug Project Options Window Help
ABELJO~1\STRCAT.C 1=
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char ch1[]="Welcome";
    char ch2[]="Home";
    clrscr();
    printf("combined word is=>",strcat(ch1,ch2));
    getch();
}
```

8:18

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu



```
combined word=WelcomeHome
```