PROGRAMMING IN C

ASSIGNMENT
ON

STRING FUNTIONS

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STRING

A string is a sequence of characters that is treated as a single data item. C does not support string as a data type,instead it allows us to represent strings as character arrays. A string can be defined as a one dimensional array of characters terminated by a null character ‘/0’.
These are often used to create meaningful and readable programs

Eg: char[]=”Hello World”;
char[]=”sb@100”;

STRING HANDLING FUNTIONS

String handling functions can be used to carry out many of the string manipulations. These functions are packed in the **string.h** library. We have to include **string.h** in programs to use these functions. Mostly used string functions are :

1.Strcat(): It is used to concatenate(combine) two Strings.

Syntax: strcat(str1,str2)

CODE

C: > Users > Leo Jose > Desktop > c > strcat.c > main()

```c
#include<stdio.h>
#include<string.h>
void main()
{
    char str1[]="Hello";
    char str2[]="World";
    printf("%s",strcat(str1,str2));
}
```

OUTPUT

```
PS C:\Users\Leo Jose> cd "c:\Users\Leo Jose\Desktop\c\" ; if ($?) { gcc strcat.c -o strcat } ; if ($?) { .\strcat }
HelloWorld
PS C:\Users\Leo Jose\Desktop\c>
```

2.Strlen(): It is used to show the length of a string.

Syntax: strlen(str1);

CODE

C: > Users > Leo Jose > Desktop > c > strcat.c > main()

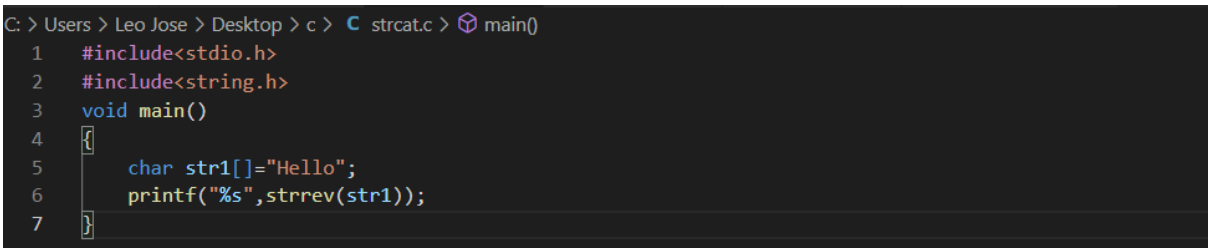
```c
#include<stdio.h>
#include<string.h>
void main()
{
    char str1[]="Hello";
    printf("The length of the str1 is %d",strlen(str1));
}
```

OUTPUT

3. strrev() : It is used to show the reverse of a string.

Syntax : strrev(str1)

CODE



OUTPUT

4. strcpy() : It copies one string into another.

Syntax : strcpy(str1,str2)

CODE

```c
C: > Users > Leo Jose > Desktop > c > C strcat.c > main()
#include<stdio.h>
#include<string.h>
void main()
{
    char str1[100],str2[100];
    strcpy(str1,"Hello World");
    printf("%s",strcpy(str2,str1));
}
```

OUTPUT

```
PS C:\Users\Leo Jose> cd "c:\Users\Leo Jose\Desktop\c\" ; if ($?) { gcc strcat.c -o strcat } ; if ($?) { .\strcat }
Hello World
PS C:\Users\Leo Jose\Desktop\c>
```

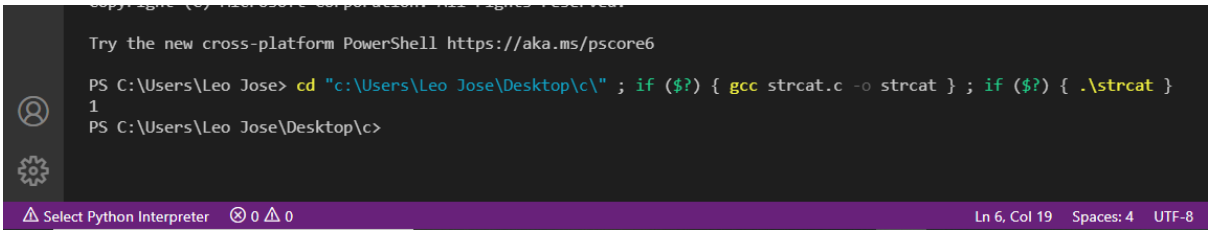
5. strcmp() : It is used to compare two strings. The strcmp() compares two strings character by character. If the strings are equal, the function returns 0, greater than 0 if the first non-matching character in str1 is greater (in ASCII) than that of str2, less than 0 if the first non-matching character in str1 is lower (in ASCII) than that of str2.

Syntax : strcmp(str1,str2)

CODE

```c
C: > Users > Leo Jose > Desktop > c > C strcat.c > main()
#include<stdio.h>
#include<string.h>
void main()
{
    char str1[]="hello";
    char str2[]="hallo";
    printf("%d",strcmp(str1,str2));
}
```

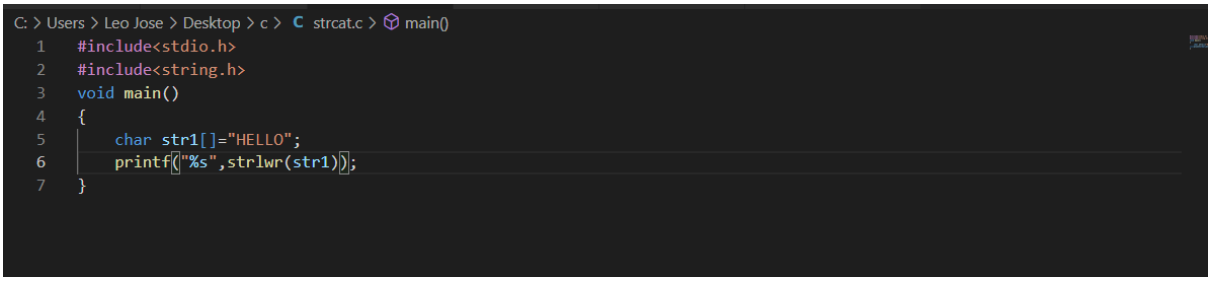
OUTPUT



6. strlwr() : It is used to convert the input to lowercase.

Syntax : strlwr(str1)

CODE



OUTPUT

7. strupr() : It is used to convert the input to uppercase.

Syntax : strupr(str1)

CODE

```c
#include<stdio.h>
#include<string.h>
void main()
{
    char str1[]="hello";
    printf("%s",strupr(str1));
}
```

OUTPUT

```
PS C:\Users\Leo Jose> cd "c:\Users\Leo Jose\Desktop\c\" ; if ($?) { gcc strcat.c -o strcat } ; if ($?) { .\strcat }
HELLO
PS C:\Users\Leo Jose\Desktop\c>
```

8. strncat() : It is used to concatenate n characters of second string to first string.

Syntax : (str1, str2, n)

CODE

```c
#include<stdio.h>
#include<string.h>
void main()
{
    char str1[]="Hello ";
    char str2[]="Welcome to c Programming";
    printf("String 1 is %s\n",str1);
    printf("The string 2 is %s\n",str2);
    printf("AFTER COMBINING string become %s",strncat(str1,str2,20));
}
```

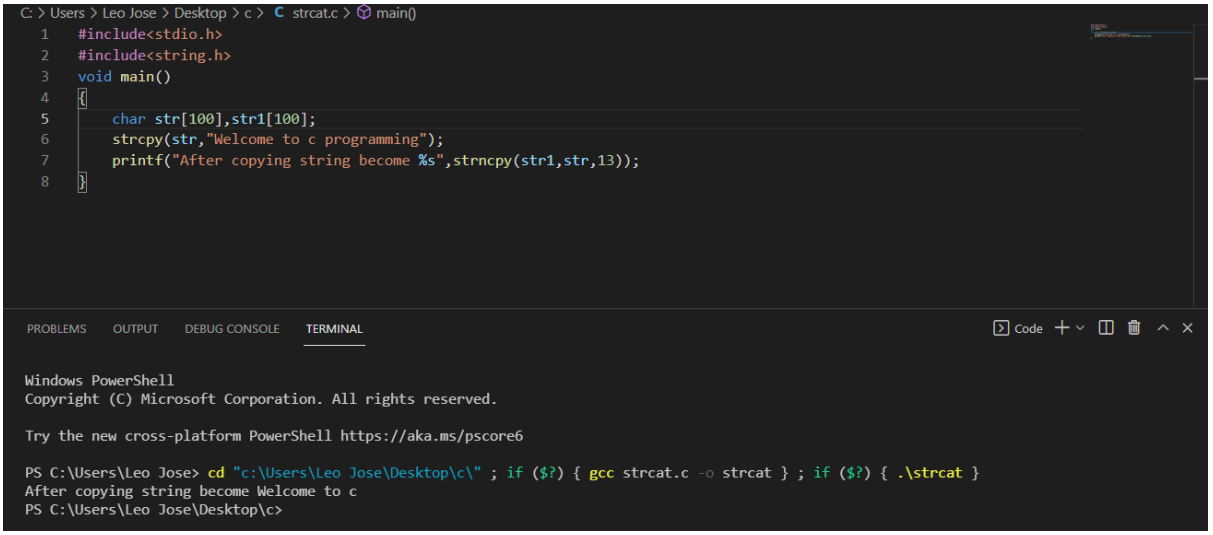
OUTPUT

```
PS C:\Users\Leo Jose> cd "c:\Users\Leo Jose\Desktop\c\" ; if ($?) { gcc strcat.c -o strcat } ; if ($?) { .\strcat }
String 1 is Hello
The string 2 is Welcome to c Programming
AFTER COMBINING string become Hello Welcome to c Program
PS C:\Users\Leo Jose\Desktop\c>
```

9. strncpy() : It copies a given number of characters of one string into another.

Syntax : strncpy(str1, str2, n)

CODE & OUTPUT



10. strstr() : It returns the pointer of the first occurrence of str2 in str1.

Syntax : strstr(str1,str2)

CODE & OUTPUT

C: > Users > Leo Jose > Desktop > c > strcat.c > main()

```c
#include<stdio.h>
#include<string.h>
void main()
{
    char str[]="Welcome to c programming";
    char str1[]="to";
    printf("The First Occurance of '%s'in '%s' is '%s'",str1,str,strstr(str,str1));
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Code

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Leo Jose> cd "c:\Users\Leo Jose\Desktop\c\" ; if ($?) { gcc strcat.c -o strcat } ; if ($?) { .\strcat }
The First Occurance of 'to'in 'Welcome to c programming' is 'to c programming'
PS C:\Users\Leo Jose\Desktop\c>
```