Mawlana Bhashani Science and Technology University

Department of Information and Communication Technology

Assignment: 02

Assignment Name: Functions of String

Device info:

System type: 64-bit operating system

Window Edition: Windows 11 Home Single Language

Code Blocks Version: Code::Blocks 20.03

Submitted By
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1st Year 2nd Semester
Session: 2021-2022

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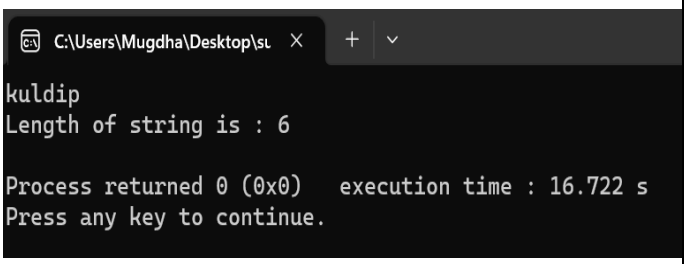
Date: 15-08-2023

1.strlen():

- The strlen() function in C is used to calculate the length of a string.

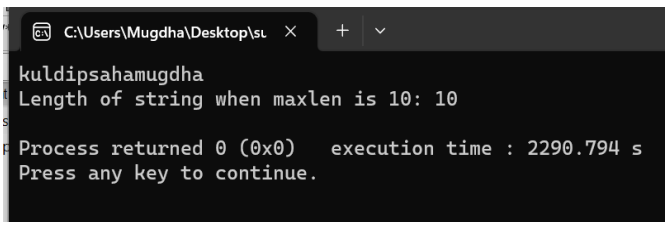
Code	Input & Output

`#include <stdio.h>`
`#include <string.h>`
 	
`int main()`
`{`
 	
`char Mugdha[100];`
`gets(Mugdha);`
`int l = strlen(Mugdha);`
`printf("Length of string is : %d\n", l);`
 	
`return 0;`
`}`
	

2.strnlen():

- strnlen() returns the number of characters in the string s, not including the terminating \0 character, but at most maxlen.

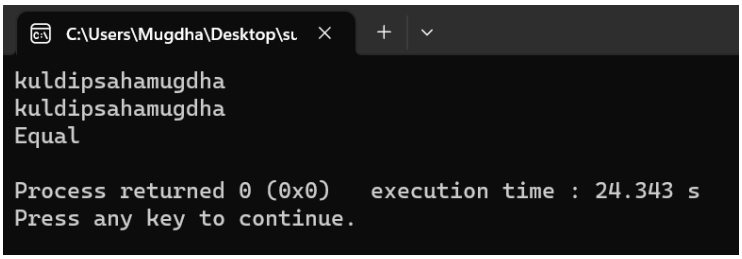
Code	Input & Output

`#include<stdio.h>`
`#include<string.h>`
`int main(){`
`char Kuldip[100];`
`gets(Kuldip);`
`printf("Length of string when maxlen is 10: %ld \n", strnlen(Kuldip, 10));`
`return 0;`
`}`
	

3.strcmp():

- It compares two strings and returns 0 if the strings are the same.

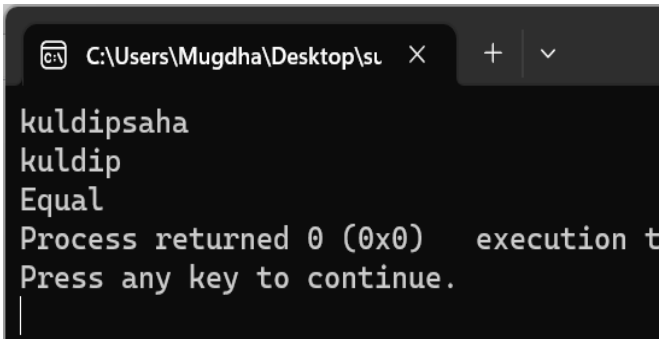
Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main(){
int i;
char Kuldip[30],Saha[30];
gets(Kuldip);
gets(Saha);
i=strcmp(Kuldip,Saha);
if(i==0)
printf("Equal\n");
else
printf("Not equal\n");
return 0;
}
	

4.strncmp():

- It compares two strings only to n characters.

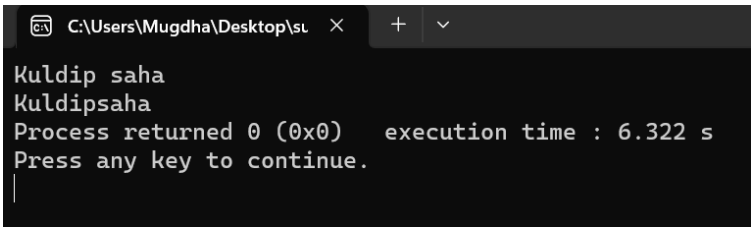
Code	Input/ Output

#include<stdio.h>
int main(){
char Kuldip[100],Saha[100];
scanf("%s",Kuldip);
scanf("%s",Saha);
if(strncmp(Kuldip,Mugdha,6)==0)
printf("Equal");
else
printf("Not equal");
}
return 0;
}
	

5.strcat():

- It concatenates two strings and returns the concatenated string.

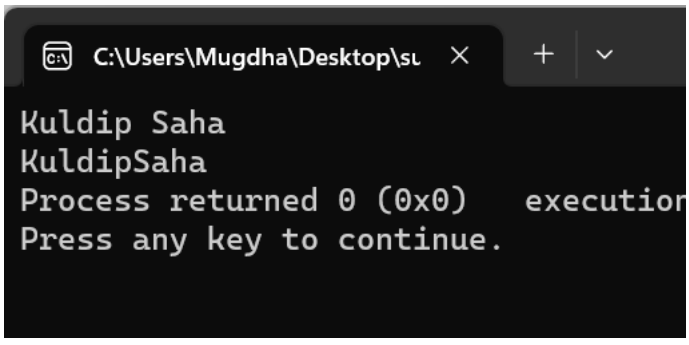
Code	Input/ Output

#include<stdio.h>
int main(){
char Kuldip[10],Saha[10];
scanf("%s",Kuldip);
scanf("%s",Saha);
strcat(Kuldip,Saha);
printf("%s",Kuldip);
return 0;
}
	

6.strncat():

- It concatenates n characters of one string to another string.

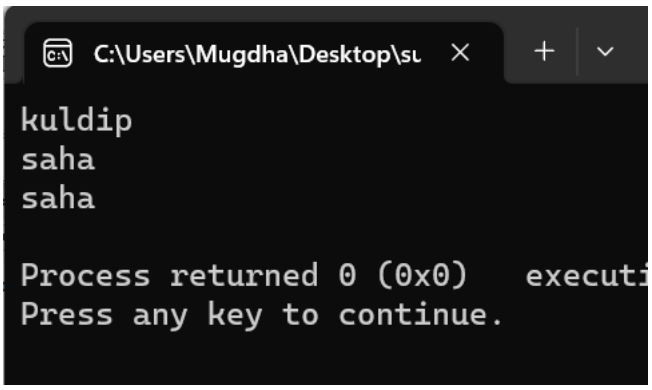
Code	Input/ Output

#include<stdio.h>
int main(){
char Kuldip[10],Saha[10];
scanf("%s",Kuldip);
scanf("%s",Saha);
strcat(Kuldip,Saha,5);
printf("%s",Kuldip);
return 0;
}
	

7.strcpy():

- It copies one string into another.

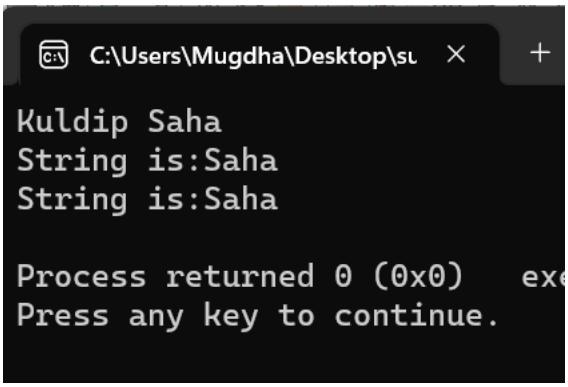
Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main(){
char Kuldip[30],Saha[30];
gets(Kuldip);
gets(Saha);
strcpy(Kuldip,Saha);
printf("%s\n",Kuldip);
return 0;
}
	

8.strncpy():

- It copies the first n characters of one string into another.

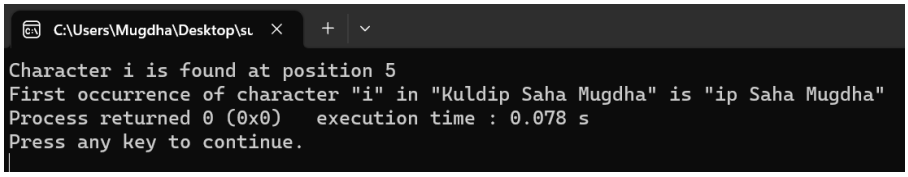
Code	Input/ Output

#include <stdio.h>
#include <string.h>
int main() {
char Kuldip[10],Saha[20];
scanf("%s%s",Kuldip,Saha);
strncpy(Kuldip,saha,10);
printf("String is:%s\n",Kuldip);
printf("String is:%s\n",Saha);
return 0;
}
	

9.strchr():

- It finds out the first occurrence of a given character in a string.

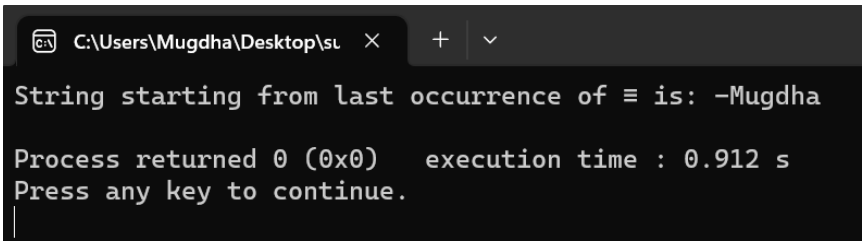
Code	Input/ Output

#include <stdio.h>
#include <string.h>
int main ()
{
  char Kuldip[55] ="Kuldip Saha Mugdha";
  char *Saha;
  Saha = strchr (Kuldip,'i');
 	
  printf ("Character i is found at position %d\n",Saha-Kuldip+1);
  printf ("First occurrence of character \"i\" in \"%s\" is" \
  "
\"%s\"",Kuldip,Saha);
 	
  return 0;
}
	

10.strrchr():

- It finds out the last occurrence of a given character in a string.

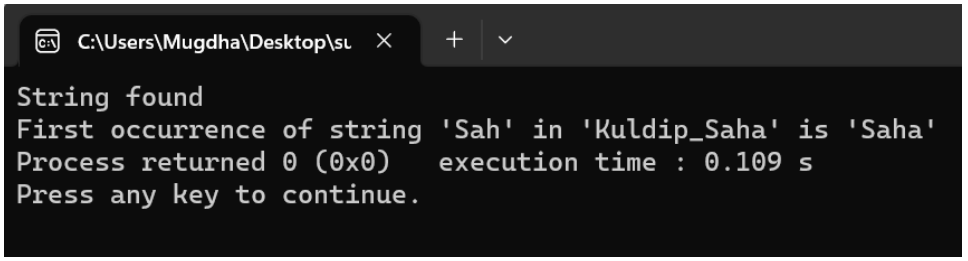
Code	Input/ Output

#include <stdio.h>
#include <string.h>
int main () {
char Kuldip[] = "Kuldip-Saha-Mugdha";
char Saha = '-';
char *Mugdha;
Mugdha = strrchr(Kuldip,Saha);
printf("String starting from last occurrence of %c is: %s\n",Kuldip,Mugdha);
return 0;
}
	

11.strstr():

- It finds out the first occurrence of a string in a given string.

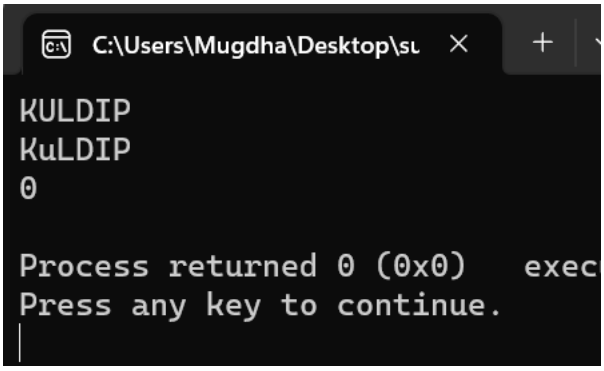
Code	Input/ Output

#include <string.h>
#include <stdio.h>
int main()
{
char Kuldip[] = "Kuldip_Saha";
char Saha[] = "Sah";
char* Mugdha;
Mugdha = strstr(Kuldip,Saha);
if (Mugdha) {
printf("String found\n");
printf("First occurrence of string '%s' in '%s' is '%s'",Saha,Kuldip,Mugdha);
} else
printf("String not found\n");
 	
return 0;
}
	

12.strcasecmp():

- It compares two strings without sensitivity to the case.

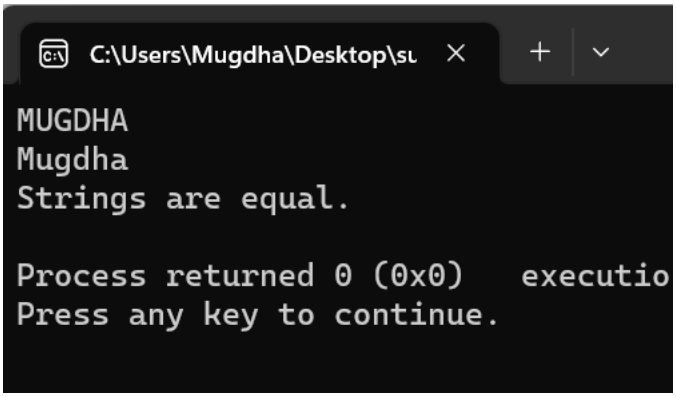
Code	Input/ Output

#include <stdio.h>
#include <string.h>
int main () {
char Kuldip[100],Saha[100];
scanf("%s %s",Kuldip,Saha);
int
result=strcasecmp(Kuldip,Saha);
if (result==0)
printf("0\n");
else if (result < 0)
printf("-1\n");
else
printf("1\n");
 	
}
	

13.strncasecmp():

- It compares n characters of one string to another without sensitivity to the case.

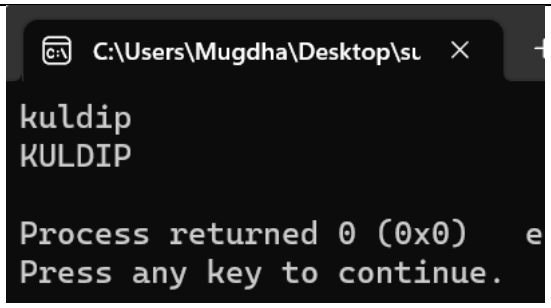
Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main() {
char Kuldip[50],Saha[50];
int Mugdha;
gets(Kuldip);
gets(Saha);
Mugdha =
strncasecmp(Kuldip,Saha,3);
if(Mugdha==0)
printf("Strings are
equal.\n");
else if(Mugdha < 0)
printf("s1 is less then
s2\n");
else
printf("s2 is less then
s1\n");}}
	

14.strupr():

- It converts a given string to uppercase.

Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main(){
char Mugdha[30];
gets(Mugdha);
strupr(Mugdha);
printf("%s\n",Mugdha);
return 0;
}
	

15.strlwr():

- It converts a given string to lowercase.

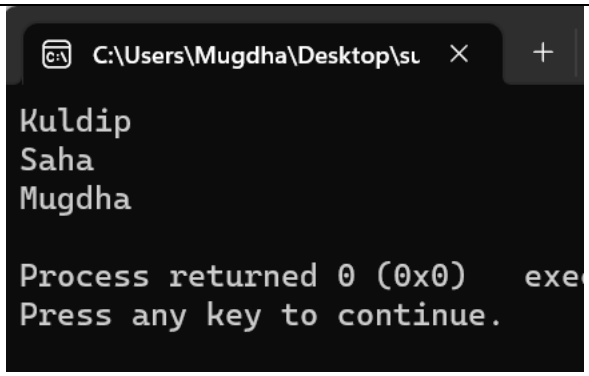
Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main(){
char Mugdha[30];
gets(Mugdha);
strlwr(Mugdha);
printf("%s\n",Mugdha);
return 0;
}
	

16.strtok():

- It is used to split string in multiple strings on the basis of delimiters.

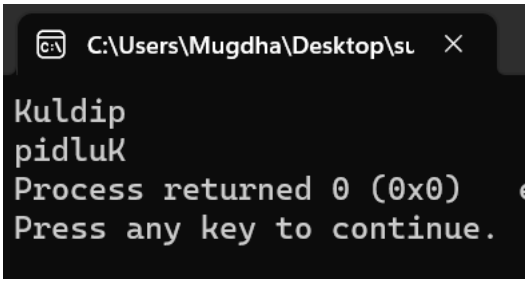
Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main(){
char str[100]="Kuldip-Saha-Mugdha";
char* token=strtok(str,"-");
while(token!=NULL) {
printf("%s\n", token);
token=strtok(NULL,"-");
}
return 0;
}
	

17.strrev():

- It is used to reverse a string.

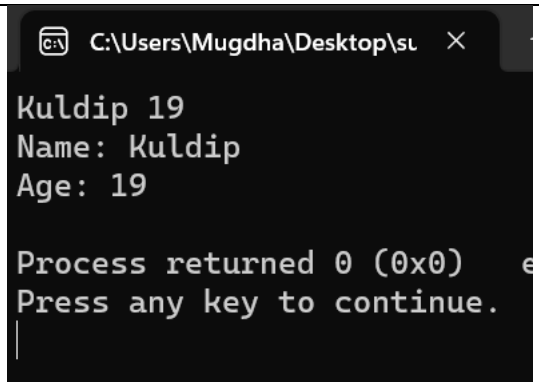
Code	Input/ Output

#include<stdio.h>
#include<string.h>
int main(){
char Mugdha[14];
gets(Mugdha);
strrev(Mugdha);
printf("%s",Mugdha);
return 0;
}
	

18.Sscanf()

- The C library function **int sscanf(const char *str, const char *format, ...)** reads formatted input from a string.

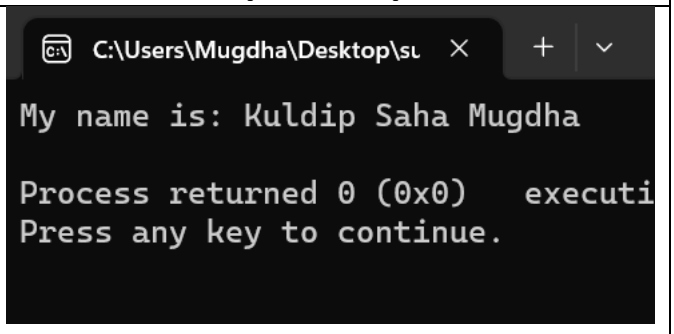
Code	Input/Output

`#include <stdio.h>`
`int main() {`
`  char Kuldip[50];`
`  scanf(" %[^\n]", Kuldip);`
`  char name[50];`
`  int age;`
`  sscanf(Kuldip, "%s %d", name, &age);`
`  printf("Name: %s\nAge: %d\n", name, age);`
`  return 0;`
`}`
	

19. Sprintf()

- sprintf stands for **“String print”**. Instead of printing on console, it store output on char buffer which are specified in sprintf.

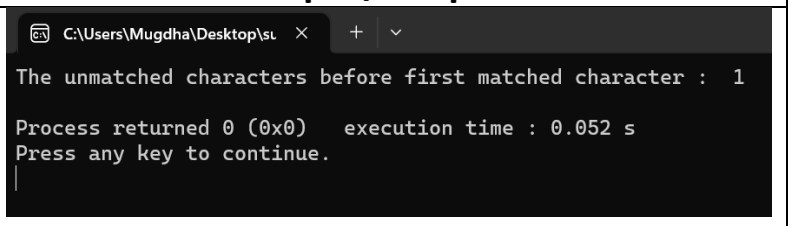
Code	Input/Output

`#include <stdio.h>`
`int main()`
`{`
`  char Kuldip[100];`
`  char Saha[50]= "Kuldip Saha Mugdha";`
`  sprintf(Kuldip,"My name is: %s", Saha);`
`  printf("%s\n", Kuldip);`
`  return 0;`
`}`
	

20.strcsp()

- Returns the span of the source string not containing any character of the given string.

Code	Input/Output

`#include <stdio.h>`
`#include <string.h>`
`int main()`
`{`
`  int size;`
`  char str1[] = "KuldipSaha";`
`  char str2[] = "Mugdha";`
`  size = strcspn(str1, str2);`
`  printf("The unmatched characters before first matched character :  %d\n", size);`
`}`
	

21.strspn()

- Returns the span of the source string containing only the characters of the given string.

Code	Input/Output

`#include <stdio.h>`
`#include <string.h>`
`int main () {`
`  int len = strspn("Kuldip Saha","Kuldip");`
`  printf("Length of initial segment matching : %d\n", len );`
`  return(0);`
`}`