



# STRING ASSIGNMENT

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Sec – 3

Q1. Write a C program to find length of a string with and without function.

**With function**

```
#include<stdio.h>

int main()

{

    char str[20];

    printf("Enter the String\n");

    scanf("%[^\n]s", str);

    int l = strlen(str);

    printf("Length = %d", l);

}
```

**Without function**

```
#include<stdio.h>

int main()

{

    char str[20],i;

    printf("Enter the String\n");

    scanf("%[^\n]s", str);

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

    {

    }

    printf("%d", i);

}
```

Q2. - Write a C program to copy one string to another string with and without function.

**With function**

```
int main()

{

    char str1[100],str2[100];

    printf("Enter the string\n");

    gets(str1);

    strcpy(str2,str1);

    puts(str2);

}
```

**Without function**

```
#include<stdio.h>
int main()
{
    int i;
    char a[100], b[100];
    printf("Enter your string\n");
    scanf("%[^\\n]", a);
    for(i=0;a[i]!='\\0';i++)
        b[i]=a[i];
    b[i]='\\0';
    printf("Another string\n%s", b);
    return 0;
}
```

**Q 3.** Write a C program to concatenate two strings with and without function.

**With function**

```
//Q:3
#include<stdio.h>
#include<string.h>
int main()
{
    char a[100], b[100];
    printf("Enter 1st string\n");
    gets(a);
    printf("Enter 2nd string\n");
    gets(b);
    strcat(a,b);
    printf("Strings after concatenation\n");
    puts(a);
    puts(b);
    return 0;
}
```

```
//Q:3
#include<stdio.h>
#include<string.h>
int main()
{
    int i, j;
    char a[100], b[100];
    printf("Enter 1st string\n");
    gets(a);
    printf("Enter 2nd string\n");
    gets(b);
    for(i=0;a[i]!='\\0';i++);
    a[i]=' ';
    i++;
    for(j=0;b[j]!='\\0';j++,i++)
        a[i]=b[j];
    a[i]='\\0';
    printf("Strings after concatenation\n");
    puts(a);
    puts(b);
}
```

```
        return 0;
    }
```

**Q 4.-** Write a C program to compare two strings with and without function.

**With function**

```
//Q:4
#include<stdio.h>
#include<string.h>
int main()
{
    char a[100], b[100];
    printf("Enter 1st string\n");
    gets(a);
    printf("your 2nd string\n");
    gets(b);
    if(strcmp(a,b)==0)
        printf("Identical");
    else if(strcmp(a,b)==1)
        printf("string 1st have more ASCII value of mismatching character of string 2nd");
    else
        printf("string 2nd have more ASCII value of mismatching character of string 1st");
    return 0;
}
```

**Without function**

```
//Q:4
#include<stdio.h>
#include<string.h>
int main()
{
    int i, j, c=0;

    char a[100], b[100];

    printf("Enter 1st string\n");

    gets(a);

    printf("your 2nd string\n");

    gets(b);

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

    for(j=0;j!=i;j++)
    {
        if(a[j]==b[j])

            c=c+1;

        else if(a[j]>b[j])
```

```
{  
  
    printf("string 1st have more ASCII value of mismatching character of string 2nd");  
  
    break;  
  
}  
  
else  
  
{  
  
    printf("string 2nd have more ASCII value of mismatching character of string 1st");  
  
    break;  
  
}  
  
}  
  
if(c==i)  
  
    printf("Identical");  
  
return 0;  
  
}
```

**Q 5.-** Write a C program to convert lowercase string to uppercase.

//Q:5

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int i;
```

```
    char a[100];
```

```
    printf("Enter your string\n");
```

```
    scanf("%[^\n]", a);
```

```
    for(i=0;a[i]!='\0';i++)
```

```
    {
```

```
        if(a[i]>=97 && a[i]<=122)
```

```
            a[i]=a[i]-32;
```

```
    }
```

```
    printf("String after conversion\n");
```

```
    printf("%s", a);
```

```
    return 0;
```

```
}
```

**Q 6.-** Write a C program to convert uppercase string to lowercase.

//Q:6

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int i;
```

```
    char a[100];
```

```
    printf("Enter your string\n");
```

```
    scanf("%[^\n]", a);
```

```
    for(i=0;a[i]!='\0';i++)
```

```
{
    if(a[i]>=65 && a[i]<=90)
        a[i]=a[i]+32;
}
printf("String after conversion\n");
printf("%s", a);
return 0;
}
```

**Q 7-**Write a C program to toggle case of each character of a string.

//Q:7

#include<stdio.h>

int main()

```
{
    int i;
    char a[100];
    printf("Enter your string\n");
    scanf("%[^\n]", a);
    for(i=0;a[i]!='\0';i++)
    {
        if(a[i]>=97 && a[i]<=122)
            a[i]=a[i]-32;
        else if(a[i]>=65 && a[i]<=90)
            a[i]=a[i]+32;
    }
    printf("String after toggle\n");
    printf("%s", a);
    return 0;
}
```

**Q 8-**Write a C program to find total number of alphabets, digits or special character in a string.

//Q:8

#include<stdio.h>

int main()

```
{
    int i, c1=0, c2=0, c3=0;
    char a[100];
    printf("Enter your string\n");
    scanf("%[^\n]", a);
    for(i=0;a[i]!='\0';i++)
    {
        if(a[i]>='a' && a[i]<='z' || a[i]>='A' && a[i]<='Z')
            c1=c1+1;
        else if(a[i]>='0' && a[i]<='9')
            c2=c2+1;
        else
            c3=c3+1;
    }
    printf("Total no. of alphabets = %d\n", c1);
    printf("Total no. of digits = %d\n", c2);
    printf("Total no. of special character = %d", c3);
    return 0;
}
```

**Q 9-**

//Q:9

```

#include<stdio.h>
int main()
{
    int i, j=0, k=0, l=0, m=0;
    char a[100], p[100], q[100], r[100], s[100];
    printf("Enter your string\n");
    scanf("%s", a);
    for(i=0;a[i]!='\0';i++)
    {
        if(a[i]=='a' || a[i]=='e' || a[i]=='i' || a[i]=='o' || a[i]=='u' || a[i]=='A' || a[i]=='E' || a[i]=='I' || a[i]=='O'
|| a[i]=='U')
        {
            p[j]=a[i];
            j++;
        }
        else if(a[i]>='a' && a[i]<='z' || a[i]>='A' && a[i]<='Z')
        {
            q[k]=a[i];
            k++;
        }
        else if(a[i]>='0' && a[i]<='9')
        {
            r[l]=a[i];
            l++;
        }
        else
        {
            s[m]=a[i];
            m++;
        }
    }
    p[j]='\0';
    q[k]='\0';
    r[l]='\0';
    s[m]='\0';
    printf("string of vowels\n%s\n", p);
    printf("string of consonants\n%s\n", q);
    printf("string of digits\n%s\n", r);
    printf("string of special character\n%s", s);
    return 0;
}

```

Q 10-

//Q:10

```

#include<stdio.h>
int main()
{
    int i, c1=0, c2=0;
    char a[100];
    printf("Enter your string\n");
    scanf("%s", a);
    for(i=0;a[i]!='\0';i++)

```

```
{
    if(a[i]=='a' || a[i]=='e' || a[i]=='i' || a[i]=='o' || a[i]=='u' || a[i]=='A' ||
a[i]=='E' || a[i]=='I' || a[i]=='O' || a[i]=='U')
        c1=c1+1;
    else if(a[i]>='a' && a[i]<='z' || a[i]>='A' && a[i]<='Z')
        c2=c2+1;
}
printf("Total no. of vowels = %d\n", c1);
printf("Total no. of consonants = %d", c2);
return 0;
}
```