

1. Read from a terminal using scanf function and print using printf function.

```
#include<stdio.h>
int main(){
    char name[20];
    printf("Enter name: ");
    scanf("%s", name);
    printf("Your name is %s.", name);
    return 0;
}
```

OUTPUT:

Enter name: MRINMAYEE NANDA
Your name is MRINMAYEE.

2. Read a lines of text from a terminal using fgets function and print using puts function.

```
#include<stdio.h>
int main(){
    char name[20];
    printf("Enter name: ");
    fgets(name,sizeof(name),stdin);
    printf("name: ");
    puts(name);
    return 0;
}
```

OUTPUT:

Enter name: MRINMAYEE NANDA
name: MRINMAYEE NANDA

3. Convert

a. Upper case to Lower case

b. Lower case to Upper case

c. Toggle case

d. Sentence case

//LOWER CASE

```
#include <stdio.h>
#include <string.h>
int main(){
    char s[100];
    int i;

    printf("Enter a string : ");
    gets(s);

    for (i = 0; s[i]!='\0'; i++) {
        if(s[i] >= 'A' && s[i] <= 'Z') {
            s[i] = s[i] + 32;
        }
    }

    printf("\nString in Lower Case = %s", s);
    return 0;
}
```

OUTPUT:

Enter a string : MRINMAYEE

String in Lower Case = mrinmayee

//UPPER CASE

```
#include <stdio.h>
#include <string.h>
int main() {
    char s[100];
    int i;
    printf("Enter a string : ");
    gets(s);

    for (i = 0; s[i]!='\0'; i++) {
        if(s[i] >= 'a' && s[i] <= 'z') {
            s[i] = s[i] - 32;
        }
    }
    printf("\nString in Upper Case = %s", s);
    return 0;
}
```

OUTPUT:

Enter a string : hello world

String in Upper Case = HELLO WORLD

//TOGGLE CASE

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

```

int main(){
    char Str[100];
    int i;
    printf("Enter any string: ");
    gets(Str);
    for (i = 0; Str[i]!='\0'; i++){
        if(Str[i] >= 'a' && Str[i] <= 'z'){
            Str[i] = Str[i] - 32;
        }
        else if(Str[i] >= 'A' && Str[i] <= 'Z'){
            Str[i] = Str[i] + 32;
        }
    }

    printf("\n The Given String after toggle case = %s", Str);

    return 0;
}

```

OUTPUT:

Enter any string: HeLlO

The Given String after toggle case = hElLo

//SENTENCE CASE

#include <stdio.h>

```
#include <ctype.h>

int main(){
    char str[100];
    printf("Enter a string : ");
    gets(str);
    str[0] = toupper(str[0]);
    printf("The string is: %s.",str);
    return 0;
}
```

OUTPUT:

Enter a string : hello programmers

The string is: Hello programmers.

3. Perform String Concatenation (With and Without String Handling Functions).

//CONCATE WITHOUT FUNC

```
#include <stdio.h>

int main() {
    char s1[100] = "Hello ", s2[] = "Beautiful Minds.";
    int length, j;

    length = 0;
    while (s1[length] != '\0') {
        ++length;
    }
```

```
for (j = 0; s2[j] != '\0'; ++j, ++length) {  
    s1[length] = s2[j];  
}
```

```
s1[length] = '\0';
```

```
printf("After concatenation: ");  
puts(s1);
```

```
return 0;  
}
```

OUTPUT:

After concatenation: Hello Beautiful Minds.

//WITH FUNC

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

```
#include <string.h>
```

```
int main(){
```

```
    char str[100], str2[100];
```

```
    printf("Enter the first string\n");
```

```
    gets(str);
```

```
    printf("Enter the second string\n");
```

```
    gets(str2);
```

```
    strcat(str,str2);
```

```
    printf("String obtained on concatenation is %s\n",str);
```

```
    return 0;

}
```

OUTPUT:

Enter the first string

HELLO

Enter the second string

WORLD

String obtained on concatenation is HELLOWORLD

4. Perform String Reversal (With and Without String Handling Functions).

//WITHOUT FUNC

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

```
#include<string.h>
```

```
int main() {
    char str[100], temp;
    int i, j = 0;

    printf("Enter the string: ");
    gets(str);
```

```
    i = 0;
    j = strlen(str) - 1;
```

```
    while (i < j) {
        temp = str[i];
        str[i] = str[j];
        str[j] = temp;
        i++;
```

```

        j--;
    }

    printf("\nReverse string is :%s", str);
    return 0;
}

```

OUTPUT:

Enter the string: HI BYE

Reverse string is :EYB IH

//WITH FUNC

```

#include <stdio.h>
#include <string.h>
int main()
{
    char s[100];

    printf("Enter a string to reverse ");
    gets(s);

    strrev(s);

    printf("Reverse of the string: %s\n", s);

    return 0;
}

```

OUTPUT:

Enter the string: HI BYE

Reverse string is :EYB IH

5. Perform Substring Extraction (With and Without String Handling Functions).

//WITHOUT FUNC

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

```
int main(){
```

```
    char str[100], sstr[100];
```

```
    int pos, l, c = 0;
```

```
        printf("Input the string : ");
```

```
        fgets(str, sizeof str, stdin);
```

```
        printf("Input the position to start extraction :");
```

```
        scanf("%d", &pos);
```

```
        printf("Input the length of substring :");
```

```
        scanf("%d", &l);
```

```
        while (c < l)
```

```
        {
```

```
            sstr[c] = str[pos+c-1];
```

```
            c++;
```

```
        }
```

```
        sstr[c] = '\0';
```

```
        printf(sstr);
```

```
    }
```

OUTPUT:

Input the string : HELLOWORLD

Input the position to start extraction :4

Input the length of substring :5

LOWOR

6. Copy one string into another and count the no of elements copied. (With and Without String Handling Functions).

```
#include<stdio.h>
//#define N 10
int main()
{
char str1[80], str2[80];
int i;
printf("Input a string: ");
scanf("%s", str2);
for(i=0; str2[i]!='\0'; i++)
str1[i]=str2[i];
str1[i]='\0';
printf("\n");
printf("Original string: %s", str1);
printf("\nNumber of characters = %d\n", i);
return 0;
}
```

OUTPUT:

Input a string: MRINMAYEE

Original string: MRINMAYEE

Number of characters = 9

//WITH FUNC

```
#include<stdio.h>
#include<string.h> // for using strcpy() function

int main(){
    char str1[100];
    char str2[100];
    int i;
```

```

printf("Enter the string: ");
gets(str2);
strcpy(str1, str2);
printf("\nThe copied string is: %s", str1);
for(i=0; str2[i]!='\0'; i++)
    str1[i]=str2[i];
    str1[i]='\0';
printf("\nNumber of characters = %d\n", i);
return 0;
}

```

OUTPUT:

Input a string: MRINMAYEE

Original string: MRINMAYEE

Number of characters = 9

7. Read a string and prints if it is a palindrome or not.

```

#include <stdio.h>
#include <string.h>
int main(){
char a[100], b[100];

printf("Enter the string :");
gets(a);

strcpy(b, a); /* Copying input string */
strrev(b); /* Reversing the string */

if (strcmp(a, b) == 0) /* Comparing input string with the reverse
string */
printf("The string is a palindrome\n");
else

```

```
printf("The string is not a palindrome\n");
```

```
return 0;  
}
```

OUTPUT:

Enter the string :MALAYALAM

The string is a palindrome

8. Read a line of text and count all occurrences of particular word.

```
#include<stdio.h>  
#include <string.h>  
int main(){  
    char s[1000],w[1000];  
    int n,a[1000],i,j,k=0,l,found=0,t=0;  
  
    printf("Enter the string: ");  
    gets(s);  
    printf("Enter word to be searched: ");  
    gets(w);  
    for(i=0;s[i];i++)  
    {  
        if(s[i]==' ')  
        {  
            a[k++]=i;  
        }  
    }  
    a[k++]=i;  
    j=0;  
    for(i=0;i<k;i++)  
    {  
        n=a[i]-j;  
        if(n==strlen(w))
```

```

        {
            t=0;
            for(l=0;w[l];l++)
            {
                if(s[l+j]==w[l])
                {
                    t++;
                }
            }
            if(t==strlen(w))
            {
                found++;
            }
        }

        j=a[i]+1;
    }

    printf("word '%s' is occurred count=%d ",w,found);

}

```

OUTPUT:

Enter the string: HELLO HI HI

Enter word to be searched: HI

word 'HI' is occurred count=2

9. Read a string and rewrite it in the alphabetical order.

```

#include<stdio.h>
int main(){
    char str[100],temp;

```

```

    int i,j;
    printf("Enter the string: ");
    gets(str);
    printf("%s in ascending order is: ",str);
    for(i=0;str[i];i++){
        for(j=i+1;str[j];j++){
            if(str[j]<str[i])
            {
                temp=str[j];
                str[j]=str[i];
                str[i]=temp;
            }
        }
    }

    printf("%s\n",str);
    return 0;
}

```

OUTPUT:

Enter the string: DCBEA

DCBEA in ascending order is: ABCDE

10. Print the Words Ending with Letter S.

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

```
#include <string.h>
```

```
char str[100];
```

```
int main()
```

```
{
```

```
    int i, t, j, len;
```

```
    printf("Enter a string : ");
```

```

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

len = strlen(str);

str[len] = ' ';

for (t = 0, i = 0; i < strlen(str); i++)
{
    if ((str[i] == ' ') && (str[i - 1] == 's'))
    {
        for (j = t; j < i; j++)
            printf("%c", str[j]);
        t = i + 1;
        printf("\\n");
    }
    else
    {
        if (str[i] == ' ')
        {
            t = i + 1;
        }
    }
}
return 0;
}

```

OUTPUT:

Enter a string : hello programmers
programmers

11. Delete All Repeated Words in the line of text.

```

#include <stdio.h>
#include <stdlib.h>

```

```
#include <string.h>
```

```
int main ()
```

```
{
```

```
    char str[100], word[100], arr[10][30];
```

```
    int i = 0, j = 0, k = 0, len1 = 0, len2 = 0, l = 0;
```

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

```
    gets (str);
```

```
    // let us convert the string into 2D array
```

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

```
    {
```

```
        if (str[i] == ' ')
```

```
        {
```

```
            arr[k][j] = '\0';
```

```
            k ++;
```

```
            j = 0;
```

```
        }
```

```
    else
```

```
    {
```

```
        arr[k][j] = str[i];
```

```
        j ++;
```

```
    }
```

```
    }
```

```
    arr[k][j] = '\0';
```

```
    j = 0;
```

```
    for (i = 0; i < k; i++)
```

```
    {
```

```
        int present = 0;
```

```
        for (l = 1; l < k + 1; l++)
```



```

        {
            if (arr[l][j] == '\0' || l == i)
            {
                continue;
            }

            if (strcmp (arr[i], arr[l]) == 0) {
                arr[l][j] = '\0';
                present = present + 1;
            }
        }

    }

    j = 0;

    for (i = 0; i < k + 1; i++)
    {
        if (arr[i][j] == '\0')
            continue;
        else
            printf ("%s ", arr[i]);
    }

    printf ("\n");

    return 0;
}

```

OUTPUT:

Enter the string
hi hi hello world
hi hello world