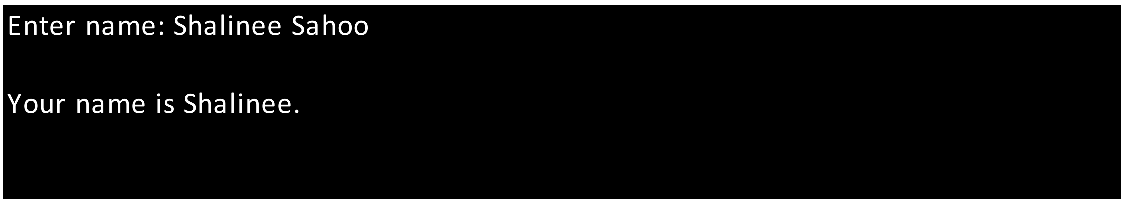
1. read from a terminal using scanf function and print using printf function.

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

OUTPUT:

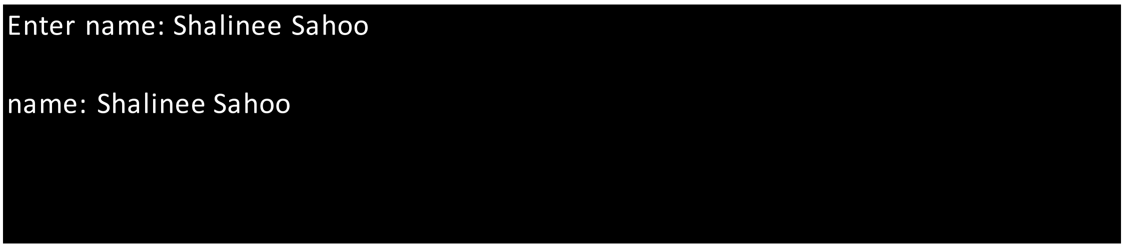


```
Enter name: Shalinee Sahoo

Your name is Shalinee.
```

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: Shalinee Sahoo

name: Shalinee Sahoo
```

3. convert

a. Upper case to Lower case

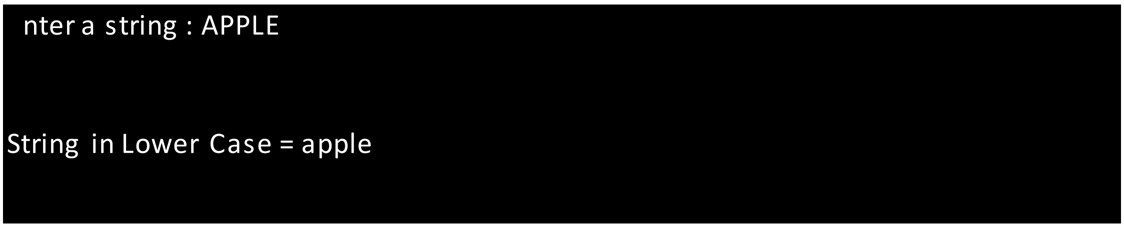
b. Lower case to Upper case

c. Toggle case

d. Sentence case

```
//upper case to 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:



```
 nter a string : APPLE



String  in Lower Case = apple
```

```
//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 : apple

String  in Upper Case = Apple
```

```
//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.
```

4. perform String Concatenation (With and Without String Handling Functions).

```
//CONCATE WITHOUT FUNC
#include <stdio.h>
int main() {
  char s1[100] = "Hello ", s2[] = "World";
  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 World
```

```
//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
```

5. 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: HELLO HI

Reverse string is :IH OLLEH
```

```
//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
```

6. 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 :5

Input the length of substring :6

OWORLD
```

7. 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: Shalinee

Original string: Shalinee

Number of characters = 8
```

```
//WITH FUNC

#include<stdio.h>

#include<string.h>

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;
}
```

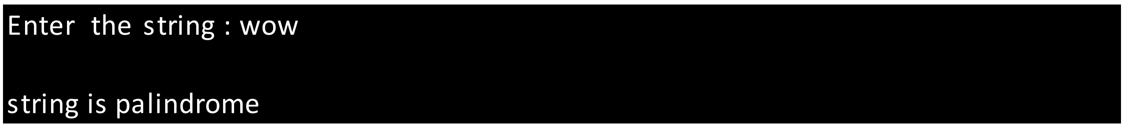
OUTPUT:

```
Enter the string: Shalinee

The copied string is: Shalinee

Number of characters = 8
```

8. read a string and prints if it is a palindrome or not.

```
#include <stdio.h>

int main()
{
    char s[1000];
        int i,n,c=0;

        printf("Enter     the string : ");
        gets(s);
        n=strlen(s);

        for(i=0;i<n/2;i++)
        {
           if(s[i]==s[n-i-1])
           c++;

      }
      if(c==i)
              printf("string is palindrome");
        else
                printf("string is not palindrome");
       return 0;
}
```

OUTPUT:



```
Enter  the string : wow

string is palindrome
```

9. read a line of text and count all occurrences of particular word.

```
#include <stdio.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);
return 0;

}
```

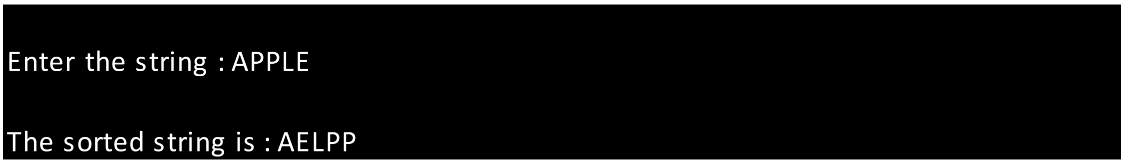
OUTPUT:

```
Enter  the string : The crazy man is crazy about her

Enter word to be searched: crazy

word 'crazy' is occurred count=2
```

10. read a string and rewrite it in the alphabetical order.

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

int main ()
{
    char string[100];
   printf("Enter the string : ");
    scanf("%s",string);
    char temp;
    int i, j;
    int n = strlen(string);
    for (i = 0; i < n-1; i++) {
    for (j = i+1; j < n; j++) {
    if (string[i] > string[j]) {
    temp = string[i];
    string[i] = string[j];
    string[j] = temp;
    }
    }
    }

    printf("The sorted string is : %s", string);
    return 0;
}
```

OUTPUT:



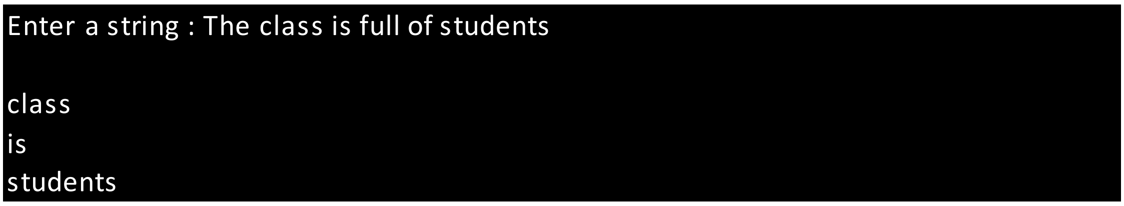
```
Enter the string : APPLE

The sorted string is : AELPP
```

11. Print the Words Ending with Letter S

```
#include <stdio.h>

    #include <string.h>

    char str[100];

    void main()

    {

        int x, t, j, len;

        printf("Enter a string : ");

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

        len = strlen(str);

        str[len] = ' ';

        for (t = 0, x = 0; x < strlen(str); x++)

        {

            if ((str[x] == ' ') && (str[x - 1] == 's'))

            {

                for (j = t; j < x; j++)

                    printf("%c", str[j]);

                t = x + 1;

                printf("\n");

            }

            else

            {

                if (str[x] == ' ')

                {

                    t = x + 1;
```

```
                            }
                        }
                    }
}
```

OUTPUT:

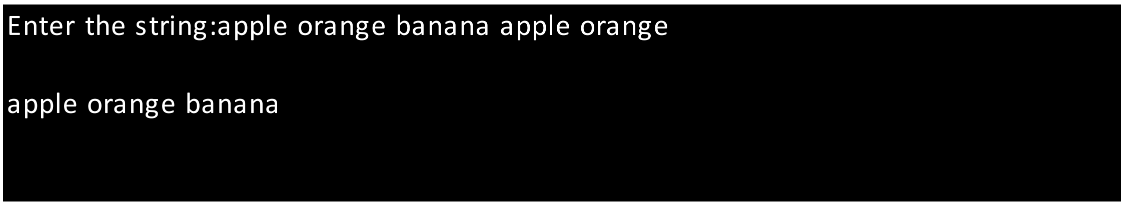


```
Enter a string : The class is full of students

class
is
students
```

12. 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],  twoD[10][30];
    int i = 0, j = 0, k = 0, len1 = 0, len2 = 0, l = 0;

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


    for (i = 0; str[i] != '\0'; i++)
    {
        if (str[i] == ' ')
        {
            twoD[k][j] = '\0';
            k ++;
            j = 0;
        }
        else
        {
            twoD[k][j] = str[i];
            j ++;
        }
    }

    twoD[k][j] = '\0';

    j = 0;
    for (i = 0; i < k; i++)
    {
        int present = 0;
        for (l = 1; l < k + 1; l++)
        {
            if (twoD[l][j] == '\0' | | l == i)
            {
                continue;
            }

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

    }

    j = 0;

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

    printf ("\n");

    return 0;
}
```

OUTPUT:



```
Enter the string:apple orange banana apple orange

apple orange banana
```