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

```c
#include<stdio.h>
int main()
{
  char w1[40],w2[40],w3[40],w4[40];
  printf("Enter text: \n");
  scanf("%s %s",w1,w2);
  scanf("%s",w3);
  scanf("%s",w4);
  printf("\n");
  printf("word 1=%s\nword 2=%s\nword 3=%s\nword 4=%s\n",w1,w2,w3,w4);
}
```

OutPut:-
Enter text:
My Name Is Biswajit

word 1=My
word 2=Name
word 3=Is
word 4=Biswajit

2) read a lines of text from a terminal using fgets function and print using puts Function.

```c
#include<stdio.h>
int main()
{
  char buf[40];
  printf("Enter a string");
  fgets(buf,40,stdin);
  puts(buf);
  return 0;
}
```

OutPut)
Enter a stringMy Name Is Biswajit
My Name Is Biswajit

3) convert

a. Upper case to Lower case

```c
#include<stdio.h>
#include<string.h>
int main()
{
  char str[100];
  printf("Enter Upper case string");
  fgets(str,100,stdin);
  printf("Its lower case is %s",strlwr(str));
  return 0;
}
```

OutPut:-
Enter Upper case stringMY NAME IS BISWAJIT
Its lower case is my name is biswajit

b. Lower case to Upper case

```c
#include<stdio.h>
#include<string.h>
int main()
{
  char str[100];
  printf("Enter lower case string");
  fgets(str,100,stdin);
  printf("Its upper case is %s",strupr(str));
  return 0;
}
```

Output:-
Enter lower case stringmy name is biswajit
Its upper case is MY NAME IS BISWAJIT

c. Toggle case

```c
#include <stdio.h>
#include <string.h>
int main()
{
  char Str1[100];
  int i;
  printf("Please Enter any String to Toggle : ");
  gets(Str1);
  for (i = 0; Str1[i]!='\0'; i++)
  {
  if(Str1[i] >= 'a' && Str1[i] <= 'z')
  {
  Str1[i] = Str1[i] - 32;
}
  else if(Str1[i] >= 'A' && Str1[i] <= 'Z')
  {
  Str1[i] = Str1[i] + 32;
}
  }
  printf("after Toggling Case of all Characters = %s", Str1);
  return 0;
}
```

```
OutPut:-
Please Enter any String to Toggle : My Name Is Biswajit
after Toggling Case of all Characters = mY nAME iS bISWAJIT
```

4) perform String Concatenation

```c
#include <stdio.h>
int main() {
  char s1[100] = "My Name Is ", s2[] = "Biswajit";
  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: My Name Is Biswajit
```

5) perform String Reversal

```c
#include<stdio.h>
void main()
{
    int i, j, k;
    char str[100];
    char rev[100];
    printf("Enter a string:\t");
    scanf("%s", str);
    for(i = 0; str[i] != '\0'; i++);
```

```
    {
        k = i-1;
    }
    for(j = 0; j <= i-1; j++)
    {
        rev[j] = str[k];
        k--;
    }
    printf("The reverse string is %s\n", rev);
}
```

```
Output:-
Enter a string: Biswajit
The reverse string is tijawsiB
```

6) perform Substring Extraction

```
#include <stdio.h>
void 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("The substring retrieve from the string is : %s", sstr);
}
```

```
Output:-
Input the string : My Name is Biswajit
Input the position to start extraction :3
Input the length of substring :4
The substring retrieve from the string is :  Nam
```

7) copy one string into another and count the no of elements copied.

```
#include<stdio.h>
#include<string.h>
void main(){
char str1[30], str2[30];
printf("input a string: ");
gets(str1);
strcpy(str2, str1);
printf("number of characters = %d\n", strlen(str2));
}
```

```
Output:-
input a string: Biswajit
number of characters = 8
```

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

```
#include <stdio.h>
#include <string.h>
int main(){
    char st1[20];
    int i, length;
    int flag = 0;
    printf("Enter a string:");
    scanf("%s", st1);
    length = strlen(st1);
```

```
Output:-
Enter a string:WoW
WoW is a palindrome
PS C:\Users\User\Desktop\MY ALLINONE\code of vs> .\a.exe
Enter a string:Biswajit
Biswajit is not a palindrome
```

```
    for(i=0;i < length ;i++){
        if(st1[i] != st1[length-i-1]){
            flag = 1;
            break;
   }
}
    if (flag) {
        printf("%s is not a palindrome", st1);
    }
    else {
        printf("%s is a palindrome", st1);
    }
    return 0;
}
```

10) 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 :biswajit
biswajit in ascending order is -> abiijstw
```

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 : Biswas
Biswas
```

12) Delete All Repeated Words in the line of text.

```
#include <stdio.h>
#include <string.h>
int main()
{
  char str[100];
  int i, j, k;
  printf("\n Please Enter any String :  ");
  gets(str);
  for(i = 0; i < strlen(str); i++)
  {
  for(j = i + 1; str[j] != '\0'; j++)
  {
  if(str[j] == str[i])
{
  for(k = j; str[k] != '\0'; k++)
{
str[k] = str[k + 1];
}
}
}
}
printf("\n The Final String after Removing All Duplicates = %s ", str);
  return 0;
}
```

```
Output:-
Please Enter any String :  india

The Final String after Removing All Duplicates = inda
```