

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

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

```
int main(){  
    char arr[20];  
    printf("Enter a word :: ");  
    scanf("%s",arr);  
    printf("Enter word :: %s",arr);  
    return 0;  
}
```

Output:

Enter a word :: shreetik

Enter word :: shreetik

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

```
#include<stdio.h>

int main(){
    char arr[20];
    printf("Enter your name :: ");
    fgets(arr,20,stdin);
    puts(arr);
    return 0;
}
```

Output:

Enter your name :: shreetik sahani

shreetik sahani

3. convert

a. Upper case to Lower case

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

```
int main(){  
    char arr[20];  
    int i=0;  
  
    printf("enter a string in uppercase :: ");  
    scanf("%s",arr);  
    while(arr[i] != '\0'){  
        printf("%c",arr[i]+32);  
        i++;  
    }  
  
    return 0;  
}
```

Output:

```
enter a string in uppercase :: APPLE  
apple
```

b. Lower case to Upper case

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

```
int main(){  
    char arr[20];  
    int i=0;  
  
    printf("enter a string in lowercase :: ");  
    scanf("%s",arr);  
    while(arr[i] != '\0'){  
        printf("%c",arr[i]-32);  
        i++;  
    }  
  
    return 0;  
}
```

Output:

```
enter a string in lowercase :: apple  
APPLE
```

c. Toggle case

```
#include<stdio.h>

int main(){
    char arr[20];
    int i=0;

    printf("enter a string :: ");
    scanf("%s",arr);
    while(arr[i] != '\0'){
        if(arr[i] >= 65 && arr[i] <=90 ){
            printf("%c",arr[i]+32);
        }
        else{
            printf("%c",arr[i]-32);
        }
        i++;
    }

    return 0;
}
```

Output::

enter a string :: hELLO

Hello

d. Sentence case

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

```
int main(){
    char arr[20];
    int i=0;

    printf("enter a string :: ");
    gets(arr);
    while(arr[i] != '\0'){
        if(i==0 && arr[i] >= 97 && arr[i] <=122 ){
            printf("%c",arr[i]-32);
        }
        else if(i==0 && arr[i] >= 65 && arr[i] <=90 ){
            printf("%c",arr[i]);
        }
        if(arr[i]==' '){
            if(arr[i+1] >= 97 && arr[i+1] <=122 ){
                printf("%c",arr[i+1]-32);
            }
            else if(arr[i+1] >= 65 && arr[i+1] <=90 ){
                printf("%c",arr[i+1]);
            }
            i++;
        }
    }
```

```
    i++;  
    if(arr[i]>=65 && arr[i]<=90){  
        printf("%c",arr[i]+32);  
    }  
    else{  
        printf("%c",arr[i]);  
    }  
}  
  
return 0;  
}
```

Output:

enter a string :: shreetik sahani

Shreetik Sahani

enter a string :: SHREETIK SAHANI

Shreetik Sahani

enter a string :: Shreetik Sahani

Shreetik Sahani

3. perform String Concatenation.

```
#include<stdio.h>

int main(){
    char arr[30],arr2[30];
    int i=0,j=0,c=0;

    printf("enter a string :: ");
    scanf("%s",arr);

    printf("enter second string :: ");
    scanf("%s",arr2);
    while(arr[i] != '\0'){
        c++;
        i++;
    }
    i=c;
    while(arr2[j] != '\0'){
        arr[i] = arr2[j];
        i++;
        j++;
    }
    arr[i] = '\0';
    printf("Concatination of the given strings -->");
    i=0;
    while(arr[i] != '\0'){
        printf("%c",arr[i]);
        i++;
    }
    return 0;
}
```


Output:

enter a string :: shreetik

enter second string :: sahani

Concatination of the given strings -->shreetiksahani

5. perform String Reversal (With and Without String Handling Functions).

```
#include<stdio.h>

int main(){
    char arr[30];
    int i=0,c=0;
    printf("enter a string :: ");
    scanf("%s",arr);
    while(arr[i] != '\0'){
        c++;
        i++;
    }
    i=0;
    printf("Actual string :: ");
    while(arr[i] != '\0'){
        printf("%c",arr[i]);
        i++;
    }
    printf("\nreverse string :: ");
    i=c;
    while(arr[i] >= 0){
        printf("%c",arr[i]);
        i--;
    }
}
```

```
return 0;  
}
```

Output:

enter a string :: shreetik

Actual string :: shreetik

reverse string :: kiteerhs

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

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

```
int main(){
```

```
    char arr[30],copy[30];
```

```
    int i=0,c=0,space=0;
```

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

```
    fgets(arr,30,stdin);
```

```
    while(arr[i] != '\0'){
```

```
        copy[i] = arr[i];
```

```
        if(arr[i] == ' '){
```

```
            space++;
```

```
        }
```

```
        c++;
```

```
        i++;
```

```
    }
```

```
    printf("Copy string :: ");
```

```
    i=0;
```

```
    while(copy[i] != 0){
```

```
        printf("%c",copy[i]);
```

```
        i++;
```

```
}
```

```
printf("\nTotal elements copy with spaces and NULL character :: %d\n",c);
```

```
printf("\nTotal elements copy with out spaces and NULL character :: %d\n",c-  
(space+1));
```

```
return 0;
```

```
}
```

Output:

enter a string :: shreetik sahani

Copy string :: shreetik sahani

Total elements copy with spaces and NULL character :: 16

Total elements copy with out spaces and NULL character :: 14

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

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

```
int main(){
```

```
    char arr[30],rev[30];
```

```
    int i=0,j=0,c=0,s=0;
```

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

```
    fgets(arr,30,stdin);
```

```
    while(arr[i] != '\0'){
```

```
        c++;
```

```
        i++;
```

```
    }
```

```
    i=0;
```

```
    j=c-2;
```

```
    while(i<c-1){
```

```
        if(arr[i] != arr[j]){
```

```
            s++;
```

```
            break;
```

```
        }
```

```
        j--;
```

```
        i++;
```

```
    }
```

```
    if(s==1){
```

```
    printf("%s is not a palindrom string.",arr);  
}  
else{  
    printf("%s is a palindrom string.",arr);  
}  
    return 0;  
}
```

Output:

enter a string :: ctc

ctc

is a palindrom string.

enter a string :: mango

mango

is not a palindrom string.

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

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

```
int main(){
```

```
int arr[30],i=0,j=0,c=0,temp=0;
```

```
char arr2[30];
```

```
printf("Enter a string either upper case or lower case :: ");
```

```
fgets(arr2,30,stdin);
```

```
while(arr2[i] != '\0'){
```

```
    arr[i] = arr2[i];
```

```
    c++;
```

```
    i++;
```

```
}
```

```
for(i=0;i<c-1;i++){
```

```
    for(j=0;j<c-1;j++){
```

```
        if(arr[i] < arr[j]){
```

```
            temp = arr[i];
```

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

```
            arr[j] = temp;
```

```
        }
```

```
    }
```



```
}  
printf("String in alphabetical order :: ");  
for(i=0;i<c-1;i++){  
    printf("%c",arr[i]);  
}  
  
    return 0;  
}
```

Output:

Enter a string either upper case or lower case :: mango

String in alphabetical order :: agmno

11. Print the Words Ending with Letter S.

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

```
int main(){
```

```
int i=0,j=0,c=0,k=0;
```

```
char arr[30],store[30];
```

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

```
fgets(arr,30,stdin);
```

```
printf("\nwords ending with letter 's' :: ");
```

```
while(arr[i] != '\0'){
```

```
    if(arr[i] == ' '){
```

```
        c = i;
```

```
        if(arr[i-1] == 's'){
```

```
            for(;k<c;k++){
```

```
                printf("%c",arr[k]);
```

```
            }
```

```
            k=c;
```

```
        }
```

```
    }
```

```
    i++;
```

```
}
```

```
if(arr[i]=='\0'){
    if(arr[i-2]=='s'){
        i=c;
        while(arr[i] != '\0'){
            printf("%c",arr[i]);
            i++;
        }
    }
    else{
        printf("\nhere no words ending with letter 's'");
    }
}

return 0;
}
```

Output:

Enter a string :: yes this is not a bus

words ending with letter 's' :: yes this is bus

Enter a string :: bus

words ending with letter 's' :: bus