

——STRINGS USING FUNCTIONS——

1. WAP that takes string from the user and pass it to function. The function finds and returns the number of character in the string.

```
#include<stdio.h>
#include<conio.h>
int count(char [ ]);

int main(){

    char str[100];
    int length;
    printf("Enter any String:");
    gets(str);
    length=count(str);
    printf("\nThe number of character is:%d", length);
    getch();
    return 0;
}

int count(char s[ ]){
    int i=0;
    while(s[i]!='\0'){
        i++;
    }

    return i;
}
```

2. WAP in C to read a string and display it in reverse order.

```
#include<conio.h>
#include<stdio.h>
void reverse(char[ ] );

int main(){
    char str[100];
    printf("Enter any String:");
    gets(str);
```

```
        reverse(str);
    getch();
    return 0;
}

void reverse (char s[ ] ){
    int length=0, i;
    while(s[length]!='\0'){
        length++;
    }

    for(i=length-1;i>=0;i--){
        printf("%c", s[i]);
    }
}
```

3. WAP that reads string from user and uses a user defined function to copy the contents of the read string into another character array changing lower case letters to upper case and upper case letters to lower case.

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

void change_and_copy(char[ ], char [ ] );
int main(){
    char str1[100], str2[100];
    printf("Enter any String:");
    gets(str1);
    change_and_copy (str1, str2);
    printf("\nThe copied string:%s", str2);
    getch();
    return 0;
}

void change_and_copy (char s1[ ] , char s2[ ] ){
    int i;
    for(i=0; s1[i]!='\0'; i++){
        //converting lower to uppercase
        if(s1[i]>='a' && s1[i]<='z'){
            s2[i]=s1[i]-32;
        }
    }
}
```

```
        //converting upper to lowercase
        else if(s1[i]>='A' && s1[i]<='Z'){
            s2[i]=s1[i]+32;
        }
        //for digits and symbols
        else{
            s2[i]=s1[i];
        }
    }
    //adding null character to end of string 2
    s2[i]='\0';
}
```

4. WAP that reads string from user and uses a user defined function check whether a given character is present in a string or not and find its position

```
#include<stdio.h>
#include<conio.h>
void search(char [ ] , char );
int main(){
    char str[100], ch;
    printf("Enter any String:");
    gets(str);
    printf("Enter character to search:");
    scanf("%c", &ch);
    search(str, ch);
    getch();
    return 0;
}
void search(char s[ ], char ch ) {
    int i, flag=0;
    for(i=0; s[i]!='\0'; i++){
        if(s[i]==ch || s[i]==ch+32 || s[i]==ch-32){
            flag++;
            printf("\n%c is present at position:%d",ch, i);
        }
    }
    if(flag==0){
        printf("\n%c is not present in the string",ch);
    }
}
```

5. WAP to check frequency of a given character in a string.

```
#include<stdio.h>
#include<conio.h>
void search(char [ ] , char );
int main(){
    char str[100], ch;
    printf("Enter any String:");
    gets(str);
    printf("Enter character to search:");
    scanf("%c", &ch);
    search(str, ch);
    getch();
    return 0;
}

void search(char s[ ], char ch ) {
    int i , flag=0;
    for(i=0; s[i]!='\0'; i++){
        if(s[i]==ch || s[i]==ch+32 || s[i]==ch-32){
            flag++;
        }
    }
    if(flag==0){
        printf("\n%c is not present in the string",ch);
    }
    else{
        printf("\nFrequency of %c in %s is:%d",ch, s, flag);
    }
}
```
