

1. Write a program to calculate the length of the string. (without using builtin method)

```
#include<stdio.h>

int main()
{
    char name[100];
    int i,length =0;
    printf("Enter the name of string\n",name);
    scanf("%s",name);
    for(i=0;name[i]!='\0';i++)
        length++;
    printf("Length of string is :- %d",length);
    return 0;
}
```

2. Write a program to count the occurrence of a given character in a given string.

```
#include<stdio.h>

int main()
{
    char name[100];
    int i,hash[200]={0};
    printf("Enter the name of string\n",name);
    scanf("%s",name);
    for(i=0;name[i]!='\0';i++)
    {
        hash[name[i]]++;
    }for(i=0;i<123;i++)
    {
        if(hash[i]>0)
            printf("%c = %d\n",i,hash[i]);
    }
}
```

```
    return 0;
}
```

### 3. Write a program to count vowels in a given string .

```
#include<stdio.h>

int main()
{
    char a[100];

    int i,count=0;

    printf("Enter the name of string\n",a);
    scanf("%s",a);

    for(i=0;a[i]!='\0';i++)
    {
        if(a[i]== 'a' | a[i]=='e' | a[i]=='i' | a[i]=='o' | a[i]=='u')
            count++;
    }printf("Number of vowels is :%d",count);

    return 0;
}
```

### 4. Write a program to convert a given string into uppercase.

```
#include<stdio.h>

int main()
{
    char a[10];

    int i=0;

    printf("Enter the name of string\n");
    scanf("%s",a);

    for(i=0;a[i]!='\0';i++)
    {
        if((a[i]>='a')&&(a[i]<='z'))
            a[i] = a[i]-32;
    }
}
```

```
    } printf("New string in uppercase is : %s",a);  
    return 0;  
}
```

**5. Write a program to convert a given string into lowercase .**

```
#include<stdio.h>  
  
int main()  
{  
    char a[10];  
    int i=0;  
    printf("Enter the name of string\n");  
    scanf("%s",a);  
    for(i=0;a[i]!='\0';i++)  
    {  
        if((a[i]>='A')&&(a[i]<='Z'))  
            a[i] = a[i]+32;  
    } printf("New string in lowercase is : %s",a);  
    return 0;  
}
```

**6. Write a program to reverse a string.**

```
#include<stdio.h>  
  
int main()  
{  
    char a[10];  
    printf("Enter the string\n");  
    scanf("%s",a);  
    strrev(a);  
    printf("Reverse string is : %s",a);  
    return 0;  
}
```

**7. Write a program in C to count the total number of alphabets, digits and special characters in a string.**

```
#include<stdio.h>

int main()
{
    char a[100];
    int i,count=0;
    printf("Enter the name of string\n",a);
    gets(a);
    for(i=0;a[i]!='\0';i++)
        count++;
    printf("Number of characters is : %d",count);
    return 0;
}
```

**8. Write a program in C to copy one string to another string.**

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

int main()
{
    char str1[20],str2[20];
    printf("Enter the String : \n");
    gets(str1);
    printf("\nString 1 = %s",str1);
    strcpy(str2,str1);
    printf("\nString2 : %s",str2);
    return 0;
}
```

**9. Write a C program to sort a string array in ascending order.**

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

```

#include <string.h>

int main ()
{
    char string[100];

    printf("\n 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;
}

```

#### 10. Write a program in C to Find the Frequency of Characters

```

#include<stdio.h>

int main()
{
    char name[100];

    int i,hash[200]={0};

    printf("Enter the string\n");

    gets(name);
}

```

```
for(i=0;name[i]!=0;i++)
{
    hash[name[i]]++;
}for(i=0;i<123;i++)
{
    if(hash[i]>0)
        printf("%c = %d\n",i,hash[i]);
}
return 0;
}
```