

Assignment_:17

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

```
#include<stdio.h>
int main ()
{
    char str[10]="Sumit";
    int i;
    for(i=0;str[i];i++);
    printf("string is %s length of the string
is%d\n",str,i);
    return 0;
}
```

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

```
#include <stdio.h>
int main()
{
    char str[100];
    char toSearch;
    int i, count;

    printf("Enter any string: ");
    gets(str);
    printf("Enter any character to search: ");
    toSearch = getchar();
    count = 0;
    i=0;
    while(str[i] != '\0')
    {
        if(str[i] == toSearch)
        {
            count++;
        }
        i++;
    }
    printf("Total occurrence of '%c' = %d", toSearch, count);
    return 0;
}
```

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

```
#include<stdio.h>
int main()
{
    char str[100];
    int i=0,count=0;
    printf("Enter any string ");
    gets(str);
    while(str[i]!='\0')
    {
        if(str[i] == 'a' || str[i]=='A',str[i]=='e' || str[i]=='E',str[i]=='i' ||str[i]=='I',str[i]=='o' ||
str[i]=='O',str[i]=='u' || str[i]=='U')

            count ++;
            i++;
    }
}
```

```

printf("count %d",count);
return 0;
}

```

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

```

#include <stdio.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("String in Upper Case = %s", s);
    return 0;
}

```

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

```

#include <stdio.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("String in Upper Case = %s", s);
    return 0;
}

```

Reverse string

```

#include<stdio.h>
#include<string.h>
int main()
{
    char str[100];
    int i;
    printf("Enter any string\n");
    gets(str);

    printf("The reverse string is %s",strrev(str));
    return 0;
}

```

```

#include <stdio.h>
#include <string.h>
#include <stdlib.h>
int main()
{
    char str[100];
    int alp, digit, splch, i;
    alp = digit = splch = i = 0;

    printf("Input the string : ");
    fgets(str, sizeof str, stdin);

    /* Checks each character of string*/

```

```

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

```

```

        if((str[i]>='a' && str[i]<='z') || (str[i]>='A' && str[i]<='Z'))
        {
            alp++;
        }
        else if(str[i]>='0' && str[i]<='9')
        {
            digit++;
        }
        else
        {
            splch++;
        }
    }

    i++;
}

printf("Number of Alphabets in the string is : %d\n", alp);
printf("Number of Digits in the string is : %d\n", digit);
printf("Number of Special characters in the string is : %d\n\n", splch);
return 0;
}

```

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

```

#include <stdio.h>
void main()
{
    char str1[100], str2[100];
    int i;
    printf("Input the string : ");
    fgets(str1, sizeof str1, stdin);
    i=0;
    while(str1[i]!='\0')
    {
        str2[i] = str1[i];
        i++;
    }
    str2[i] = '\0';

    printf("\nThe First string is : %s\n", str1);
    printf("The Second string is : %s\n", str2);
    printf("Number of characters copied : %d\n\n", i);
}

```

```

#include<stdio.h>
#include<string.h>
int main()
{
    char str[100], chTemp;
    int i, j, len;
    printf("Enter any string: ");
    gets(str);
    len = strlen(str);
    for(i=0; i<len; i++)
    {
        for(j=0; j<(len-1); j++)
        {
            if(str[j]>str[j+1])
            {
                chTemp = str[j];
                str[j] = str[j+1];
                str[j+1] = chTemp;
            }
        }
    }
    printf("\nSame string in ascending order:\n%s", str);
    getch();
    return 0;
}

```

```

#include <stdio.h>

```

```
#include <string.h>
int main()
{
    char string[100];
    int c = 0, count[26] = {0}, x;

    printf("Enter a string\n");
    gets(string);
```

```
    while (string[c] != '\0')
    {
        if (string[c] >= 'a' && string[c] <= 'z') {
            x = string[c] - 'a';
            count[x]++;
        }
    }
```

```
    c++;
}
```

```
for (c = 0; c < 26; c++)
    printf("%c occurs %d times in the string.\n", c + 'a', count[c]);
```

```
    return 0;
}
```