

Lab 7

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Section: M

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1. Count the number of words in a sentence.

```
//Count the number of words in a sentence
```

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

```
int main()
```

```
{
```

```
    printf("Anurag Chowdhury\n");
```

```
    char sent[100];
```

```
    int i=0,count=1;
```

```
    printf("Enter sentence\n");
```

```
    gets(sent);
```

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

```
        if (sent[i]==' ' && sent[i+1]!=' ')
```

```
            count++;
```

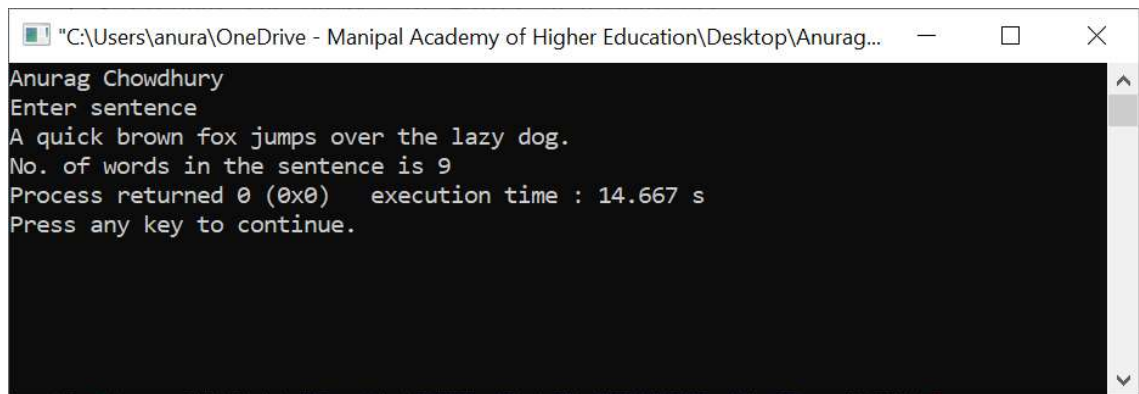
```
            i ++;
```

```
    }
```

```
    printf("No. of words in the sentence is %d", count);
```

```
    return 0;
```

```
}
```

A screenshot of a Windows command prompt window. The title bar shows the file path: "C:\Users\anura\OneDrive - Manipal Academy of Higher Education\Desktop\Anurag...". The window has standard minimize, maximize, and close buttons. The command prompt displays the following text:

```
Anurag Chowdhury
Enter sentence
A quick brown fox jumps over the lazy dog.
No. of words in the sentence is 9
Process returned 0 (0x0)   execution time : 14.667 s
Press any key to continue.
```

2. Input a string and toggle the case of every character in the input string.

//Input a string and toggle the case of every character in the input string.

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

```
int main()
```

```
{
```

```
    printf("Anurag Chowdhury\n");
```

```
    char s[100];
```

```
    int i;
```

```
    printf("Enter string:\n");
```

```
    gets(s);
```

```
    for(i=0;s[i]!='\0';i++){
```

```
        if(s[i]>='A' && s[i]<='Z')
```

```
            s[i]+=32;
```

```
        else if(s[i]>='a'&&s[i]<='z')
```

```
            s[i]-=32;
```

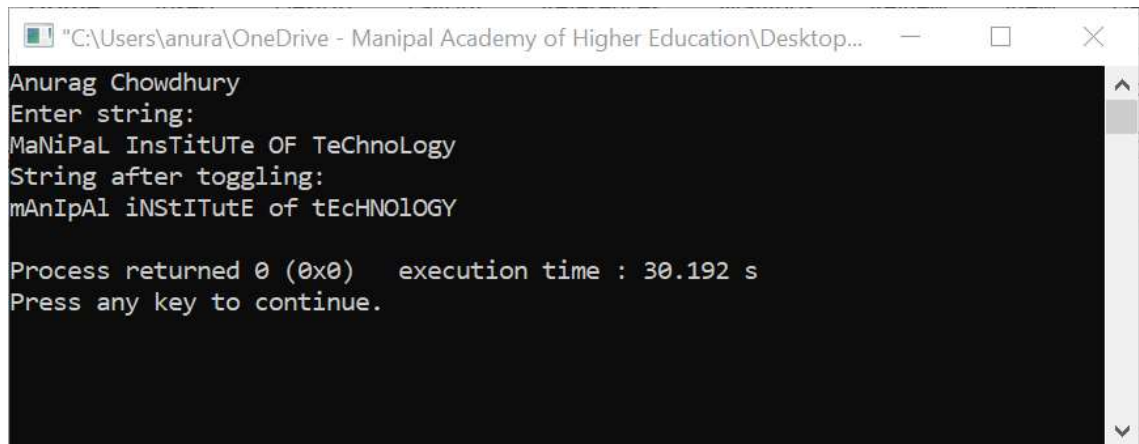
```
    }
```

```
    printf("String after toggling:\n");
```

```
    puts(s);
```

```
    return 0;
```

```
}
```



```
"C:\Users\anura\OneDrive - Manipal Academy of Higher Education\Desktop..."
Anurag Chowdhury
Enter string:
MaNiPaL InsTitUTe OF TeChnoLoGY
String after toggling:
mAnIpAl iNsTiTutE of tEcHNOLOGY

Process returned 0 (0x0)   execution time : 30.192 s
Press any key to continue.
```

3. Arrange 'n' names in alphabetical order.

```
//Arrange 'n' names in alphabetical order
```

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

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

```
int main()
```

```
{
```

```
    printf("Anurag Chowdhury\n");
```

```
    char a[10][10],temp[10];
```

```
    int n,i,j;
```

```
    printf("Enter no. of names\n");
```

```
    scanf("%d",&n);
```

```
    printf("Enter the names:\n");
```

```
    fflush(stdin);
```

```
    for(i=0;i<n;i++)
```

```
        gets(a[i]);
```

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

```
        for(j=i+1;j<n;j++){
```

```

        if(strcmp(a[i],a[j])>0){
            strcpy(temp,a[i]);
            strcpy(a[i],a[j]);
            strcpy(a[j],temp);
        }
    }
}

printf("The names in alphabetical order are:\n");
for(i=0;i<n;i++){
    puts(a[i]);
}

return 0;
}

```

```

"C:\Users\anura\OneDrive - Manipal Academy of Higher Education\Desktop\Anurag\PSUC Lab- CSE..."
Anurag Chowdhury
Enter no. of names
5
Enter the names:
Debjeet
Yash
Anurag
Faiz
Rishit
The names in alphabetical order are:
Anurag
Debjeet
Faiz
Rishit
Yash

Process returned 0 (0x0)   execution time : 22.666 s
Press any key to continue.

```

4. Write a function Largest to find the maximum of a given list of numbers. Also write a main program to read N numbers and find the largest among them using this function

```
/*Write a function Largest to find the maximum of a given  
list of numbers. Also write a main program to read N numbers  
and find the largest among them using this function. */
```

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

```
int Largest(int a[],int n){
```

```
    int max=a[0];
```

```
    for(int i=1;i<n;i++){
```

```
        if(a[i]>max)
```

```
            max=a[i];
```

```
    }
```

```
    return max;
```

```
}
```

```
int main(){
```

```
    int n;
```

```
    printf("Anurag Chowdhury\n");
```

```
    printf("Enter the value of n\n");
```

```
    scanf("%d",&n);
```

```
    int a[n];
```

```
    printf("Enter %d numbers\n",n);
```

```
    for(int i=0;i<n;i++){
```

```
        scanf("%d",&a[i]);
```

```
    printf("Entered numbers are\n");
```

```
    for(int i=0;i<n;i++){
```

```

    printf("%d ",a[i]);

    printf("\nMaximum of these %d numbers is %d",n,Largest(a,n));

    return 0;

}

```

```

C:\Users\anura\OneDrive - Manipal Academy of Higher Education\Desktop\A...
Anurag Chowdhury
Enter the value of n
10
Enter 10 numbers
23
43
9
87
29
54
32
61
67
19
Entered numbers are
23 43 9 87 29 54 32 61 67 19
Maximum of these 10 numbers is 87
Process returned 0 (0x0)   execution time : 28.340 s
Press any key to continue.

```

5. Write a function CornerSum which takes as a parameter, no. of rows and no. of columns of a matrix and returns the sum of the elements in the four corners of the matrix. Write a main function to test the function.

```

/* Write a function CornerSum which takes as a parameter, no. of rows
and no. of columns of a matrix and returns the sum of the elements in
the four corners of the matrix. Write a main function to test the
function.*/

```

```

#include<stdio.h>

```

```

int CornerSum(int a[10][10],int n,int m){

    return a[0][0]+a[n-1][m-1]+a[0][m-1]+a[n-1][0];

}

```

```
int main(){
    printf("Anurag Chowdhury\n");
    printf("Enter no. of rows in the matrix\n");
    int n,m;
    int a[10][10];
    scanf("%d",&n);
    printf("Enter no. of columns in the matrix\n");
    scanf("%d",&m);
    printf("Enter Matrix\n");
    for(int i=0;i<n;i++){
        for(int j=0;j<m;j++){
            scanf("%d",&a[i][j]);
        }
    }
    printf("Entered matrix is:\n");
    for(int i=0;i<n;i++){
        for(int j=0;j<m;j++){
            printf("%d\t",a[i][j]);
        }
        printf("\n");
    }
    printf("Sum of corners of entered matrix is %d",CornerSum(a,n,m));
    return 0;
}
```

```
"C:\Users\anura\OneDrive - Manipal Academy of Higher Education\Desktop\Anurag\PSUC Lab- CSE 1061\Lab 7 and 8\cornersum.exe"
Anurag Chowdhury
Enter no. of rows in the matrix
4
Enter no. of columns in the matrix
4
Enter Matrix
26
17
9
3
8
22
9
4
30
7
0
1
2
5
9
8
Entered matrix is:
26    17    9    3
8     22    9    4
30    7     0    1
2     5     9    8
Sum of corners of entered matrix is 39
Process returned 0 (0x0)   execution time : 29.200 s
Press any key to continue.
```