Lab 7

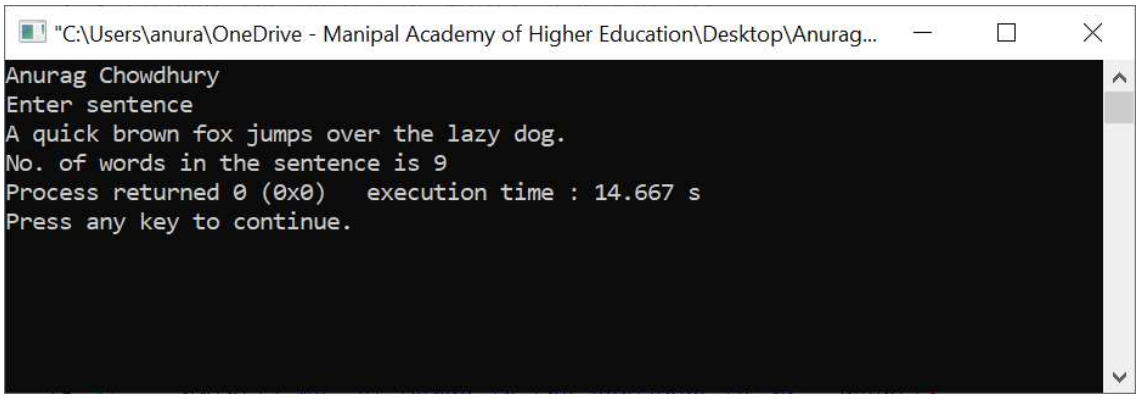
Name:Anurag Chowdhury

Section: M

Reg No. 200905238

1. Count the number of words in a sentence.

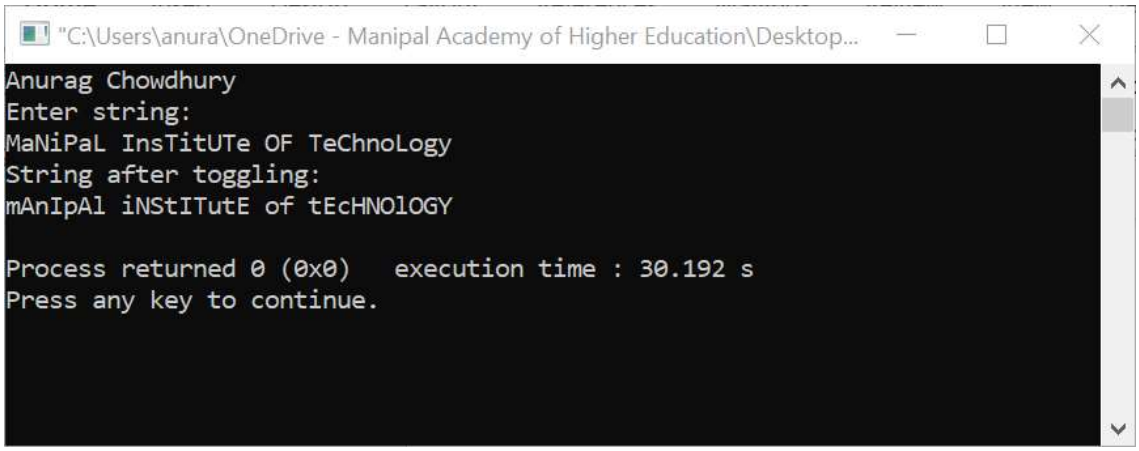
```
//Count the number of words in a sentence
#include <stdio.h>
int main()
{
   printf("Anurag Chowdhury\n");
   char sent[100];
   int i=0,count=1;
   printf("Enter sentence\n");
   gets(sent);
   while(sent[i]!='\0'){
      if (sent[i]==' ' && sent[i+1]!= ' ')
      count++;
      i ++;
   }
   printf("No. of words in the sentence is %d", count);
   return 0;
}
```



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;
```

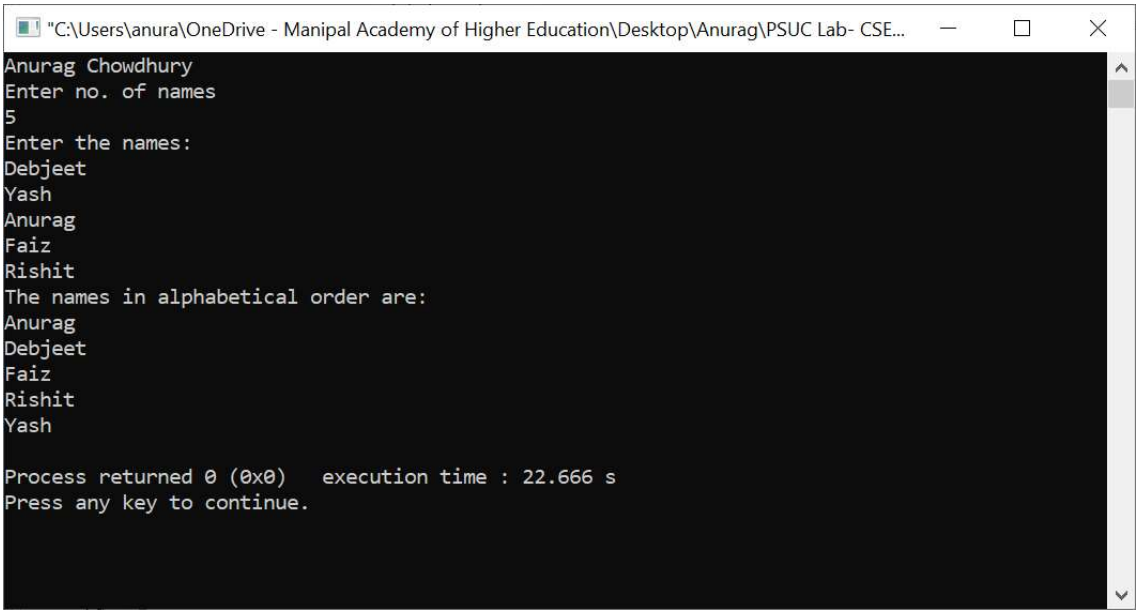
}



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++){
```

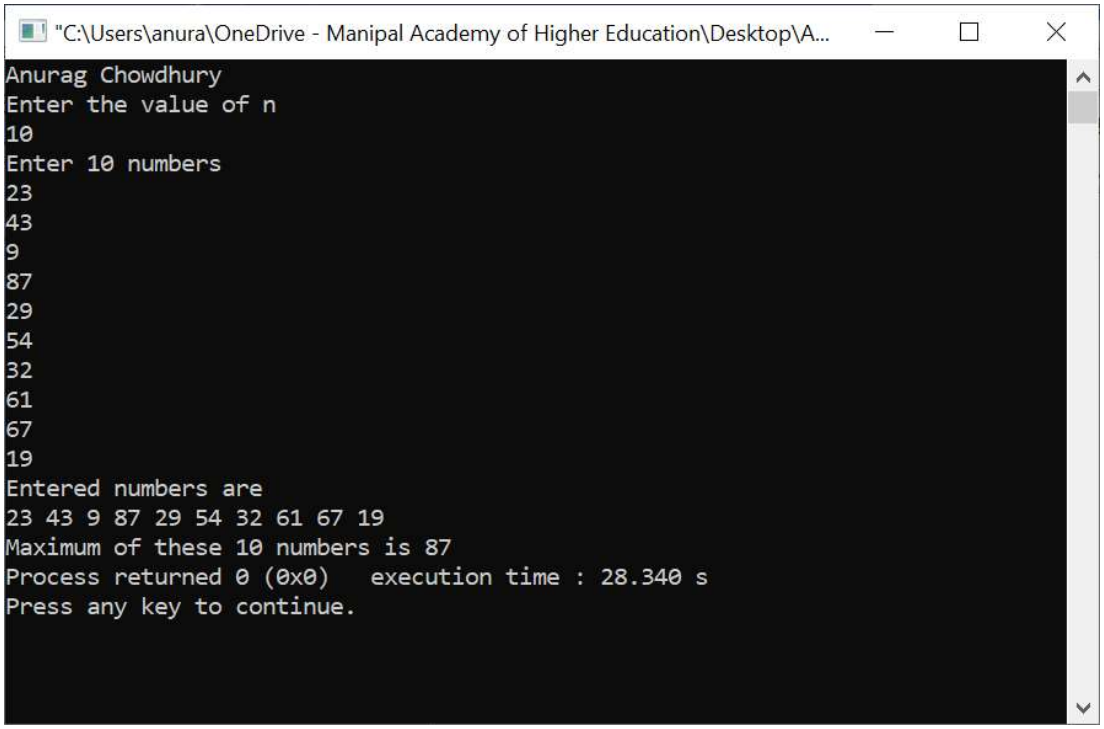
```
        if(strcmp(a[i],a[j])>0){
            strcpy(temp,a[i]);
            strcpy(a[i],a[j]);
            strcpy(a[j],temp);
            }
        }
    }
    printf("The names in alphabetical order are:\n");
    for(i=0;i<n;i++){
        puts(a[i]);
    }
return 0;
}
```



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++)
```

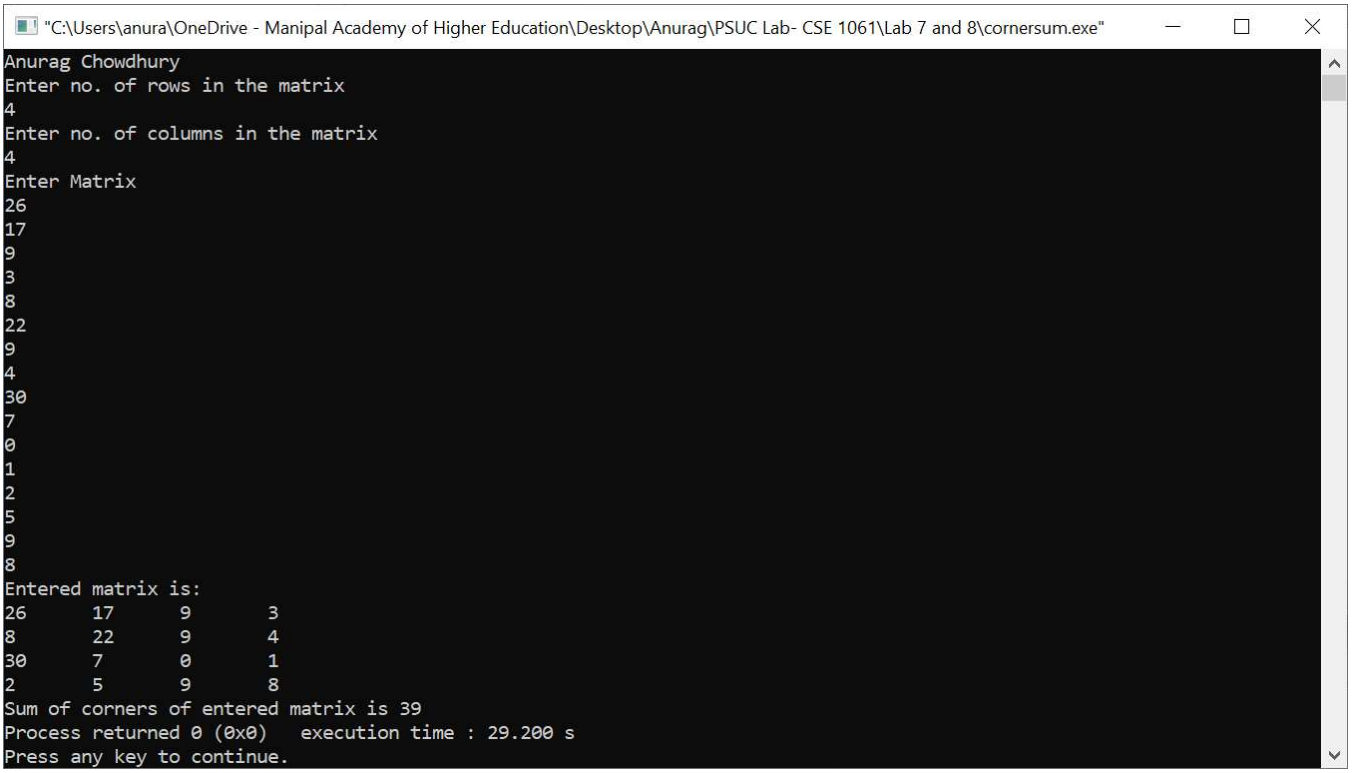
```
    printf("%d ",a[i]);
  printf("\nMaximum of these %d numbers is %d",n,Largest(a,n));
  return 0;
}
```



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.