

# **Computer Programming in C Lab (CA3104)**



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- 1. Write a program to carry out the following: (a) Read a text file 'INPUT.TXT' (b) Print each word in reverse order Example, Input: INDIA IS MY COUNTRY Output: AIDNI SI YM YRTNUOC. Assume that each word length is maximum of 10 characters and each word is separated by newline/blank characters.**
- 2. C Program to sort an array of strings and display.**

1. Write a program to carry out the following: (a) Read a text file 'INPUT.TXT' (b) Print each word in reverse order Example, Input: INDIA IS MY COUNTRY Output: AIDNI SI YM YRTNUOC. Assume that each word length is maximum of 10 characters and each word is separated by newline/blank characters.

**Program :**

```
#include<stdio.h>
void reverse_string(char str[], int start, int end)
{
    char temp;
    while(start<end)
    {
        temp=str[start];
        str[start]=str[end];
        str[end]=temp;
        start++;
        end--;
    }
}
int main()
{
    char str[100];
    printf(" Enter a string : ");
    gets(str);
    int start, end;
    end=0;
    start=0;
    while(str[end])
    {
        for(end=start;str[end]&&str[end]!=' ';end++);
        reverse_string(str, start, end-1);
        start=end+1;
    }
    printf("%s ",str);
    return 0;
}
```

**Output :**

```
Enter a string : INDIA IS MY COUNTRY
AIDNI SI YM YRTNUOC
```

## 2. C Program to sort an array of strings and display.

Program :

```
#include <stdio.h>
#include <string.h>
void main()
{
    char name[10][8], tname[10][8], temp[8];
    int i, j, n;
    printf("How many words are there : ");
    scanf("%d", &n);
    printf("Enter %d words : \n", n);
    for (i = 0; i < n; i++)
    {
        scanf(" %s", name[i]);
        strcpy(tname[i], name[i]);
    }

    for (i = 0; i < n - 1; i++)
    {
        for (j = i + 1; j < n; j++)
        {
            if (strcmp(name[i], name[j]) > 0)
            {
                strcpy(temp, name[i]);
                strcpy(name[i], name[j]);
                strcpy(name[j], temp);
            }
        }
    }
    printf("\nSorted Array: \n");
    for (i = 0; i < n; i++)
    {
        printf(" %s\n", name[i]);
    }
}
```

## Output :

```
How many words are there : 5
Enter 5 words :
shubh
shashi
ashish
madhu
shivam

Sorted Array:
ashish
madhu
shashi
shivam
shubh
```