

Aim:

Design a C program that sorts the strings using array of pointers.

Sample input output**Sample input-output -1:**

Enter the number of strings: 2

Enter string 1: Tantra

Enter string 2: Code

Before Sorting

Tantra

Code

After Sorting

Code

Tantra

Sample input-output -2:

Enter the number of strings: 3

Enter string 1: India

Enter string 2: USA

Enter string 3: Japan

Before Sorting

India

USA

Japan

After Sorting

India

Japan

USA

Source Code:

stringssort.c

```
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
void main()
{
    char * temp;
    int i,j,diff,n;
    char * strarray[10];
    printf("Enter the number of strings: ");
    scanf("%d",&n);
    for(i=0;i<n;i++)
    {
        printf("Enter string %d: ",i+1);
        strarray[i]=(char *)malloc(sizeof(char)*20);
        scanf("%s",strarray[i]);
    }
    printf("Before Sorting\n");
    for(i=0;i<n;i++)
    {
        printf("%s\n",strarray[i]);
```

```

    }
    for(i=0;i<n-1;i++)
    {
        for(j=0;j<n-1;j++)
        {
            diff=strcmp(strarray[j],strarray[j+1]);
            if(diff>0)
            {
                temp=strarray[j];
                strarray[j]=strarray[j+1];
                strarray[j+1]=temp;
            }
        }
    }
    printf("After Sorting\n");
    for(i=0;i<n;i++)
    {
        printf("%s\n",strarray[i]);
    }
}

```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the number of strings: 2
Enter string 1: Tantra
Enter string 2: Code
Before Sorting
Tantra
Code
After Sorting
Code
Tantra

Test Case - 2
User Output
Enter the number of strings: 3
Enter string 1: Dhoni
Enter string 2: Kohli
Enter string 3: Rohit
Before Sorting
Dhoni
Kohli
Rohit
After Sorting
Dhoni
Kohli
Rohit