

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,num_strings;
    char *strarray[10];
    printf("Enter the number of strings: ");
    scanf("%d",&num_strings);
    for(i=0;i<num_strings;i++)
    {
        strarray[i]=(char *)malloc(sizeof(char)*20);
        printf("Enter string %d: ",i+1);
        scanf("%s",strarray[i]);
    }
    printf("Before Sorting\n");
    for(i=0;i<num_strings;i++)
    {
        printf("%s\n",strarray[i]);
```

```

}
for(i=0;i<num_strings-1;i++)
{
    for(j=0;j<num_strings-1-i;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<num_strings;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