

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);
    temp=(char*)malloc(sizeof(char)*80);
    for(i=0;i<num_strings;i++)
    {
        strArray[i]=(char*)malloc(sizeof(char)*80);
        printf("Enter string %d: ",i+1);
        fflush(stdin);
        gets(strArray[i]);
    }
    printf("Before Sorting\n");
    for(i = 0;i < num_strings ;i++)
```

```

    }
    for(j=0; j<num_strings-1; j++)
    {
        for(int i=j+1; i<num_strings; i++)
        {
            if(strcmp(strArray[j],strArray[i]) >0)
            {
                strcpy(temp, strArray[j]);
                strcpy(strArray[j],strArray[i]);
                strcpy(strArray[i],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