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

```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