S.No: 1	Exp. Name: ***Design a C program which sorts the strings using array of pointers***	Date:2023-04-24

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

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