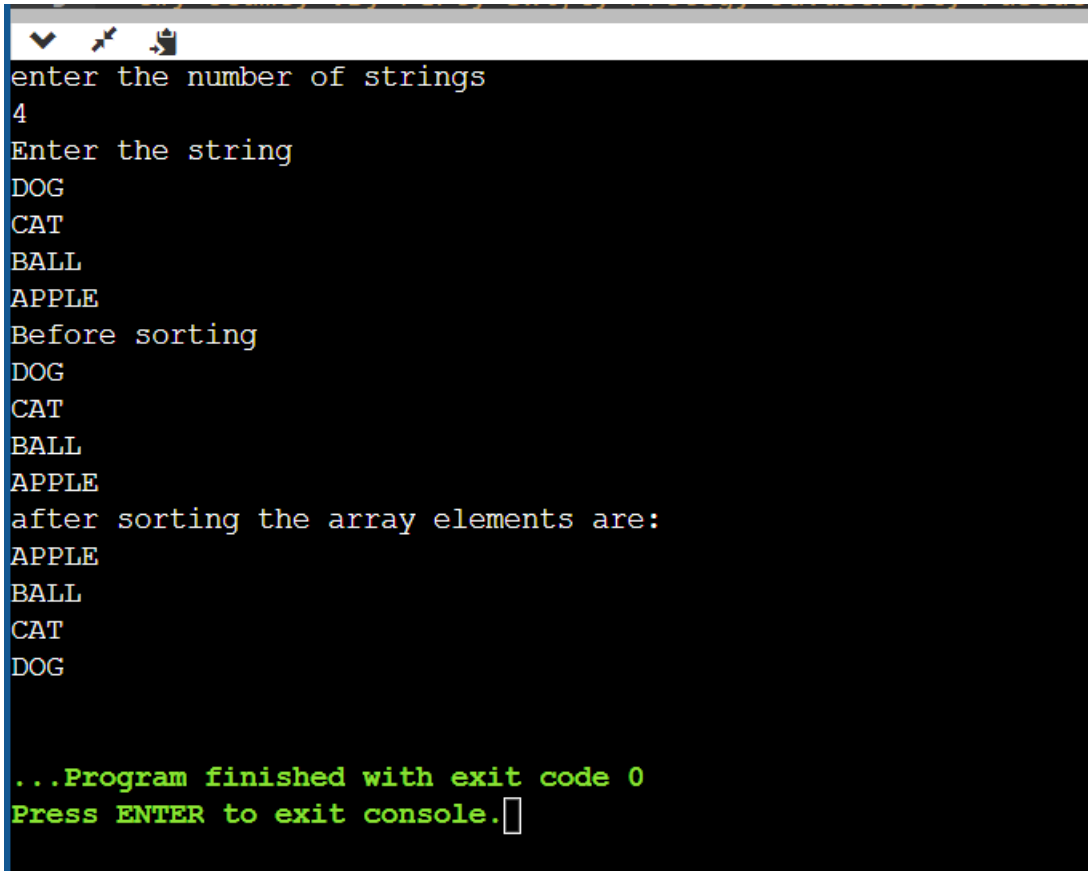
2. Implement a C program that sorts strings lexicographically, without using the standard library sorting functions.

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
void sort(char str[100][100],int n);
void main()
{
   char str[100][100];
   int i,n;
   printf("enter the number of strings\n");
   scanf("%d",&n);
   printf("Enter the string\n");
   for(i=0;i<n;i++)
  {
     scanf("%s",str[i]);
  }
  printf("Before sorting\n");
   for(i=0;i<n;i++)
   {
      printf("%s\n",str[i]);
   }
 sort(str,n);
}
```

```
void sort(char str[100][100],int n)
{
   int i,j;
   char temp[100];
      for(i=0;i<n;i++)
      {
         for(j=i+1;j<n;j++)
         {
         if(str[i]<str[j])
          {
            strcpy(temp,str[i]);
            strcpy(str[i],str[j]);
            strcpy(str[j],temp);
          }
         }
      }
   printf("after sorting the array elements are:\n");

       for(i=0;i<n;i++)
       {
             printf("%s\n",str[i]);
       }
   }
```

OUTPUT:


enter the number of strings
4
Enter the string
DOG
CAT
BALL
APPLE
Before sorting
DOG
CAT
BALL
APPLE
after sorting the array elements are:
APPLE
BALL
CAT
DOG
...Program finished with exit code 0
Press ENTER to exit console.