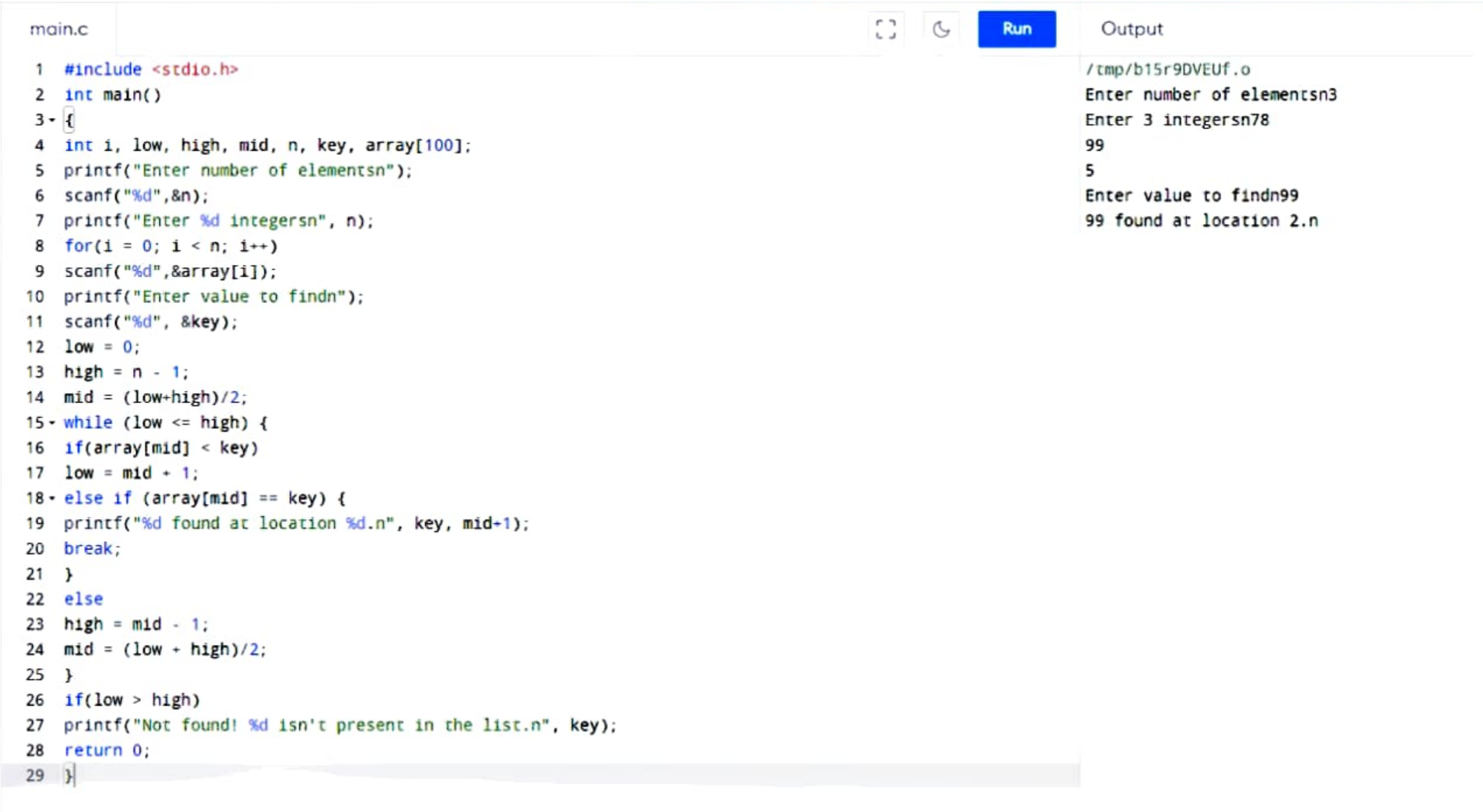
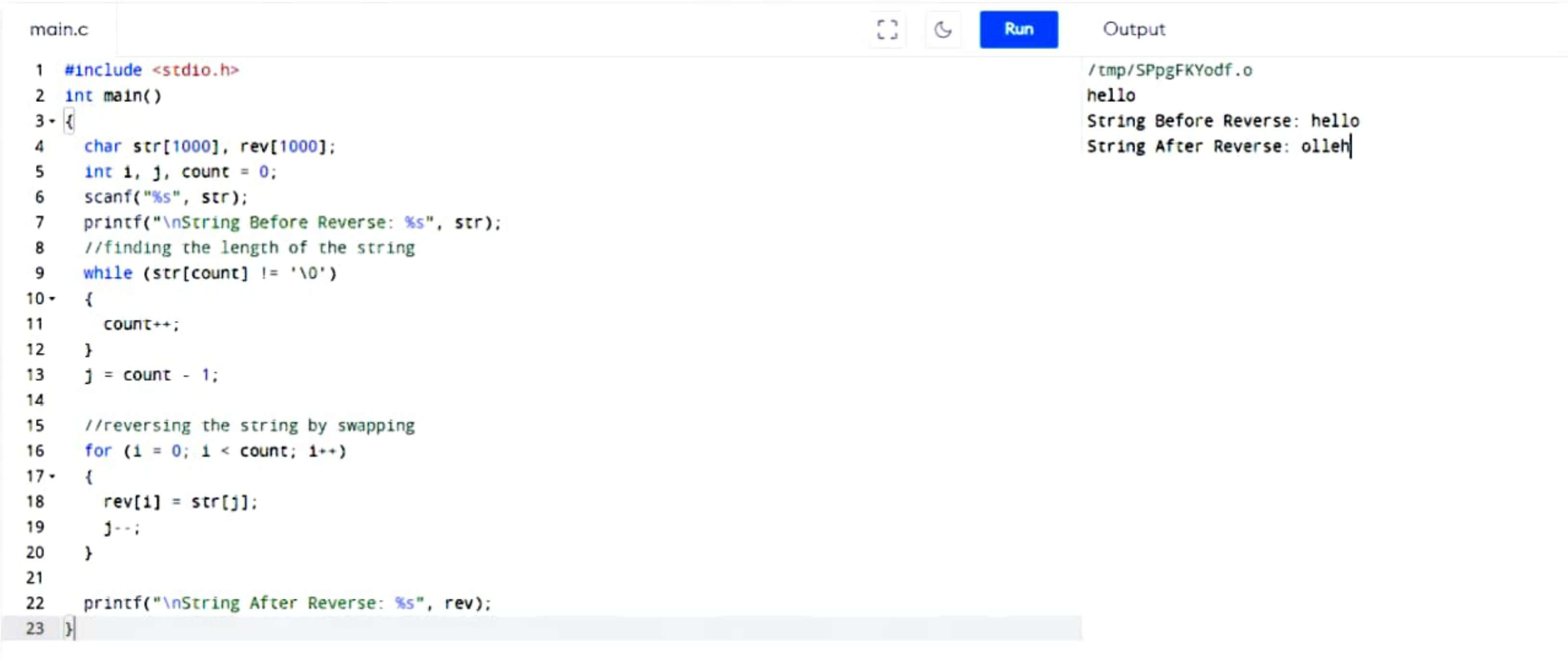


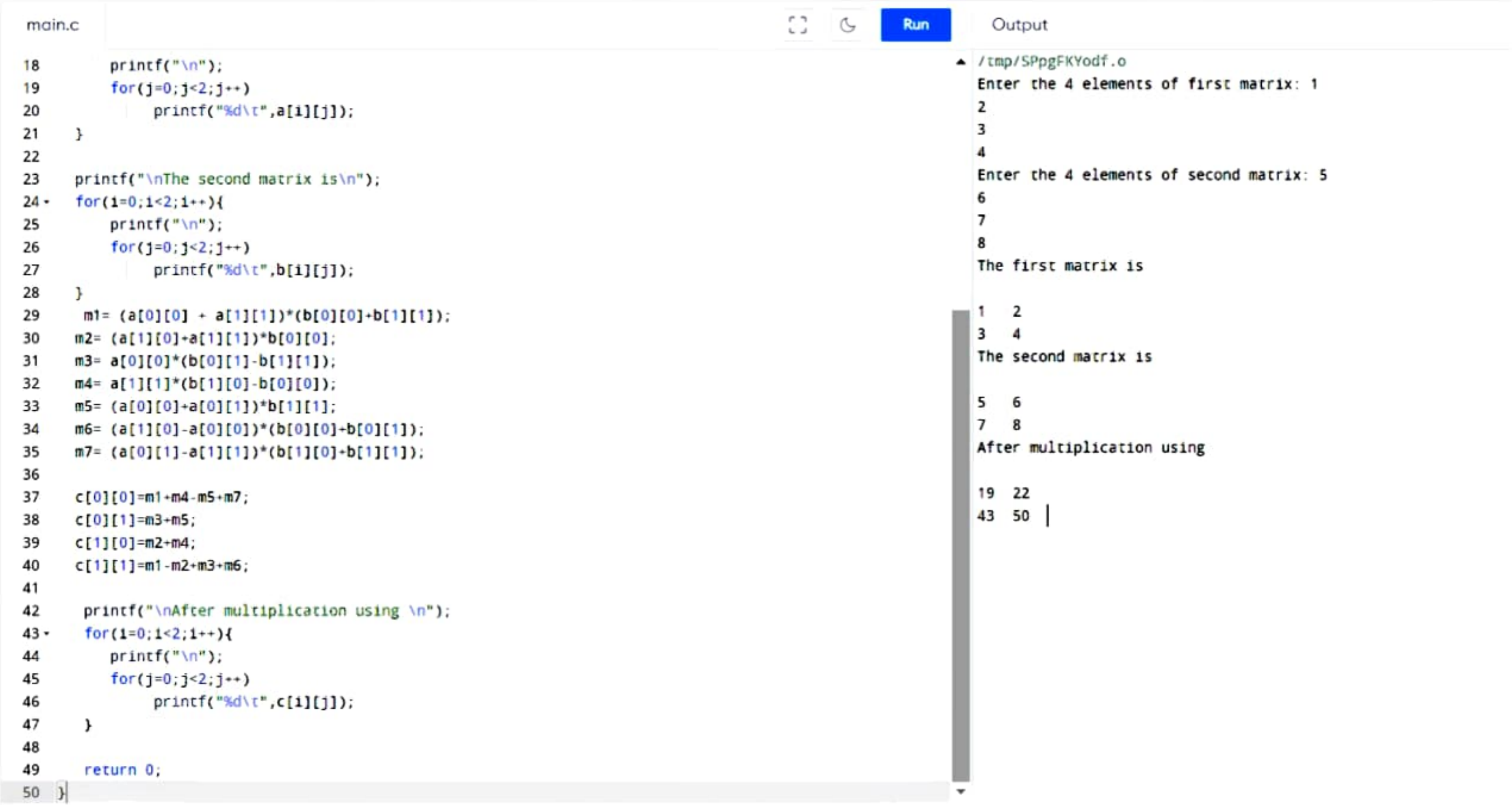
```c
#include <stdio.h>
int main()
{
int i, low, high, mid, n, key, array[100];
printf("Enter number of elementsn");
scanf("%d",&n);
printf("Enter %d integersn", n);
for(i = 0; i < n; i++)
scanf("%d",&array[i]);
printf("Enter value to findn");
scanf("%d", &key);
low = 0;
high = n - 1;
mid = (low+high)/2;
while (low <= high) {
if(array[mid] < key)
low = mid + 1;
else if (array[mid] == key) {
printf("%d found at location %d.n", key, mid+1);
break;
}
else
high = mid - 1;
mid = (low + high)/2;
}
if(low > high)
printf("Not found! %d isn't present in the list.n", key);
return 0;
}
```

```
/tmp/b15r9DVEUf.o
Enter number of elementsn3
Enter 3 integersn78
99
5
Enter value to findn99
99 found at location 2.n
```



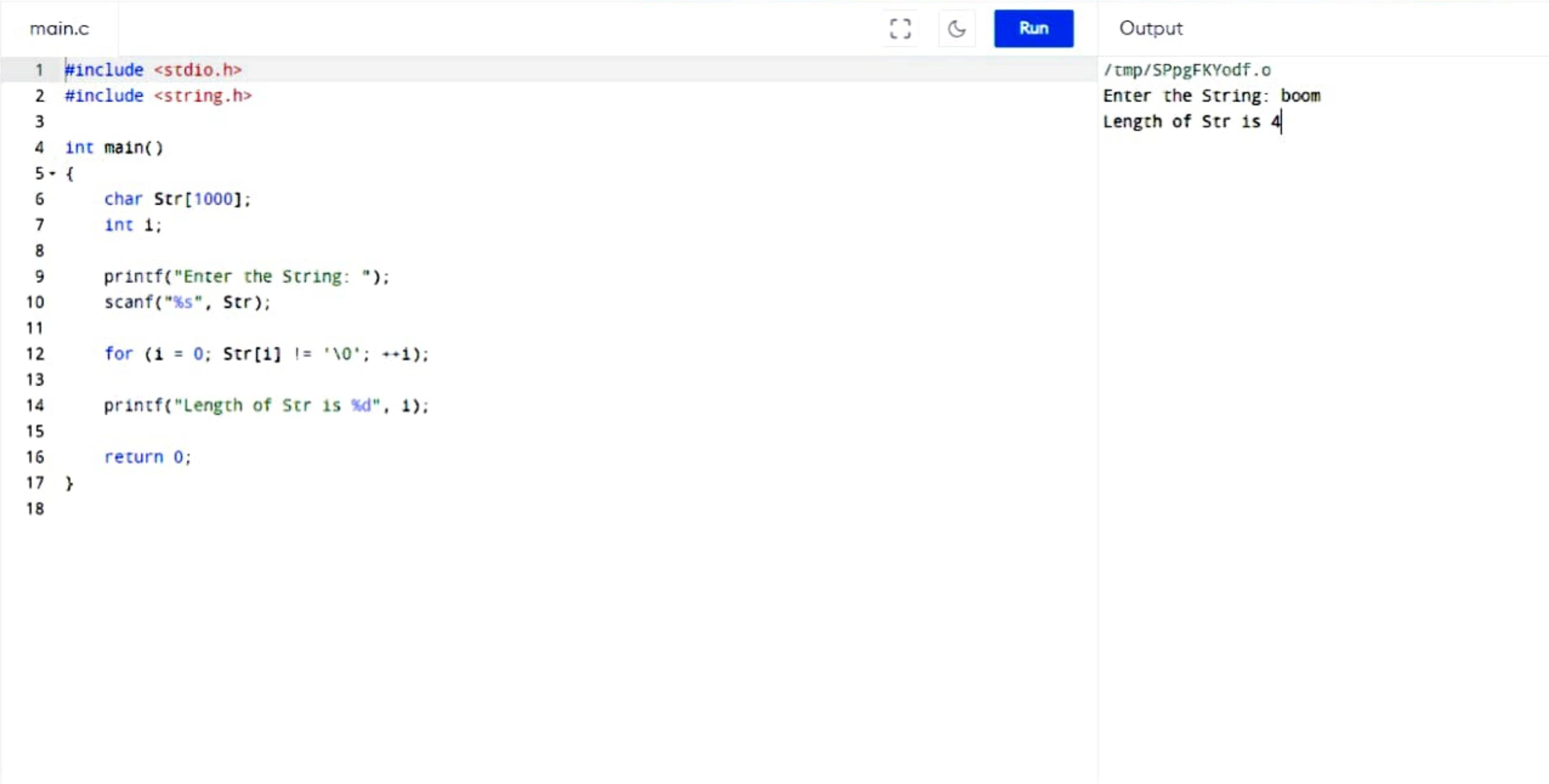
```c
#include <stdio.h>
int main()
{
  char str[1000], rev[1000];
  int i, j, count = 0;
  scanf("%s", str);
  printf("\nString Before Reverse: %s", str);
  //finding the length of the string
  while (str[count] != '\0')
  {
    count++;
  }
  j = count - 1;

  //reversing the string by swapping
  for (i = 0; i < count; i++)
  {
    rev[i] = str[j];
    j--;
  }

  printf("\nString After Reverse: %s", rev);
}
```

```
/tmp/SPpgFKYodf.o
hello
String Before Reverse: hello
String After Reverse: olleh
```



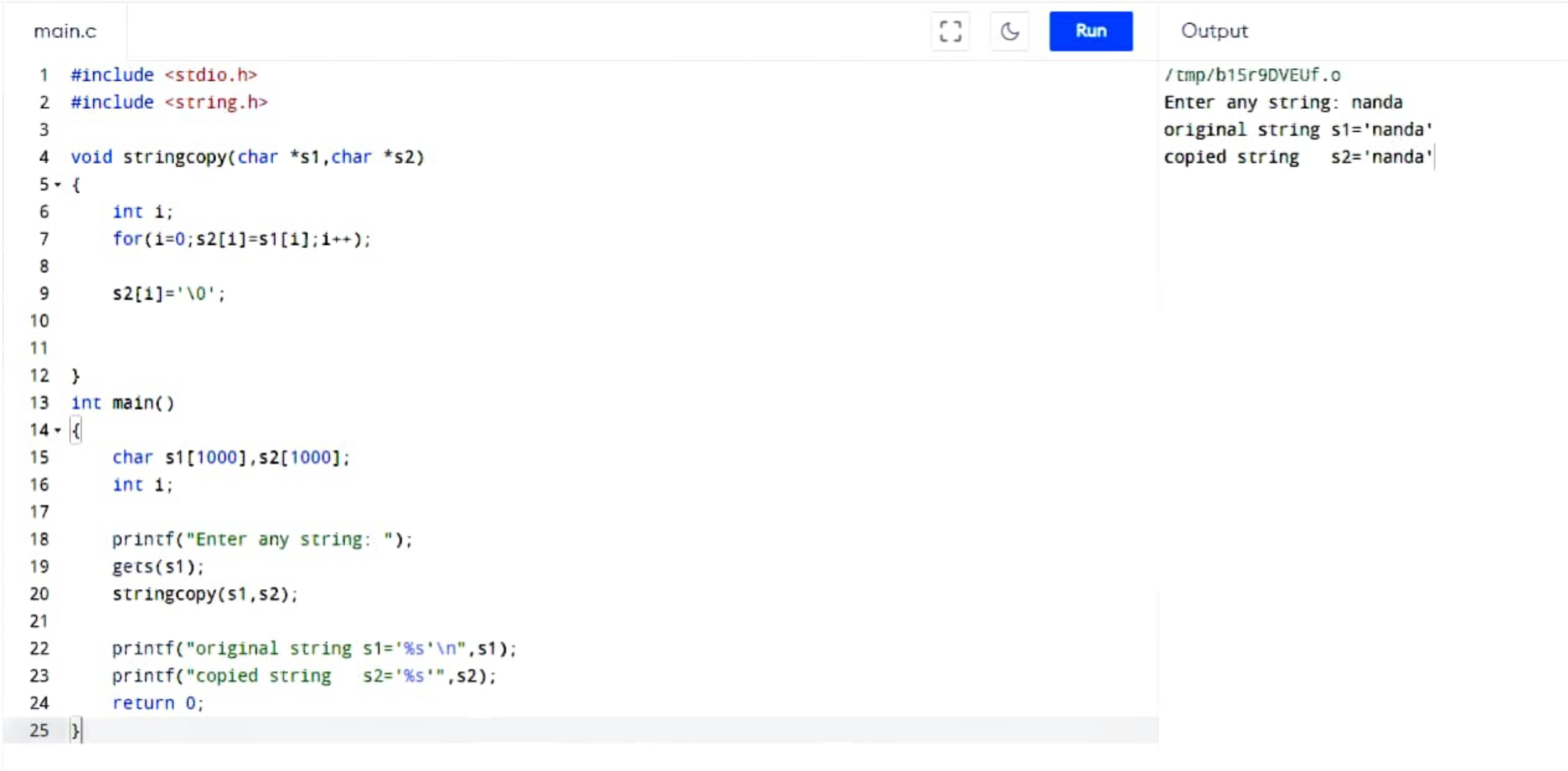
```c
        printf("\n");
        for(j=0;j<2;j++)
            printf("%d\t",a[i][j]);
    }

    printf("\nThe second matrix is\n");
    for(i=0;i<2;i++){
        printf("\n");
        for(j=0;j<2;j++)
            printf("%d\t",b[i][j]);
    }
     m1= (a[0][0] + a[1][1])*(b[0][0]+b[1][1]);
    m2= (a[1][0]+a[1][1])*b[0][0];
    m3= a[0][0]*(b[0][1]-b[1][1]);
    m4= a[1][1]*(b[1][0]-b[0][0]);
    m5= (a[0][0]+a[0][1])*b[1][1];
    m6= (a[1][0]-a[0][0])*(b[0][0]+b[0][1]);
    m7= (a[0][1]-a[1][1])*(b[1][0]+b[1][1]);

    c[0][0]=m1+m4-m5+m7;
    c[0][1]=m3+m5;
    c[1][0]=m2+m4;
    c[1][1]=m1-m2+m3+m6;

     printf("\nAfter multiplication using \n");
     for(i=0;i<2;i++){
        printf("\n");
        for(j=0;j<2;j++)
            printf("%d\t",c[i][j]);
     }

     return 0;
}
```

```
/tmp/SPpgFKYodf.o
Enter the 4 elements of first matrix: 1
2
3
4
Enter the 4 elements of second matrix: 5
6
7
8
The first matrix is

1   2
3   4
The second matrix is

5   6
7   8
After multiplication using

19  22
43  50
```



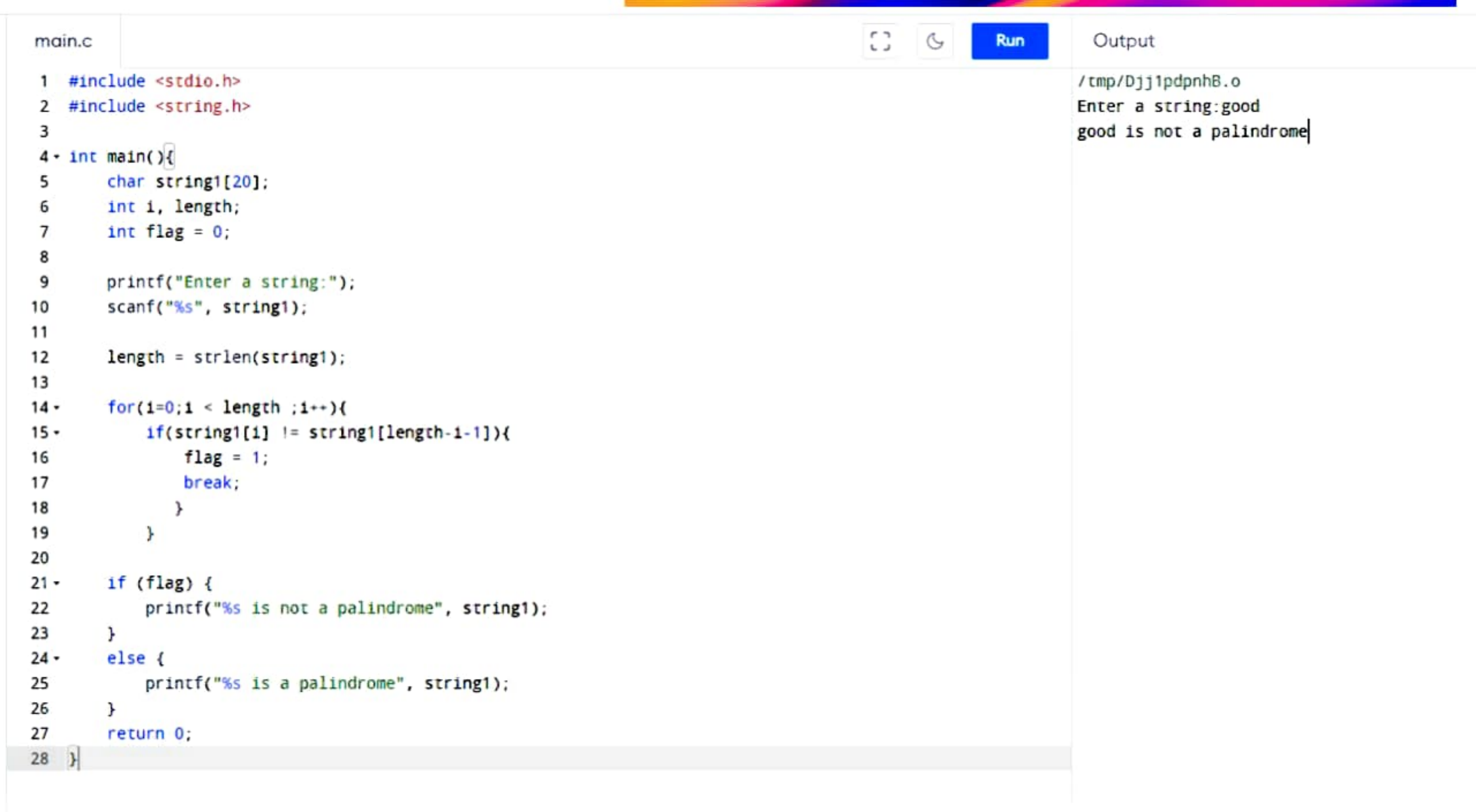
```c
#include <stdio.h>
#include <string.h>

int main()
{
    char Str[1000];
    int i;

    printf("Enter the String: ");
    scanf("%s", Str);

    for (i = 0; Str[i] != '\0'; ++i);

    printf("Length of Str is %d", i);

    return 0;
}
```

```
/tmp/SPpgFKYodf.o
Enter the String: boom
Length of Str is 4
```



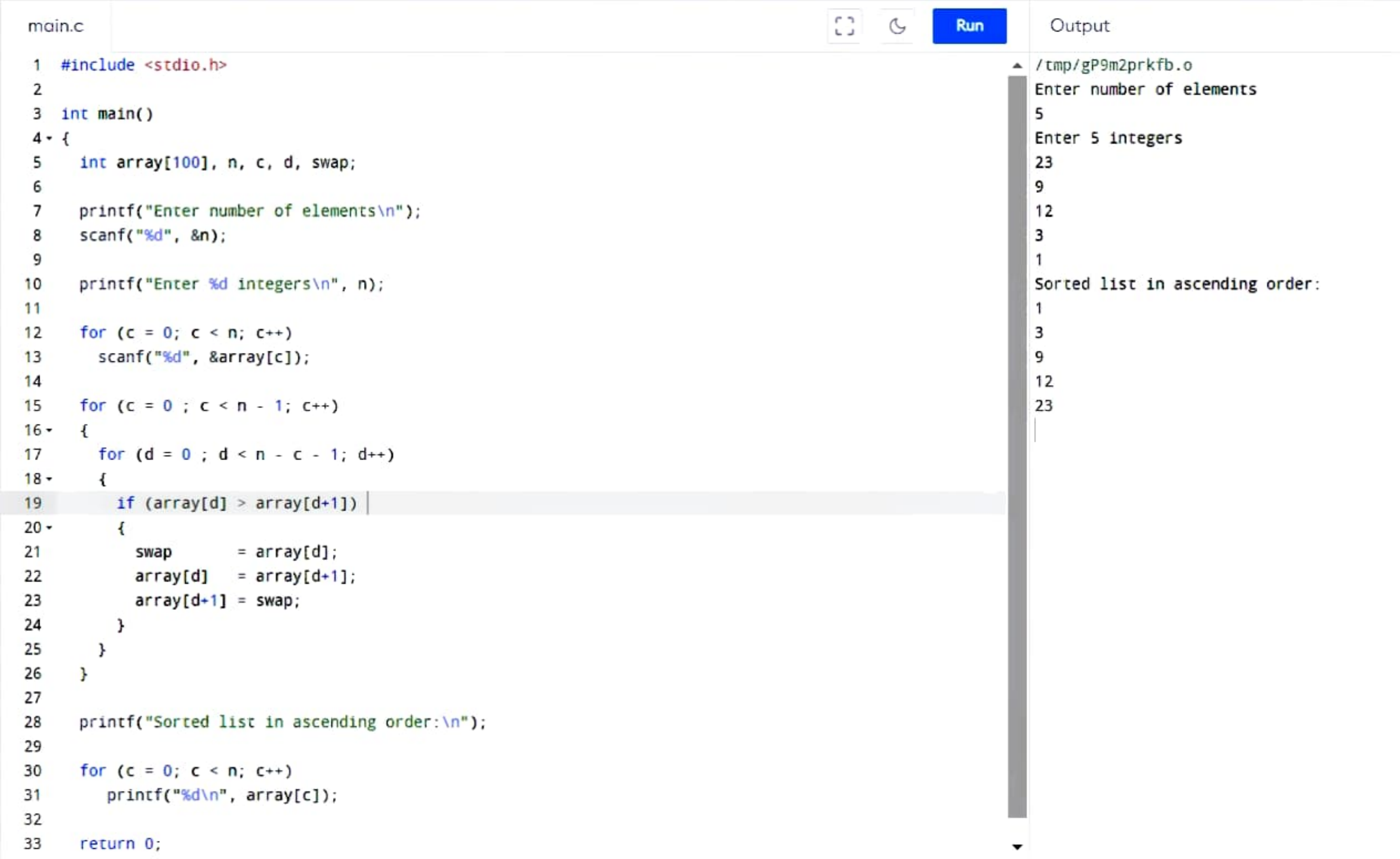
```c
#include <stdio.h>
#include <string.h>

void stringcopy(char *s1,char *s2)
{
    int i;
    for(i=0;s2[i]=s1[i];i++);

    s2[i]='\0';


}
int main()
{
    char s1[1000],s2[1000];
    int i;

    printf("Enter any string: ");
    gets(s1);
    stringcopy(s1,s2);

    printf("original string s1='%s'\n",s1);
    printf("copied string   s2='%s'",s2);
    return 0;
}
```

```
/tmp/b15r9DVEUf.o
Enter any string: nanda
original string s1='nanda'
copied string   s2='nanda'
```



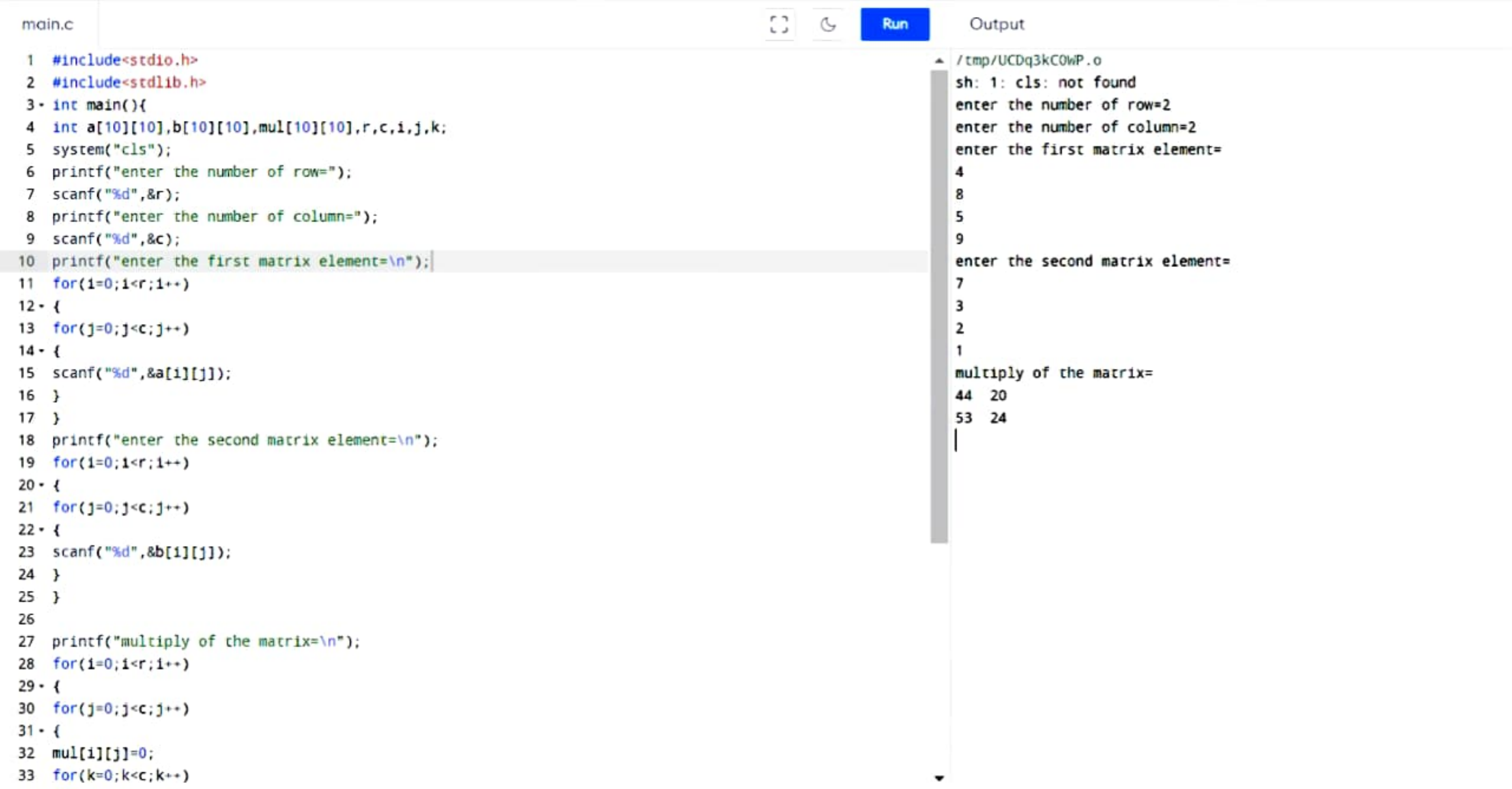
```c
#include <stdio.h>
#include <string.h>

int main(){
    char string1[20];
    int i, length;
    int flag = 0;

    printf("Enter a string:");
    scanf("%s", string1);

    length = strlen(string1);

    for(i=0;i < length ;i++){
        if(string1[i] != string1[length-i-1]){
            flag = 1;
            break;
            }
        }

    if (flag) {
        printf("%s is not a palindrome", string1);
    }
    else {
        printf("%s is a palindrome", string1);
    }
    return 0;
}
```

```
/tmp/Djj1pdpnhB.o
Enter a string:good
good is not a palindrome
```



```c
#include <stdio.h>

int main()
{
  int array[100], n, c, d, swap;

  printf("Enter number of elements\n");
  scanf("%d", &n);

  printf("Enter %d integers\n", n);

  for (c = 0; c < n; c++)
    scanf("%d", &array[c]);

  for (c = 0 ; c < n - 1; c++)
  {
    for (d = 0 ; d < n - c - 1; d++)
    {
      if (array[d] > array[d+1])
      {
        swap       = array[d];
        array[d]   = array[d+1];
        array[d+1] = swap;
      }
    }
  }

  printf("Sorted list in ascending order:\n");

  for (c = 0; c < n; c++)
     printf("%d\n", array[c]);

  return 0;
```

```
/tmp/gP9m2prkfb.o
Enter number of elements
5
Enter 5 integers
23
9
12
3
1
Sorted list in ascending order:
1
3
9
12
23
```



```c
#include<stdio.h>
#include<stdlib.h>
int main(){
int a[10][10],b[10][10],mul[10][10],r,c,i,j,k;
system("cls");
printf("enter the number of row=");
scanf("%d",&r);
printf("enter the number of column=");
scanf("%d",&c);
printf("enter the first matrix element=\n");
for(i=0;i<r;i++)
{
for(j=0;j<c;j++)
{
scanf("%d",&a[i][j]);
}
}
printf("enter the second matrix element=\n");
for(i=0;i<r;i++)
{
for(j=0;j<c;j++)
{
scanf("%d",&b[i][j]);
}
}

printf("multiply of the matrix=\n");
for(i=0;i<r;i++)
{
for(j=0;j<c;j++)
{
mul[i][j]=0;
for(k=0;k<c;k++)
```

```
/tmp/UCDq3kCOWP.o
sh: 1: cls: not found
enter the number of row=2
enter the number of column=2
enter the first matrix element=
4
8
5
9
enter the second matrix element=
7
3
2
1
multiply of the matrix=
44  20
53  24
```