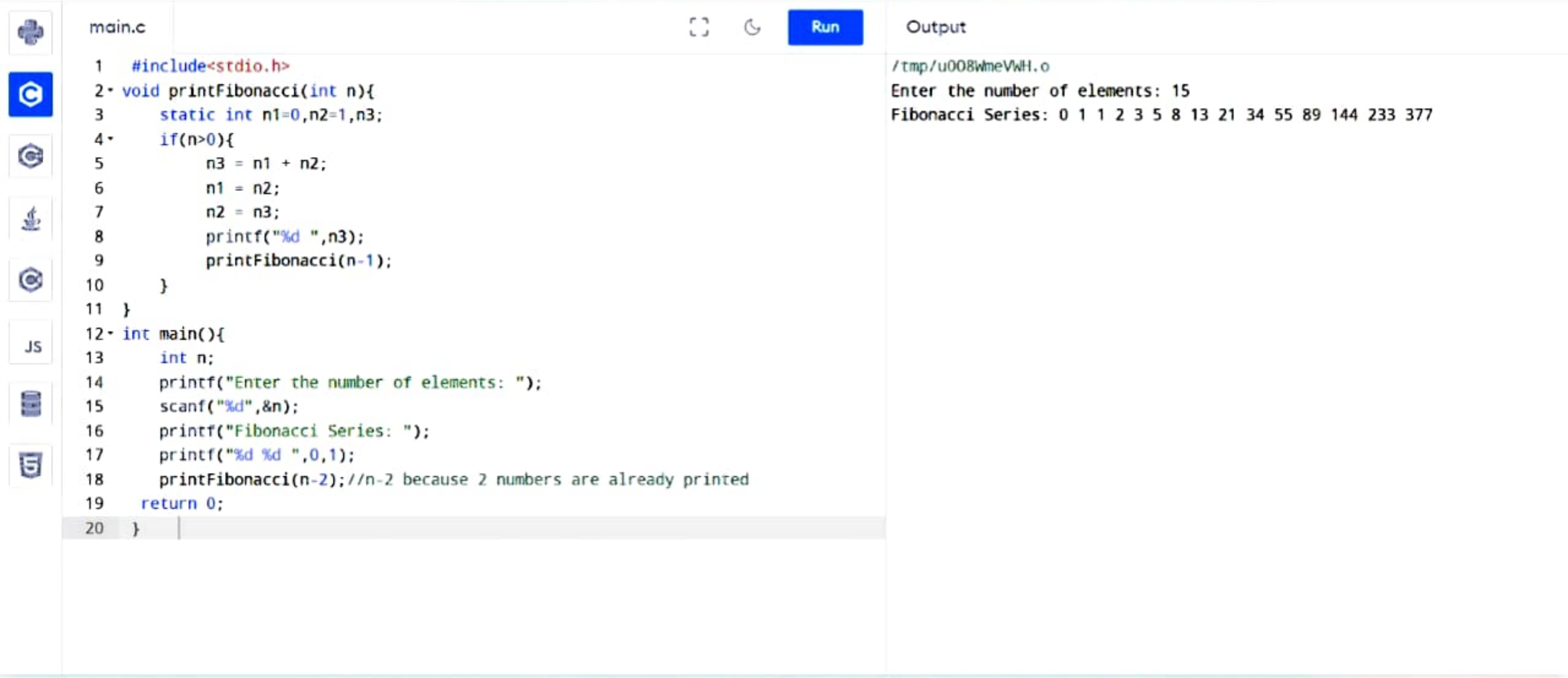
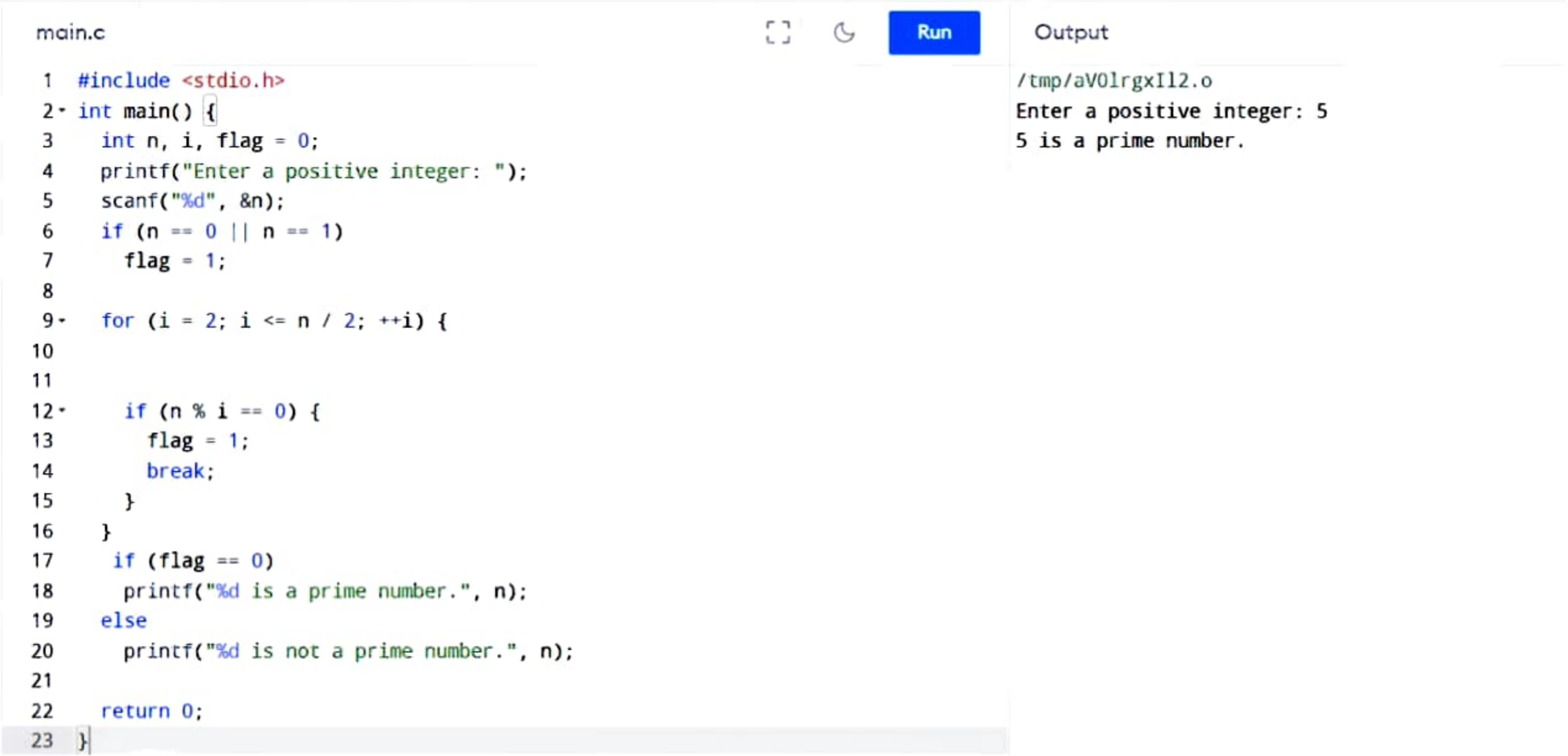


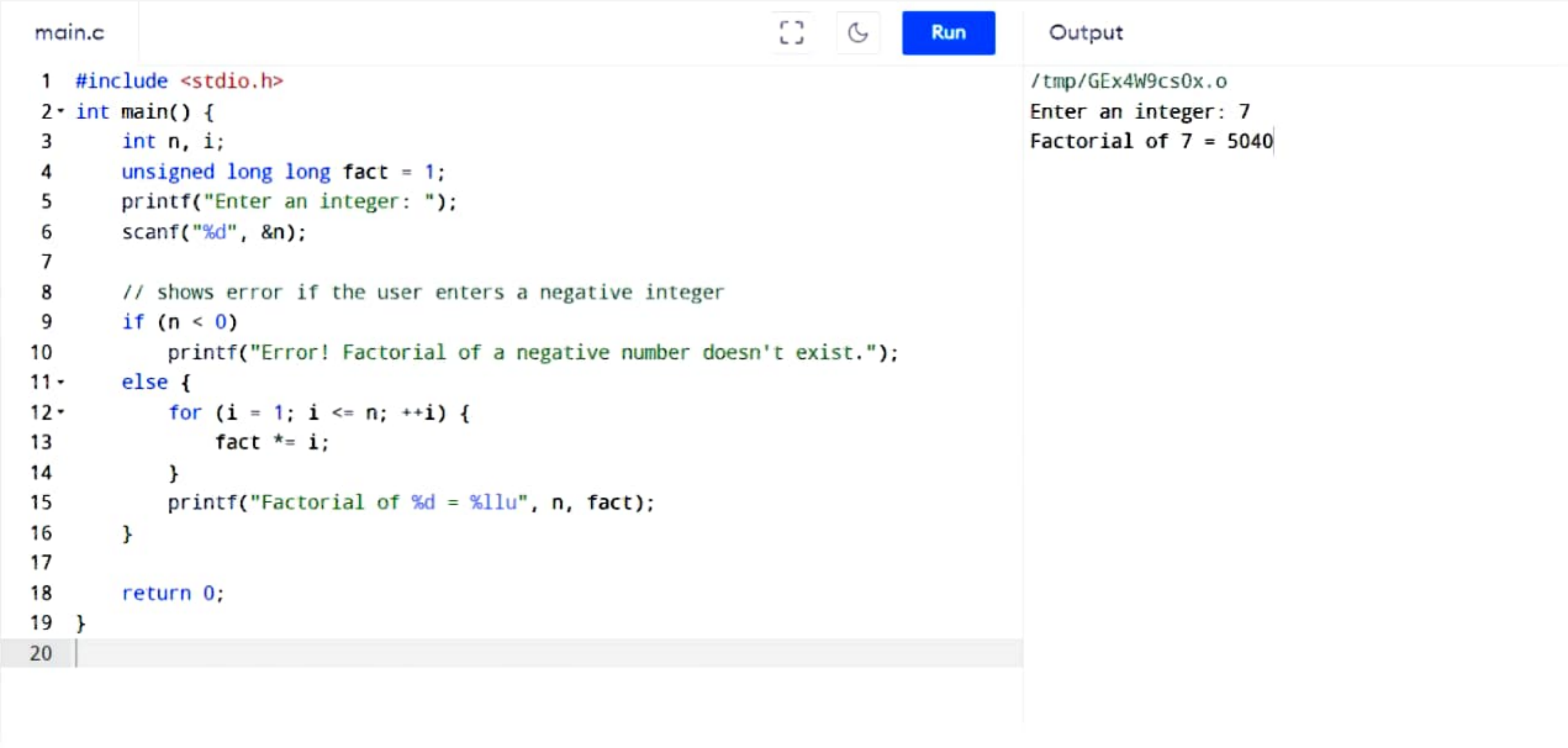
```c
#include<stdio.h>
void printFibonacci(int n){
    static int n1=0,n2=1,n3;
    if(n>0){
         n3 = n1 + n2;
         n1 = n2;
         n2 = n3;
         printf("%d ",n3);
         printFibonacci(n-1);
    }
}
int main(){
    int n;
    printf("Enter the number of elements: ");
    scanf("%d",&n);
    printf("Fibonacci Series: ");
    printf("%d %d ",0,1);
    printFibonacci(n-2);//n-2 because 2 numbers are already printed
  return 0;
 }
```

```
/tmp/u008WmeVWH.o
Enter the number of elements: 15
Fibonacci Series: 0 1 1 2 3 5 8 13 21 34 55 89 144 233 377
```



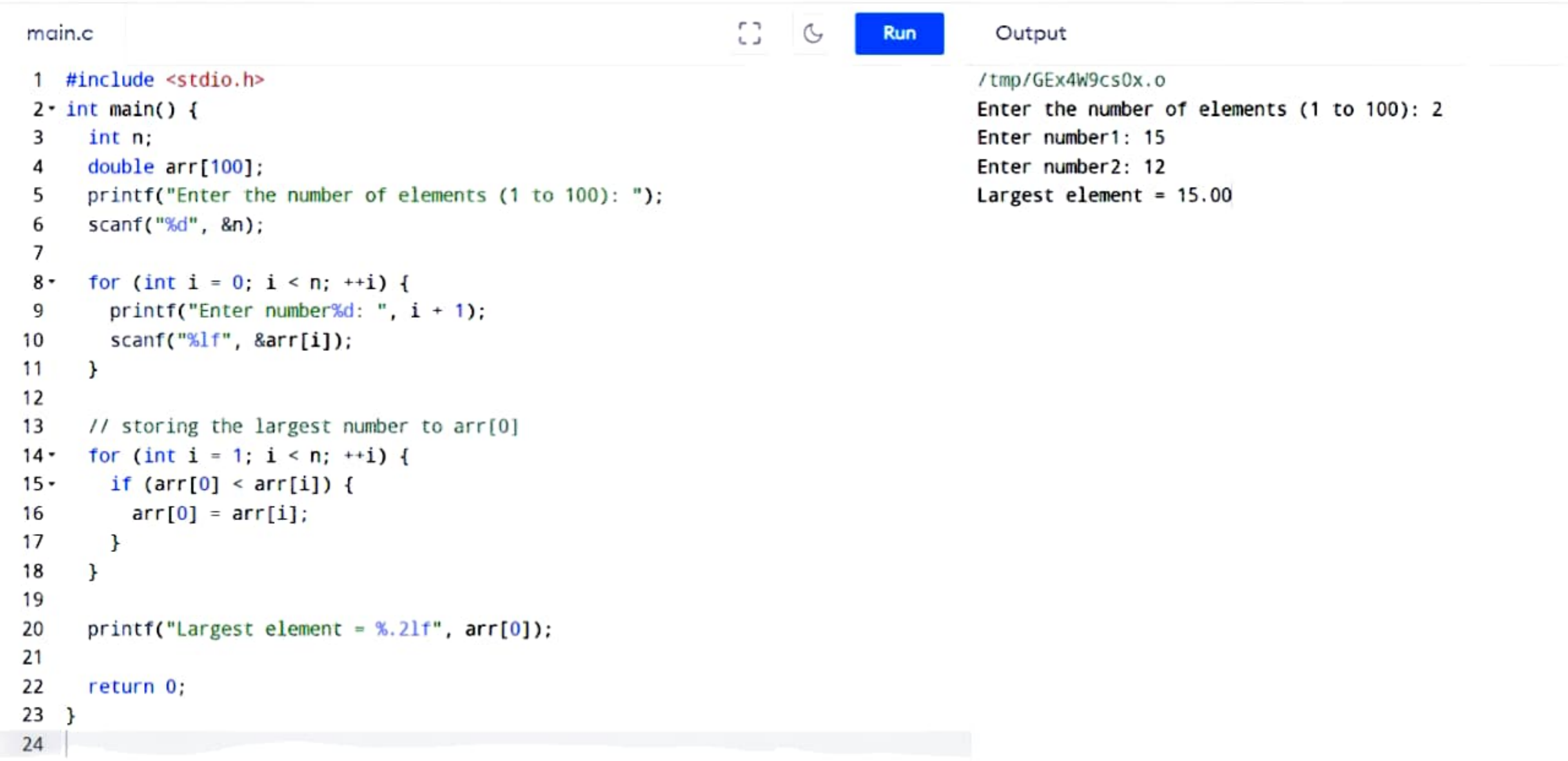
```c
#include <stdio.h>
int main() {
  int n, i, flag = 0;
  printf("Enter a positive integer: ");
  scanf("%d", &n);
  if (n == 0 || n == 1)
    flag = 1;

  for (i = 2; i <= n / 2; ++i) {


    if (n % i == 0) {
      flag = 1;
      break;
    }
  }
   if (flag == 0)
    printf("%d is a prime number.", n);
  else
    printf("%d is not a prime number.", n);

  return 0;
}
```

```
/tmp/aV0lrgxIl2.o
Enter a positive integer: 5
5 is a prime number.
```



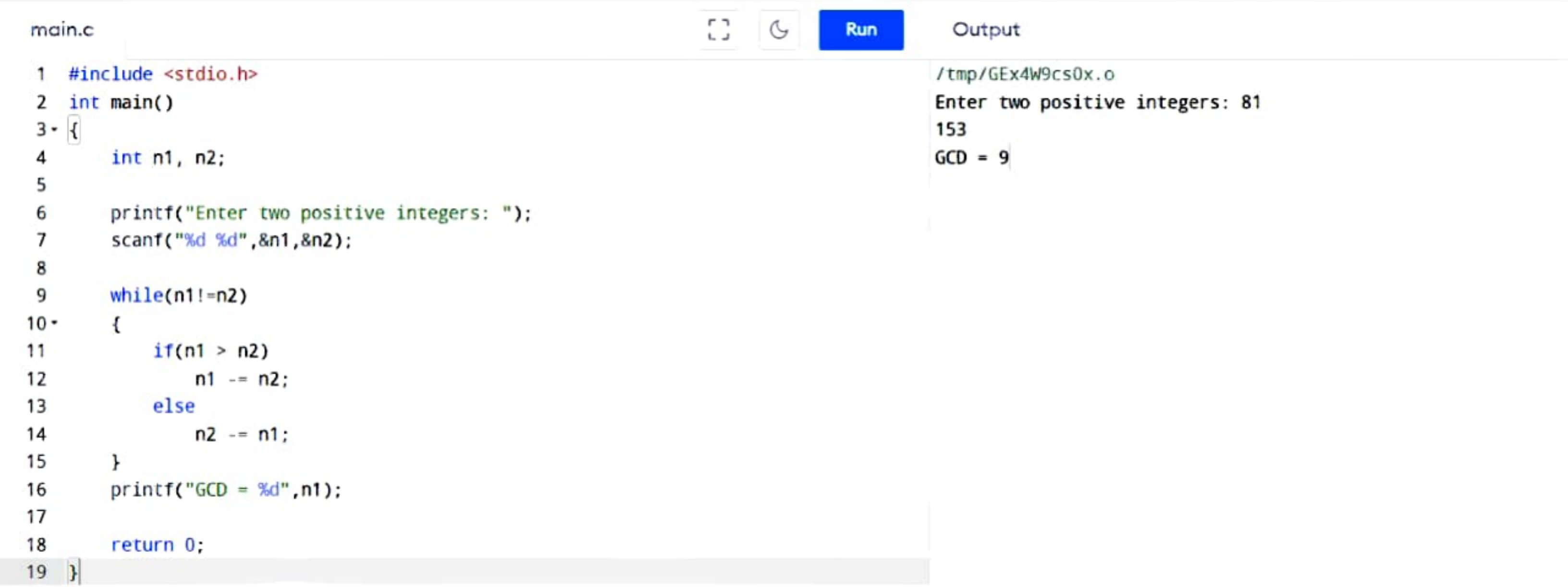
```c
#include <stdio.h>
int main() {
    int n, i;
    unsigned long long fact = 1;
    printf("Enter an integer: ");
    scanf("%d", &n);

    // shows error if the user enters a negative integer
    if (n < 0)
        printf("Error! Factorial of a negative number doesn't exist.");
    else {
        for (i = 1; i <= n; ++i) {
            fact *= i;
        }
        printf("Factorial of %d = %llu", n, fact);
    }

    return 0;
}
```

```
/tmp/GEx4W9csOx.o
Enter an integer: 7
Factorial of 7 = 5040
```



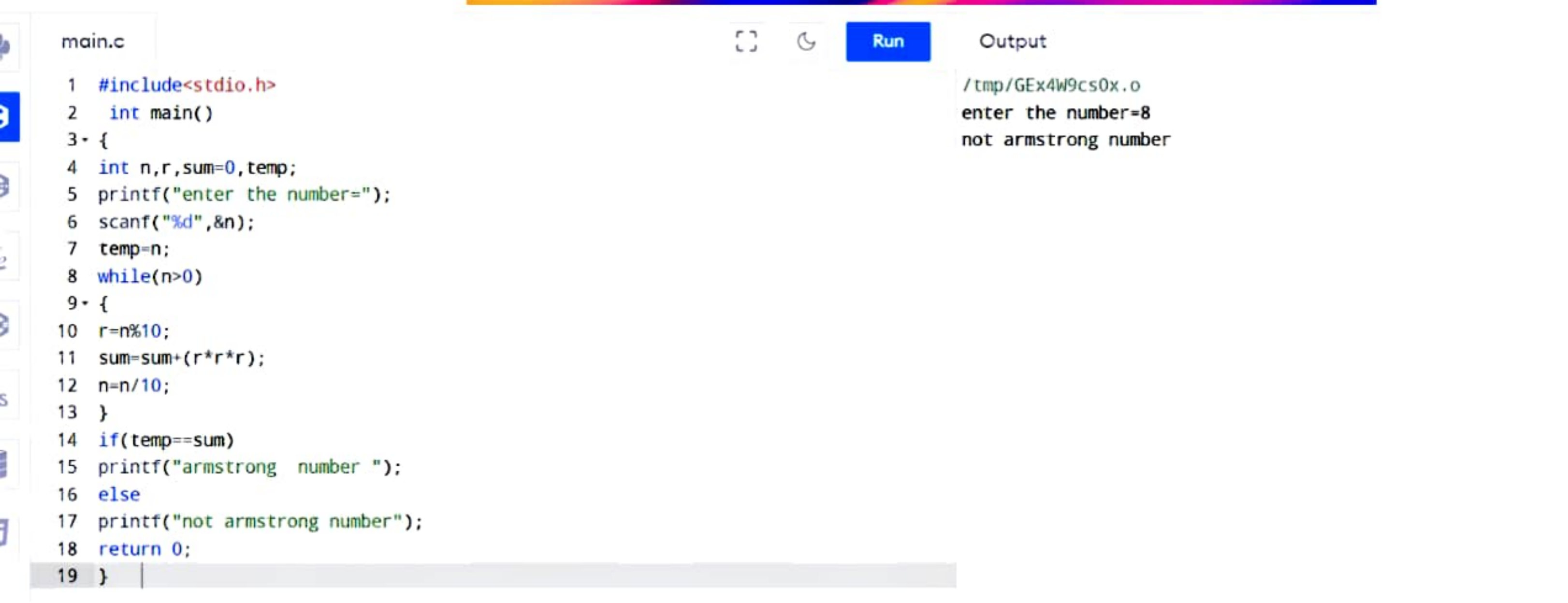
```c
#include <stdio.h>
int main() {
  int n;
  double arr[100];
  printf("Enter the number of elements (1 to 100): ");
  scanf("%d", &n);

  for (int i = 0; i < n; ++i) {
    printf("Enter number%d: ", i + 1);
    scanf("%lf", &arr[i]);
  }

  // storing the largest number to arr[0]
  for (int i = 1; i < n; ++i) {
    if (arr[0] < arr[i]) {
      arr[0] = arr[i];
    }
  }

  printf("Largest element = %.2lf", arr[0]);

  return 0;
}

```

```
/tmp/GEx4W9csOx.o
Enter the number of elements (1 to 100): 2
Enter number1: 15
Enter number2: 12
Largest element = 15.00
```



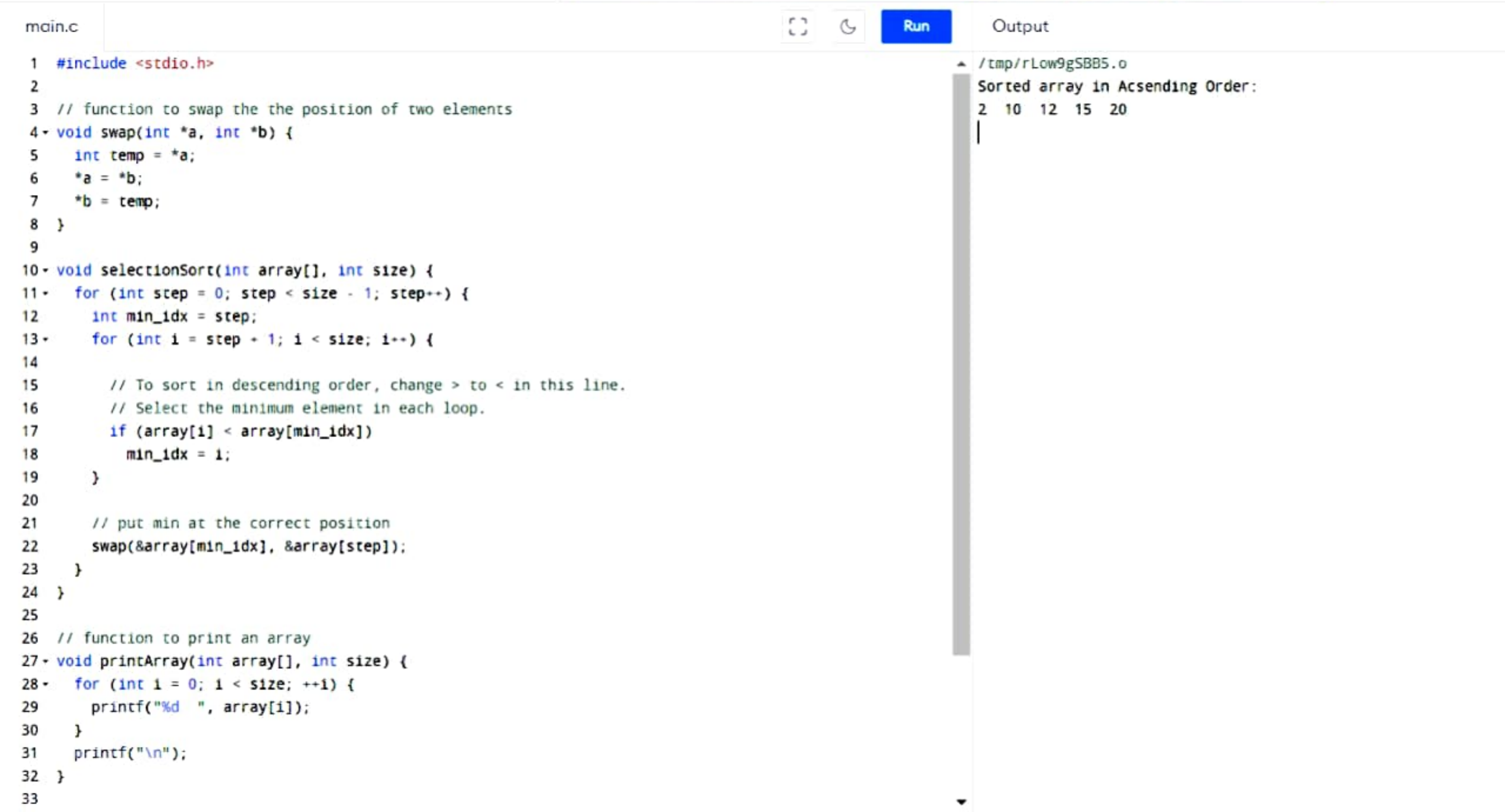
```c
#include <stdio.h>
int main()
{
    int n1, n2;

    printf("Enter two positive integers: ");
    scanf("%d %d",&n1,&n2);

    while(n1!=n2)
    {
        if(n1 > n2)
            n1 -= n2;
        else
            n2 -= n1;
    }
    printf("GCD = %d",n1);

    return 0;
}
```

```
/tmp/GEx4W9cs0x.o
Enter two positive integers: 81
153
GCD = 9
```



```c
#include<stdio.h>
 int main()
{
int n,r,sum=0,temp;
printf("enter the number=");
scanf("%d",&n);
temp=n;
while(n>0)
{
r=n%10;
sum=sum+(r*r*r);
n=n/10;
}
if(temp==sum)
printf("armstrong  number ");
else
printf("not armstrong number");
return 0;
}
```

```
/tmp/GEx4W9csOx.o
enter the number=8
not armstrong number
```



```c
#include <stdio.h>

// function to swap the the position of two elements
void swap(int *a, int *b) {
  int temp = *a;
  *a = *b;
  *b = temp;
}

void selectionSort(int array[], int size) {
  for (int step = 0; step < size - 1; step++) {
    int min_idx = step;
    for (int i = step + 1; i < size; i++) {

      // To sort in descending order, change > to < in this line.
      // Select the minimum element in each loop.
      if (array[i] < array[min_idx])
        min_idx = i;
    }

    // put min at the correct position
    swap(&array[min_idx], &array[step]);
  }
}

// function to print an array
void printArray(int array[], int size) {
  for (int i = 0; i < size; ++i) {
    printf("%d  ", array[i]);
  }
  printf("\n");
}

```

```
/tmp/rLow9gSBB5.o
Sorted array in Acsending Order:
2  10  12  15  20
```