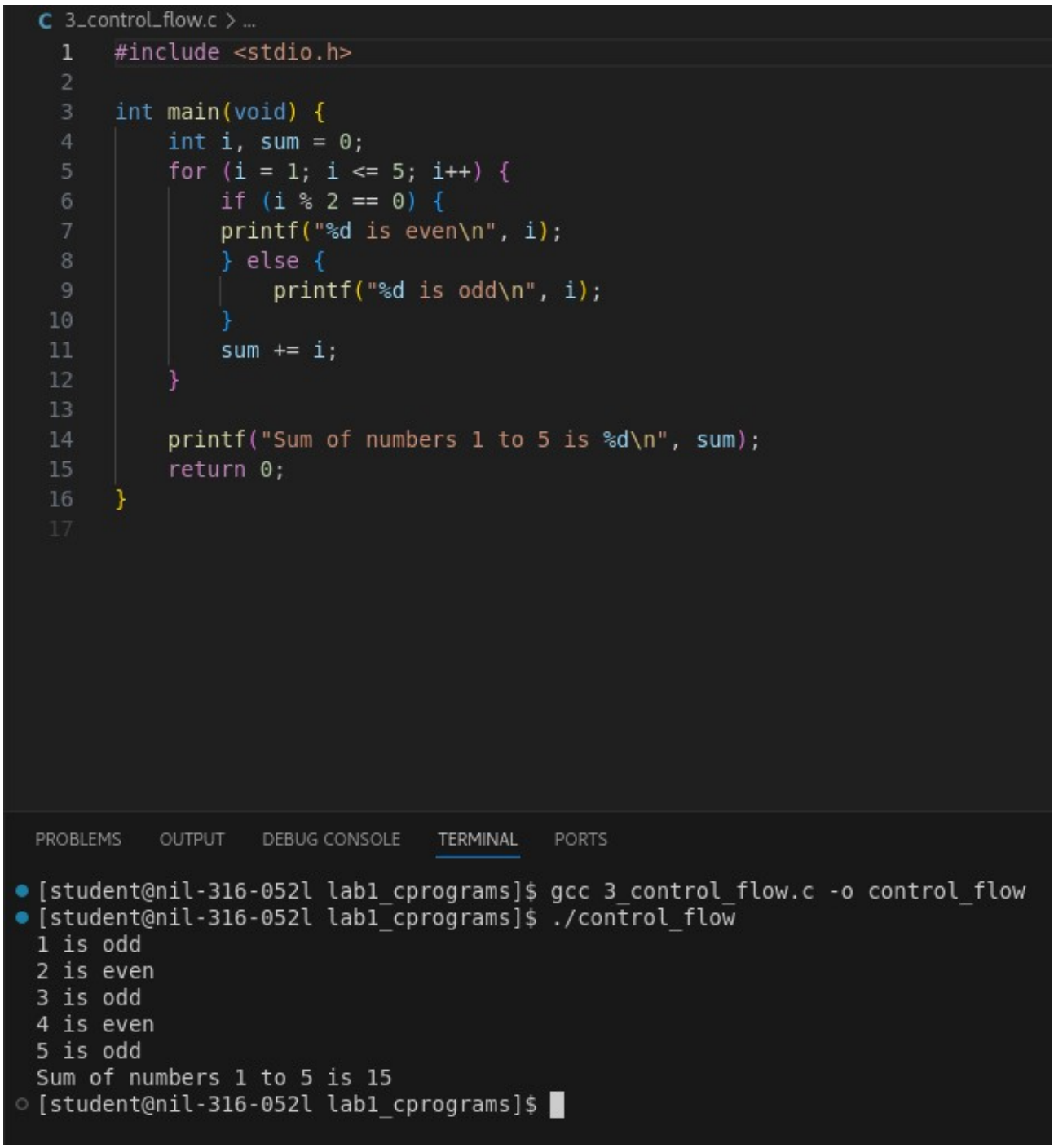
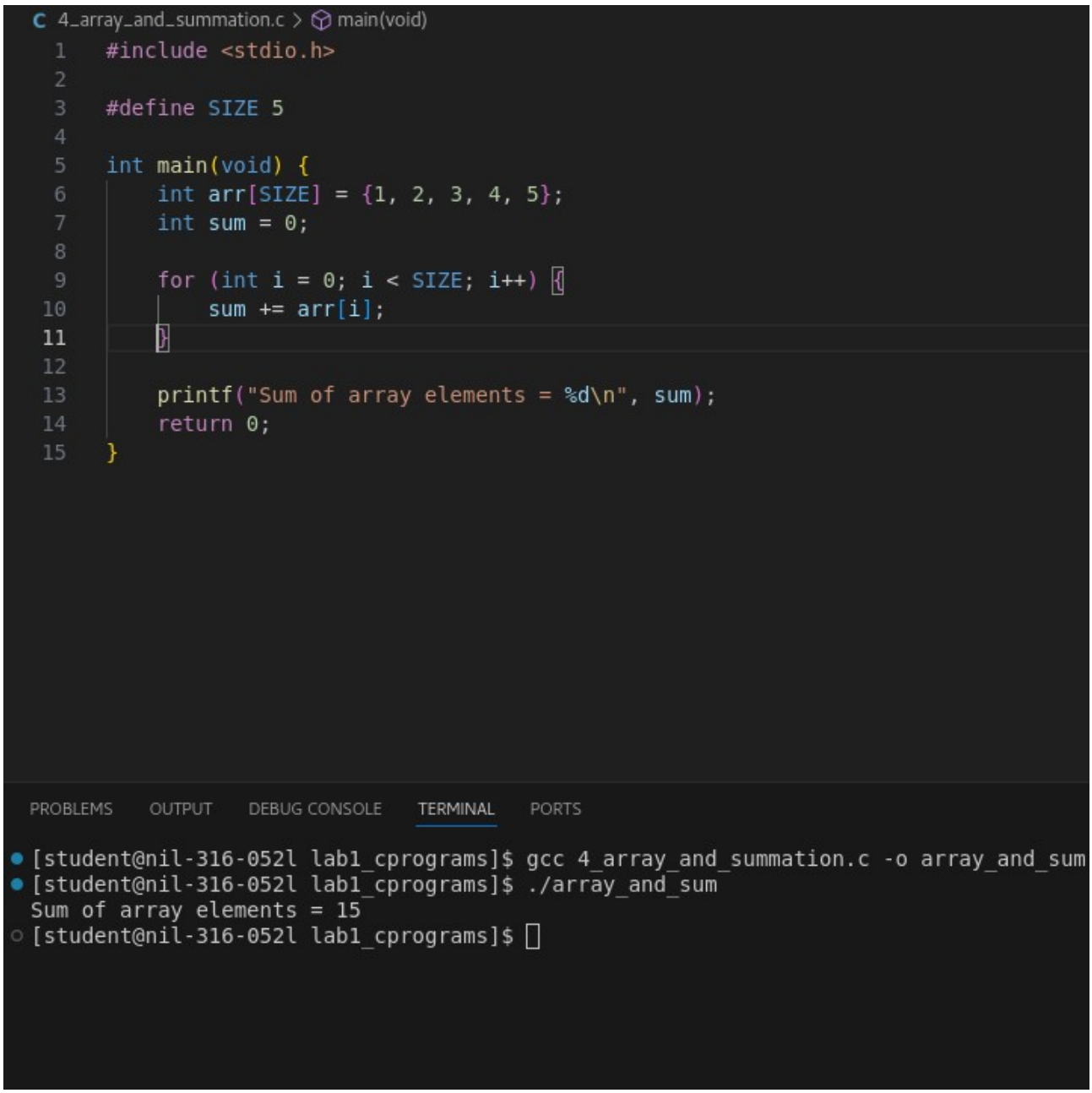
Name: Kakaraparty Srirama Srikar
Roll Number: 142301013
Lab: LAB 1 C PROGRAMS

The above is the image of the program and output of Program 2.1, which is a program that prints “Hello, World!”

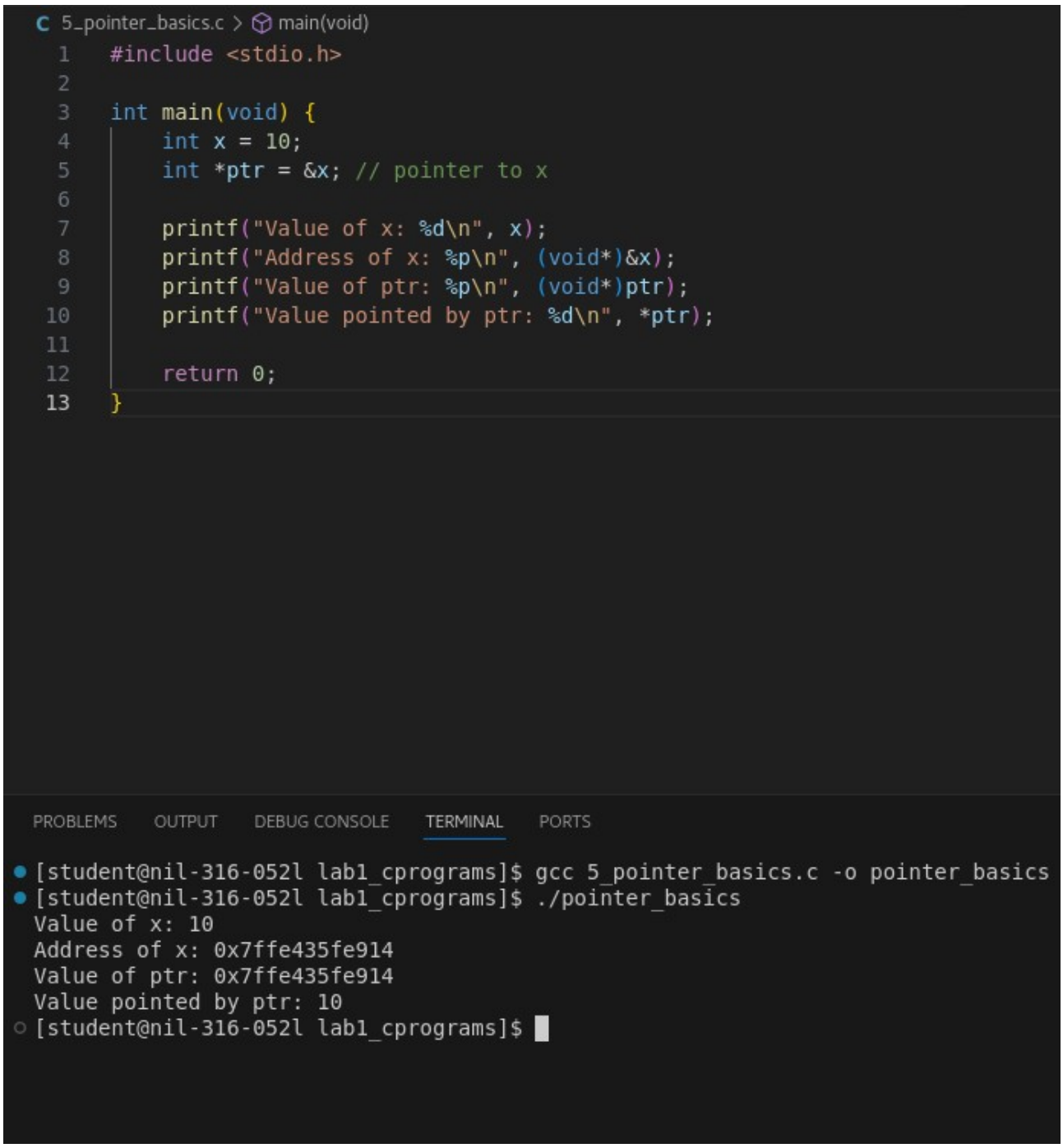
The above is the image of the program and output of Program 2.2, which is a program that takes a number as an input and then prints it...



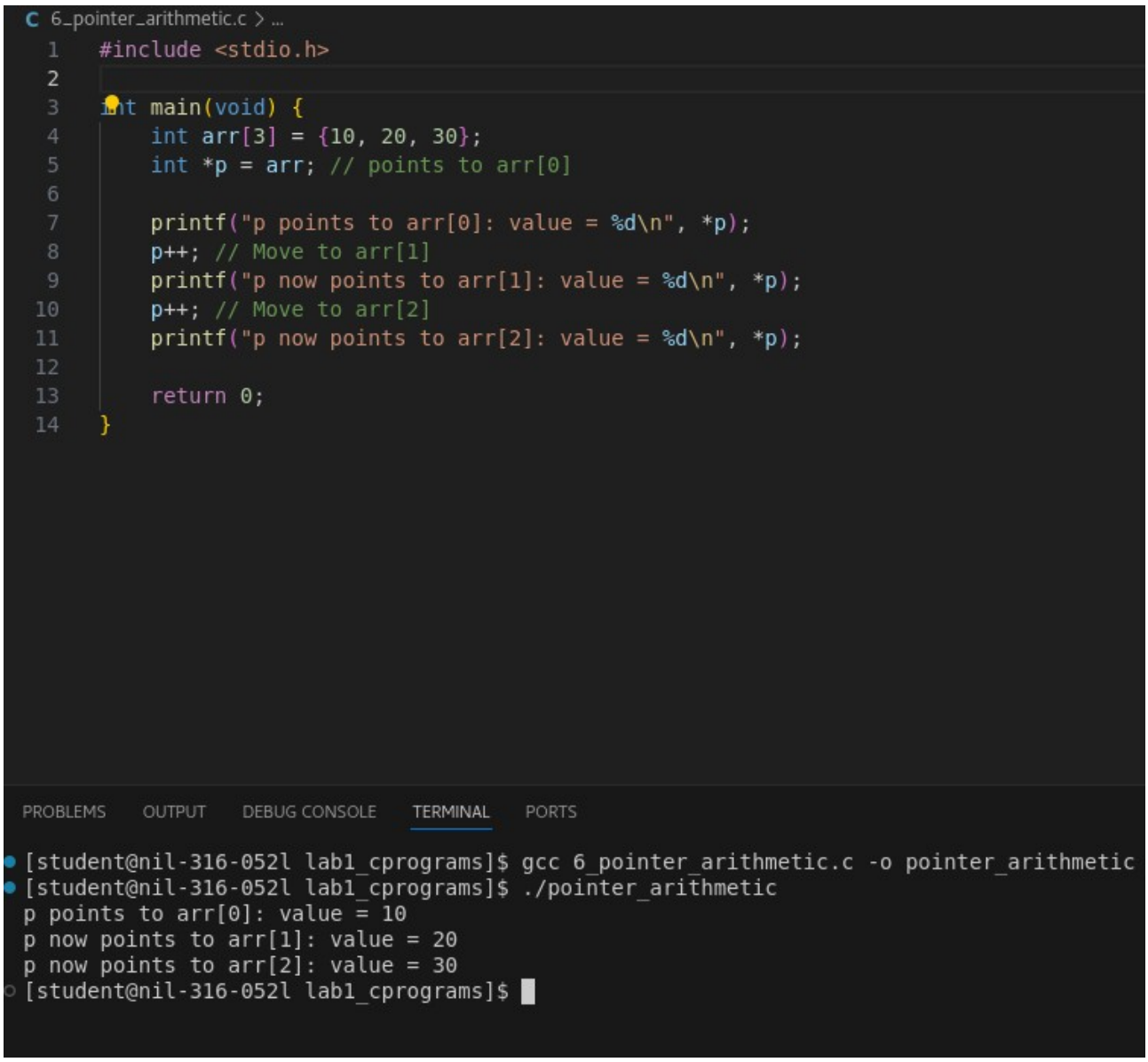
The above is the image of the program and output of Program 2.3.



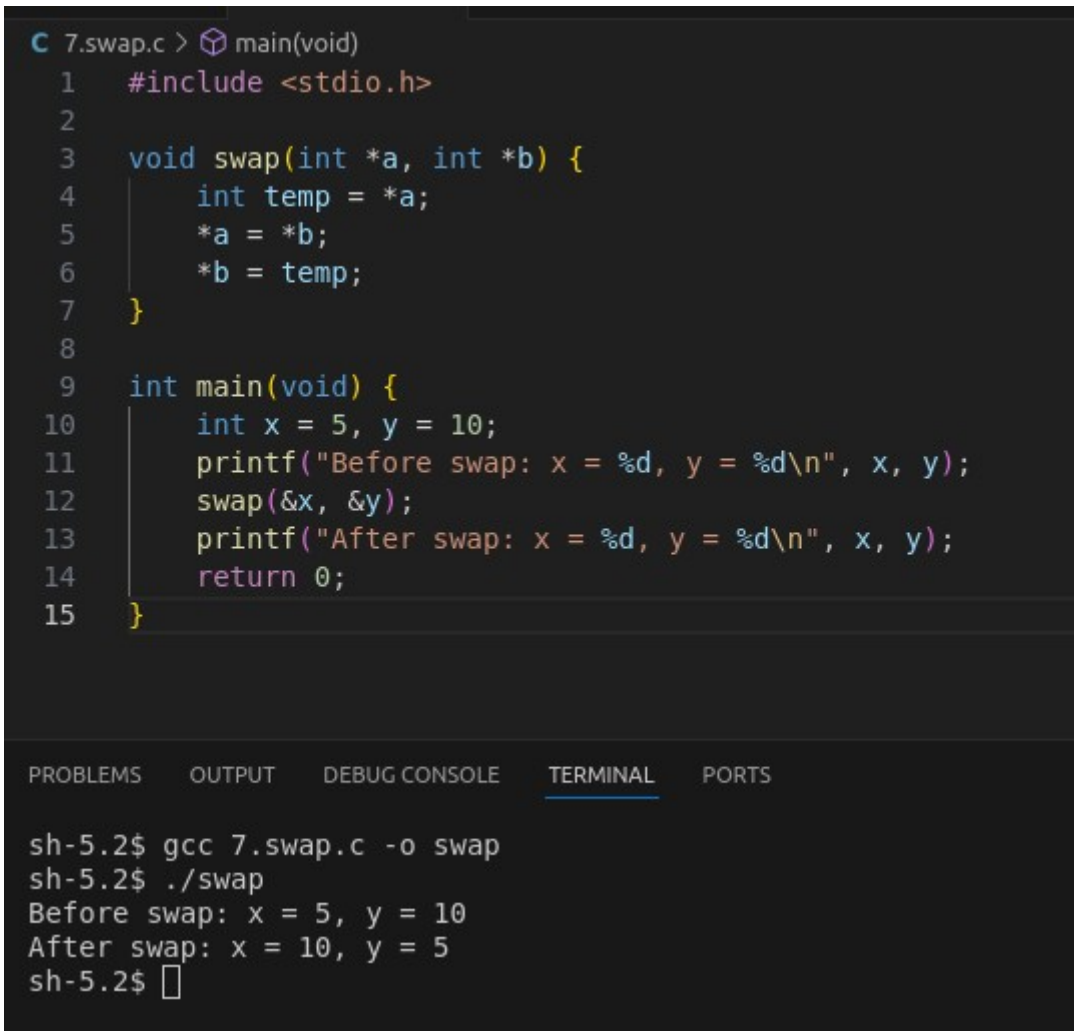
The above is the image of the program and output of Program 2.4.



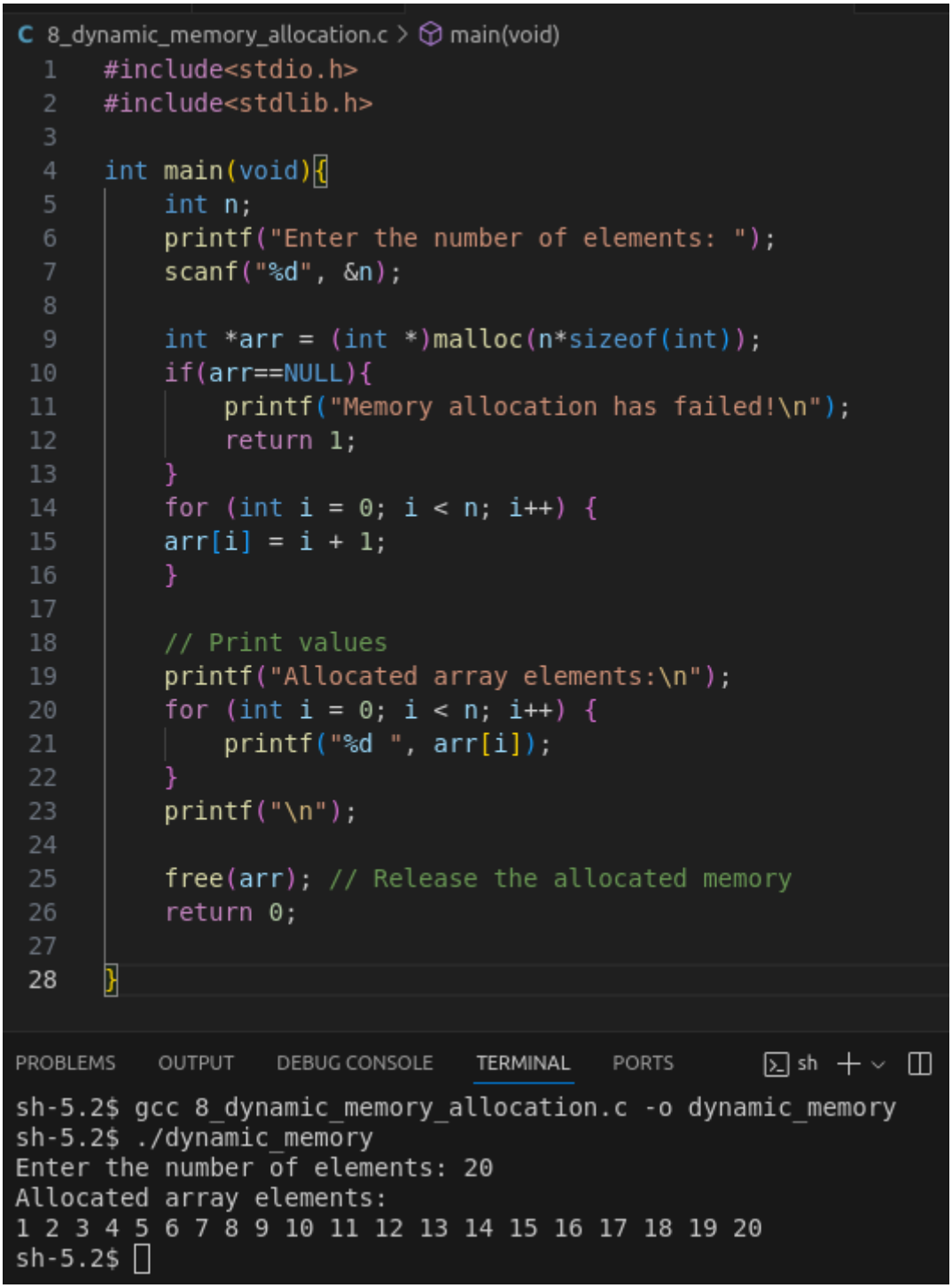
The above is the image of the program and output of Program 2.5.



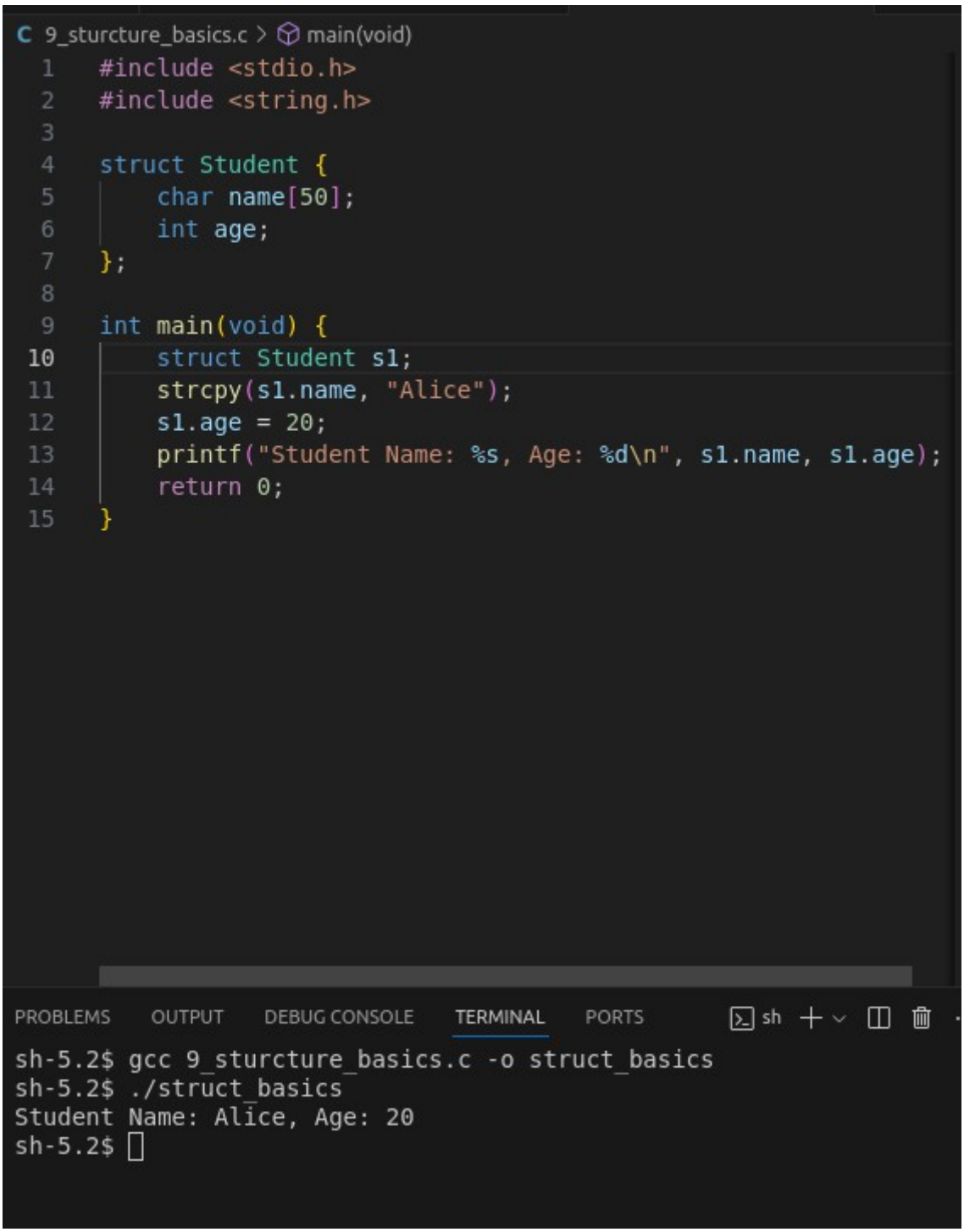
The above is the image of the program and output of Program 2.6.



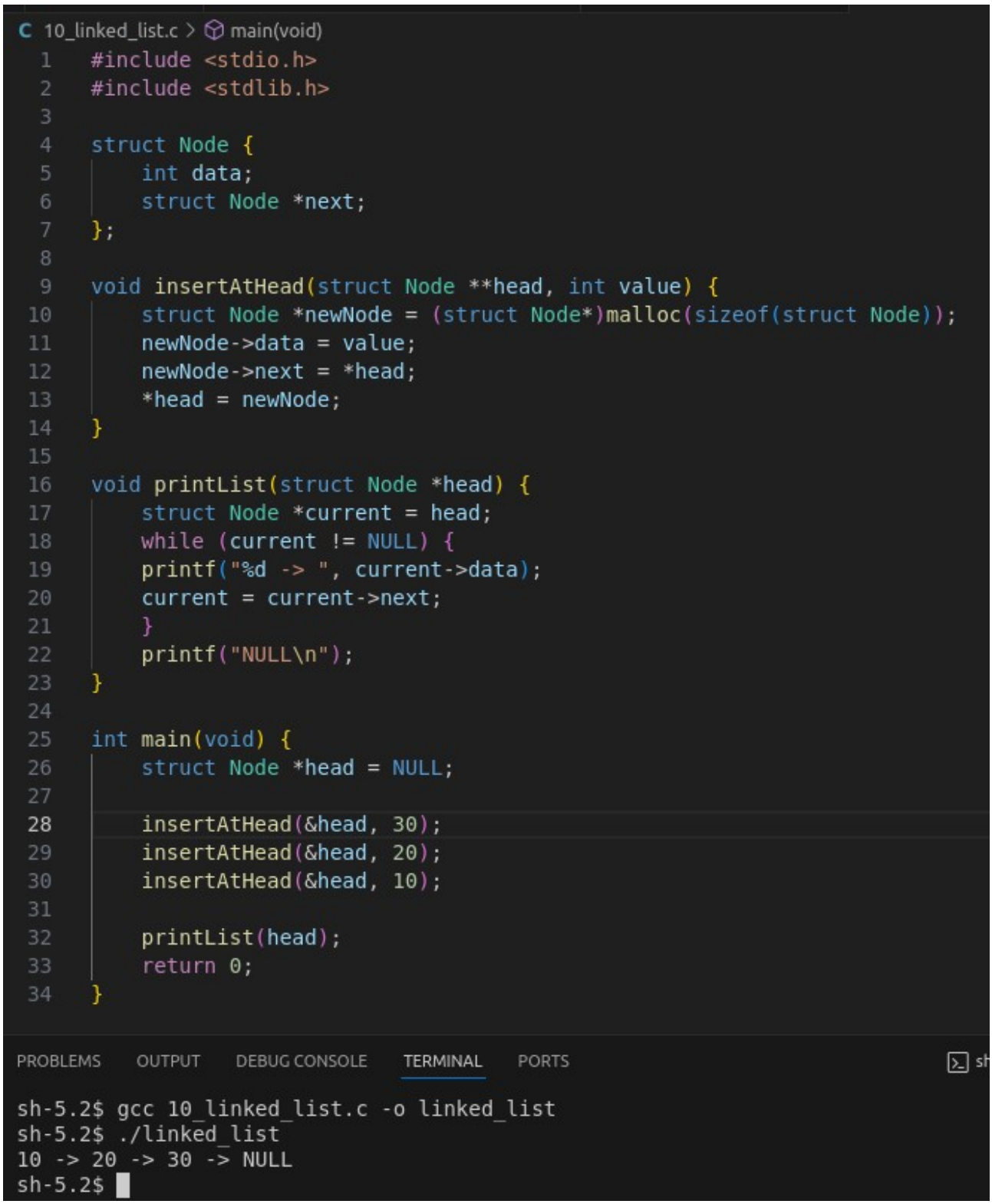
The above is the image of the program and output of Program 2.7.



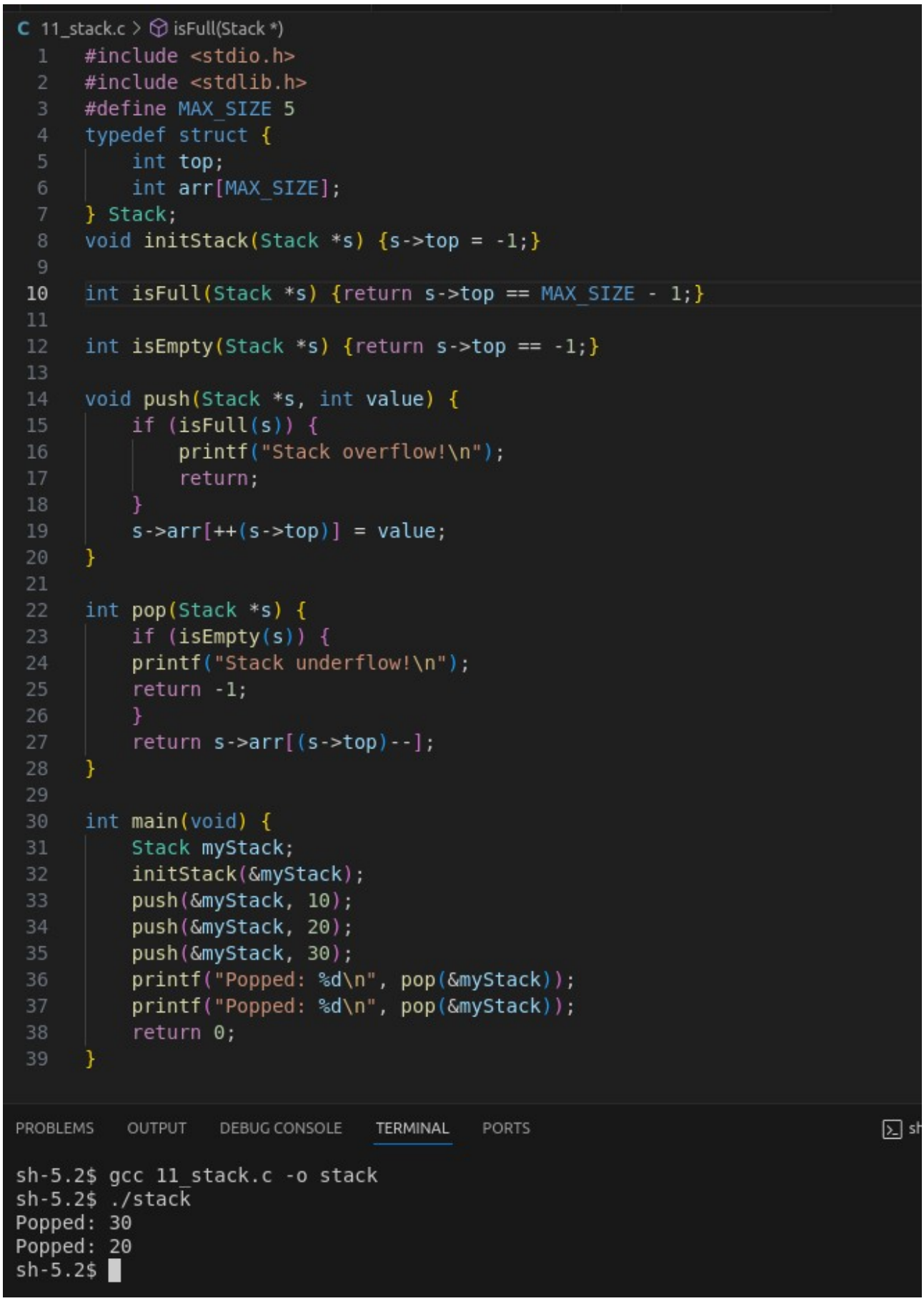
The above is the image of the program and output of Program 2.8.



The above is the image of the program and output of Program 2.9.



The above is the image of the program and output of Program 2.10.

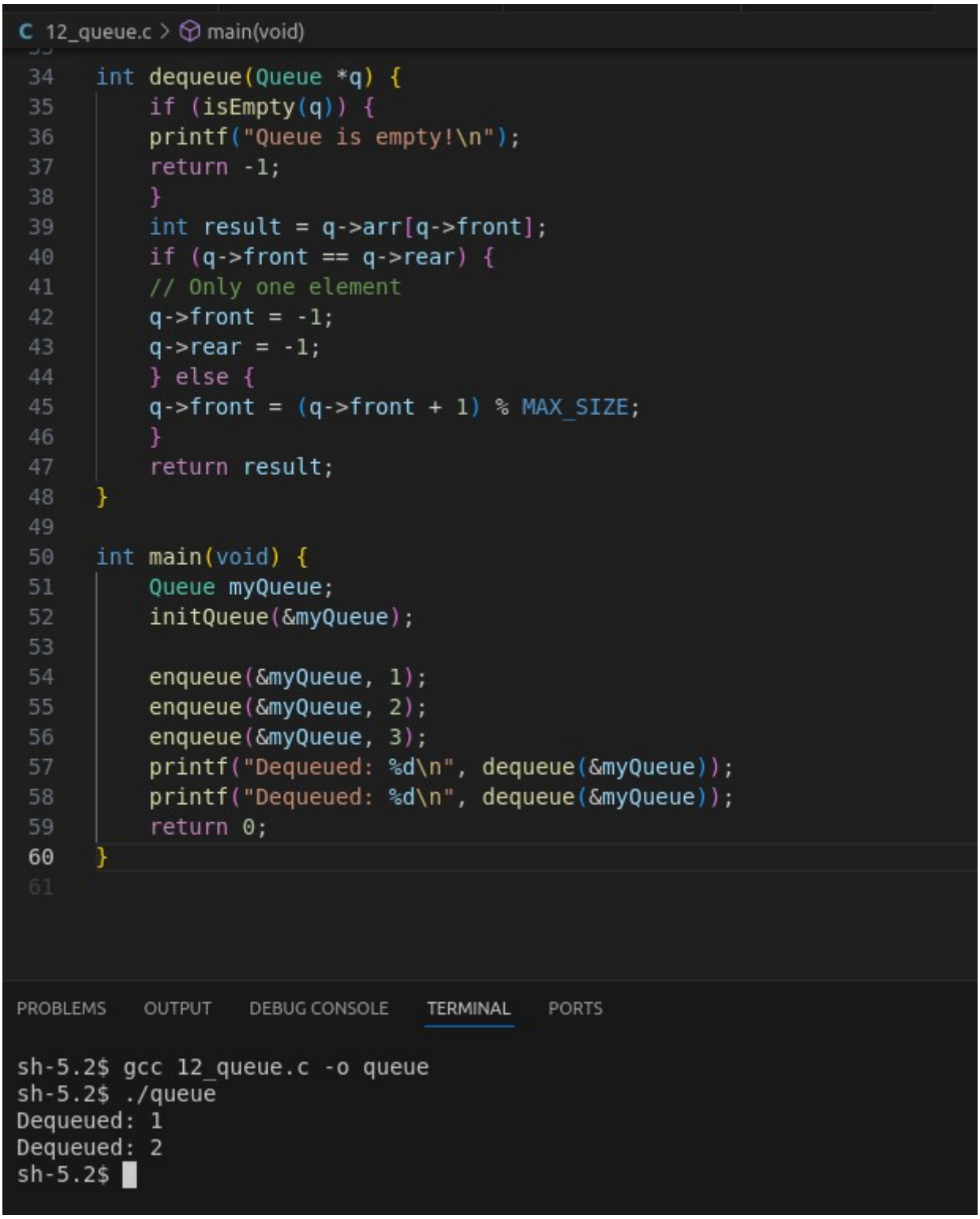


The above is the image of the program and output of Program 2.11.

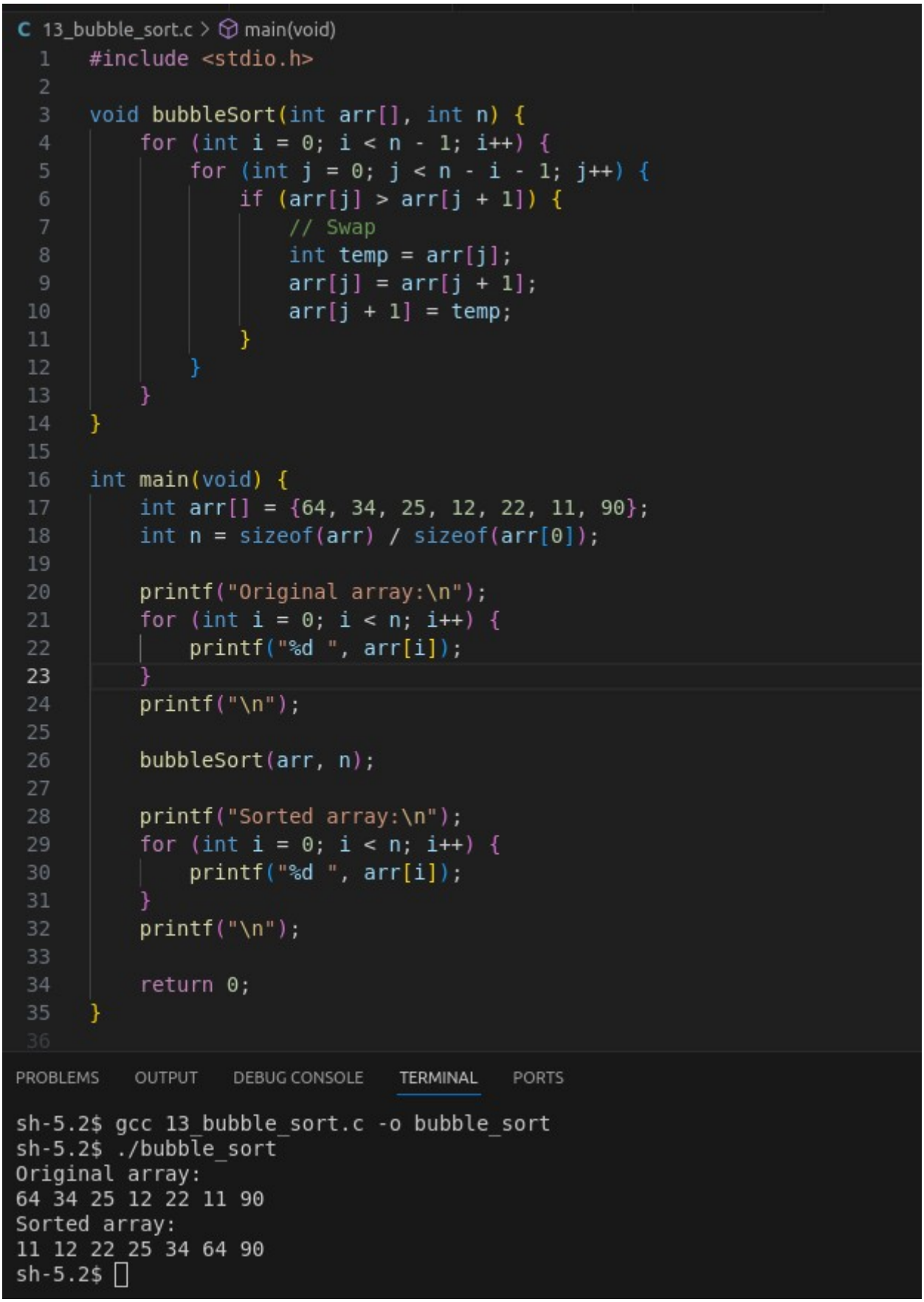
C 12_queue.c > main(void)

```c
#include <stdio.h>
#include <stdlib.h>
#define MAX_SIZE 5

typedef struct {
    int front, rear;
    int arr[MAX_SIZE];
} Queue;

void initQueue(Queue *q) {
    q->front = -1;
    q->rear = -1;
}

int isEmpty(Queue *q) {
    return q->front == -1;
}

int isFull(Queue *q) {
    return (q->rear + 1) % MAX_SIZE == q->front;
}

void enqueue(Queue *q, int value) {
    if (isFull(q)) {
        printf("Queue is full!\n");
    return;
    }
    if (q->front == -1)
    q->front = 0;
    q->rear = (q->rear + 1) % MAX_SIZE;
    q->arr[q->rear] = value;
}

```

(cont’d)

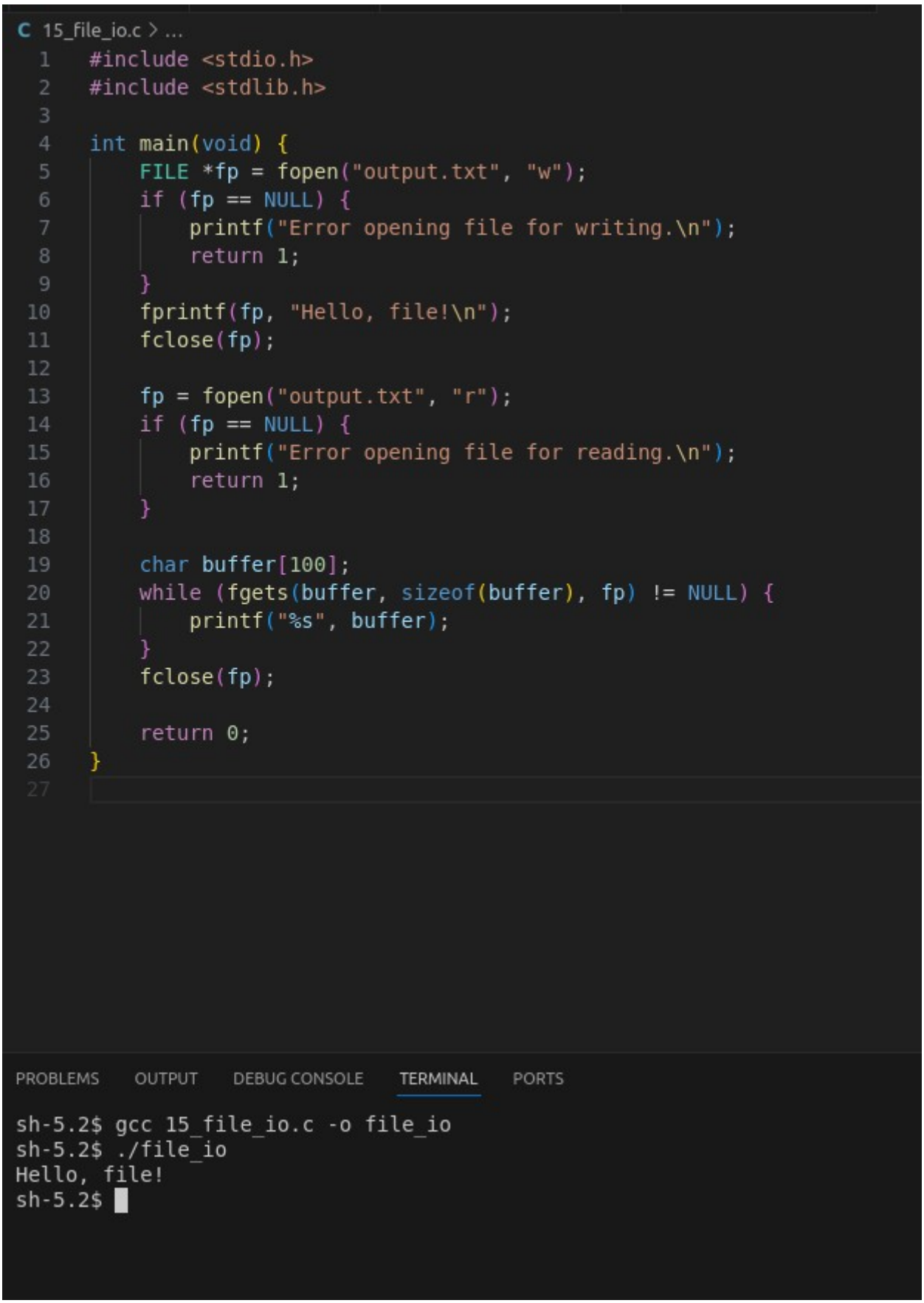


The above is the images of the program and output of Program 2.12.



The above is the image of the program and output of Program 2.13.

The above is the image of the program and output of Program 2.14.



The above is the image of the program and output of Program 2.15.