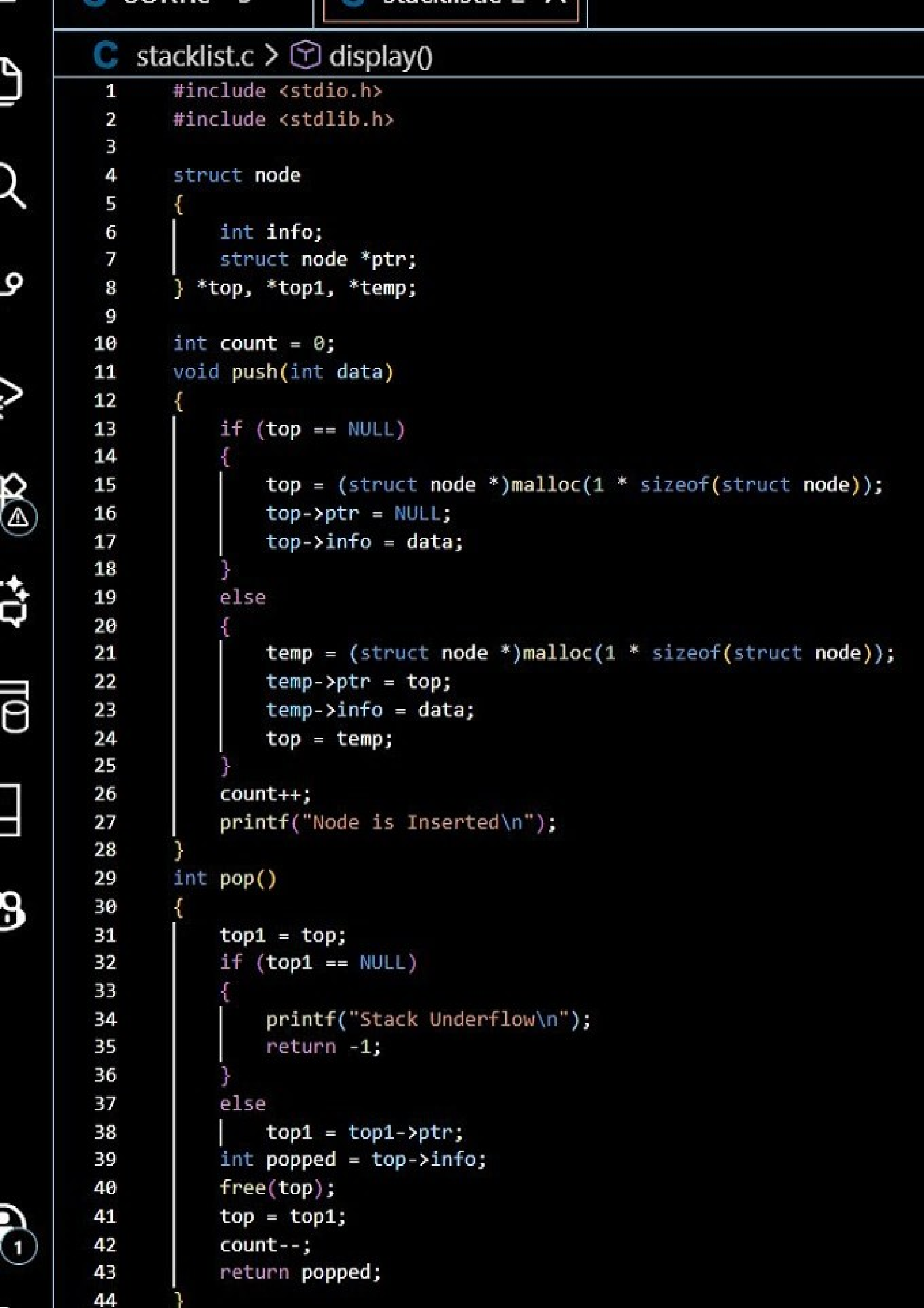
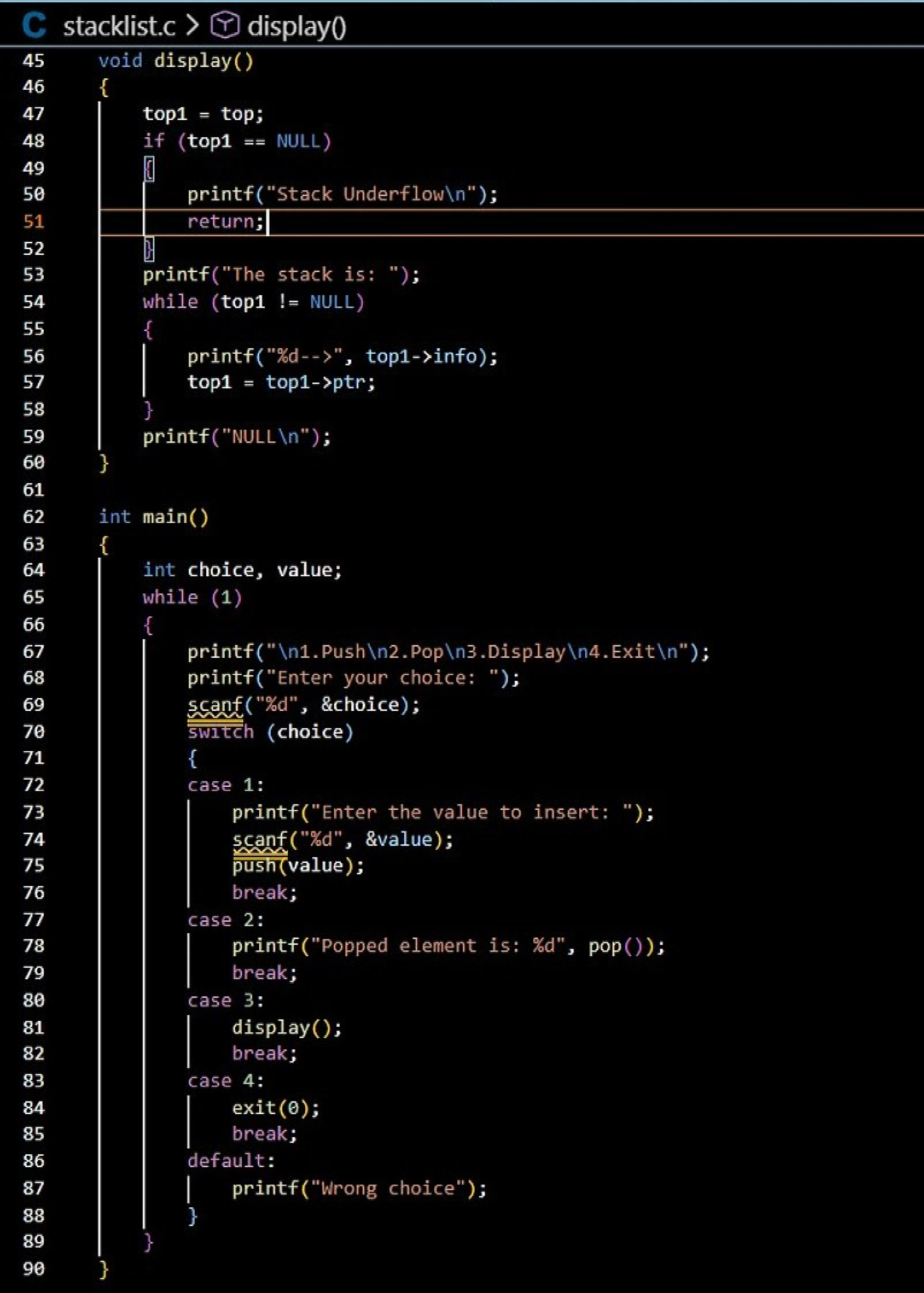
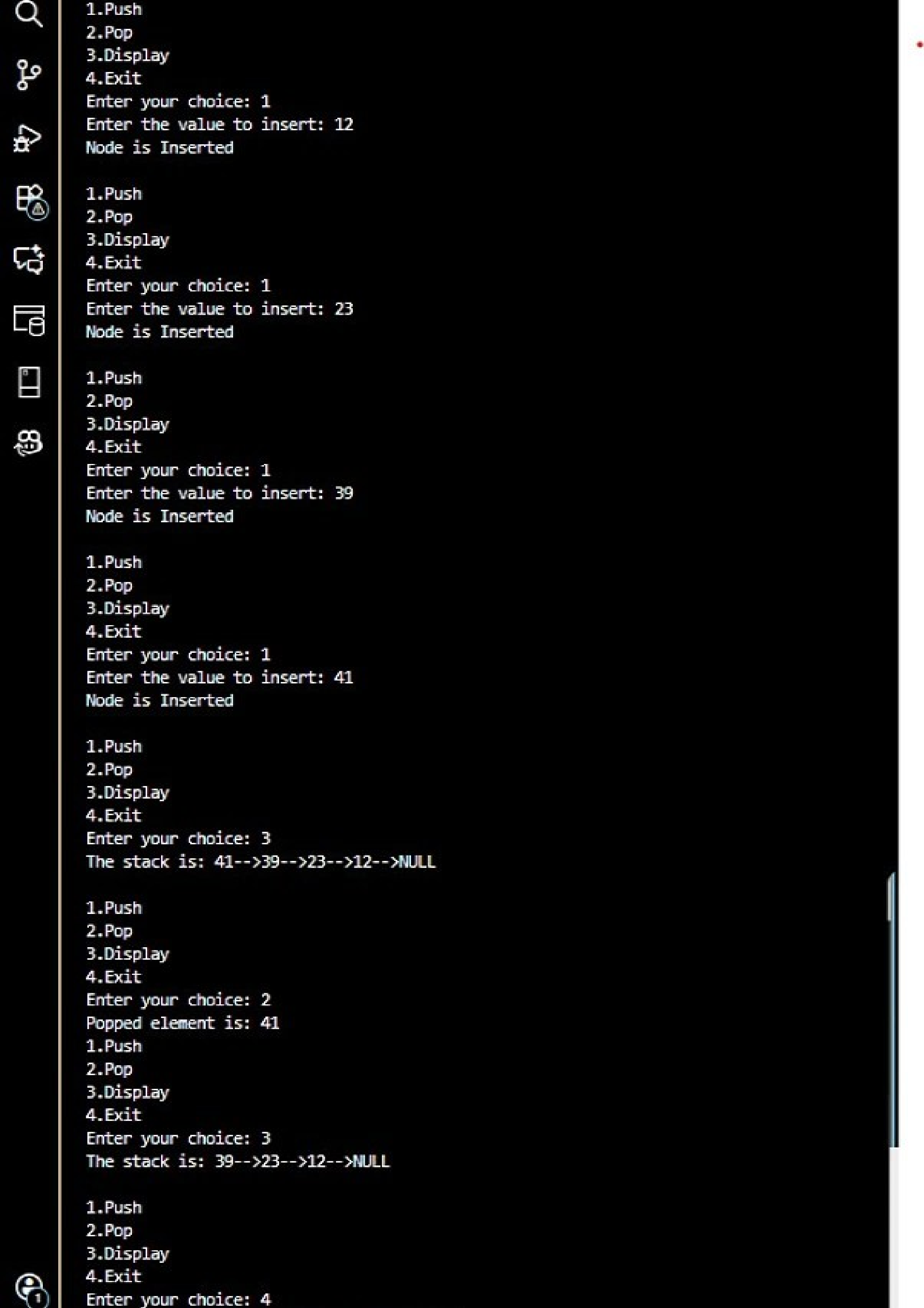


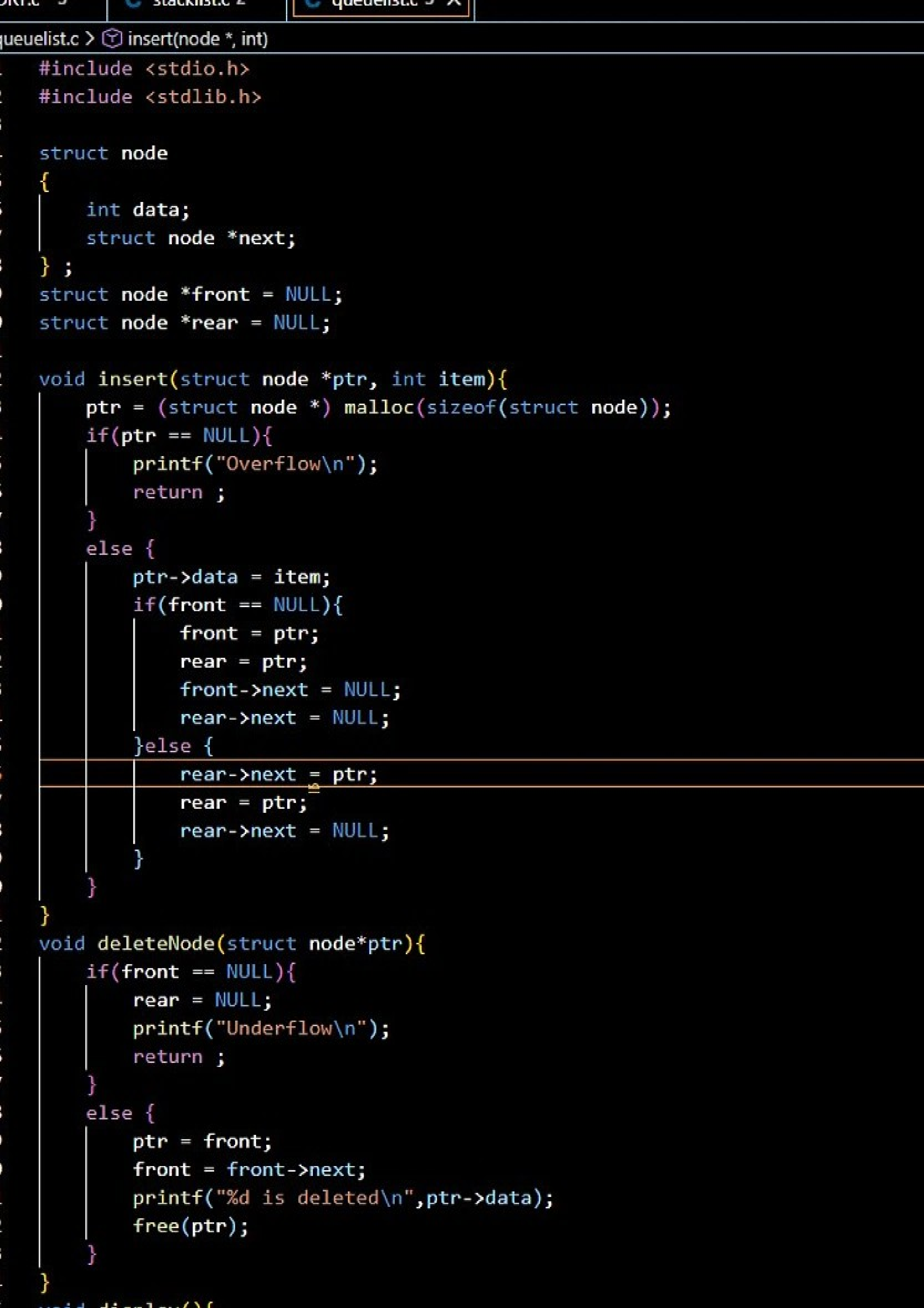
```c
#include <stdio.h>
#include <stdlib.h>

struct node
{
    int info;
    struct node *ptr;
} *top, *top1, *temp;

int count = 0;
void push(int data)
{
    if (top == NULL)
    {
        top = (struct node *)malloc(1 * sizeof(struct node));
        top->ptr = NULL;
        top->info = data;
    }
    else
    {
        temp = (struct node *)malloc(1 * sizeof(struct node));
        temp->ptr = top;
        temp->info = data;
        top = temp;
    }
    count++;
    printf("Node is Inserted\n");
}
int pop()
{
    top1 = top;
    if (top1 == NULL)
    {
        printf("Stack Underflow\n");
        return -1;
    }
    else
        top1 = top1->ptr;
    int popped = top->info;
    free(top);
    top = top1;
    count--;
    return popped;
}
```



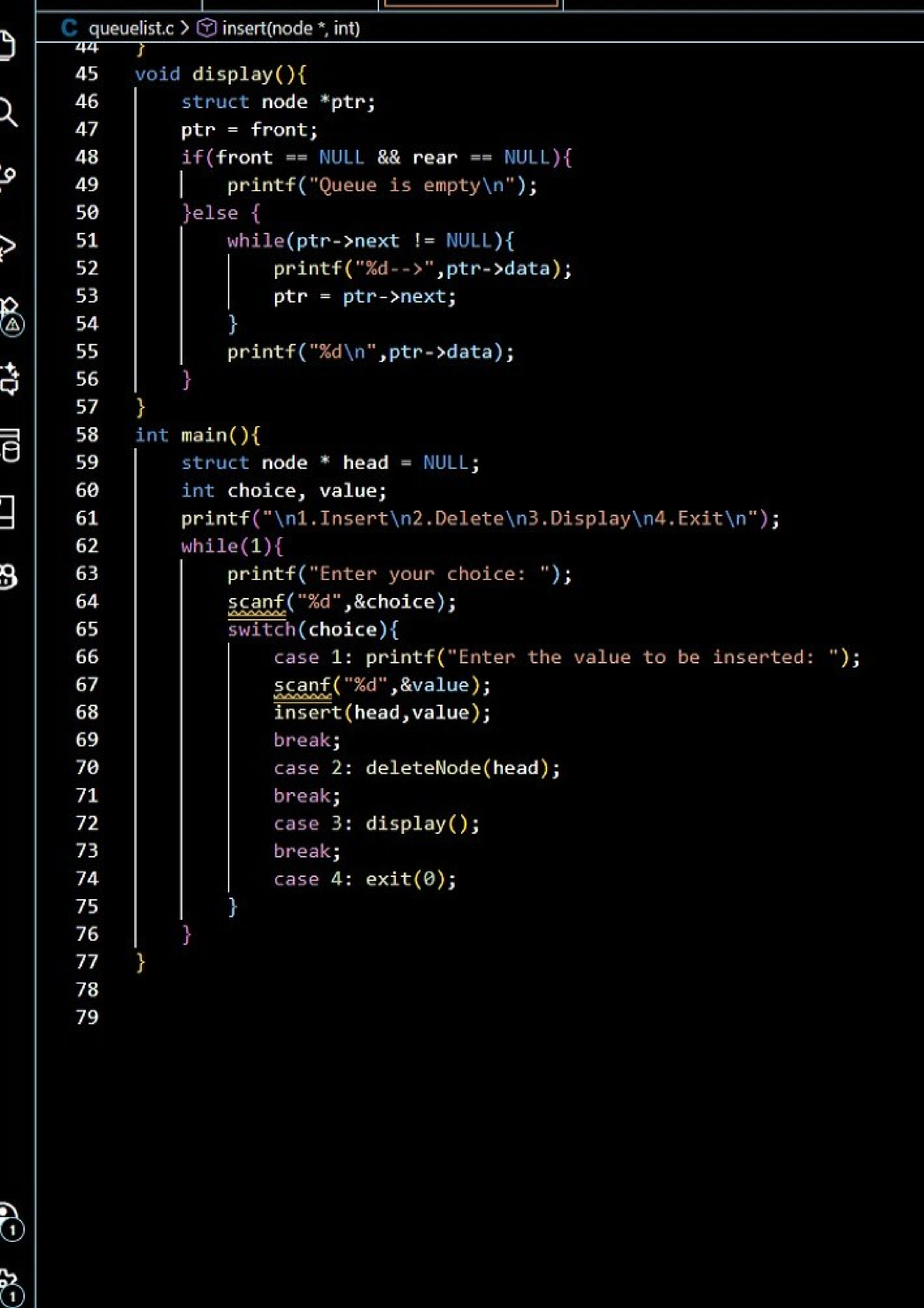
```c
void display()
{
    top1 = top;
    if (top1 == NULL)
    {
        printf("Stack Underflow\n");
        return;
    }
    printf("The stack is: ");
    while (top1 != NULL)
    {
        printf("%d-->", top1->info);
        top1 = top1->ptr;
    }
    printf("NULL\n");
}

int main()
{
    int choice, value;
    while (1)
    {
        printf("\n1.Push\n2.Pop\n3.Display\n4.Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);
        switch (choice)
        {
        case 1:
            printf("Enter the value to insert: ");
            scanf("%d", &value);
            push(value);
            break;
        case 2:
            printf("Popped element is: %d", pop());
            break;
        case 3:
            display();
            break;
        case 4:
            exit(0);
            break;
        default:
            printf("Wrong choice");
        }
    }
}
```



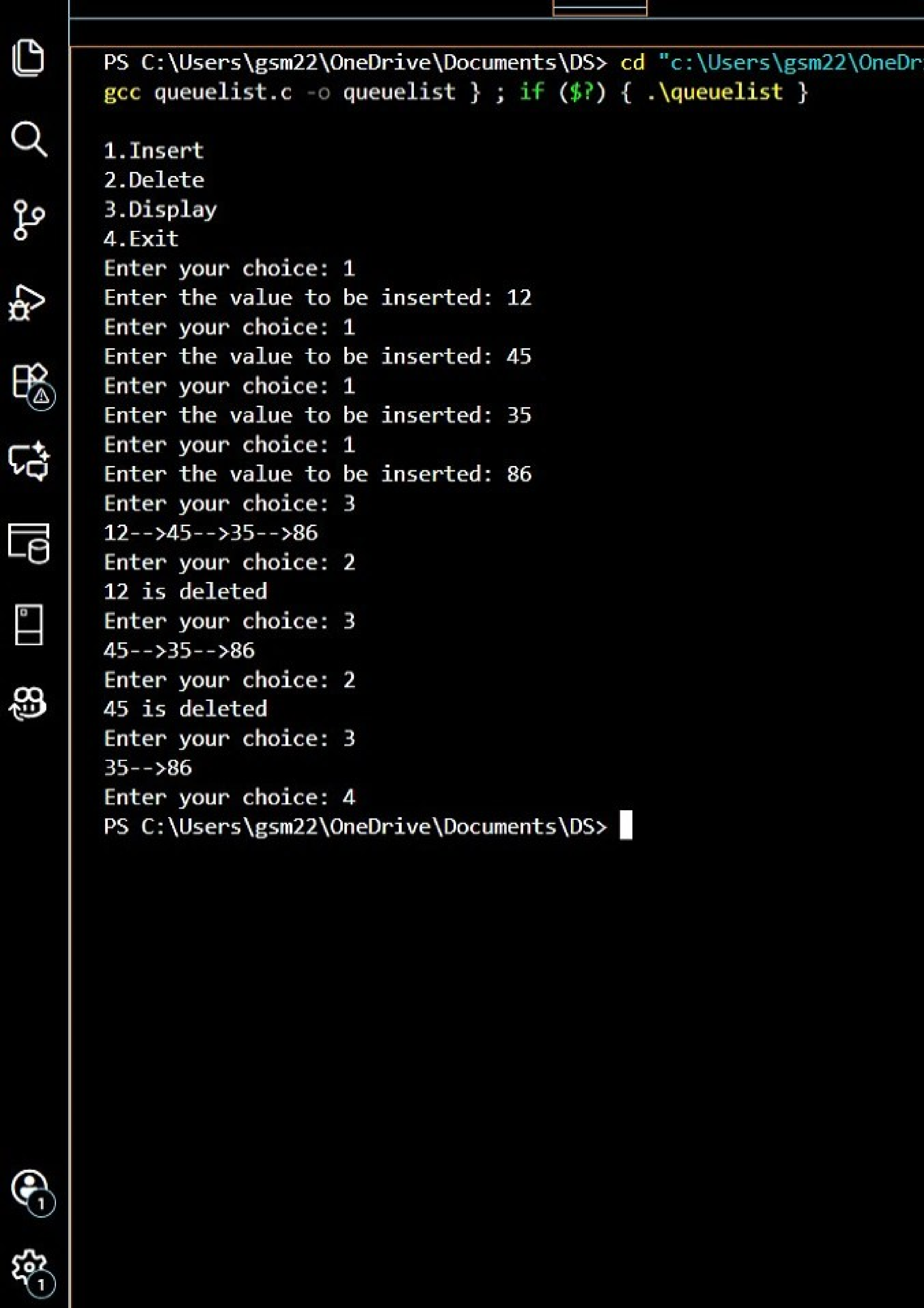
```
1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 1
Enter the value to insert: 12
Node is Inserted

1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 1
Enter the value to insert: 23
Node is Inserted

1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 1
Enter the value to insert: 39
Node is Inserted

1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 1
Enter the value to insert: 41
Node is Inserted

1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 3
The stack is: 41-->39-->23-->12-->NULL

1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 2
Popped element is: 41
1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 3
The stack is: 39-->23-->12-->NULL

1.Push
2.Pop
3.Display
4.Exit
Enter your choice: 4
```



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

struct node
{
    int data;
    struct node *next;
} ;
struct node *front = NULL;
struct node *rear = NULL;

void insert(struct node *ptr, int item){
    ptr = (struct node *) malloc(sizeof(struct node));
    if(ptr == NULL){
        printf("Overflow\n");
        return ;
    }
    else {
        ptr->data = item;
        if(front == NULL){
            front = ptr;
            rear = ptr;
            front->next = NULL;
            rear->next = NULL;
        }else {
            rear->next = ptr;
            rear = ptr;
            rear->next = NULL;
        }
    }
}
void deleteNode(struct node*ptr){
    if(front == NULL){
        rear = NULL;
        printf("Underflow\n");
        return ;
    }
    else {
        ptr = front;
        front = front->next;
        printf("%d is deleted\n",ptr->data);
        free(ptr);
    }
}
void display(){
```



```c
}
void display(){
    struct node *ptr;
    ptr = front;
    if(front == NULL && rear == NULL){
        printf("Queue is empty\n");
    }else {
        while(ptr->next != NULL){
            printf("%d-->",ptr->data);
            ptr = ptr->next;
        }
        printf("%d\n",ptr->data);
    }
}
int main(){
    struct node * head = NULL;
    int choice, value;
    printf("\n1.Insert\n2.Delete\n3.Display\n4.Exit\n");
    while(1){
        printf("Enter your choice: ");
        scanf("%d",&choice);
        switch(choice){
            case 1: printf("Enter the value to be inserted: ");
            scanf("%d",&value);
            insert(head,value);
            break;
            case 2: deleteNode(head);
            break;
            case 3: display();
            break;
            case 4: exit(0);
        }
    }
}


```



```
PS C:\Users\gsm22\OneDrive\Documents\DS> cd "c:\Users\gsm22\OneDr
gcc queuelist.c -o queuelist } ; if ($?) { .\queuelist }

1.Insert
2.Delete
3.Display
4.Exit
Enter your choice: 1
Enter the value to be inserted: 12
Enter your choice: 1
Enter the value to be inserted: 45
Enter your choice: 1
Enter the value to be inserted: 35
Enter your choice: 1
Enter the value to be inserted: 86
Enter your choice: 3
12-->45-->35-->86
Enter your choice: 2
12 is deleted
Enter your choice: 3
45-->35-->86
Enter your choice: 2
45 is deleted
Enter your choice: 3
35-->86
Enter your choice: 4
PS C:\Users\gsm22\OneDrive\Documents\DS>
```