Priority Queue

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

#define MAX 5

int stack[MAX];
int top = -1;

// Push function to add an element to the stack
void push(int value) {
    if (top == MAX - 1) {
        printf("Stack Overflow! Cannot push %d", value);
    } else {
        top++;
        stack[top] = value;
        printf("%d pushed into the stack.", value);
    }
}

// Pop function to remove the top element from the stack
void pop() {
    if (top == -1) {
        printf("Stack Underflow! No elements to pop.");
    } else {
        printf("%d popped from the stack.", stack[top]);
        top--;
    }
}

// Display function to show all elements in the stack
void display() {
    if (top == -1) {
        printf("Stack is empty.");
```

```c

// Display function to show all elements in the stack
void display() {
    if (top == -1) {
        printf("Stack is empty.");
    } else {
        printf("Stack elements:");
        for (int i = top; i >= 0; i--) {
            printf("%d", stack[i]);
        }
    }
}

int main() {
    int choice, element;

    while (1) {
printf("--- Stack Menu ---");
        printf("1. Push");
        printf("2. Pop");
        printf("3. Display");
        printf("4. Exit");
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                printf("Enter the element to push: ");
                scanf("%d", &element);
                push(element);
                break;
            case 2:
                pop();
```

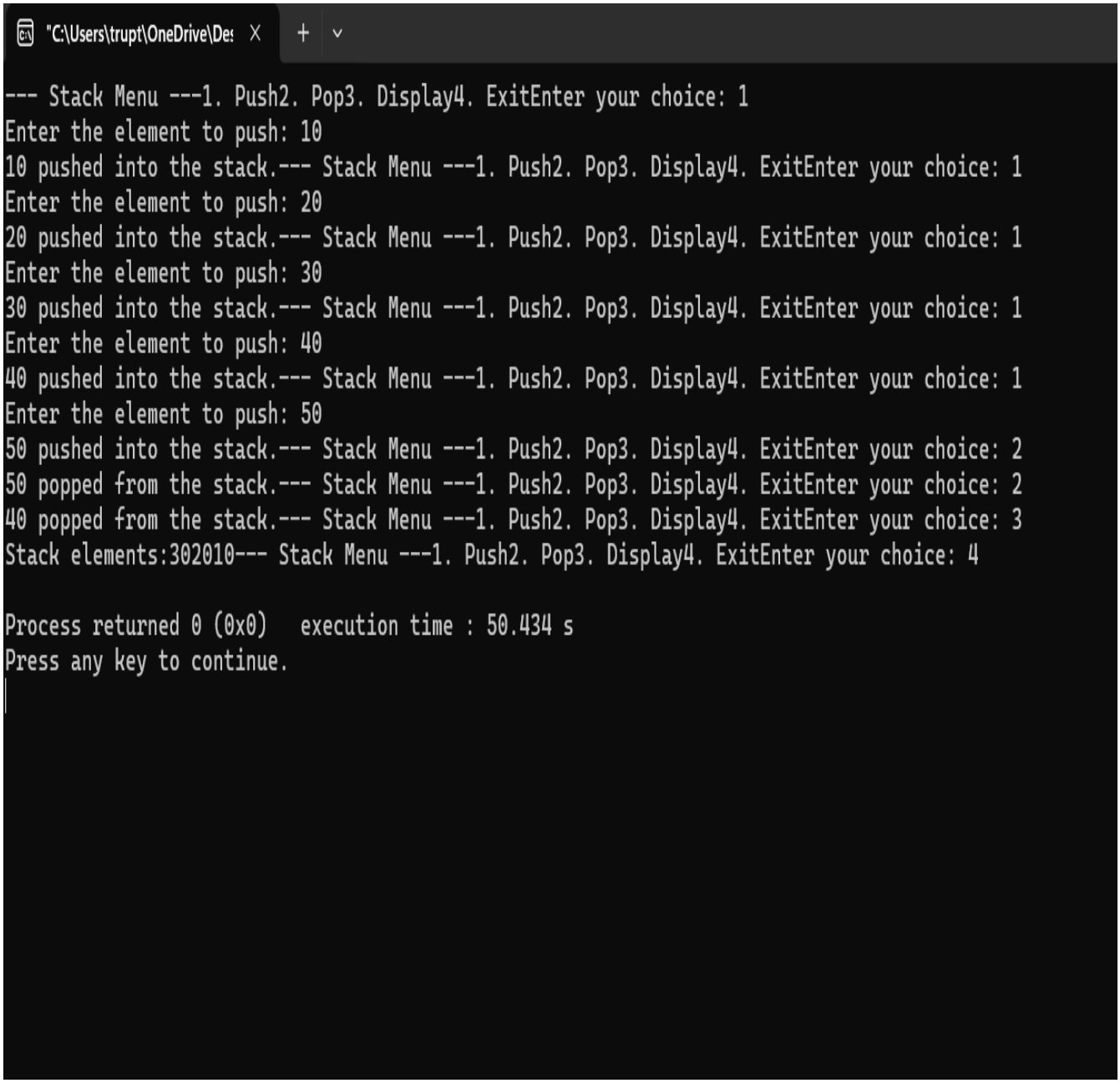
```c
    int choice, element;

    while (1) {
printf("--- Stack Menu ---");
        printf("1. Push");
        printf("2. Pop");
        printf("3. Display");
        printf("4. Exit");
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                printf("Enter the element to push: ");
                scanf("%d", &element);
                push(element);
                break;
            case 2:
                pop();
                break;
            case 3:
                display();
                break;
            case 4:
                exit(0);
            default:
                printf("Invalid choice.");
        }
    }

    return 0;
}

```


"C:\Users\trupt\OneDrive\De
--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 1
Enter the element to push: 10
10 pushed into the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 1
Enter the element to push: 20
20 pushed into the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 1
Enter the element to push: 30
30 pushed into the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 1
Enter the element to push: 40
40 pushed into the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 1
Enter the element to push: 50
50 pushed into the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 2
50 popped from the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 2
40 popped from the stack.--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 3
Stack elements:302010--- Stack Menu ---1. Push2. Pop3. Display4. ExitEnter your choice: 4
Process returned 0 (0x0) execution time : 50.434 s
Press any key to continue.