stack_using_array.c

```c
#include <stdio.h>
#define MAX 100

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

void push(int value) {
    if (top == MAX - 1)
        printf("Stack Overflow\n");
    else {
        top++;
        stack[top] = value;
        printf("%d pushed into stack\n", value);
    }
}

void pop() {
    if (top == -1)
        printf("Stack Underflow\n");
    else {
        printf("%d popped from stack\n", stack[top]);
        top--;
    }
}

void display() {
    if (top == -1)
        printf("Stack is empty\n");
    else {
        printf("Stack elements: ");
        for (int i = top; i >= 0; i--)
            printf("%d ", stack[i]);
        printf("\n");
    }
}

int main() {
    int choice, value;
    while (1) {
        printf("\n1. Push\n2. Pop\n3. Display\n4. Exit\n");
        printf("Enter choice: ");
        scanf("%d", &choice);

        switch(choice) {
            case 1:
                printf("Enter value to push: ");
                scanf("%d", &value);
                push(value);
```

```
49                  break;
50              case 2:
51                  pop();
52                  break;
53              case 3:
54                  display();
55                  break;
56              case 4:
57                  return 0;
58              default:
59                  printf("Invalid choice\n");
60          }
61      }
62  }
63
```