#include <stdio.h>

#include <stdlib.h>

#define MAX 5 // Maximum size of the stack

int stack[MAX];

int top = -1;

// Function to push an element into the stack

void push() {

int value;

if (top == MAX - 1) {

printf("\n Stack Overflow! Cannot push more elements.\n");

} else {

printf("Enter value to push: ");

scanf("%d", &value);

top++;

stack[top] = value;

printf(" %d pushed to stack.\n", value);

}

}

// Function to pop an element from the stack

void pop() {

if (top == -1) {

printf("\n Stack Underflow! Stack is empty.\n");

} else {

printf(" %d popped from stack.\n", stack[top]);

top--;

}

}

// Function to display stack elements

void display() {

if (top == -1) {

printf("\nStack is empty.\n");

} else {

printf("Current Stack: ");

for (int i = 0; i <= top; i++) {

printf("%d ", stack[i]);

}

printf("\n");

}

}

// Main menu-driven program

int main() {

int choice;

while (1) {

printf("\n---- Stack Operations Menu ----\n");

printf("1. Push\n");

printf("2. Pop\n");

printf("3. Display\n");

printf("4. Exit\n");

printf("Enter your choice (1-4): ");

scanf("%d", &choice);

switch (choice) {

case 1:

push();

break;

case 2:

pop();

break;

case 3:

display();

break;

case 4:

printf(" Exiting the program.\n");

exit(0);

default:

printf("Invalid choice! Please enter 1-4.\n");

}

}

return 0;

}