# Implementation of Stack using Array

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#include <stdio.h>

#include <stdlib.h>

#define SIZE 10

void push(int);

void pop();

void display();

int stack[SIZE], top = -1;

int main() {

int value, choice;

while (1) {

printf("\n\n\*\*\*\*\* MENU \*\*\*\*\*\n");

printf("1. Push\n2. Pop\n3. Display\n4. Exit");

printf("\nEnter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

printf("Enter the value to insert: ");

scanf("%d", &value);

push(value);

break;

case 2:

pop();

break;

case 3:

display();

break;

case 4:

exit(0);

default:

printf("\nWrong selection! Try again!");

}

}

return 0;

}

void push(int value) {

if (top == SIZE - 1)

printf("\nStack is Full! Insertion not possible!");

else {

top++;

stack[top] = value;

printf("\nInsertion successful!");

}

}

void pop() {

if (top == -1)

printf("\nStack is Empty! Deletion not possible!");

else {

printf("\nDeleted: %d", stack[top]);

top--;

}

}

void display() {

if (top == -1)

printf("\nStack is Empty!");

else {

int i;

printf("\nStack elements are:\n");

for (i = top; i >= 0; i--)

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

}

}



