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**COURSE NAME : DATA STRUCTURES FOR MODERN COMPUTING SYSTEMS**

**COURSE CODE : CSA0302**

**WRITE A C PROGRAM TO PERFORM STACK USING ARRAY BY USING POP AND PUSH OPERATIONS**

**C PROGRAMMING CODE:**

#include <stdio.h>

#include <stdlib.h>

#define SIZE 5

int stack[SIZE];

int top = -1;

void push(int value) {

if (top == SIZE - 1)

printf("Stack Overflow\n");

else {

top++;

stack[top] = value;

}

}

void pop() {

if (top == -1)

printf("Stack Underflow\n");

else

top--;

}

void display() {

if (top == -1)

printf("Stack is empty\n");

else {

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

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

printf("\n");

}

}

int main() {

push(10);

push(20);

printf("After pushing elements: ");

display();

pop();

printf("After popping one element: ");

display();

push(30);

push(40);

printf("After pushing more elements: ");

display();

return 0;

}

**OUTPUT:**

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