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| 12) | Write a C program to implement the application of Stack (Notations) |

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#define MAX 100

int top = -1;

char stack[MAX];

void push(char data) {

if(top == MAX-1) {

printf("Stack is full!\n");

} else {

top++;

stack[top] = data;

}

}

void pop() {

if(top == -1) {

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

} else {

printf("Popped element: %c\n", stack[top]);

top--;

}

}

int main() {

char notation[MAX];

int i;

printf("Enter the notation: ");

scanf("%s", notation);

for(i=0; i<strlen(notation); i++) {

if(notation[i] == '(' || notation[i] == '[' || notation[i] == '{') {

push(notation[i]);

} else if(notation[i] == ')' || notation[i] == ']' || notation[i] == '}') {

pop();

}

}

if(top == -1) {

printf("Notation is balanced!\n");

} else {

printf("Notation is not balanced!\n");

}

return 0;

}

