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#include <stdio.h>
#include <string.h>
#include<stdlib.h>
#define MAX 10
int top=-1;
int stk[MAX];
void push(char);
char pop();
void main()
{
char exp[MAX],temp;
int i, flag=1;
printf("Enter an expression : ");
gets(exp);
for(i=0;i<strlen(exp);i++)
{
if(exp[i]=='(' || exp[i]=='{' || exp[i]=='[')
push(exp[i]);
if(exp[i]==')' || exp[i]=='}' || exp[i]==']')
{
if(top== -1)
flag=0;
else
{
temp=pop();
if(exp[i]==')' && (temp=='{' || temp=='['))
flag=0;
if(exp[i]=='}' && (temp=='(' || temp=='['))
flag=0;
if(exp[i]==']' && (temp=='(' || temp=='{'))
flag=0;
}
}
}
if(top>=0)
flag=0;
if(flag==1)
printf("\n Valid expression");
else
printf("\n Invalid expression");
} //end of main()
void push(char c)
{
if(top==(MAX-1))
printf("Stack Overflow\n");
else
{
top=top+1;
stk[top] = c;
}
}
char pop()
{
if(top== -1)
printf("\n Stack Underflow");
else
return(stk[top--]);
}

```

}