

INFIX TO POSTFIX

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
#define MAX 100

int stack[MAX];
int top=-1;

void push ( int data ) ←int data or char data BOTH are fine
{
    if ( top == MAX - 1 )
    {
        printf ( "\nStack OVERFLOW... exiting" );
        exit(0);
    }
    else
    {
        top++ ;
        stack[ top ] = data ;
    }
}

int pop( )
{
    int data ;

    if ( top == -1 )
    {
        printf ( "\nStack UNDERFLOW... exiting" );
        exit(0);
    }
    else
    {
        data = stack[ top ] ;
        top-- ;
        return data;
    }
}
```

The logo for Navlakhi, featuring the name in a stylized, handwritten-style font with a registered trademark symbol.The logo for Navlakhi, featuring the name in a bold, sans-serif font with a red swoosh underneath.

```
int priority(char s)
```

```
{
    if (s=='+'||s=='-') return 0;
    if (s=='*'||s=='/') return 1;
    if (s=='^') return 2;
}
```

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```
void main( )
```

```
{
    int data,success,length,i;
    char s[100];

    printf("\n\nfeed in the expression: ");
    scanf("%s",s);

    length=strlen(s);

    for(i=0;i<length;i++)
    {
        if (s[i]=='(')
        {
            push(s[i]);
        }
        else if(s[i]==')')
        {
            do
            {
                if (top==-1)
                {
                    printf("Invalid expression");
                    exit(0);
                }
                data=pop();
                if (data=='(') break;
                printf("%c",data);
            }while(1);
        }
    }
}
```

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```
else if(s[i]=='^')
    push(s[i]);

else if(s[i]=='+' || s[i]=='-' || s[i]=='*' || s[i]=='/')
{
    if(top== -1) push(s[i]);
    else
    {
        while(top!= -1 && stack[top]!='(' && priority(stack[top])>=priority(s[i]))
        {
            data=pop();
            printf("%c",data);
        }
        push(s[i]);
    }
}
else printf("%c",s[i]);
}

while(top!= -1)
{
    data=pop();
    printf("%c",data);
}
}
```

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