

Infix to postfix conversion

```
#include <stdio.h>

#include <string.h>

#include <ctype.h>

char st[100];

#define max 100

int top=-1;

char ele;

void push(char ele)
{
    if(top== (max)-1)
    {
        printf("Stack is full");
    }
    else
    {
        top++;
        st[top]=ele;
    }
}

char pop()
{
    if(top== -1)
    {
        printf("Stack is empty");
    }
    else
    {
        top=top-1;
```

```
        return(st[top+1]);
    }
}
```

```
char pre( char a)
```

```
{
    if(a=='^')
    {
        return(5);
    }
    else if(a=='*')
    {
        return(4);
    }
    else if(a=='/')
    {
        return(3);
    }
    else if(a=='+')
    {
        return(2);
    }
    else if(a=='-')
    {
        return(1);
    }
    else
    {
        return(0);
    }
}
```

```

int main()
{
    char postfix[100];
    char infix[100];
    int i=0;

    printf("Enter the infix expression\n");
    scanf("%s",infix);

    while(infix[i]!='\0')
    {
        if(isalpha(infix[i]))
        {
            postfix[i]=infix[i];
        }
        else if(infix[i]=='^' || infix[i]=='*' || infix[i]=='/' || infix[i]=='+' || infix[i]=='-')
        {
            if(pre(st[top])>pre(infix[i]))
            {
                postfix[i]=pop();
                push(infix[i]);
            }
            else
            {
                push(infix[i]);
            }
        }
        i++;
    }
    postfix[i]=st[top];
    printf("Postfix expression is : \n");
}

```

```
for(i=0;i<=strlen(infix)+1;i++)  
{  
    printf("%c",postfix[i]);  
}  
}
```