

# Stack application

```
#include<stdio.h>

#include<ctype.h>

#include<string.h>

char stk[20];

int top=-1;

void push(char c)

{

stk[++top]=c;

}

char pop()

{

return(stk[top--]);

}

int priority(char c)

{

if(c=='^' || c=='&' || c=='|')

return 3;

else if (c=='/' || c=='*' || c=='%')

return 2;

else if(c=='+' || c=='-')

return 1;

else

return 0;

}

int main()
```

```
{
char in[50],post[50],ch;
int i,j,l;

printf("Enter the string :");
gets(in);

l=strlen(in);
j=0;

for(i=0;i<l;i++)
{
if(isalpha(in[i]))
post[j++]=in[i];
else
{
if(in[i]=='(')
push(in[i]);
else if(in[i]==')')
while((ch=pop())!='(')
post[j++]=ch;
else
{
while(priority(in[i])<=priority(stk[top]))
post[j++]=pop();
push(in[i]);
```

```

}
}
}
while(top!=-1)
post[j++]=pop();

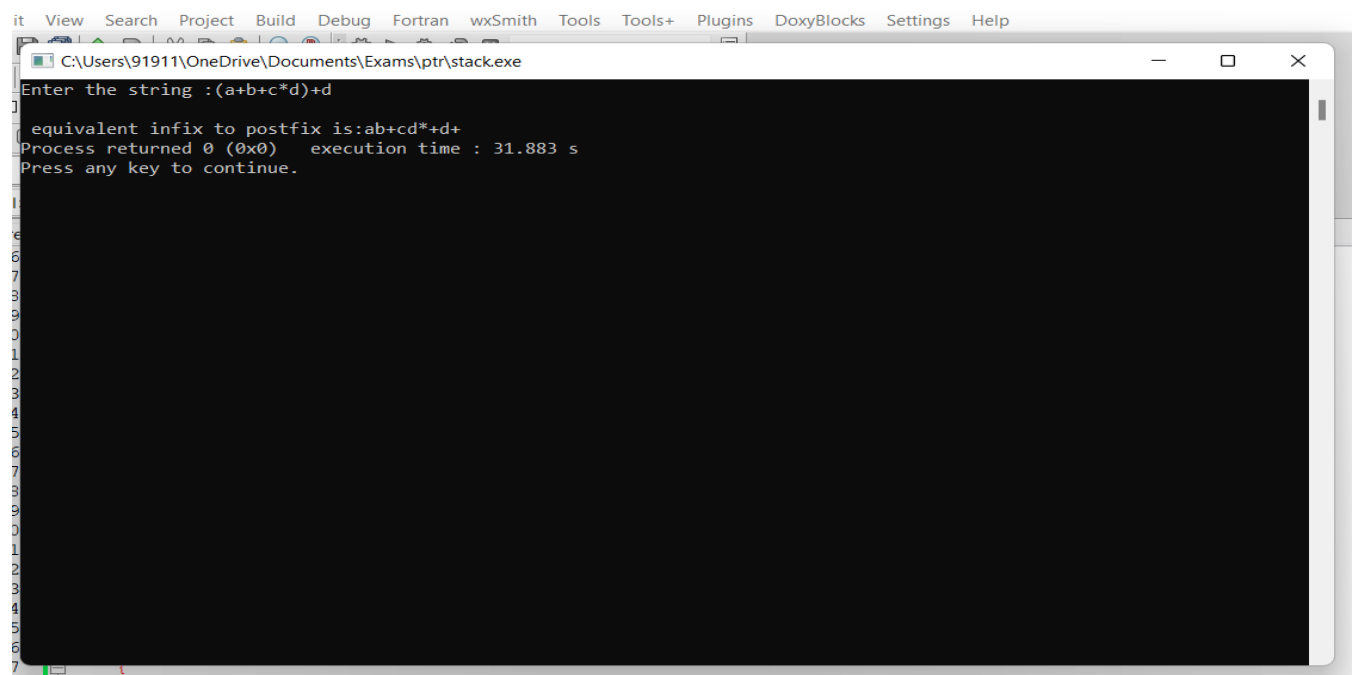
post[j]='\0';

printf("\n equivalent infix to postfix is:%s",post);

}

```

## Output:



```

C:\Users\91911\OneDrive\Documents\Exams\ptr\stack.exe
Enter the string : (a+b+c*d)+d
equivalent infix to postfix is:ab+cd*+d+
Process returned 0 (0x0)   execution time : 31.883 s
Press any key to continue.

```