Infix to Postfix

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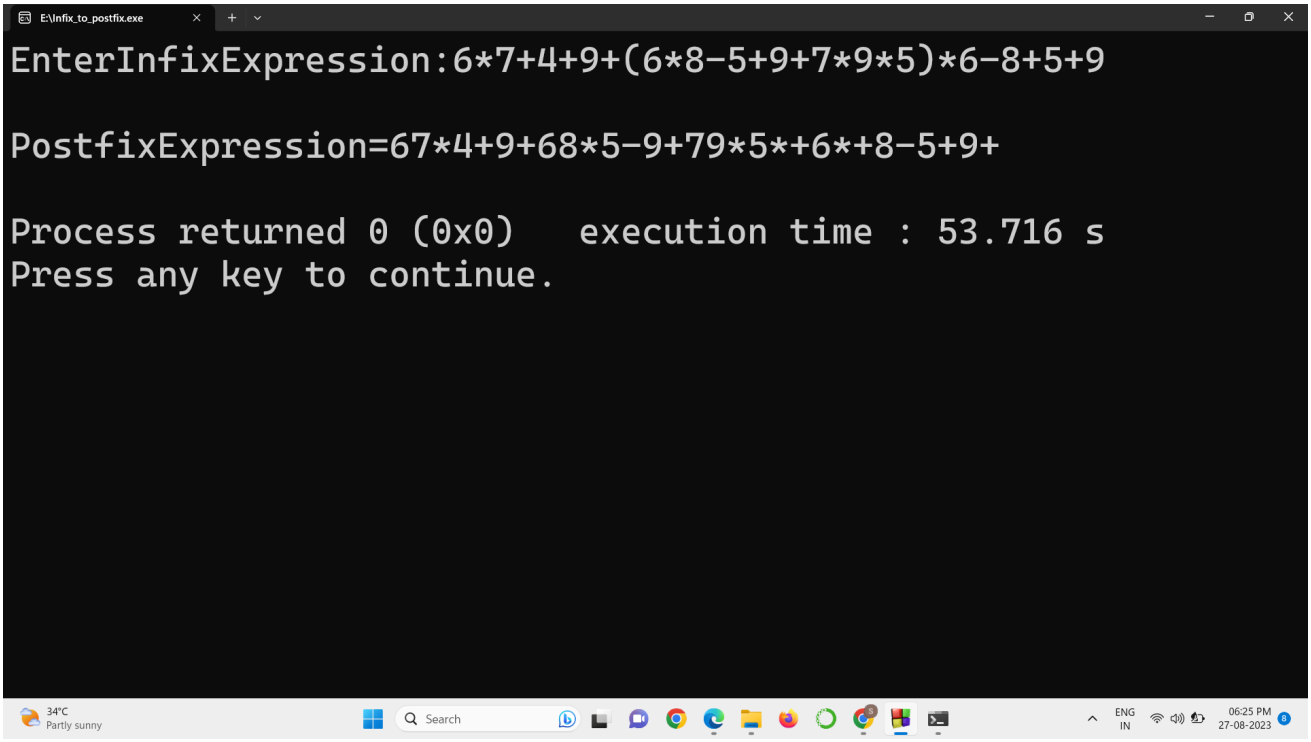
CSE

```c
#include<stdio.h>
#include<ctype.h>
#include<string.h>
#define size 50


char stack[size];
int top=-1;


void push(char x){
      top++;
      stack[top]=x;
}


char pop(){
  char x;
  x=stack[top];
  top--;
  return x;
}


int pri(char symbol){
if(symbol=='^')
return(6);
else if(symbol=='*'||symbol=='/') return(3);
else if(symbol=='+'||symbol=='-') return(1);
else
return(0);
}




int main(){
char infix[50],postfix[50],ch,elem;
int i=0,k=0;
printf("EnterInfixExpression:");
scanf("%s",infix);
push('#');

while((ch=infix[i])!='\0'){
     if(ch=='(')
          push(ch);
     else if(isalnum(ch))
        postfix[k++]=ch;
     else if(ch==')'){
        while(stack[top]!='(')
            postfix[k++]=pop();
            elem=pop();
          }
    else{
        while(pri(ch)<=pri(stack[top]))
             postfix[k++]=pop();
             push(ch);
         }
   i++;
}
while(stack[top]!='#')
     postfix[k++]=pop();
     postfix[k]='\0';

printf("\nPostfixExpression=%s\n",postfix);

return 0;
}
```

OUTPUT


E:\Infix_to_postfix.exe
EnterInfixExpression:6*7+4+9+(6*8-5+9+7*9*5)*6-8+5+9
PostfixExpression=67*4+9+68*5-9+79*5*+6*+8-5+9+
Process returned 0 (0x0)   execution time : 53.716 s
Press any key to continue.
34°C
Partly sunny
Search
ENG
IN
06:25 PM
27-08-2023