

Lex Program to implement descent parser

```
#include<stdio.h>

#include<string.h>

#include<ctype.h>

char input[10];

int i,error;

void E();

void T();

void Eprime();

void Tprime();

void F();

void main()

{

i=0;

error=0;

printf("Enter an arithmetic expression : ");

scanf("%s",input);

E();

if(strlen(input)==i&&error==0)

printf("\nAccepted..!!!\n");

else printf("\nRejected..!!!\n");

}

void E()
```

```
{  
    T();  
    Eprime();  
}  
void Eprime()  
{  
    if(input[i]=='+')  
    {  
        i++;  
        T();  
        Eprime();  
    }  
}  
void T()  
{  
    F();  
    Tprime();  
}  
void Tprime()  
{  
    if(input[i]=='*')  
    {  
        i++;  
        F();  
        Tprime();  
    }  
}
```

```
void F()
{
    if(isalnum(input[i]))i++;
    else if(input[i]=='(')
    {
        i++;
        E();
        if(input[i]==')')
            i++;

        else error=1;
    }

    else error=1;
}
```

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Language C ⌵ ⚙️

main.c

```
47- if(input[i]=='*')
48- {
49-     i++;
50-     F();
51-     Tprime();
52- }
53-
54- void F()
55- {
56-     if(isalnum(input[i]))i++;
57-     else if(input[i]=='(')
58-     {
59-         i++;
60-         F();
61-         if(input[i]=='')
62-             i++;
63-
64-         else error=1;
65-     }
66-
67-     else error=1;
68- }
69-
```

input

Enter an arithmetic expression : 1+2/3

Rejected..!!!

...Program finished with exit code 15
Press ENTER to exit console.␣

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58-     {
59-         i++;
60-         F();
61-         if(input[i]=='')
62-             i++;
63-
64-         else error=1;
65-     }
66-
67-     else error=1;
68- }
69-
```

input

Enter an arithmetic expression : 1+2*3

Accepted..!!!!

...Program finished with exit code 15
Press ENTER to exit console.␣

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