

# RECURSIVE DESCENT PARSER

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S7 CSE B

24

```
#include<stdio.h>
#include<string.h>

void F();
void T();
void E();
void E1();
void T1();
char read();
int i,l,f = 0;
char str[30],c1;

void main()
{
    printf("Enter the string:\n");
    gets(str);
    c1=str[0];
    E();
    if(c1!="\0" || f==1)
        printf("String rejected!!\n");
    else
        printf("String accepted.\n");
}

char read()
{
    char c;
    i++;
    c=str[i];
    return c;
}

void E()
{
    T();
    E1();
}

void T()
{
    F();
    T1();
}

void F()
{
    if(isalpha(c1))
        c1 = read();
    else if(c1=='(')
    {
        c1=read();
        E();
    }
}
```

```

        if(c1=='')
            c1=read();
        else
            f = 1;
    }
    else
        f = 1;
}

void T1()
{
    if(c1=='*')
    {
        c1 = read();
        F();
        T1();
    }
}

void E1()
{
    if(c1=='+')
    {
        c1 = read();
        T();
        E1();
    }
}

```

## OUTPUT

```

30413@user:/mnt/30413/s7comp/rec_parser$ ./rec
Enter the string:
a+b+(c*b)
String accepted.
30413@user:/mnt/30413/s7comp/rec_parser$ ./rec
Enter the string:
a-b
String rejected!!

```