

```
import java.io.* ;
import java.util.* ;

class ParserDemo
{
    // Variablen

    public static String t = new String(" ( 3 + 5 ) * 4" ) ;

    public String aktString[] = new String[21] ;

    // Sequenz segmentieren

    ParserDemo (String s)
    {
        analysiereSequenz (s) ;
    }

    public static boolean id (String s)
    {
        if ( s.equals ("3") || s.equals ("4") || s.equals ("5")) {return true;} return false ;
    }

    public static boolean expression (String s)
    {
        if ( s.equals ("id")) {return true;} return false ;
    }

    public int lies ( String t)
    {
        StringTokenizer sT = new StringTokenizer (t) ;

        int i = 0 ;

        // System.out.println ( "" + t + "<amlesen" ) ;

        while ( sT.countTokens() > 0 )
        {
            aktString[i] = sT.nextToken () ;
            System.out.println ( aktString[i] + ", " + i + ", " + sT.countTokens() ) ;
            i++ ;
        }

        return sT.countTokens() ;
    }

    // Teilsequenzen analysieren

    public int analysiereSequenz (String t)
    {
        int i = lies (t) ;

        System.out.println ("liest: " + aktString [0] ) ;

        System.out.println ("sucht: (E)" ) ;

        i++;
        t = aktString [i] ;
    }
}
```

```

System.out.println ("liest: " + t) ;

if ( id (aktString[i]))
{
    System.out.println ("erkannt: id") ;

    if ( expression ("id"))
    {
        System.out.println ("erkannt: E" ) ;
    }

    i++;
    t = aktString [i] ;
    System.out.println ("liest: " + t) ;

    if ( aktString[i].equals("+") )
    {
        System.out.println ("sucht: E+E" ) ;

        i++;
        t = aktString [i] ;

        System.out.println ("liest: " + t) ;

        if ( id (aktString[i]))
        {
            System.out.println ("erkannt: id" ) ;

            if ( expression ("id"))
            {
                System.out.println ("erkannt: E" ) ;

                System.out.println ("erkannt: E+E" ) ;

                i++;
                t = aktString [i] ;

                System.out.println ("liest: " + t) ;

                if ( aktString[i].equals("\u0029"))
                {
                    System.out.println ("erkannt: (E+E)" ) ;
                    System.out.println ("erkannt: (E)" ) ;
                    System.out.println ("erkannt: E" ) ;
                }
            }
        }
    }
}

i++ ;
t = aktString[i] ;

System.out.println ("liest: " + t) ;

if ( aktString[i].equals("*"))

```

```
{
    System.out.println ("sucht: E*?" );

    i++;
    t = aktString[i];

    if ( id (aktString[i]))
    {
        System.out.println ("erkannt: id" );

        if ( expression ("id"))
        {
            System.out.println ("erkannt: E" );

            System.out.println ("erkannt: E*E" );
            System.out.println ("erkannt: E" );
            return 1 ;
        }
    }
}
return 0 ;
}

public static void main (String args[])
{
    ParserDemo pd = new ParserDemo (t);
}
}
```