(Training)

C:\Users\UO294067\Downloads\Training>cmd

Microsoft Windows [Versión 10.0.19044.2486]

(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\UO294067\Downloads\Training>dir

El volumen de la unidad C no tiene etiqueta.

El número de serie del volumen es: 9EDC-07D9

Directorio de C:\Users\UO294067\Downloads\Training

08/02/2023 13:23 <DIR> .

08/02/2023 13:23 <DIR> ..

08/02/2023 13:23 <DIR> exercise1

08/02/2023 13:23 <DIR> exercise2

28/01/2020 19:57 3 getTerminal.bat

1 archivos 3 bytes

4 dirs 673.484.648.448 bytes libres

C:\Users\UO294067\Downloads\Training\exercise1>dir

El volumen de la unidad C no tiene etiqueta.

El número de serie del volumen es: 9EDC-07D9

Directorio de C:\Users\UO294067\Downloads\Training\exercise1

08/02/2023 13:23 <DIR> .

08/02/2023 13:23 <DIR> ..

20/01/2015 12:37 10 test

30/01/2020 20:58 9.282 Yylex.class

2 archivos 9.292 bytes

2 dirs 673.456.316.416 bytes libres

(GOING TO NOTEPAD WITH test)

C:\Users\UO294067\Downloads\Training\exercise1>java Yylex test

Error: Could not find or load main class Yylex

Caused by: java.lang.ClassNotFoundException: Yylex

(IN OTHER COMPUTERS THIS SHOULD WORK, IF NOT DO THIS)

C:\Users\UO294067\Downloads\Training\exercise1>java -classpath ; Yylex test

SCANNER:: END //reads the characters and realices that is the token

SCANNER:: PLUS

SCANNER:: RP

(EDIT THE TEST FILE AND SAVE IT:

begin123

end

+

)

print)

C:\Users\UO294067\Downloads\Training\exercise1>java -classpath ; Yylex test

SCANNER:: BEGIN

SCANNER:: NUMBER <123> //value of this token

SCANNER:: END

SCANNER:: PLUS

SCANNER:: RP

SCANNER:: PRINT

(EXERCISES 2-----)

C:\Users\UO294067\Downloads\Training\exercise1>cd ..

C:\Users\UO294067\Downloads\Training>cd exercise2

C:\Users\UO294067\Downloads\Training\exercise2>dir

El volumen de la unidad C no tiene etiqueta.

El número de serie del volumen es: 9EDC-07D9

Directorio de C:\Users\UO294067\Downloads\Training\exercise2

08/02/2023 13:23 <DIR> .

08/02/2023 13:23 <DIR> ..

03/02/2020 14:28 93 generateScanner.bat //script to generate scaner

18/03/2019 13:33 1.292.580 jflex-full-1.7.0.jar //jflex tool

30/01/2020 19:39 336 specFile.lex //contains all the regex and actions

18/01/2019 10:14 11 test

4 archivos 1.293.020 bytes

2 dirs 673.411.764.224 bytes libres

(IR A SPECFILE AND EDIT WITH NOTEPAD++)

import java.io.InputStreamReader;

import java.lang.System;

%%

%char

%public

%standalone

%full //will be an application itself

%% //third sections: rules section

; {System.out.println("SCANNER:: SEMICOLON");}

"+" {System.out.println("SCANNER:: PLUS");}

begin {System.out.println("SCANNER:: BEGIN");}

(" "|\t|\n)+ {}

. {System.out.println("SCANNER:: Unmatched String");}

//you can put evertyhing in “ “, but some words are necessary such + that has a different meaning

// (" "|\t|\n)+ space or tab or new line. The + indicates positive closure

// {} empty action, we don’t do anything

// . it’s like a default in a switch. If a word doesn’t matches any of the word before, then print "SCANNER:: Unmatched String"

C:\Users\UO294067\Downloads\Training\exercise2>generateScanner.bat specFile

C:\Users\UO294067\Downloads\Training\exercise2>java -jar jflex-full-1.7.0.jar specFile.lex

Reading "specFile.lex"

Constructing NFA : 32 states in NFA //BUild ands NFA (automata)

Converting NFA to DFA : //transform to DFA

...............

17 states before minimization, 11 states in minimized DFA //and it’s minimiced it

Writing code to "Yylex.java" //writes the code to Yylex.java

C:\Users\UO294067\Downloads\Training\exercise2>javac Yylex.java //call javac to compile it

C:\Users\UO294067\Downloads\Training\exercise2>IF EXIST Yylex.java~ del Yylex.java~

(NOW WE HAVE YYLEX.CLASS AND YYLEX.JAVA)

(EXERCISE 6: EDIT TEST FILE THE EXERCISE 2)

C:\Users\UO294067\Downloads\Training\exercise2>java -classpath ; Yylex test

SCANNER:: BEGIN

SCANNER:: PLUS

SCANNER:: PLUS

SCANNER:: SEMICOLON

(6.2 go to specFile.lex and change, and save:

import java.io.InputStreamReader;

import java.lang.System;

%%

%char

%public

%standalone

%full

%%

; {System.out.println("SCANNER:: SEMICOLON");}

"+" {System.out.println("SCANNER:: PLUS");}

BEGIN {System.out.println("SCANNER:: BEGIN");}

(" "|\t|\n)+ {}

. {System.out.println("SCANNER:: Unmatched String");})

C:\Users\UO294067\Downloads\Training\exercise2>generateScanner.bat specFile

C:\Users\UO294067\Downloads\Training\exercise2>java -jar jflex-full-1.7.0.jar specFile.lex

Reading "specFile.lex"

Constructing NFA : 32 states in NFA

Converting NFA to DFA :

...............

17 states before minimization, 11 states in minimized DFA

Old file "Yylex.java" saved as "Yylex.java~"

Writing code to "Yylex.java"

C:\Users\UO294067\Downloads\Training\exercise2>javac Yylex.java

C:\Users\UO294067\Downloads\Training\exercise2>IF EXIST Yylex.java~ del Yylex.java~

C:\Users\UO294067\Downloads\Training\exercise2>java -classpath ; Yylex test

SCANNER:: Unmatched String

SCANNER:: Unmatched String

SCANNER:: Unmatched String

SCANNER:: Unmatched String

SCANNER:: Unmatched String

SCANNER:: PLUS

SCANNER:: PLUS

SCANNER:: SEMICOLON

(Edit specFile and save:

import java.io.InputStreamReader;

import java.lang.System;

%%

%char

%public

%standalone

%full

%%

; {System.out.println("SCANNER:: SEMICOLON");}

"+" {System.out.println("SCANNER:: PLUS");}

begin {System.out.println("SCANNER:: BEGIN");}

end {System.out.println("SCANNER:: end");}

(" "|\t|\n)+ {}

. {System.out.println("SCANNER:: Unmatched String");}

)

(Edit test:

beginend

begin

++

;

)

C:\Users\UO294067\Downloads\Training\exercise2>generateScanner.bat specFile

C:\Users\UO294067\Downloads\Training\exercise2>java -jar jflex-full-1.7.0.jar specFile.lex

Reading "specFile.lex"

Constructing NFA : 38 states in NFA

Converting NFA to DFA :

..................

20 states before minimization, 14 states in minimized DFA

Old file "Yylex.java" saved as "Yylex.java~"

Writing code to "Yylex.java"

C:\Users\UO294067\Downloads\Training\exercise2>javac Yylex.java

C:\Users\UO294067\Downloads\Training\exercise2>IF EXIST Yylex.java~ del Yylex.java~

C:\Users\UO294067\Downloads\Training\exercise2>java -classpath ; Yylex test

SCANNER:: BEGIN

SCANNER:: end

SCANNER:: BEGIN

SCANNER:: PLUS

SCANNER:: PLUS

SCANNER:: SEMICOLON