* MiniLan.lex edit with notepad++

Ex.1 and 2 \_\_\_\_\_\_\_\_\_\_\_\_

import java.io.InputStreamReader;

import java.lang.System;

%%

%char

%public

%standalone

%full

DIGIT=([0-9])

INTEGER=({DIGIT}+)

LETTER=([A-Za-z])

BLANK=(" "|\t)

COMMENT=("//"({LETTER}|{DIGIT}|{BLANK})\*)

%%

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

"+" {System.out.println("SCANNER:: found Operator ADD");}

"-" {System.out.println("SCANNER:: found Operator MINUS");}

"\*" {System.out.println("SCANNER:: found Operator MULT");}

"/" {System.out.println("SCANNER:: found Operator DIV");}

"(" {System.out.println("SCANNER:: found symbol LP");}

")" {System.out.println("SCANNER:: found symbol RP");}

"<" {System.out.println("SCANNER:: found symbol LT");}

">" {System.out.println("SCANNER:: found symbol GT");}

"==" {System.out.println("SCANNER:: found symbol EQ");}

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

end {System.out.println("SCANNER:: found Reserved Word END");}

print {System.out.println("SCANNER:: found Reserved Word PRINT");}

{INTEGER} {System.out.println("SCANNER:: found NUMBER <"+ yytext() +">");}

{COMMENT} {System.out.println("SCANNER:: comment line <"+ yytext() +">");}

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

. {System.out.println("SCANNER:: Unmatched input <"+ yytext() +">");}

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Exercise 3

import java.io.InputStreamReader;

import java.lang.System;

%%

%char

%public

%standalone

%full

DIGIT=([0-9])

INTEGER=({DIGIT}+)

LETTER=([A-Za-z])

BLANK=(" "|\t)

COMMENT=("//"({LETTER}|{DIGIT}|{BLANK})\*)

REAL=({DIGIT}\*"."{DIGIT}+) | ({DIGIT}+"."{DIGIT}\*)

%%

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

"+" {System.out.println("SCANNER:: found Operator ADD");}

"-" {System.out.println("SCANNER:: found Operator MINUS");}

"\*" {System.out.println("SCANNER:: found Operator MULT");}

"/" {System.out.println("SCANNER:: found Operator DIV");}

"(" {System.out.println("SCANNER:: found symbol LP");}

")" {System.out.println("SCANNER:: found symbol RP");}

"<" {System.out.println("SCANNER:: found symbol LT");}

">" {System.out.println("SCANNER:: found symbol GT");}

"==" {System.out.println("SCANNER:: found symbol EQ");}

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

end {System.out.println("SCANNER:: found Reserved Word END");}

print {System.out.println("SCANNER:: found Reserved Word PRINT");}

{REAL} {System.out.println("SCANNER:: found REAL <"+ yytext() +">");}

{INTEGER} {System.out.println("SCANNER:: found NUMBER <"+ yytext() +">");}

{COMMENT} {System.out.println("SCANNER:: comment line <"+ yytext() +">");}

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

. {System.out.println("SCANNER:: Unmatched input <"+ yytext() +">");}

\_\_\_\_\_\_

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>generateScanner.bat

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>java -jar jflex-full-1.7.0.jar MiniLan.lex

Reading "MiniLan.lex"

Constructing NFA : 106 states in NFA

Converting NFA to DFA :

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

44 states before minimization, 32 states in minimized DFA

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

Writing code to "Yylex.java"

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>javac Yylex.java

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>java -classpath ; Yylex test

SCANNER:: found Reserved Word PRINT

SCANNER:: found Reserved Word BEGIN

SCANNER:: found Reserved Word END

SCANNER:: found Operator ADD

SCANNER:: found Operator MINUS

SCANNER:: found Operator MULT

SCANNER:: comment line <// >

SCANNER:: found symbol LP

SCANNER:: found symbol RP

SCANNER:: found symbol LT

SCANNER:: found symbol EQ

SCANNER:: found symbol GT

SCANNER:: found NUMBER <321>

SCANNER:: found REAL <4.35>

SCANNER:: found REAL <.345>

SCANNER:: found REAL <43.>

SCANNER:: Unmatched input <.>

SCANNER:: comment line <// dot is not a real number>

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Exercise 5

import java.io.InputStreamReader;

import java.lang.System;

%%

%char

%public

%standalone

%full

DIGIT=([0-9])

INTEGER=({DIGIT}+)

LETTER=([A-Za-z])

BLANK=(" "|\t)

COMMENT=("//"({LETTER}|{DIGIT}|{BLANK})\*)

REAL=({DIGIT}\*"."{DIGIT}+) | ({DIGIT}+"."{DIGIT}\*)

IDENT=({LETTER}(({LETTER}|{DIGIT}|"\_")\*({LETTER}|{DIGIT}))\*)

%%

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

"+" {System.out.println("SCANNER:: found Operator ADD");}

"-" {System.out.println("SCANNER:: found Operator MINUS");}

"\*" {System.out.println("SCANNER:: found Operator MULT");}

"/" {System.out.println("SCANNER:: found Operator DIV");}

"(" {System.out.println("SCANNER:: found symbol LP");}

")" {System.out.println("SCANNER:: found symbol RP");}

"<" {System.out.println("SCANNER:: found symbol LT");}

">" {System.out.println("SCANNER:: found symbol GT");}

"==" {System.out.println("SCANNER:: found symbol EQ");}

"=" {System.out.println("SCANNER:: found Operator SET");}

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

end {System.out.println("SCANNER:: found Reserved Word END");}

print {System.out.println("SCANNER:: found Reserved Word PRINT");}

{REAL} {System.out.println("SCANNER:: found REAL <"+ yytext() +">");}

{INTEGER} {System.out.println("SCANNER:: found NUMBER <"+ yytext() +">");}

{COMMENT} {System.out.println("SCANNER:: comment line <"+ yytext() +">");}

{IDENT} {System.out.println("SCANNER:: found IDENT <"+ yytext() +">");}

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

. {System.out.println("SCANNER:: Unmatched input <"+ yytext() +">");}

\_\_\_\_

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>generateScanner.bat

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>java -jar jflex-full-1.7.0.jar MiniLan.lex

Reading "MiniLan.lex"

Constructing NFA : 122 states in NFA

Converting NFA to DFA :

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

47 states before minimization, 34 states in minimized DFA

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

Writing code to "Yylex.java"

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>javac Yylex.java

C:\Users\UO294067\Desktop\AMD Paula\ScannerMiniLan>java -classpath ; Yylex test

SCANNER:: found Reserved Word PRINT

SCANNER:: found Reserved Word BEGIN

SCANNER:: found Reserved Word END

SCANNER:: found Operator ADD

SCANNER:: found Operator MINUS

SCANNER:: found Operator MULT

SCANNER:: comment line <// >

SCANNER:: found symbol LP

SCANNER:: found symbol RP

SCANNER:: found symbol LT

SCANNER:: found symbol EQ

SCANNER:: found symbol GT

SCANNER:: found NUMBER <321>

SCANNER:: found REAL <4.35>

SCANNER:: found REAL <.345>

SCANNER:: found REAL <43.>

SCANNER:: Unmatched input <.>

SCANNER:: comment line <// dot is not a real number>

SCANNER:: found IDENT <Suma>

SCANNER:: found Operator SET

SCANNER:: found REAL <3.>

SCANNER:: found Operator ADD

SCANNER:: found NUMBER <1>

SCANNER:: found Operator DIV

SCANNER:: found REAL <.8>

SCANNER:: found Operator MULT

SCANNER:: found IDENT <tend>