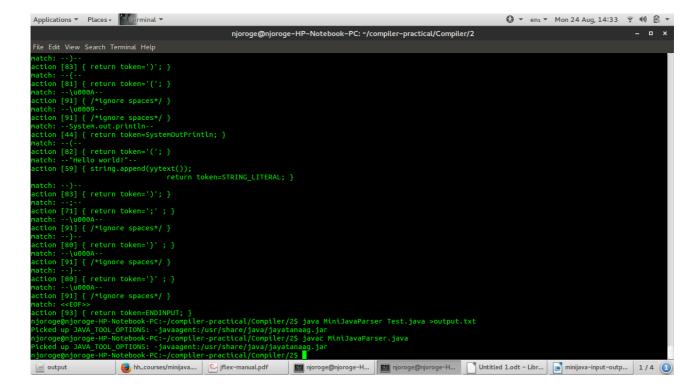**Njoroge John Mungai**
Reg No: C026-0718/2012
Assignment: Compiler Construction for MiniJava grammar

Compile lexer

Create parser

Compile parser and scanner

```
match: --)--
action [83] { return token=')'; }
match: --{--
action [81] { return token='{'; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --\u0009--
action [91] { /*ignore spaces*/ }
match: --System.out.println--
action [44] { return token=SystemOutPrintln; }
match: --(--
action [82] { return token='('; }
match: --"Hello world!"--
action [59] { string.append(yytext());
                            return token=STRING_LITERAL; }
match: --)--
action [83] { return token=')'; }
match: --;--
action [71] { return token=';' ; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --}--
action [80] { return token='}' ; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --}--
action [80] { return token='}' ; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: <<EOF>>
action [93] { return token=ENDINPUT; }
njoroge@njoroge-HP-Notebook-PC:~/compiler-practical/Compiler/2$ java MiniJavaParser Test.java >output.txt
Picked up JAVA_TOOL_OPTIONS: -javaagent:/usr/share/java/jayatanaag.jar
njoroge@njoroge-HP-Notebook-PC:~/compiler-practical/Compiler/2$ javac MiniJavaParser.java
Picked up JAVA_TOOL_OPTIONS: -javaagent:/usr/share/java/jayatanaag.jar
njoroge@njoroge-HP-Notebook-PC:~/compiler-practical/Compiler/2$
```

Input file(Test.java):

public class Test{
public static void main(String [] args){
        System.out.println("Hello world!");
}
}

Scanner output


```
Picked up JAVA_TOOL_OPTIONS: -javaagent:/usr/share/java/jayatanaag.jar
njoroge@njoroge-HP-Notebook-PC:~/compiler-practical/Compiler/3$ java MiniJavaParser Test.java
Picked up JAVA_TOOL_OPTIONS: -javaagent:/usr/share/java/jayatanaag.jar
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --public--
action [36] { return token=t_public; }
match: -- --
action [91] { /*ignore spaces*/ }
match: --class--
action [37] { return token=t_class; }
match: -- --
action [91] { /*ignore spaces*/ }
match: --Test--
action [55] { lexVal=new String(yytext());
                      return token=IDENTIFIER; }
match: --{--
action [81] { return token='{'; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --public--
action [36] { return token=t_public; }
match: -- --
action [91] { /*ignore spaces*/ }
match: -- --
action [91] { /*ignore spaces*/ }
match: --static--
action [42] { return token=t_static; }
match: -- --
action [91] { /*ignore spaces*/ }
match: --void--
action [47] { return token=t_void; }
match: -- --
action [91] { /*ignore spaces*/ }
match: --main--
action [54] { return token=t_main; }
```

File   Edit   View   Search   Terminal   Help

```
action [91] { /*ignore spaces*/ }
match: --args--
action [55] { lexVal=new String(yytext());
                           return token=IDENTIFIER; }
match: --)--
action [83] { return token=')'; }
match: --{--
action [81] { return token='{'; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --\u0009--
action [91] { /*ignore spaces*/ }
match: --System.out.println--
action [44] { return token=SystemOutPrintln; }
match: --(--
action [82] { return token='('; }
match: --"Hello world!"--
action [59] { string.append(yytext());
                             return token=STRING_LITERAL; }
match: --)--
action [83] { return token=')'; }
match: --;--
action [71] { return token=';' ; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --}--
action [80] { return token='}' ; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: --}--
action [80] { return token='}' ; }
match: --\u000A--
action [91] { /*ignore spaces*/ }
match: <<EOF>>
action [93] { return token=ENDINPUT; }
njoroge@njoroge-HP-Notebook-PC:~/compiler-practical/Compiler/3$
```