Lex regular expressions

abc : The abc string.

"abc" : Same as above.

'" : A double quote character.

[abc] : a, b or c. Same as a|b|c.

[a-zA-Z] : Any alphabetical character.

[1-9] : A non-zero digit.

[+-]? : +, - or neither. Same as +| - $|\epsilon|$.

(Wa)?(Luigi) : Luigi or WaLuigi.

[0-9]+ : A non-empty sequence of digits.

[0-9]* : Any number of digits in a row. Same as ([0-9]+)?.

[^a] : Any character except a.

[^abc] : Any character except a, b and c.

[] : A space character.

[\t\n] : Any form of whitespace. (A space, a tab or a line feed)

. : Any character except \n. Same as [^\n].

\. : The dot character.

[.] : A dot character.

$$0x(0|([1-9a-fA-F][0-9a-fA-F]*))$$

A hexadecimal number starting with a 0x. Example: 0xFFFF or 0xabc22D.

Note that when writing regular expressions, you should avoid using whitespaces with the intent of making the code more readable.

The below statement is not a substitution to the one stated above.

$$0x (0 | ([1-9a-fA-F] [0-9a-fA-F] *))$$

$$(r1)/(r2)$$
 : r1, only if followed by r2.

This lookahead operator does not consume the lookahead characters. (r2 is tokenized separately.)

Example:

- 1. {integer}/[=]
- 2. "=="

Input: 100==20

100 is returned by rule 1.

== is returned by rule 2.

20 is not matched by rule 1, since it is not followed by an = character.