

Compiler#2 Project

Language:

$\Sigma = \{[0-9]\} \cup \{[a-z]\} \cup \{[A-Z]\}$

$\cup \{+, -, *, /, |, \&, \sim, =, <, >, !, @, ;, (,), \{, \}, [,], ", ', ., _ , \# , - , \}$

$[0-9] \rightarrow \{0,1,2,3,4,5,6,7,8,9\}$

$[a-z] \rightarrow \{a, b, c, d, \dots, z\}$

$[A-Z] \rightarrow \{A, B, C, D, \dots, Z\}$

Letter = $\{[a-z]\} \cup \{[A-Z]\} \cup _$

Digit = $\{[0-9]\}$

Space = White space

Enter = new line

Regular Expressions:

1- Identifiers

Letter (Letter | Digit)*

2-Constants (No leading zeros)

$[0-9]([0-9])^*$

3- Relational operators

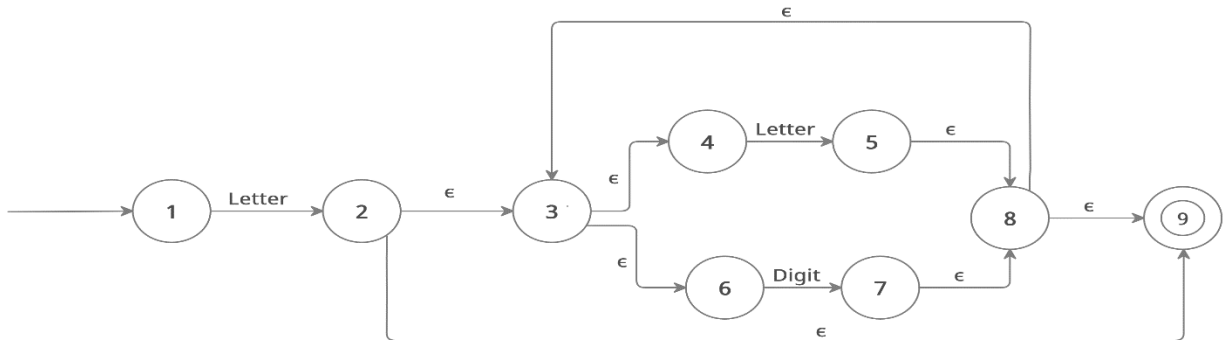
$(< | >) | (< | > | ! | =)$

4- Comments and uncomments

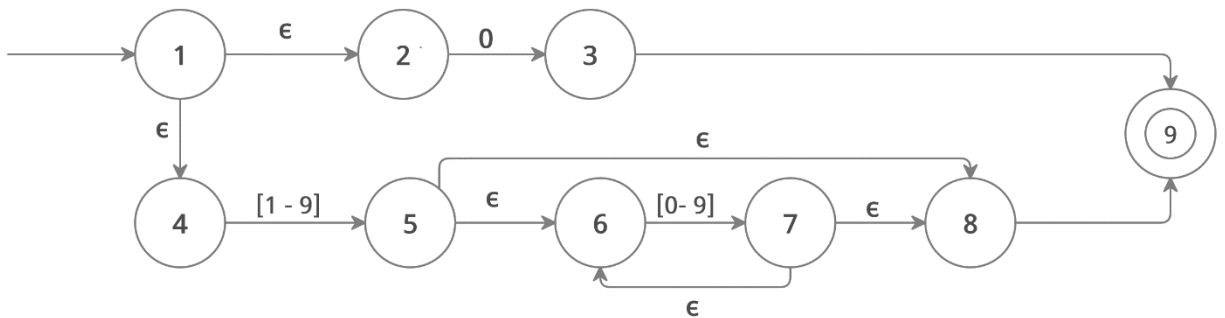
$/(#|-) | \# /$

NFA:

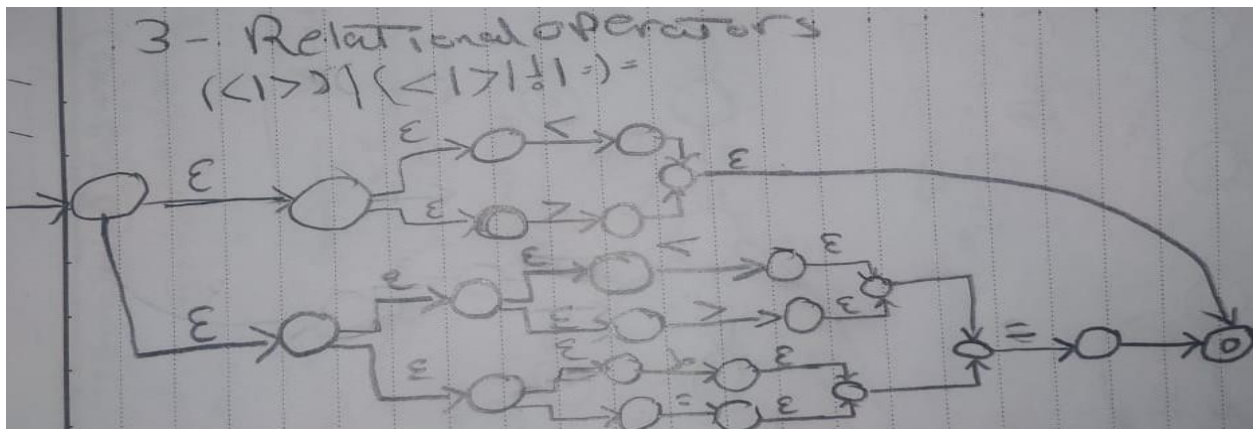
1- Identifier

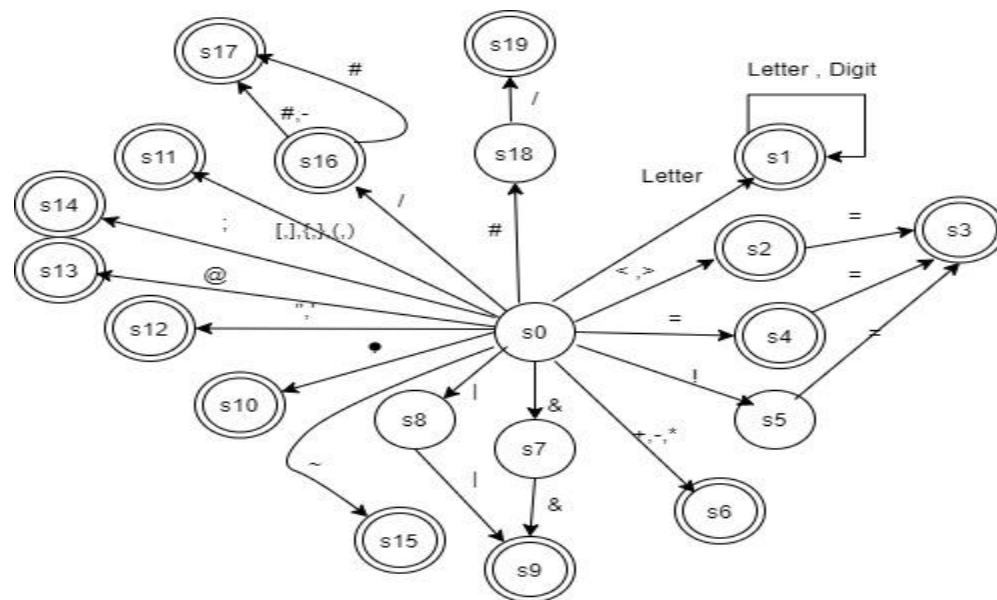


2- Constants

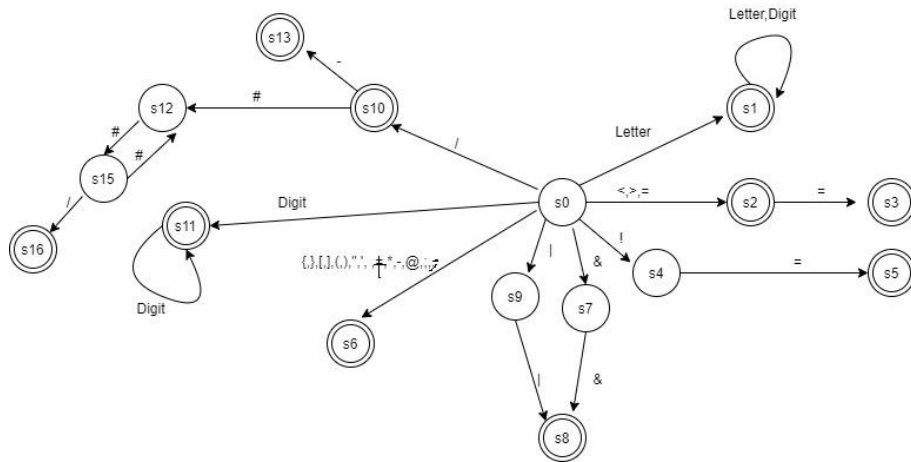


3 Relational operators





Minimization DFA:



Transition table:

[illegible]