

CS 419 Compiler

Project Form

Project Idea: Project 1

Team Members NO#: 22

ID	Name	Level & Depart ment	Section (Day - from -to)	Role (Lead/Member)	Grade
201900129	اسراء علي عبد القادر	3 & CS	الاربع من 10-12	Leader	
201900010	ابراهيم محمد السادات	3 & CS	الاربع من 10-12	Member	
201900034	احمد رجب نفادى احمد	3 & CS	الاربع من 10-12	Member	
201900347	سلمى خالد محمد الصاوى	3 & CS	الاربع من 12-2	Member	
201900883	مينا ميلاد جرجس حنين	3 & CS	الاربع من 2-4	Member	
201900156	اشرفت محمد ابو العلا محمد	3 & CS	الاربع من 10-12	Member	
201900212	اية وحيد محمد فرج	3 & CS	الأربع من 12-2	Member	

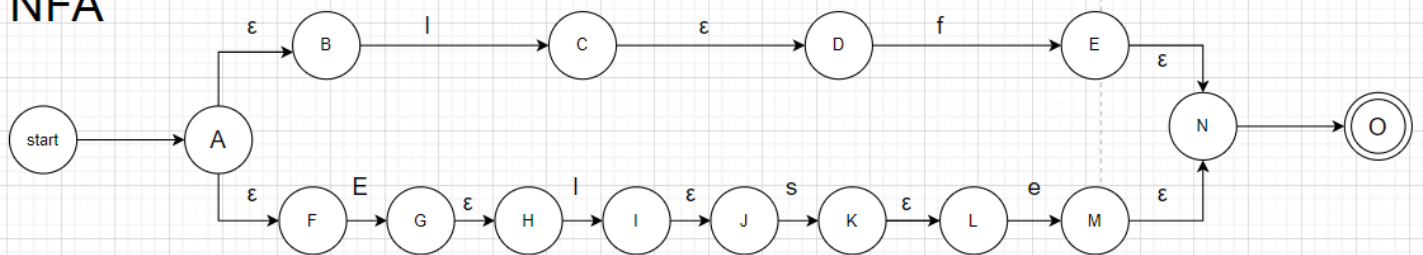
Regular Expression, Finite automata and Conversion from RegX to NFA, NFA to DFA

If – Else

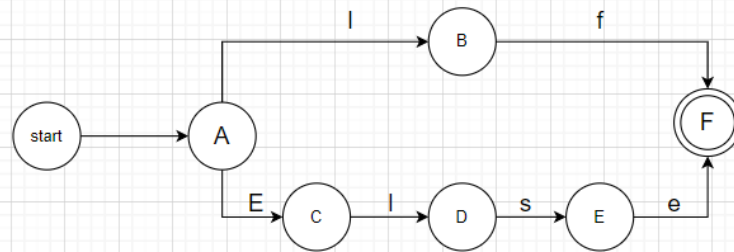
RE : (If | Else)

If - Else

NFA



DFA

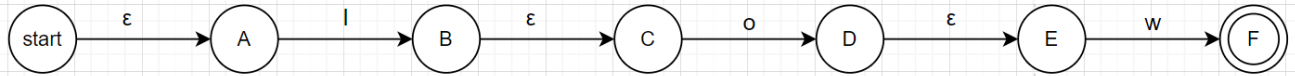


Iow

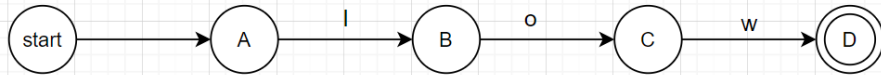
RE: (Iow)

Iow

NFA



DFA

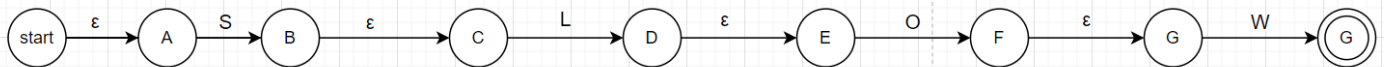


Slow

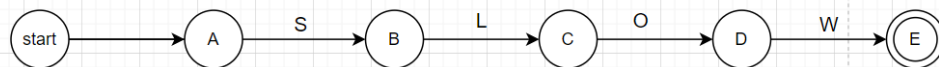
RE: (Slow)

SLOW

NFA



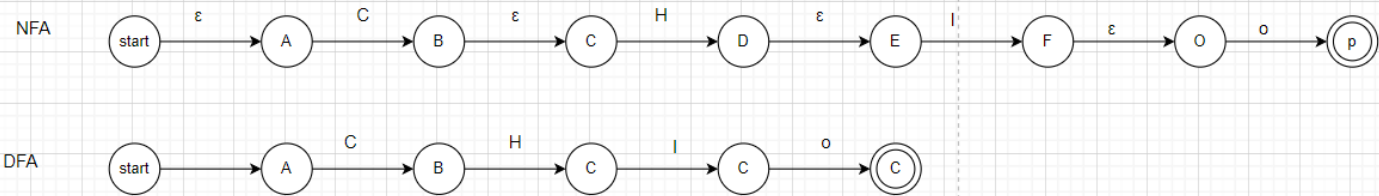
DFA



Chlo

RE : (Chlo)

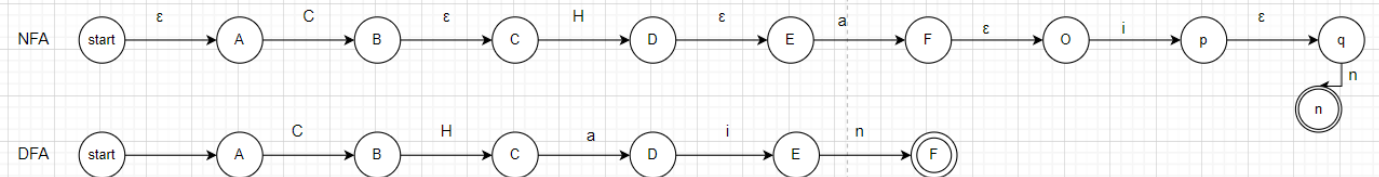
chlo



Chain

RE:(Chain)

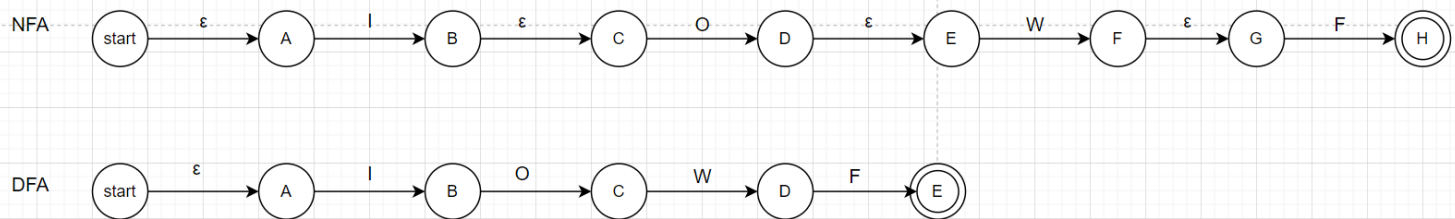
chain



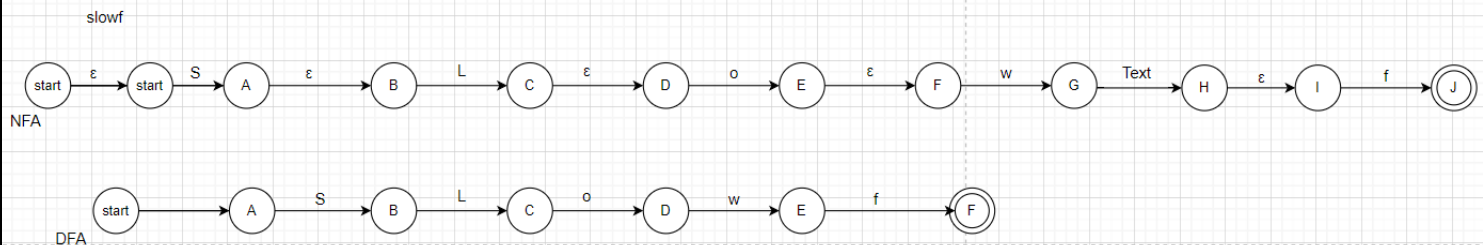
Iowf

RE: (Iowf)

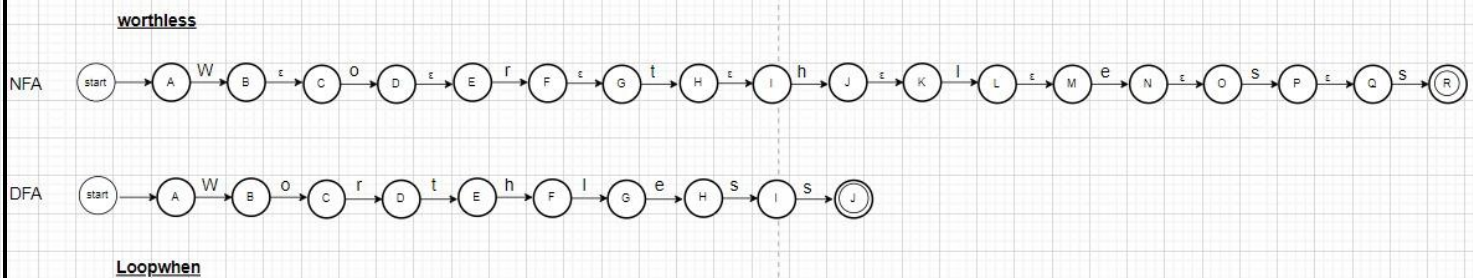
Iwof



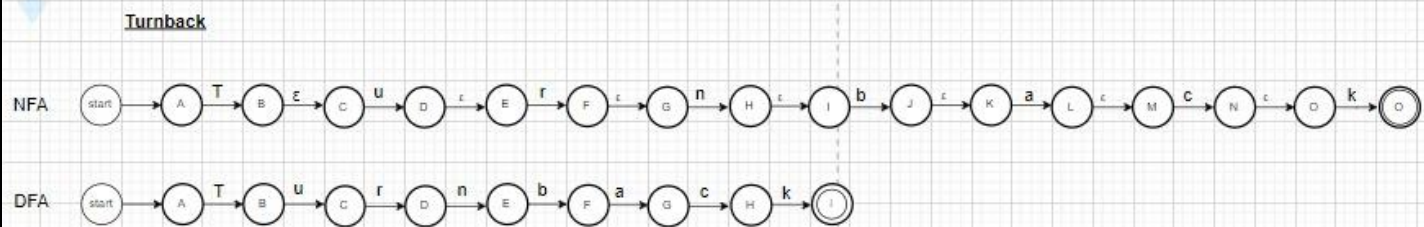
Slow RE: (Slow)



Worthless RE: (Worthless)



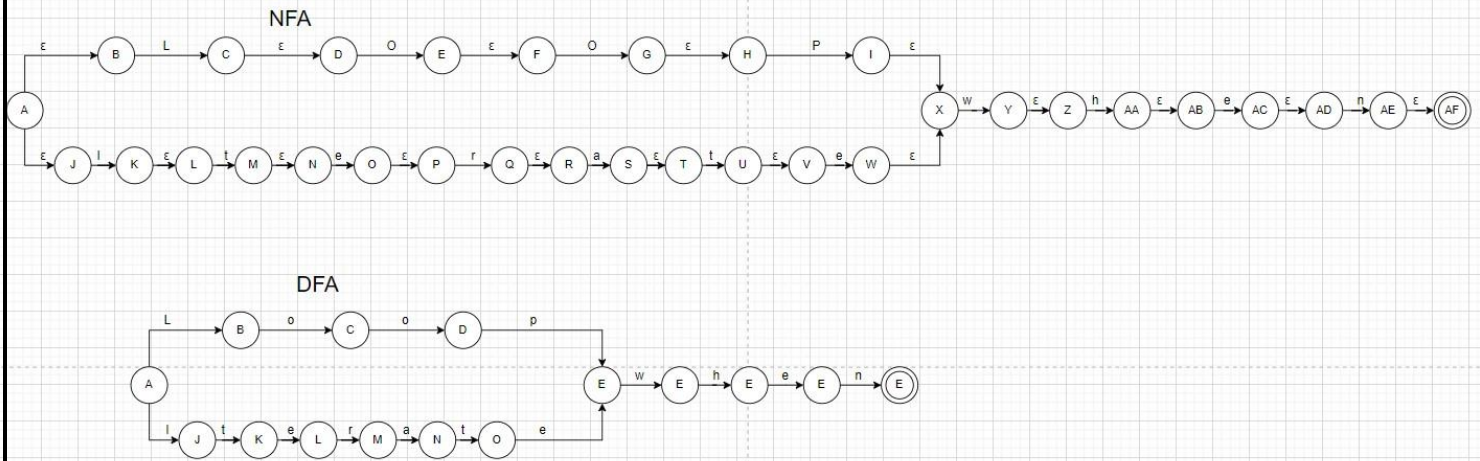
Turnback RE: (Turnback)



Loopwhen / Iteratewhen

RE: (Loopwhen | Iteratewhen)

Loopwhen / Iteratewhen

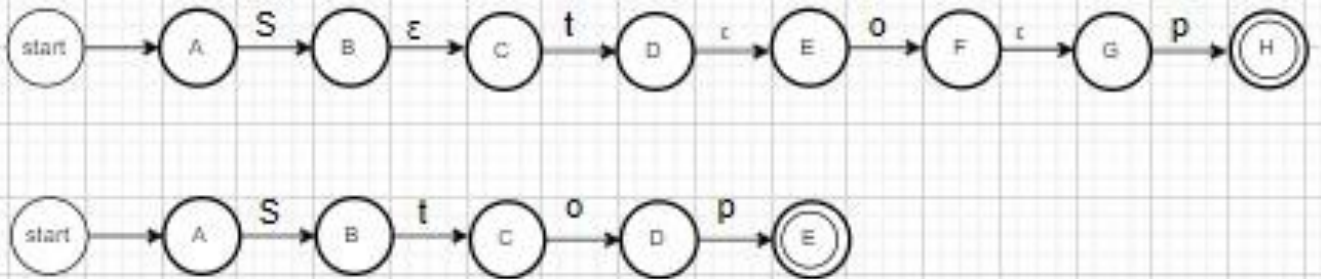


Stop

RE: (Stop)

Stop

NFA

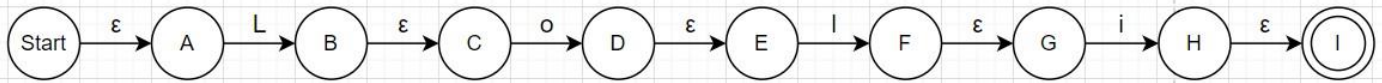


Loli

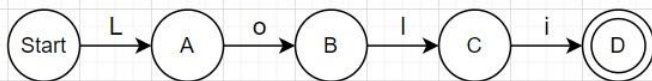
RE: (Loli)

Loli

NFA



DFA

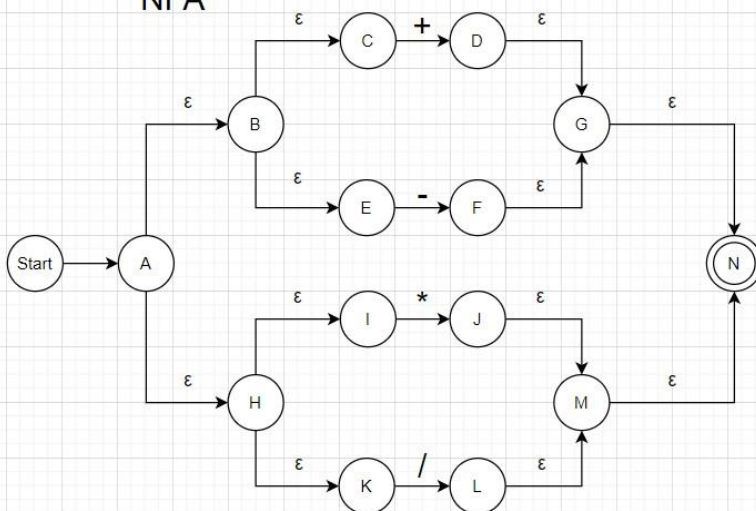


(+ , - , * , /)

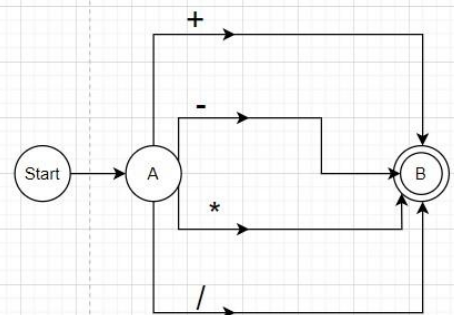
RE: (\+ | \- | * | /)

+ - * /

NFA

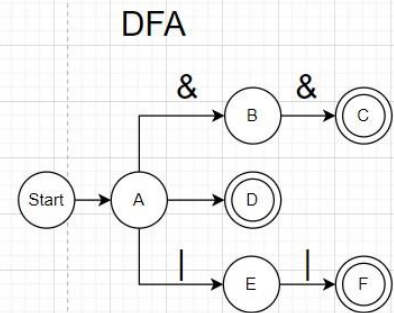
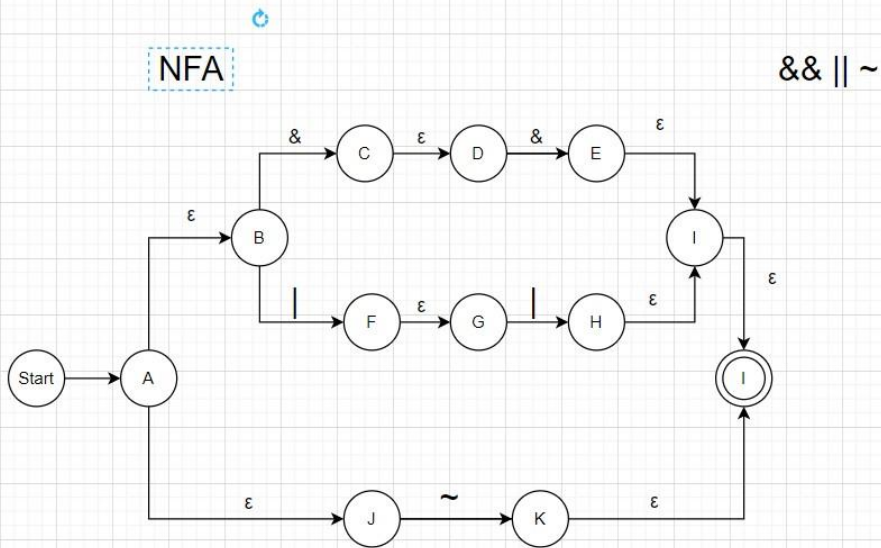


DFA



(&& , || , ~)

RE: (\&& | \| | \~)

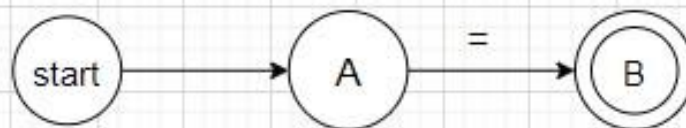


(=)

RE: (=)

=

NFA & DFA

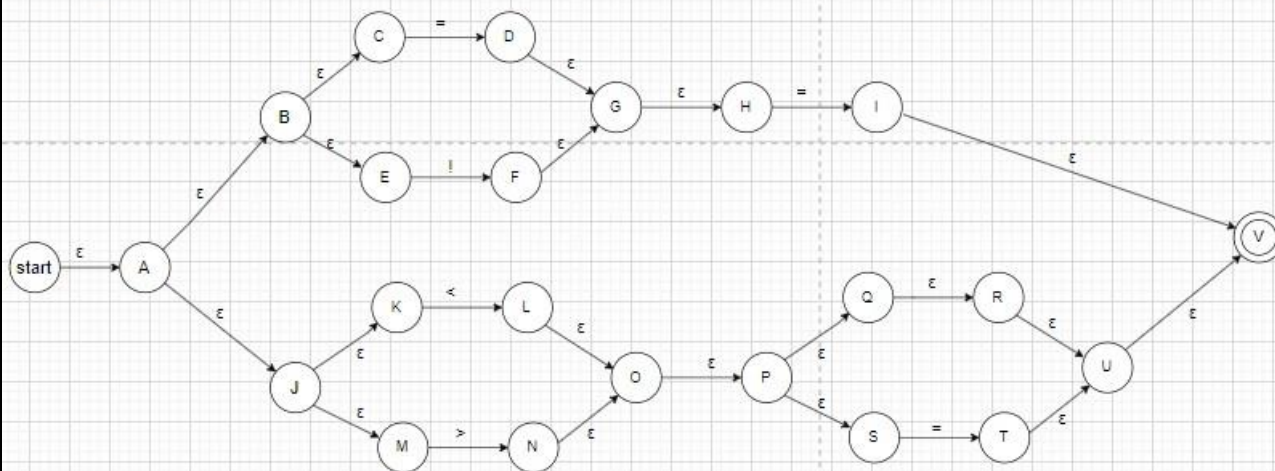


(== , < , > , != , <= , >=)

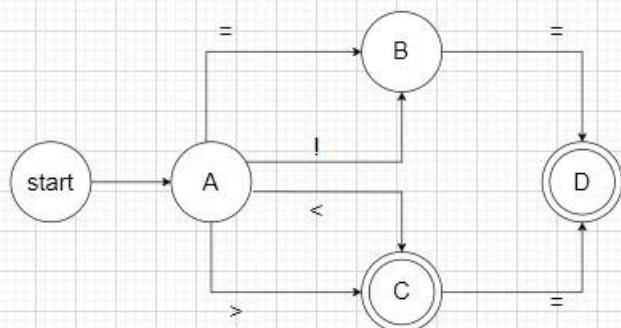
RE: ((== | !=) | (=* | (< | >)))

==, <, >, !=, <=, >=

NFA



DFA

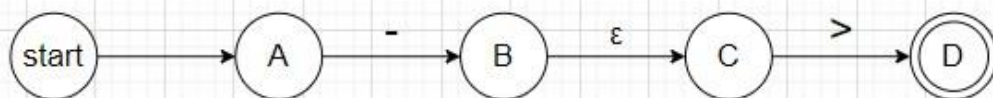


(->)

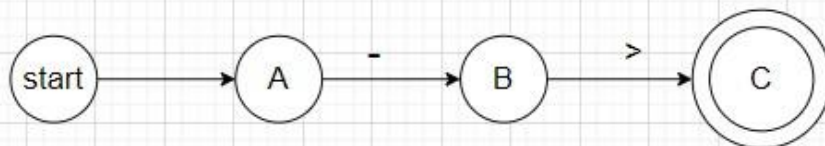
RE: (->)

->

NFA



DFA



(Include)

RE: (Include)

Include

NFA



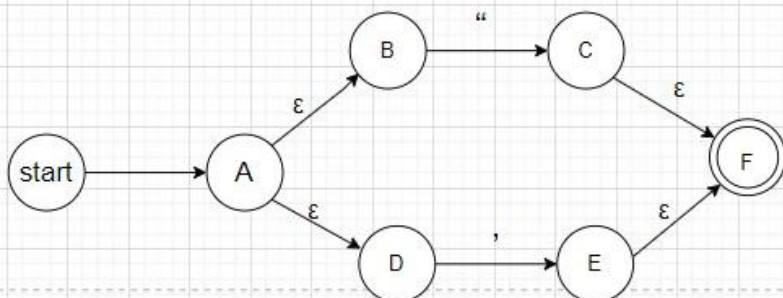
DFA



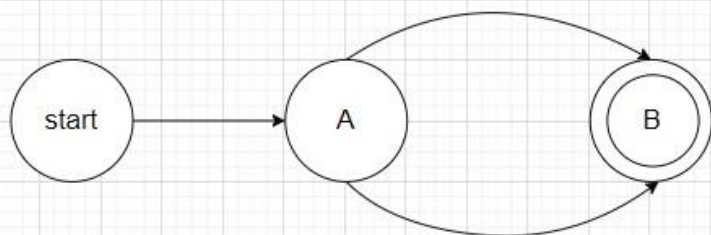
(“ , ’)
RE: (“ | ’)

“ ’
’

NFA



DFA



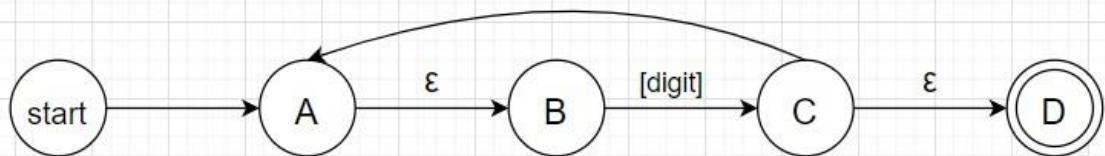
([0-9]) and any combination

RE: ([0-9])

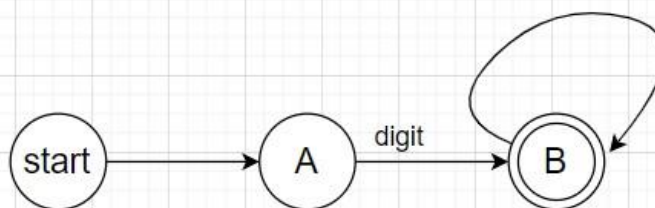
RE2: (\d+)

**[0-9] and any
combination**

NFA



DFA

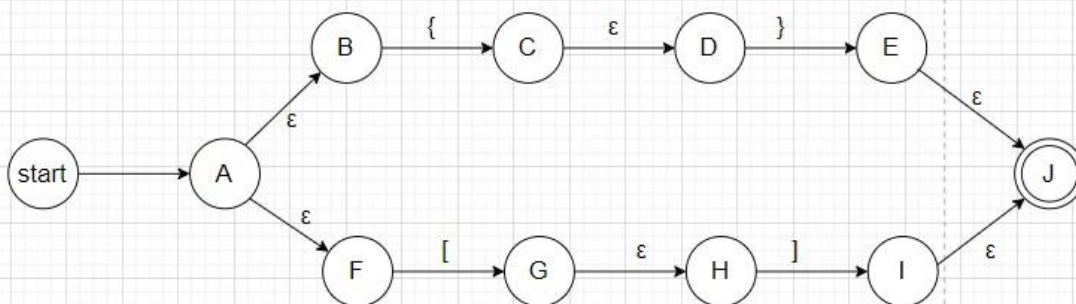


$(\{, \}, [,])$

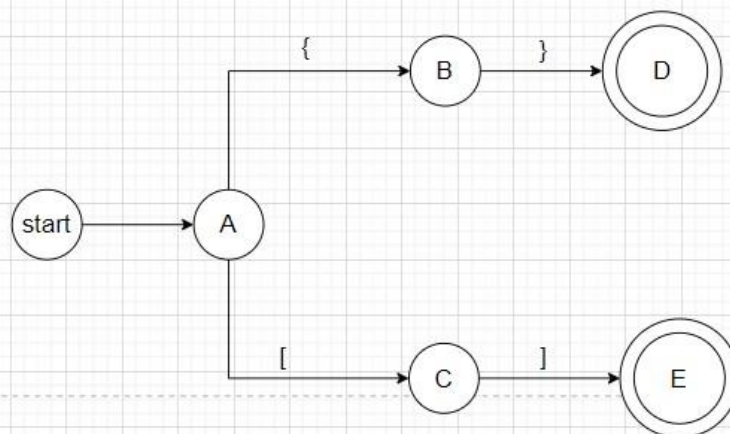
RE: $((\{, \}) | ([,]))$

$\{, \}, [,]$

NFA

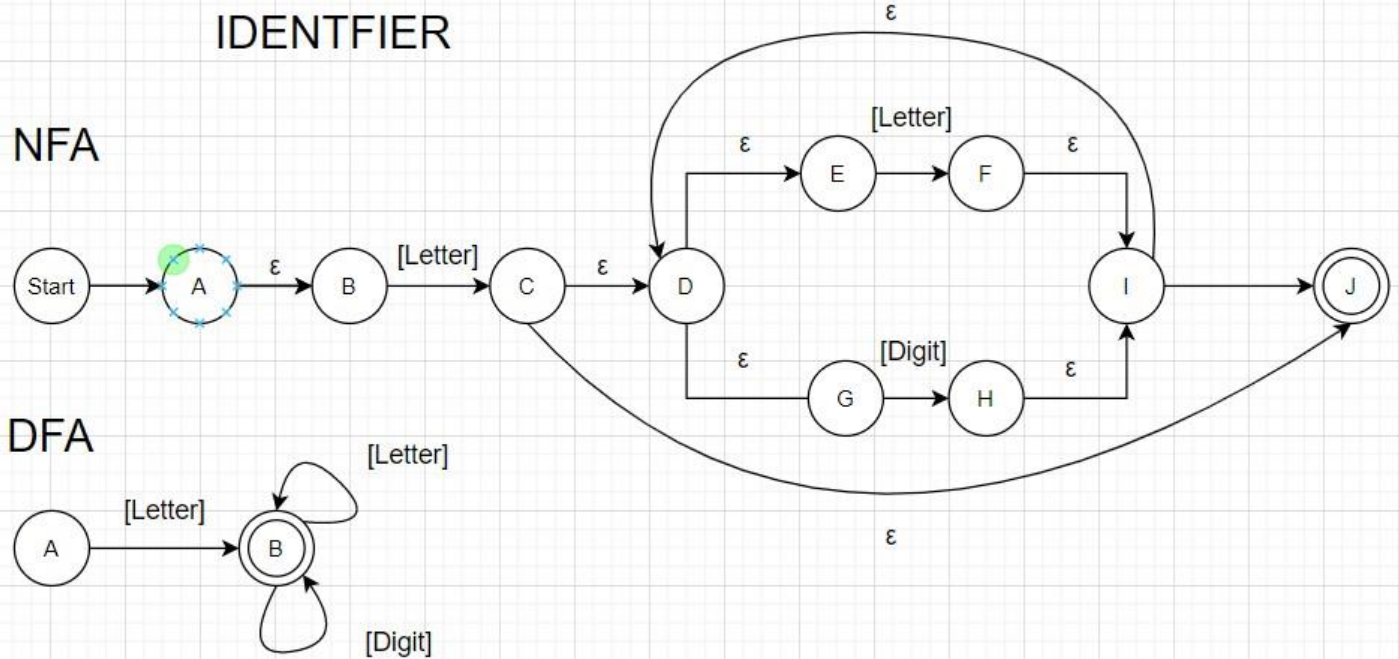


DFA

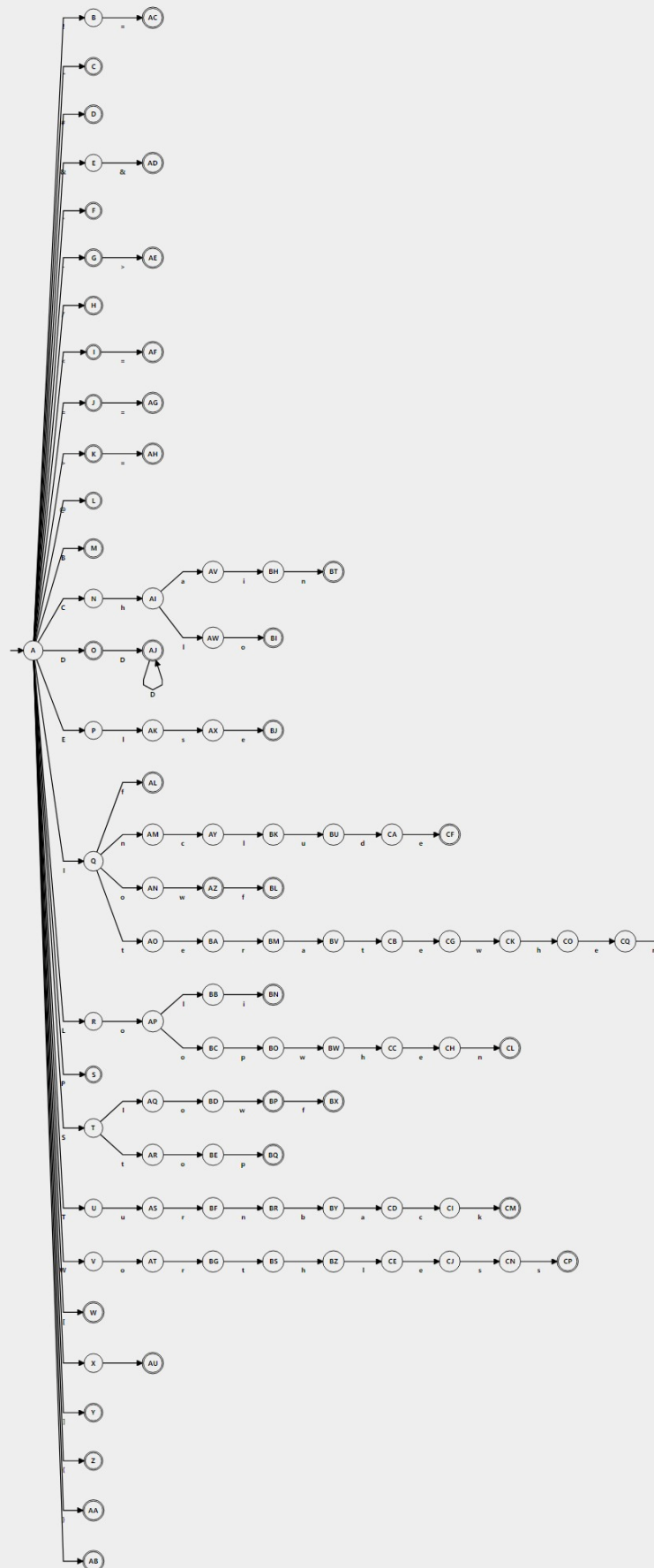


Identifier

RE: ([letter][letter|digit]*)



Full DFA



Parse tree and Abstract syntax tree