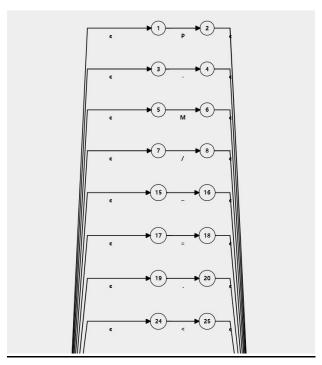
Compiler Scanner #2:

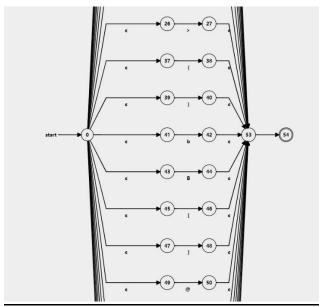
1-Symbols:

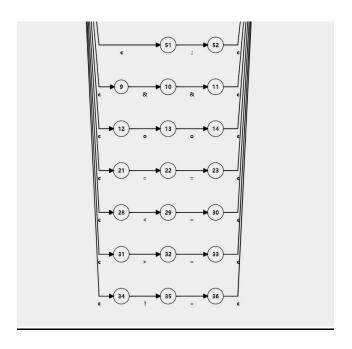
1.1-Symbols Regular Expression:

 $\mathsf{RE} = (+|-|*|/|\&\&|^{\sim}|oo|=|.|==|<|>|<=|>=|!=|\{|\}|(|)|[|]|,|@|;)$

1.2-Symbols NFA:





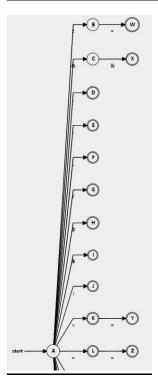


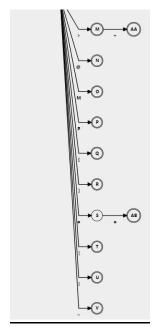
1.3-Symbols Transition table:

| NFA STATE | DFA STAT E | ТҮРЕ | ! | & | , | - | • | / |) | (| ; | < | = | > | @ | * | + | [|] | 0 | { | } | ~ |
|--|------------------|--------|---|---|---|---|---|---|---|---|---|---|--------|---|-----|---|---|---|---|--------|---|---|-----------|
| {0,1,3,5,7,9,12,14,17,19,21,24,26,28,31,34,37,39,41,43,45,47,49,51,53} | А | | В | С | D | E | F | G | Н | I | J | K | L | M | 1 N | 0 | Р | Q | R | S | Т | U | V |
| {35} | В | | | | | | | | | | | | W | | | | | | | | | | |
| {10} | С | | | Х | | | | | | | | | | | | | | | | | | | |
| {50,55} | D | | | | | | | | | | | | | | | | | | | | | | |
| {4,55} | E | | | | | | | | | | | | | | | | | | | | | | |
| {20,55} | F | | | | | | | | | | | | | | | | | | | | | | |
| {8,55} | G | | | | | | | | | | | | | | | | | | | | | | |
| {44,55} | Н | | | | | | | | | | | | | | | | | | | | | | |
| {42,55} | 1 | | | | | | | | | | | | | | | | | | | | | | ш |
| {54,55} | J | | | | | | | | | | | | | | | | | | | | | | ш |
| {25,29,55} | K | | | | | | | | | | | | Υ | | | | | | | | | | ш |
| {18,22,55} | L | | | | | | | | | | | | Z | | | | | | | | | | \square |
| {27,32,55} | M | | | | | | | | | | | | A A | | | | | | | | | | |
| {52,55} | N | | | | | | | | | | | | | | | | | | | | | | |
| {6,55} | 0 | accept | | | | | | | | | | | | | | | | | | | | | |
| {2,55} | Р | accept | | | | | | | | | | | | | | | | | | | | | |
| {46,55} | Q | accept | | | | | | | | | | | | | | | | | | | | | |
| {48,55} | R | accept | | | | | | | | | | | | | | | | | | | | | |
| {15} | S | | | | | | | | | | | | | | | | | | | A B | | | |
| {38,55} | Т | accept | | | | | | | | | | | | | | | | | | | | | |
| {40,55} | U | accept | | | | | | | | | | | | | | | | | | | | | |
| {13,55} | V | accept | | | | | | | | | | | | | | | | | | | | | |
| {36,55} | W | accept | | | | | | | | | | | | | | | | | | | | | |
| {11,55} | Χ | accept | | | | | | | | | | | | | | | | | | | | | |

| {30,55} | Υ | accept | | | | | | | | | | |
|---------|----|--------|---|--|--|--|--|--|--|--|--|--|
| {23,55} | Z | accept | | | | | | | | | | |
| {33,55} | AA | accept | | | | | | | | | | |
| {16,55} | AB | accept | • | | | | | | | | | |

1.4-Symbols DFA:





2-Identifiers:

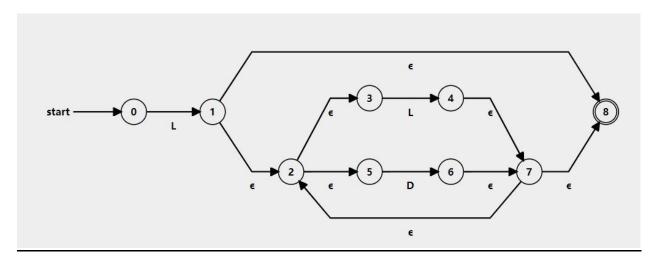
2.1-Identifiers Regular Expression:

 $L = ([a-z]|[A-Z]|_)$

D=[0-9]

RE=L(L|D)*

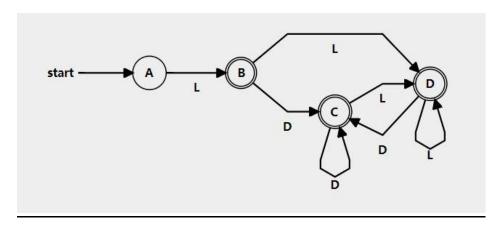
2.2-Identifiers NFA:



2.3-Identifiers Transition Table:

| NFA STATE | DFA STATE | TYPE | D | L |
|---------------|-----------|--------|---|---|
| {0} | Α | | | В |
| {1,2,3,5,8} | В | accept | С | D |
| {2,3,5,6,7,8} | С | accept | С | D |
| {2,3,4,5,7,8} | D | accept | С | D |

2.4-Identifiers DFA:



3-Keywords:

3.1-Keywords Regular Expression:

RE=(Divisio|InferedFrom|WhetherDo|Else|Ire|Sire|Clo|SetOfClo|FBU|SFBU|NoneValue|TerminateThisNow|RingWhen|BackedValue|STT|Check|CaseOf|Beginning|End|Using)

3.2-Keywords NFA:



3.3-Keywords Transition Table:

| NFA STATE | D F A S T A T E | T Y P E | | В | С | D | E | F | 1 | Z | O | R | S | T | U | V | > | а | С | d | е | f | g | h | i | k | _ | m | n | 0 | r | S | t | u | > | W |
|---------------------------|--------------------------------------|------------------|---|---|---|---|---|--------|---|---|---|---|---|--------|---|---|---|---|---|---|--------|---|---|--------|--------|---|---|---|---|--------|---|--------|---|---|---|---|
| {0} | Α | | В | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| {1,2,10,22, 32,37,41,4 | В | | | С | D | Ε | F | G | Н | I | | J | K | L | N | | Ν | | | | | | | | | | | | | | | | | | | |
| 6,50,59,63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ,68,78,95, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 104,116,1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20,126,13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3,143,147} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| {105,134} | С | | | | | | | | | | | | | | | | | 0 | | | Р | | | | | | | | | | | | | | | |
| {47,121,12 | D | | | | | | | | | | | | | | | | | Q | | | | | | R | | | S | | | | | | | | | |
| 7} | | | | | | | | | | | | | | | | | | | | | | | | | | | - | | | | | | | | | |
| {3} | Ε | | | | | | | | | | | | | | | | | | | | | | | | Т | | | | | | | | | | | |
| {33,144} | F | | | | | | | | | | | | | | | | | | | | | | | | | | U | | ٧ | | | | | | | |
| {60} | G | | | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| {11,38} | Н | | | | | | | | | | | | | | | | | | | | | | | | | | | | Χ | | Υ | | | | | |
| {69} | I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Z | | | | | | |
| {96} | J | | | | | | | | | | | | | | | | | | | | | | | | A A | | | | | | | | | | | |
| {42,51,64, 117} | K | | | | | | | A B | | | | | | A C | | | | | | | A D | | | | A E | | | | | | | | | | | |
| {79} | L | | | | | | | | | | | | | | | | | | | | A F | | | | | | | | | | | | | | | |
| {148} | М | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A G | | | | |
| {23} | N | | | | | | | | | | | | | | | | | | | | | | | A H | | | | | | | | 0 | | | | |
| {106} | 0 | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | |
| {135} | Р | | | | | | | | | | | | | | | | | | • | | | | A | | | | | | | | | | | | | |
| {128} | Q | | | | | | | | | | | | | | | | | | | | | | J | | | | | | | | | A K | | | | |
| {122} | R | | | | | | | | | | | | | | | | | | | | A L | | | | | | | | | | | - 1 | | | | |
| {48} | S | | | | | | | | | | | | | | | | | | | | _ | | | | | | | | | A N | | | | | | |

| {4} | Т | | | | | | | | | | | | | | | | | | | | | | A | |
|----------|--------|-----------------------|--------|--|--|--|--|--------|--------|--|--------|--------|--------|--------|--|--------|--------|--|--------|--------|--------|--------|---|--|
| {34} | U | | | | | | | | | | | | | | | | | | | | A O | | | |
| {145} | V | | | | | | | | | | | A P | | | | | | | | | | | | |
| {61} | W | | | | | | | | A Q | | | | | | | | | | | | | | | |
| {12} | Х | | | | | | | | | | | | | A R | | | | | | | | | | |
| {39} | Υ | | | | | | | | | | | | A S | | | | | | | | | | | |
| {70} | Z | | | | | | | | | | | | | | | | | | A T | | | | | |
| {97} | A A | | | | | | | | | | | | | | | | | | A U | | | | | |
| {65} | A B | | A V | | | | | | | | | | | | | | | | | | | | | |
| {118} | A C | | | | | | | A W | | | | | | | | | | | | | | | | |
| {52} | A D | | | | | | | | | | | | | | | | | | | | | A X | | |
| {43} | A E | | | | | | | | | | | | | | | | | | | A Y | | | | |
| {80} | A F | | | | | | | | | | | | | | | | | | | A Z | | | | |
| {149} | A G | | | | | | | | | | | | | | | B A | | | | | | | | |
| {24} | A H | | | | | | | | | | | | B B | | | | | | | | | | | |
| {107} | A | | | | | | | | | | | | | | | | B C | | | | | | | |
| {136} | A | | | | | | | | | | | | | | | B D | | | | | | | | |
| {129} | A K | | | | | | | | | | | | B E | | | | | | | | | | | |
| {123} | A L | | | | | | | | | | B F | | | | | | | | | | | | | |
| {49,153} | Α | a c c e p | | | | | | | | | - | | | | | | | | | | | | | |
| {5} | A N | | | | | | | | | | | | | | | B G | | | | | | | | |

| {35} | A 0 | | | | | | | | | | B H | | | | | | | | | |
|-----------|--------|-------------|--|--|--|--------|--|--------|--|--|--------|---|--|--|--------|--------|--|--------|--|--|
| {146,153} | A P | a c c e p t | | | | | | | | | | | | | | | | | | |
| {62,153} | A Q | а | | | | | | | | | | | | | | | | | | |
| {13} | A R | | | | | | | | | | B I | | | | | | | | | |
| {40,153} | A S | accept | | | | | | | | | | | | | | | | | | |
| {71} | A T | | | | | | | | | | B J | | | | | | | | | |
| {98} | A U | | | | | | | | | | | E | | | | | | | | |
| {66} | A V | | | | | | | B L | | | | | | | | | | | | |
| {119,153} | A W | a c c e p t | | | | | | | | | | | | | | | | | | |
| {53} | A X | | | | | B M | | | | | | | | | | | | | | |
| {44} | A Y | | | | | | | | | | B N | | | | | | | | | |
| {81} | A Z | | | | | | | | | | | | | | B O | | | | | |
| {150} | B A | | | | | | | | | | | | | | | B P | | | | |
| {25} | B B | | | | | | | | | | T | | | | | | | B Q | | |
| {108} | B C | | | | | | | | | | B R | | | | | | | | | |

| {137} | B D | | | | | | | | | | | | | | | | | | | B S | | | | |
|----------|--------|----------------------------|--|--|--|--|--------|--|--|--------|--------|--|--------|--------|--------|---|--------|--------|--|--------|--------|--------|--|--|
| {130} | B E | | | | | | B T | | | | | | | | | | | | | | | | | |
| {124} | B F | | | | | | | | | | | | | | | | | B U | | | | | | |
| {6} | B G | | | | | | | | | | | | | | | | | | | | | B V | | |
| {36,153} | B H | a c c e p t | | | | | | | | | | | | | | | | | | | | | | |
| {14} | B I | | | | | | | | | | | | | | | | | | | | B W | | | |
| {72} | B J | | | | | | | | | B X | | | | | | | | | | | | | | |
| {99} | B K | | | | | | | | | | B Y | | | | | | | | | | | | | |
| {67,153} | B L | a c c e p t | | | | | | | | | | | | | | | | | | | | | | |
| {54} | B M | | | | | | | | | | | | | B Z | | | | | | | | | | |
| {45,153} | B N | a c c e p t | | | | | | | | | | | | | | | | | | | | | | |
| {82} | B O | | | | | | | | | | | | | | | | C A | | | | | | | |
| {151} | B P | | | | | | | | | | | | | | C B | | | | | | | | | |
| {26} | B Q | | | | | | | | | | | | | | | C | | | | | | | | |
| {109} | B R | | | | | | | | | | | | C D | | | | | | | | | | | |
| {138} | B S | | | | | | | | | | | | | | | | | | | C E | | | | |
| {131} | B T | | | | | | | | | | | | | C F | | | | | | | | | | |

| {125,153} | B U | a c c e p | | | | | | | | | | | | | | | | | | | |
|-----------|--------|----------------------------|--|--------|--|--|--|--|--------|--------|--------|--------|--|---|--------|--------|---|--------|--|--|--|
| {7} | B V | | | | | | | | | | | | | | C G | | | | | | |
| {15} | B W | | | | | | | | | | | C H | | | | | | | | | |
| {73} | B X | | | | | | | | | C I | | | | | | | | | | | |
| {100} | B Y | | | | | | | | | | | | | C | | | | | | | |
| {55} | B Z | | | C K | | | | | | | | | | | | | | | | | |
| {83} | C A | | | | | | | | | | | | | | | | L | | | | |
| {152,153} | C B | a c c e p t | | | | | | | | | | | | | | | | | | | |
| {27} | C C | | | | | | | | | | | C M | | | | | | | | | |
| {110} | C D | | | | | | | | C N | | | | | | | | | | | | |
| {139} | C E | | | | | | | | | | | | | | C O | | | | | | |
| {132,153} | C F | a c c e p t | | | | | | | | | | | | | | | | | | | |
| {8} | C G | | | | | | | | | | | | | | | | | C P | | | |
| {16} | C H | | | | | | | | | | C Q | | | | | | | | | | |
| {74} | C I | | | | | | | | | | | | | | | C R | | | | | |
| {101} | C | | | | | | | | | | | C S | | | | | | | | | |
| {56} | C K | | | | | | | | | | | | | | | C T | | | | | |

| {84} | C L | | | | | | | | | C U | | | | | | | | | | | |
|-----------|--------|----------------------------|--|--------|--------|--|--|--|--|--------|--|--------|--------|--|--------|--------|--------|--------|--------|--------|--|
| {28} | C M | | | | | | | | | | | | | | | | | C V | | | |
| {111} | C N | | | | | | | | | C W | | | | | | | | | | | |
| {140} | C 0 | | | | | | | | | | | | | | | C | | | | | |
| {9,153} | C P | a c c e p t | | | | | | | | | | | | | | | | | | | |
| {17} | C Q | | | | C Y | | | | | | | | | | | | | | | | |
| {75} | C R | | | | | | | | | | | | | | | | | | | C Z | |
| {102} | C S | | | | | | | | | | | | | | | D A | | | | | |
| {57} | C T | | | | | | | | | | | | | | | | D B | | | | |
| {85} | C U | | | | | | | | | | | | | | | | | | D C | | |
| {29} | C V | | | D D | | | | | | | | | | | | | | | | | |
| {112} | C W | | | | | | | | | | | | | | D E | | | | | | |
| {141} | C X | | | | | | | | | | | | D F | | | | | | | | |
| {18} | C Y | | | | | | | | | | | | | | | | | D G | | | |
| {76} | C Z | | | | | | | | | | | D H | | | | | | | | | |
| {103,153} | D A | a c c e p t | | | | | | | | | | | | | | | | | | | |
| {58,153} | D B | a c c e p t | | | | | | | | | | | | | | | | | | | |

| {86} | D C | | | | | | | | | | D I | | | | | | | | |
|-----------|--------|-----------------------|--|--|--|--|--------|--|--|--|--------|--|--------|--|---|--------|--|--------|--|
| {30} | D D | | | | | | | | | | | | | | | D J | | | |
| {113} | D E | | | | | | | | | | | | | | | | | D K | |
| {142,153} | D F | a c c e p | | | | | | | | | | | | | | | | | |
| {19} | D G | | | | | | | | | | | | | | | D L | | | |
| {77,153} | D H | a c c e p | | | | | | | | | | | | | | | | | |
| {87} | D I | | | | | | D N | | | | | | | | | | | | |
| {31,153} | J | a c c e p | | | | | | | | | | | | | | | | | |
| {114} | D K | | | | | | | | | | D N | | | | | | | | |
| {20} | D L | | | | | | | | | | | | | | C | | | | |
| {88} | D M | | | | | | | | | | | | D P | | | | | | |
| {115,153} | D N | а | | | | | | | | | | | | | | | | | |
| {21,153} | D O | a c c e p | | | | | | | | | | | | | | | | | |

| {89} | D | | | | | | | | | | | | | D | | | | | | |
|----------|---|---|--|--|--|---|--|--|--|--|--|--|--|---|--|--|---|---|--|---|
| | Р | | | | | | | | | | | | | Q | | | | | | |
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| | Q | | | | | | | | | | | | | | | | | R | | |
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| {93} | D | | | | | | | | | | | | | | | | | | | D |
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3.4-Keywords DFA:

