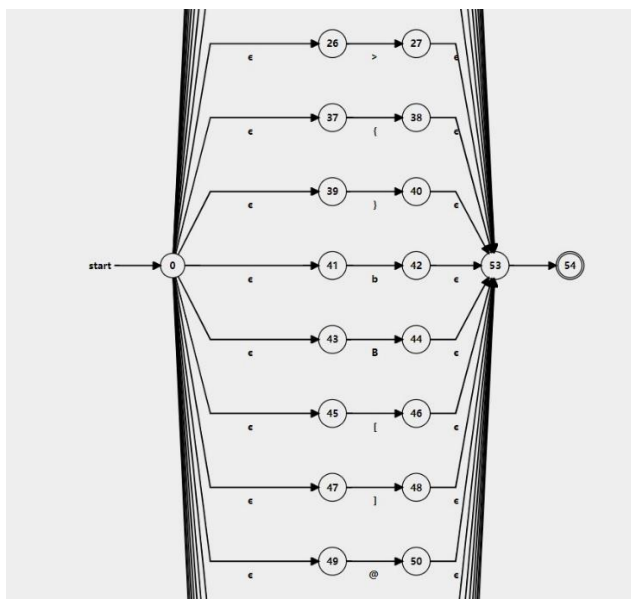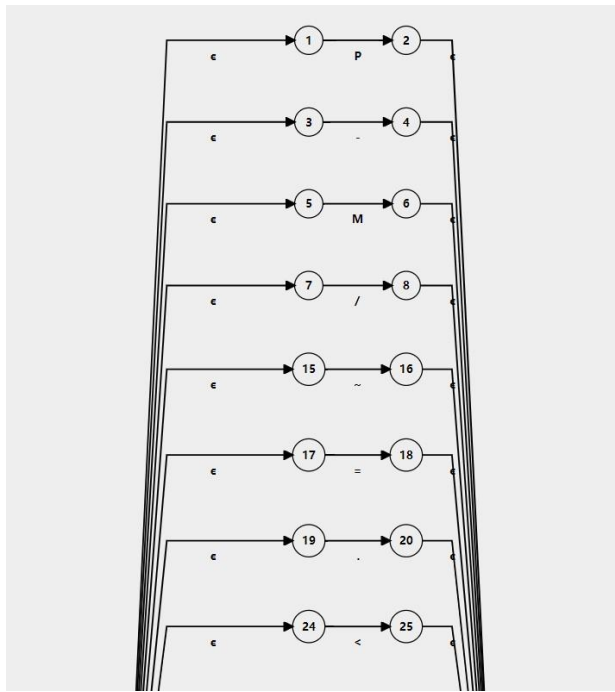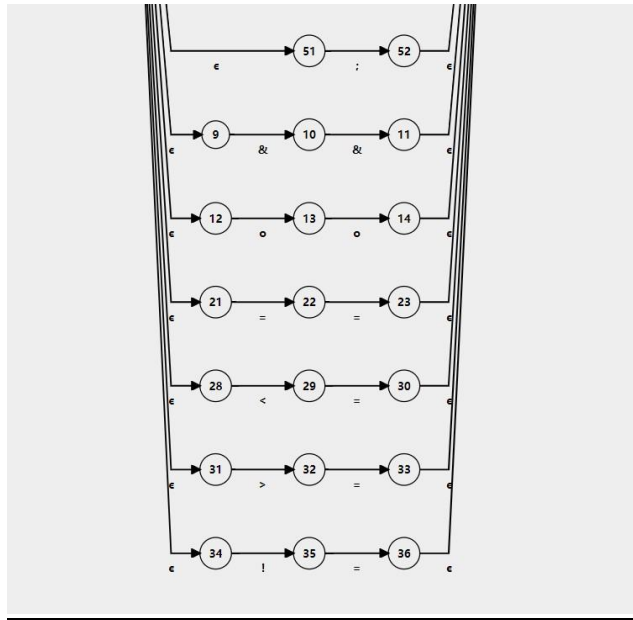# Compiler Scanner #2:

1-Symbols:

1.1-Symbols Regular Expression:

RE=(+|-|*|/|&&|~|oo|=|.|==|<|>|<=|>=|!=|{|}|(|)|[|]|,|@|;)

1.2-Symbols NFA:

1.3-Symbols Transition table:

NFA STATE	DFA STATE	TYPE	!	&	,	-	.	/	0	9	;	<	=	>	@	M	P	[	]	o	{	}	~
{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}	A		B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
{35}	B												W										
{10}	C			X																			
{50,55}	D																						
{4,55}	E																						
{20,55}	F																						
{8,55}	G																						
{44,55}	H																						
{42,55}	I																						
{54,55}	J																						
{25,29,55}	K												Y										
{18,22,55}	L												Z										
{27,32,55}	M												AA										
{52,55}	N																						
{6,55}	O	accept																					
{2,55}	P	accept																					
{46,55}	Q	accept																					
{48,55}	R	accept																					
{15}	S																				AB		
{38,55}	T	accept																					
{40,55}	U	accept																					
{13,55}	V	accept																					
{36,55}	W	accept																					
{11,55}	X	accept																					

{30,55}	Y	accept																					
{23,55}	Z	accept																					
{33,55}	AA	accept																					
{16,55}	AB	accept																					

1.4-Symbols DFA:
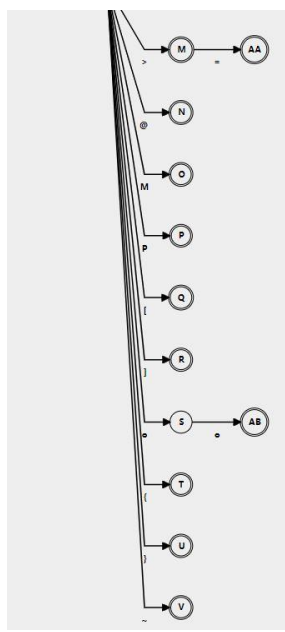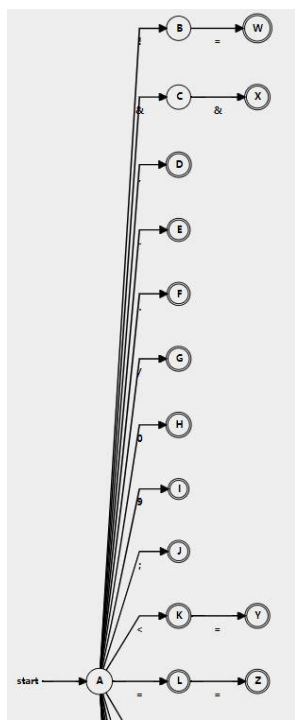
2-Identifiers:

2.1-Identifiers Regular Expression:

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

D=[0-9]

RE=L(L|D)*

2.2-Identifiers NFA:
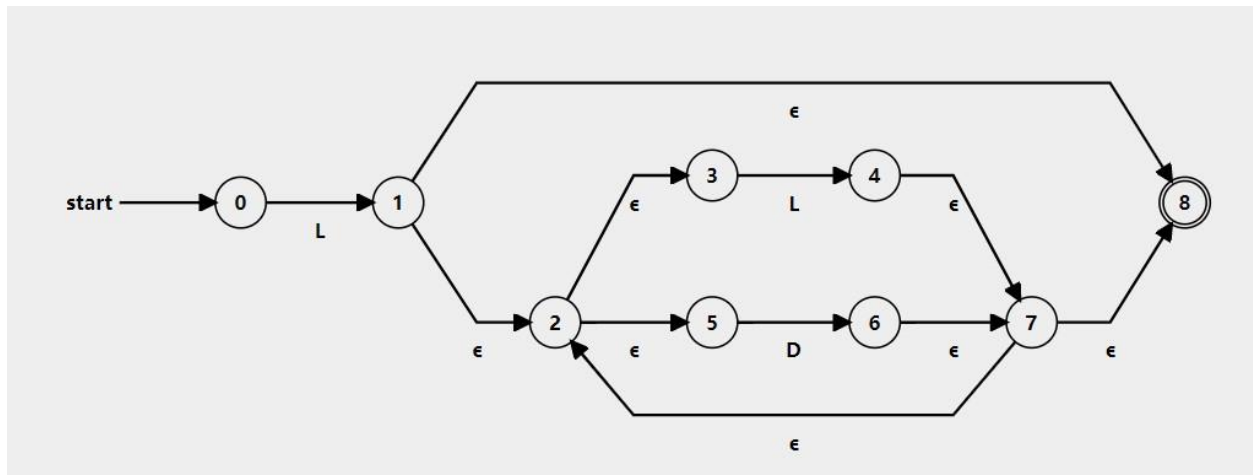
2.3-Identifiers Transition Table:

NFA STATE	DFA STATE	TYPE	D	L
{0}	A			B
{1,2,3,5,8}	B	accept	C	D
{2,3,5,6,7,8}	C	accept	C	D
{2,3,4,5,7,8}	D	accept	C	D

2.4-Identifiers DFA:
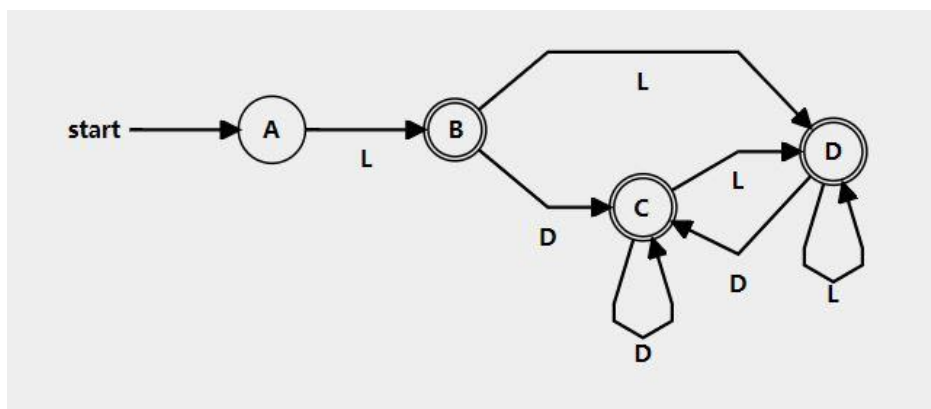
3-Keywords:

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	DFA STATE	TYPE	=	B	C	D	E	F	I	N	O	R	S	T	U	V	W	a	c	d	e	f	g	h	i	k	l	m	n	o	r	s	t	u	v	w
{0}	A		B																																	
{1,2,10,22,32,37,41,46,50,59,63,68,78,95,104,116,120,126,133,143,147}	B			C	D	E	F	G	H	I		J	K	L	M		N																			
{105,134}	C																	O			P															
{47,121,127}	D																	Q						R			S								
{3}	E																								T											
{33,144}	F																												U	V						
{60}	G				W																															
{11,38}	H																												X		Y					
{69}	I																													Z						
{96}	J																						AA													
{42,51,64,117}	K					AB			AC												AD		AE													
{79}	L																				AF															
{148}	M																													AG						
{23}	N																							AH												
{106}	O																	AI																		
{135}	P																						AJ													
{128}	Q																																	AK		
{122}	R																				AL															
{48}	S																													AM						

{4}	T																											AN
{34}	U																							AO				
{145}	V												AP															
{61}	W							AQ																				
{12}	X										AR																	
{39}	Y									AS																		
{70}	Z																AT AU											
{97}	AA																AT AU											
{65}	AB	AV																										
{118}	AC						AW																					
{52}	AD																					AX						
{43}	AE																	AY										
{80}	AF																	AZ										
{149}	AG												BA															
{24}	AH									BB																		
{107}	AI											BC																
{136}	AJ											BD																
{129}	AK									BE																		
{123}	AL								BF																			
{49,153}	AM	accept																										
{5}	AN											BG																

		c0	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14	c15	c16	c17	c18	c19	c20
{35}	AO											BH											
{146,153}	AP	accept																					
{62,153}	AQ	accept																					
{13}	AR											BI											
{40,153}	AS	accept																					
{71}	AT											BJ											
{98}	AU												BK										
{66}	AV								BL														
{119,153}	AW	accept																					
{53}	AX					BM																	
{44}	AY											BN											
{81}	AZ																	BO					
{150}	BA																		BP				
{25}	BB																					BQ	
{108}	BC											BR											

State	Label	accept	Other
{137}	BD		BS
{130}	BE		BT
{124}	BF		BU
{6}	BG		BV
{36,153}	BH	accept	
{14}	BI		BW
{72}	BJ		BX
{99}	BK		BY
{67,153}	BL	accept	
{54}	BM		BZ
{45,153}	BN	accept	
{82}	BO		CA
{151}	BP		CB
{26}	BQ		CC
{109}	BR		CD
{138}	BS		CE
{131}	BT		CF

State	Sym																								
{125,153}	BU	accept																							
{7}	BV																	CG							
{15}	BW														CH										
{73}	BX											CI													
{100}	BY																CJ								
{55}	BZ		CK																						
{83}	CA																			CL					
{152,153}	CB	accept																							
{27}	CC														CM										
{110}	CD										CN														
{139}	CE																CO								
{132,153}	CF	accept																							
{8}	CG																				CP				
{16}	CH															CQ									
{74}	CI																		CR						
{101}	CJ																CS								
{56}	CK																		CT						

Set	State																								
{84}	CL										CU														
{28}	CM																					CV			
{111}	CN										CW														
{140}	CO																			CX					
{9,153}	CP	accept																							
{17}	CQ				CY																				
{75}	CR																							CZ	
{102}	CS																		DA						
{57}	CT																			DB					
{85}	CU																					DC			
{29}	CV		DD																						
{112}	CW																DE								
{141}	CX														DF										
{18}	CY																				DG				
{76}	CZ													DH											
{103,153}	DA	accept																							
{58,153}	DB	accept																							

	State																			
{86}	DC											DI								
{30}	DD																	DJ		
{113}	DE																			DK
{142,153}	DF	accept																		
{19}	DG																	DL		
{77,153}	DH	accept																		
{87}	DI						DM													
{31,153}	DJ	accept																		
{114}	DK										DN									
{20}	DL													DO						
{88}	DM												DP							
{115,153}	DN	accept																		
{21,153}	DO	accept																		

State																																	
{89}	DP																				DQ													
{90}	DQ																												DR					
{91}	DR						DS																											
{92}	DS																										DT							
{93}	DT																																	DU
{94,153}	DU	accept																																

3.4-Keywords DFA: