

## RE to DFA direct method:

1.  $a(b|c|a)b^*aa$
2.  $(a|b)?bba$
3.  $aa+b|ca^*$
4.  $(a|b|\epsilon)^*bba$
5.  $ab(a|b)^*(b|c)^+$

## First and Follow:

Check this tutorial: [click](#)

# SLR Parsing

Draw a parse table and check if the input string is accepted or not.

1. Grammer:

$S \rightarrow AA$

$A \rightarrow aA|b$

Inputs:

- a. aabb
- b. abab
- c. abba
- d. abab

2. Grammer: \*\*\*

$E \rightarrow E + T$

$E \rightarrow T$

$T \rightarrow T * F$

$T \rightarrow F$

$F \rightarrow (E)$

$F \rightarrow id$

Inputs:

- a. (id)
- b. id+id\*id
- c. ididid
- d. (id\*id)+id

### 3. Grammar

$E \rightarrow T + E \mid T$

$T \rightarrow \text{int} * T \mid \text{int} \mid (E)$

Inputs:


int\*(int)

(int)+int

int\*int+int\*int

## Stack Implementation:

A parse table and an input string will be given. You have to identify whether the input is accepted or not.



### Corresponding Parse Table

	x	y	z	\$	S	A	B
1		s5	s6		s2	s3	s4
2				acc			
3	s8, r5			r5			
4				r2			
5		s5	s6			s7	s9
6	r4			r4			
7	r5			r5			
8		s5	s6			s7	s10
9	r3			r3			
10				r1			

Follow(S) = {\$}  
Follow(A) = {x,\$}  
Follow(B) = {x,\$}

1:  $S \rightarrow AxB$   
2:  $S \rightarrow B$   
3:  $A \rightarrow yB$   
4:  $A \rightarrow z$   
5:  $B \rightarrow A$

Input: zxbz