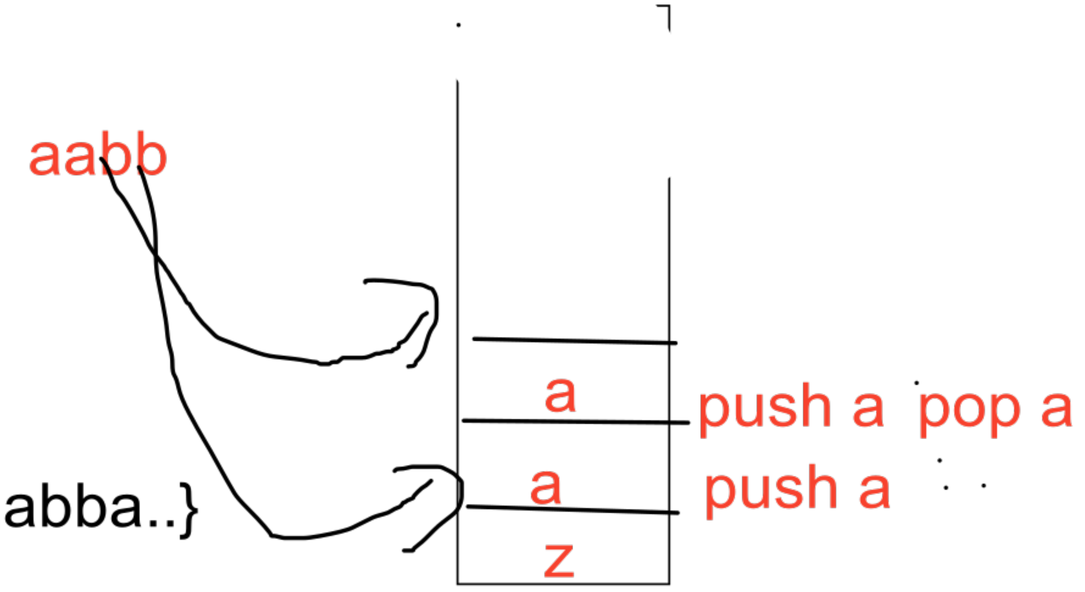
z0=z

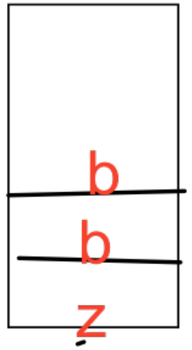
state transistion :

$\delta(q, \wedge, X) = p, Y$



consider a language L={ E, ab,ba,abab,baba,abba..}
construct a PDA

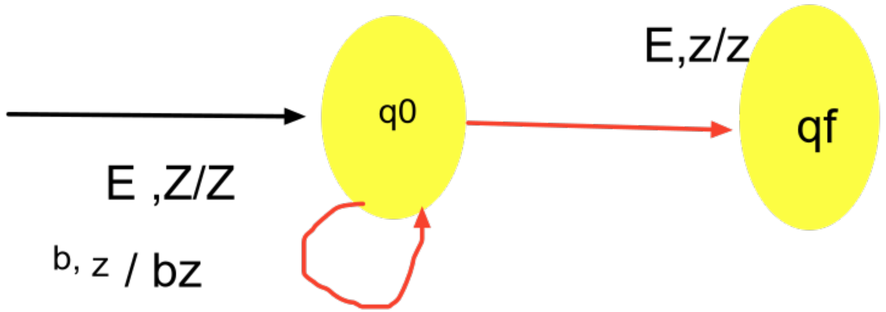
no of a = no of b

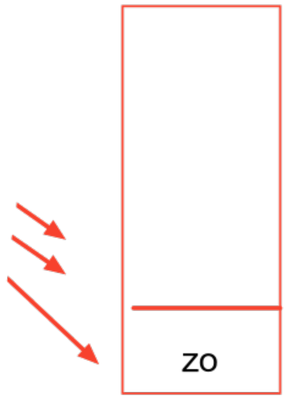


push b (when next a ,pop b)

E- EPLSION , Z0-Z

Constructe the PDA no of a should be equal to no of B





ABAB
AABB
BABA

bb
aa

aa
bb
ab

ba

a,a/aa

reading ip

top of the stack

aabbE

current input in stack

*(pop out)

when value is E i reach final state
when value is Z i reach final state

transtion function

δ (q0,a,z) =(q0,az)

δ (q0,E,Z)=(q0,Z)

δ (q0,b,z) =(q0,bz)

δ (q0, a,a) = (q0,aa)

δ (q0,b,b) =(q0,bb)

δ qo,a,b) = qo,E

δ (q0,b,a)= qo,E

δ (q1,E,Z)= q1,z

sai ranjan

natasha

devahuti

sauvik

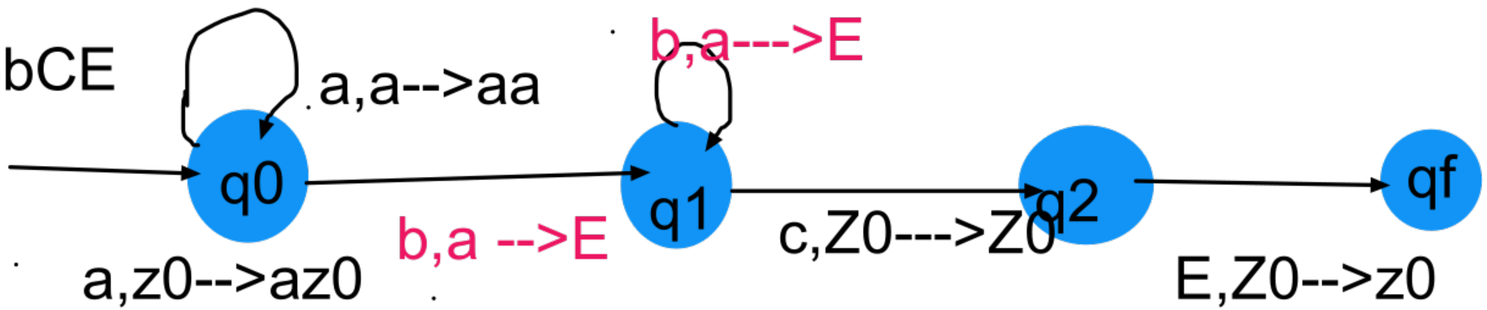
arijit

vangipuram

construct PDA that accepts the following language

$L = a^n b^n c$ where $n \geq 1$

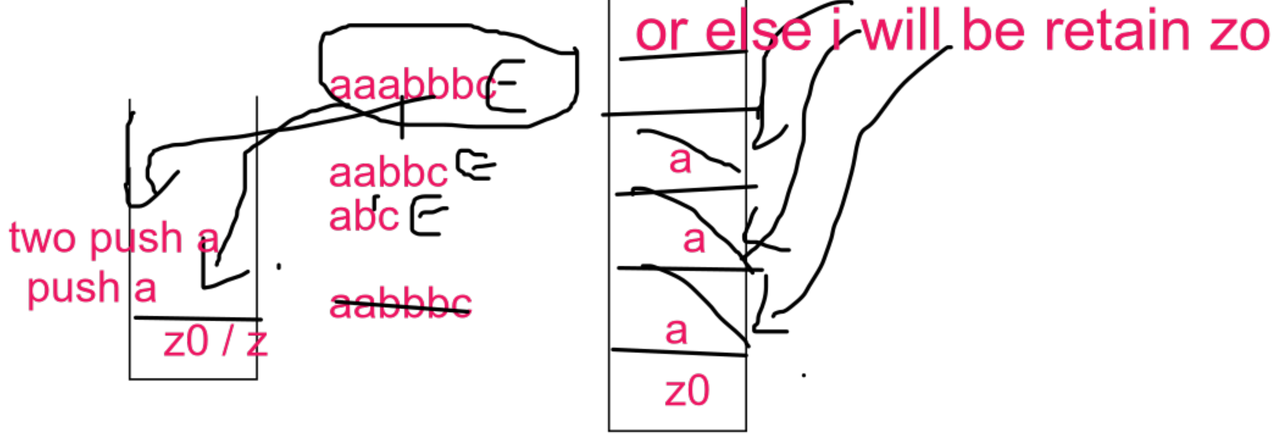
aaabbbCE



1. no of a = no of b
2. a's should be followed b
3. C should end

c,z/ either push c

or else i will be retain zo



$a^m b^n c^m$ m,n=1

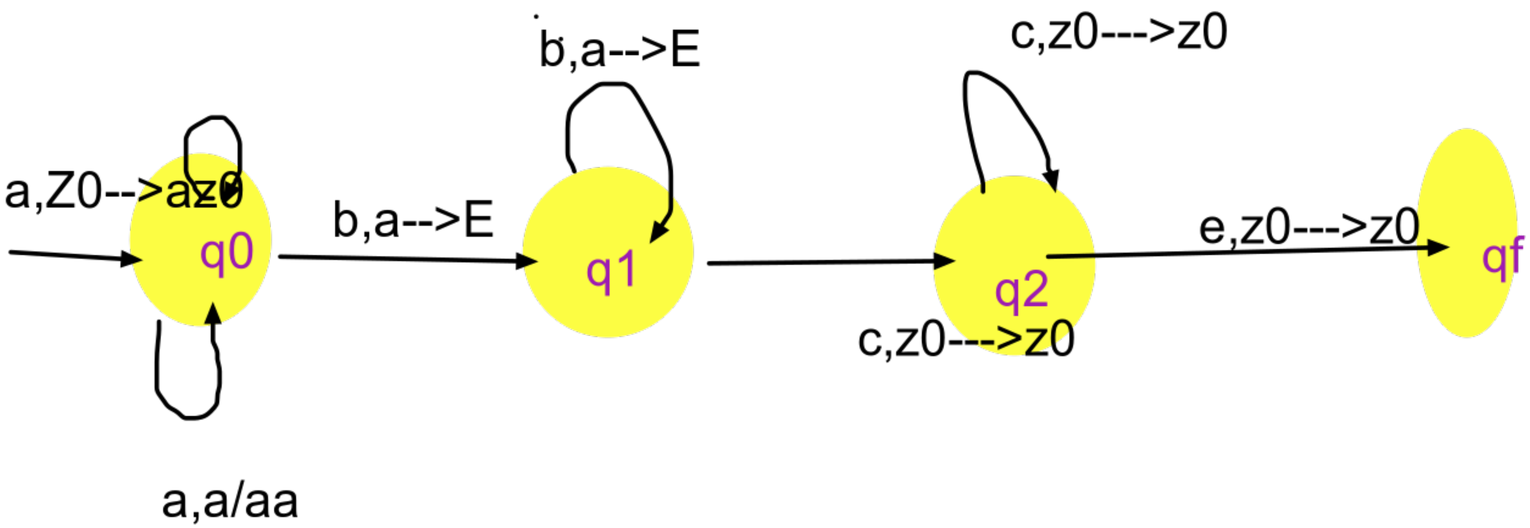
transition state + diagram

l = { abc,aabbc,aaabbbcc, aaaabbbbc,,,....}

a is followed by b

b is followed by C

no of a = no of b



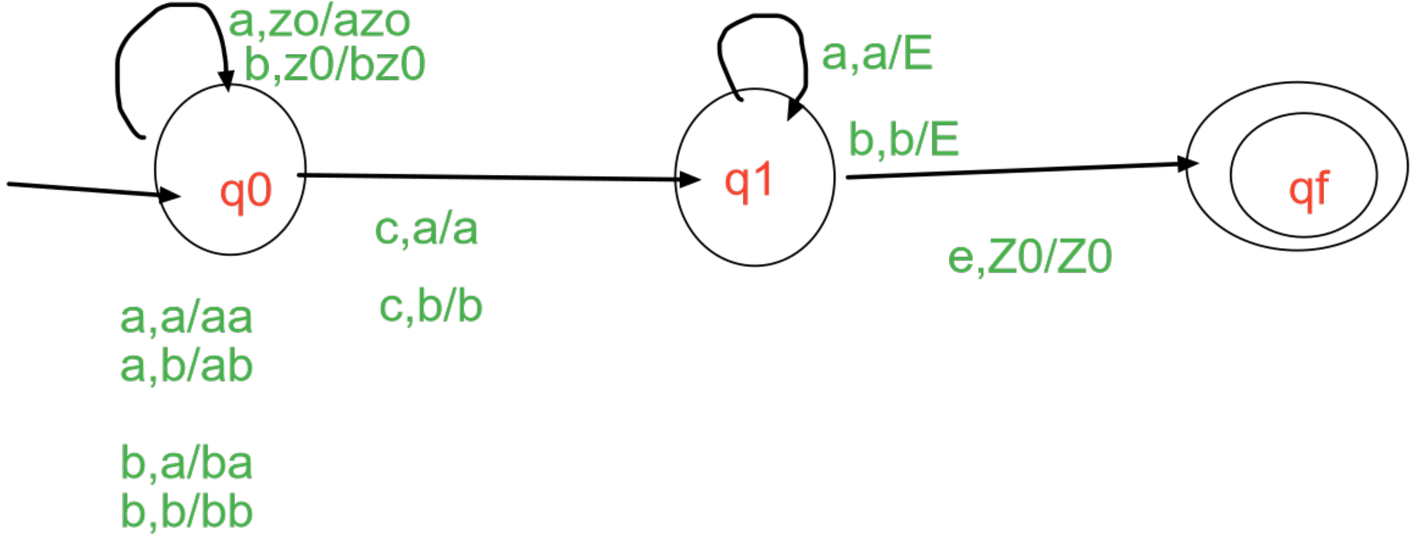
construct a PDA for the language { WCW^R }

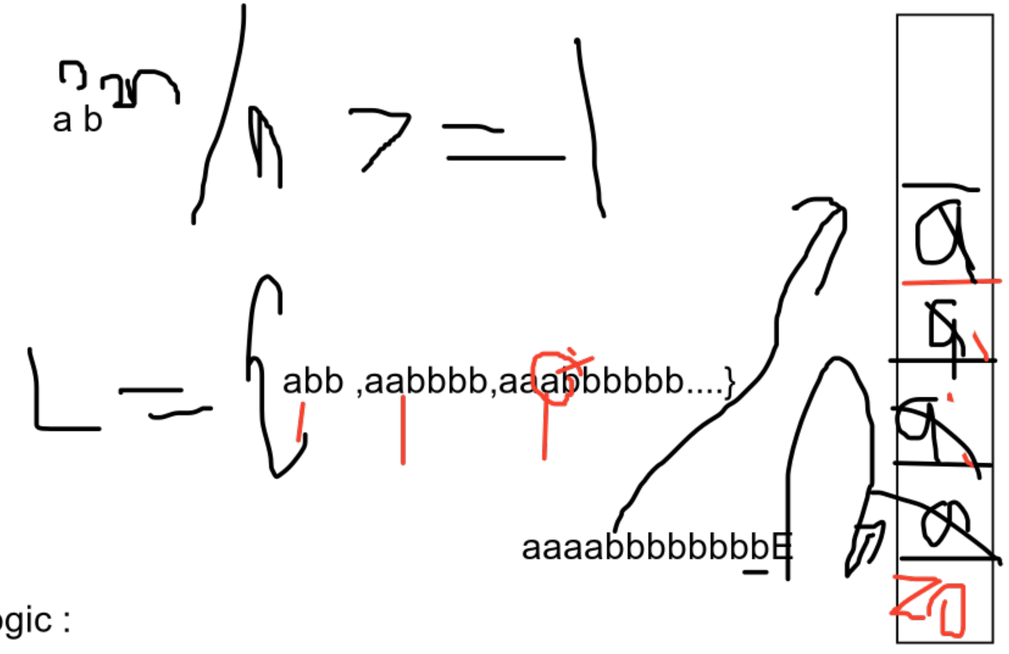
Σ = (a,b,c) where w =(a+b)*

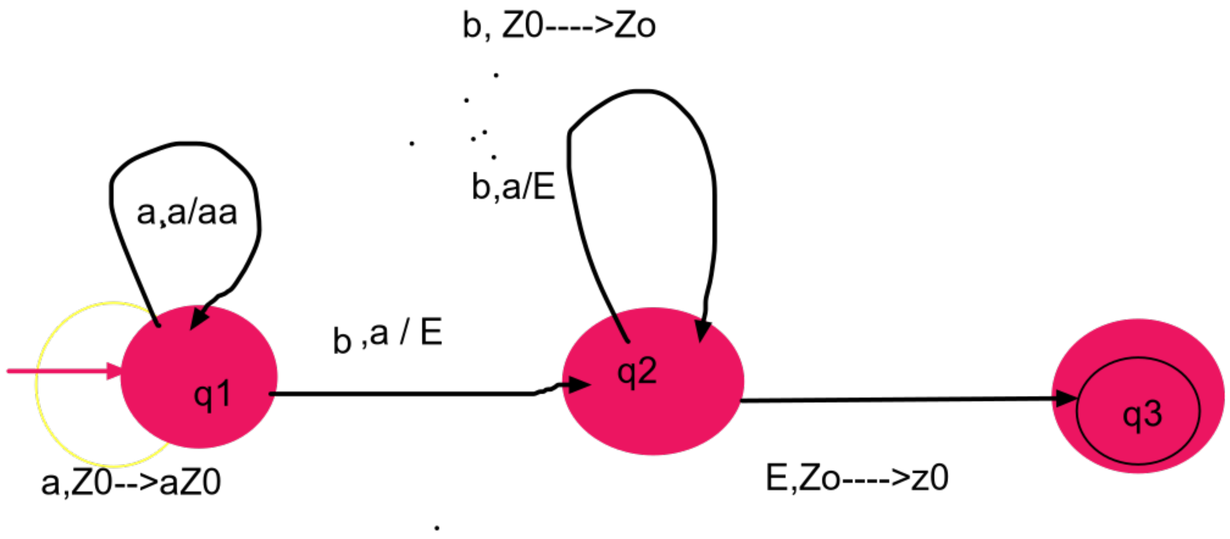
L={aca,bcb,abcba,bacab,abbcbba,abbacabba,abacaba...}

C is the mid of the string

until C ,its should pushed







logic :

a is followed by b

after no of a-- no of b is twice

when the input is b , just pop a

when the input is b, no a also (if a is there pop a)

state diagram

state transition table

1. a/s should be followed by b

2.no of a is equal at the end

3.only three b should be there

first a power n -- push

three b do nothing

a power n pop a

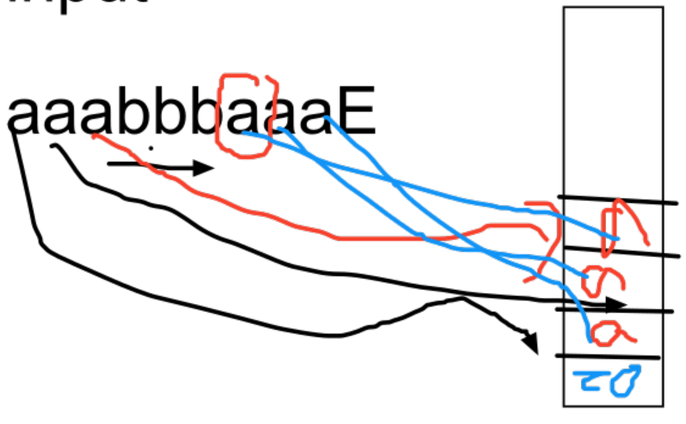
e is epsion

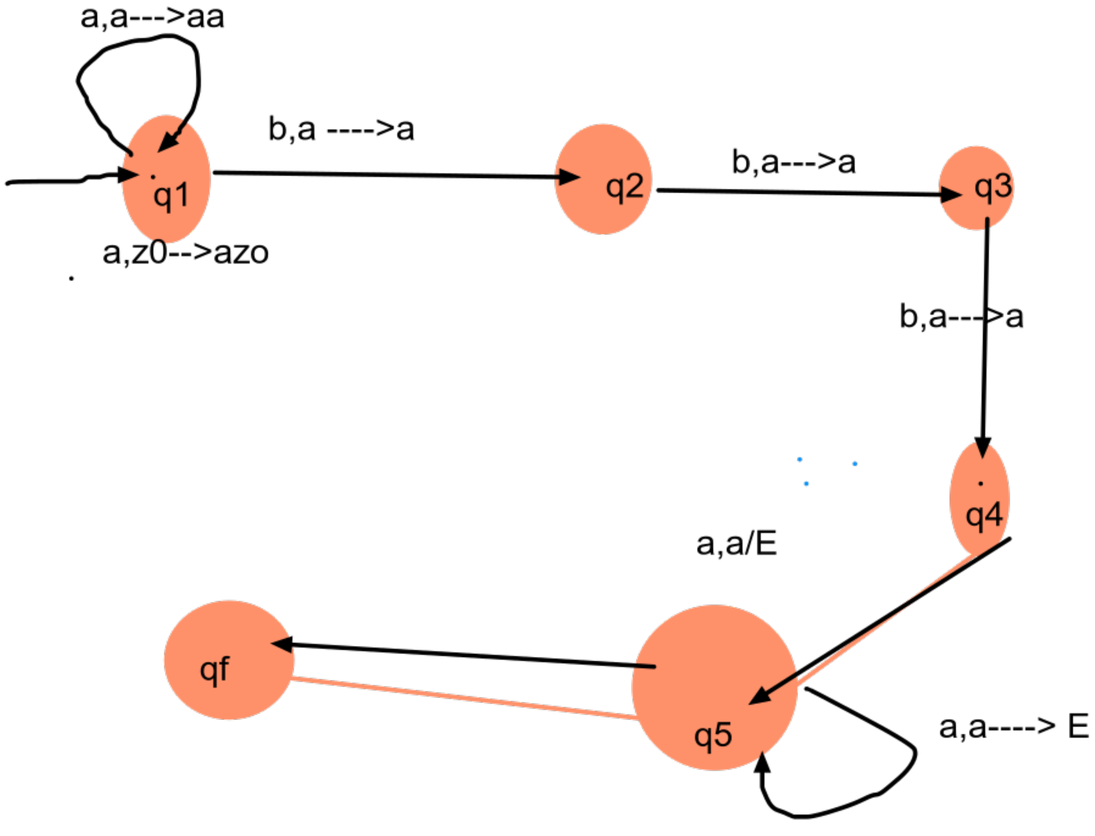
$a^n bbb\, a^n ; n \geq 1$

L ={ abbba, aabbbaa,aaabbbaaa,,...}

input

aaabbbaaaE





$a^n b^{n+m} a^m$

$m, n \geq 1$

abba

total no is a - total no of b

a N ---> push

b N---> pop

bM---> push

aM---> POP

L ={abba,abbbaa,aabbba,....}