Grammar

- A Grammar G is a 4-tuple G=(N,T,P,S)
- Rules are of the form LHS->RHS
- Chomsky Classification of Grammar
- Type 0 Grammar (unrestricted grammar)
- Type 1 Grammar (context sensitive grammar)
- Type 2 Grammar (context free grammar)
- Type 3 Grammar (regular grammar)

Regular Grammar

- A grammar G=(N,T,P,S) is said to be regular grammar if it has production rules are of the form
- A->aB (RHS of the rule has terminal symbol followed by non terminal symbol)
- A->a (RHS of the rule has one terminal symbol)
- A, B are non terminal symbols
- And a is terminal symbol

Regular Grammar Example

- G=({S},{a,b},P,S)
- Where production rules are:-
- S->aS
- S->bS
- S->a
- S->b
- Language generated by this grammar L(G)={a, b, aa, ab, ba, bb,…..}

Regular Grammar Example

- G=({S},{a,b},P,S)
- Where production rules are:-
- S->aA | a
- A->aA
- A->bA
- A->a | b
- Language generated by this grammar L(G)={wε{a,b}*|w begins with ‘a’}