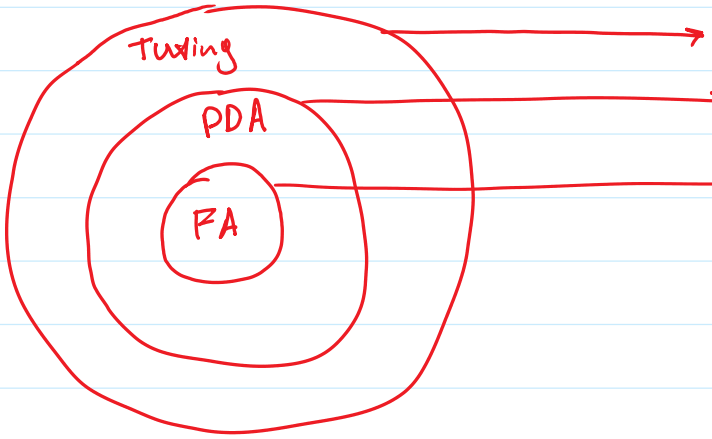
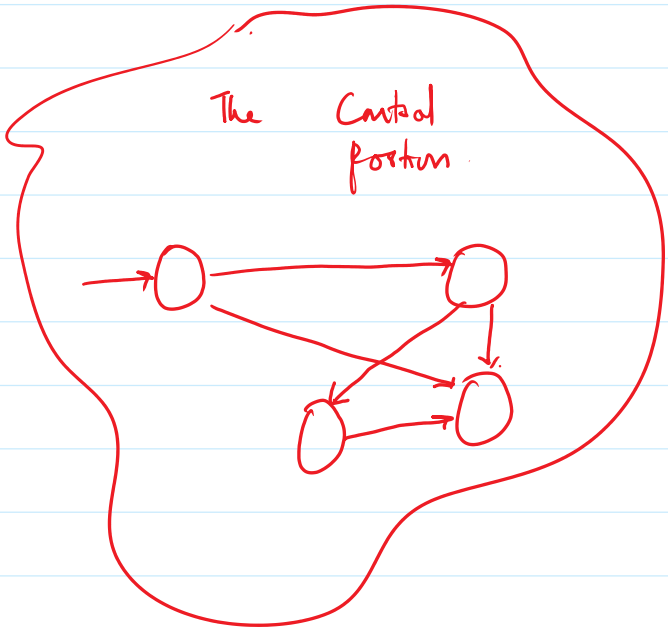
Lecture 28 Turing Machine.



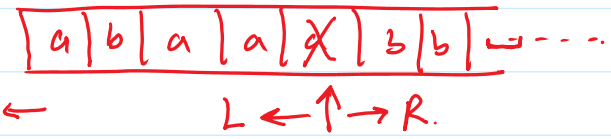
→ Recursively Enumerable Language.

→ CFG.

→ Regular.

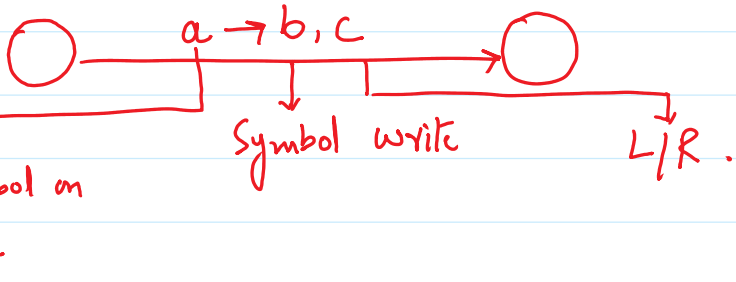


Input tape.



L ← L ← ↑ → R.

General



1 → X, L.

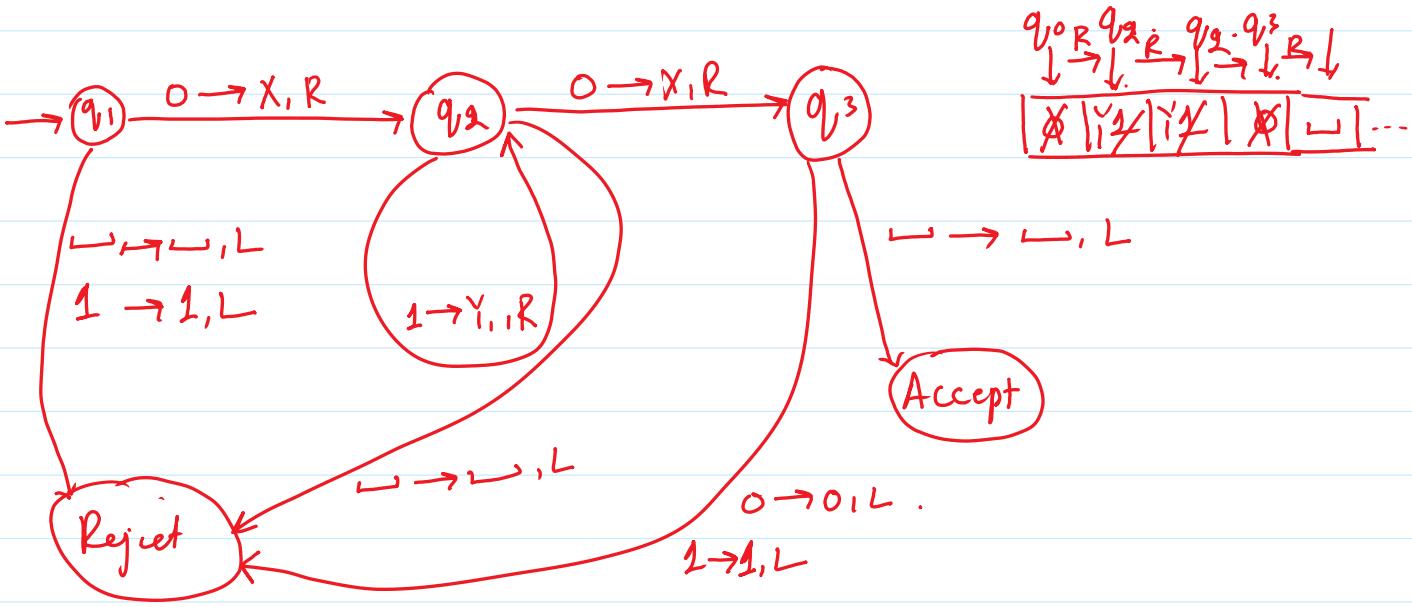
One Initial State

Two Final States.

1- Accept

2- Reject.

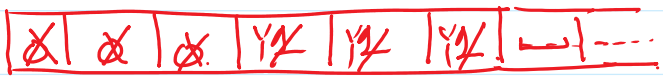
Ex:- $L = 01^*0$ 00, 010, 0110, ...



$L = 0^N 1^N$. $n > 0$

011 001111

01, 0011, 000111



Algorithm.

1- Change "0" to "X".

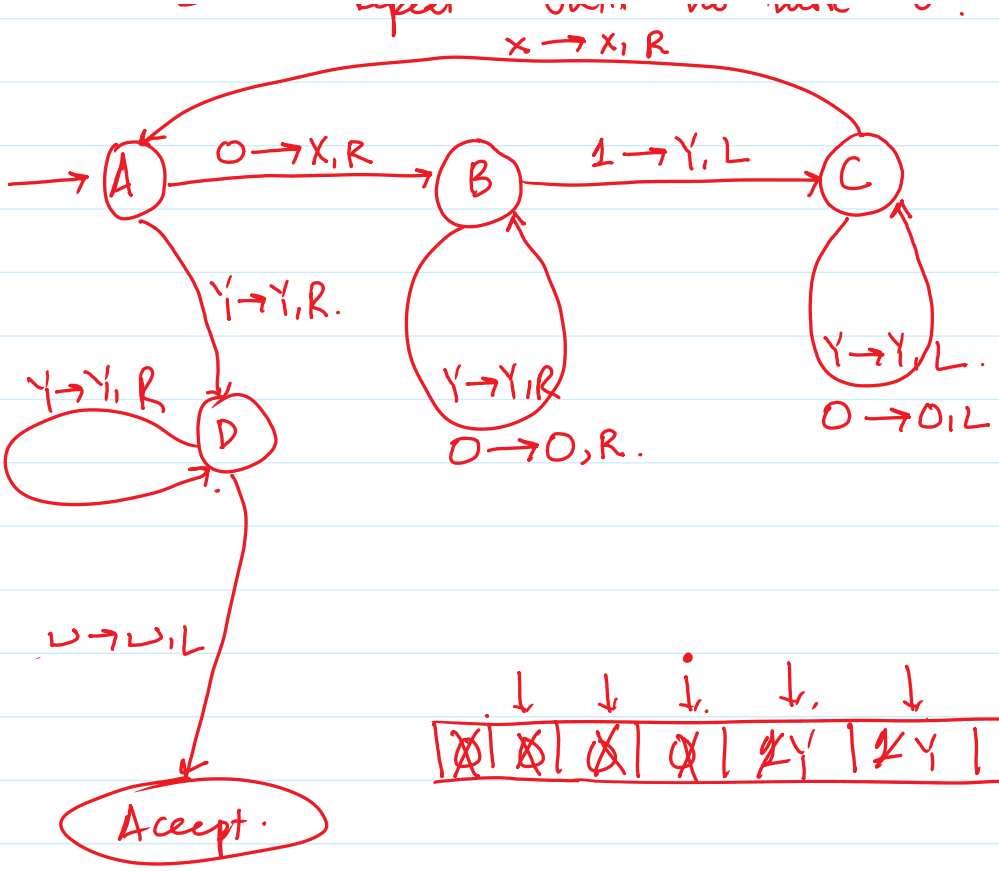
2- Move to right to first "1".
   If None Reject.

3- Chang "1" to "Y".

4- Move LEFT To leftmost "0".

5- Repeat Until no more "0".

$X \rightarrow X, R$



L_2 $0^{2N}1^N$ Hw.

L_2 $0^N 1^{2N}$.