

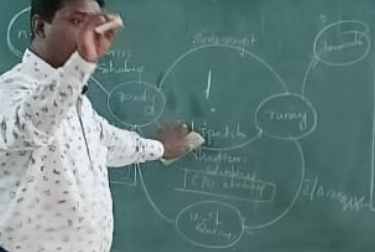




Very imp  
OS

# Operating Systems

A program in execution is known as a process



# Disk scheduling algorithms

5W+1H

- What
- Why
- When
- Where
- Who
- How

OS



## Embedded Systems

→ Special purpose System → ES  
→ General purpose Systems

GPS	SPS
→ Overkill → Expensive technology	Simple tasks less conf, simple

## Unembedded Systems

Classified



Embedded Systems

→ plan inside logic  
System  
Control



STANLEY CO  
TECH  
ENFOR  
STANLEY  
1. Providing quality education  
2. To provide quality education  
3. To provide quality education  
4. To provide quality education  
5. To provide quality education





## Embedded Systems

- Special purpose system → ES
- General purpose systems → ES

GPS	SPS
<ul style="list-style-type: none"><li>→ Overkill</li><li>→ Expensive bulky</li></ul>	<ul style="list-style-type: none"><li>Simple task</li><li>less cap...</li></ul>

## Unembedded Systems

class







14/02/2024

# Parsing:-

Sentence

↓  
Parsing (set of rules)

↓  
Meaning

Top-down  
Parsing :-

Left-to-Right

# NLP

S  
M

VP ← sub



11/05/2016

# Parsing:-

Sentence

↓  
Parsing (set of rules)

↓  
Meaning

## NIP

Top-down  
Parsing

→ NPVP

helping - to do - doing, did, will do

main - occurs

NP → Art noun

Antela - Nick brought a dog

↓  
article noun



17/07/20

## Data Structure

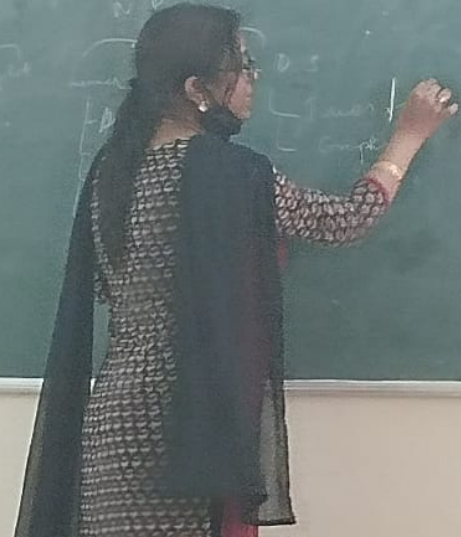
PDB

N.P.C

D.S

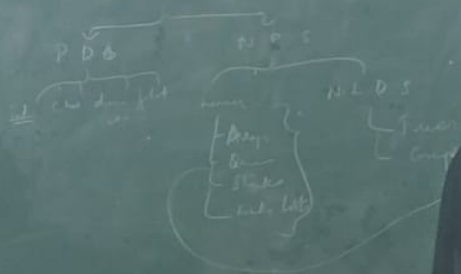
Linear

Complex



11/02/2022

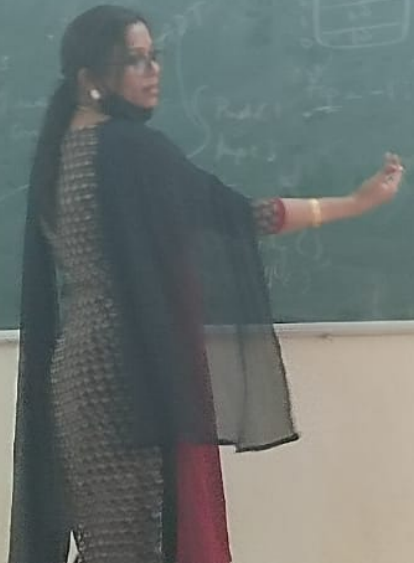
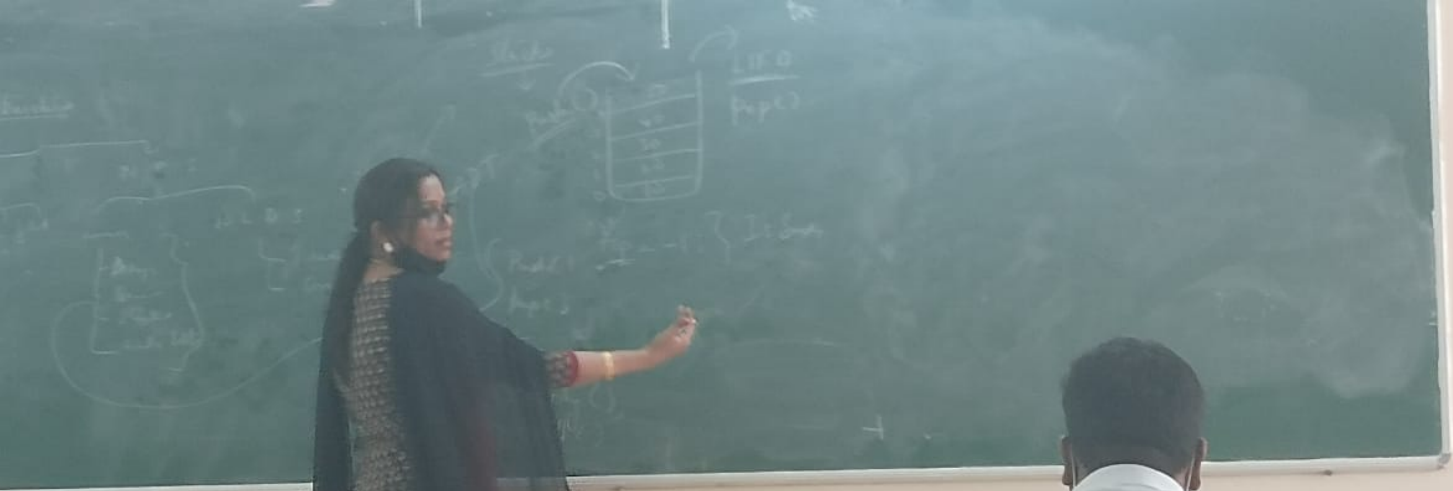
Data Structure



Stacks

LIFO









17/03/2020

Normalization

Normal Forms

1NF

2NF



Normalization

Normal Forms

1NF

2NF

3NF

BCNF

Roll No	Names	Language	Group	Fee
1	R	Telugu and English	BSC	10k
2	C	Telugu and Hindi	BSC	15k
3	S	English	BA	12k

1NF

- 1) Promoting the super attributes
- 2) Identify the primary key

R No	Names	Language	Group	Fee
1	Roha	Telugu	BSC	10k
1	Roha	English	BSC	10k
1	Sara	Telugu	BA	12k
2	Sara	Hindi	BA	12k
3	Chithi	English	BA	12k

Push Down Autom

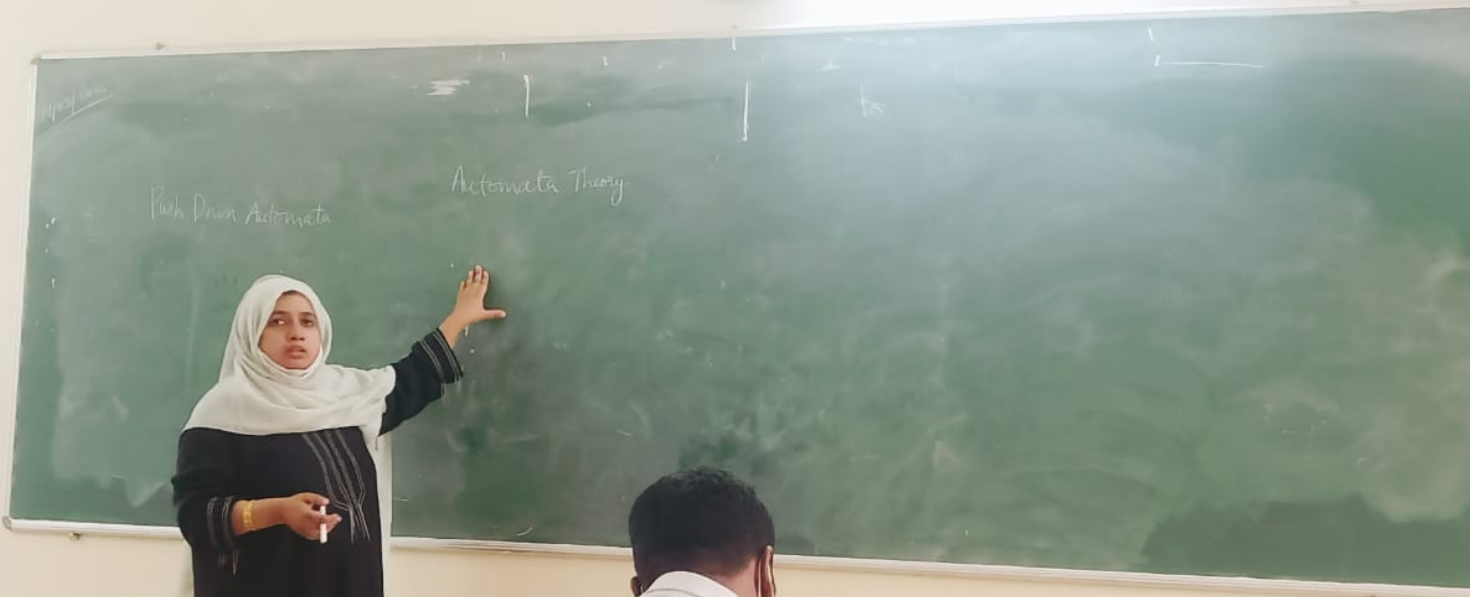
$M = (Q, \Sigma, \delta)$

$L = \{a^n b^n\} \quad n \geq 1$

$(a, z_0)$

$ab$
$aa\ bb$
$aaa\ bbb$

$a$
$z_0$



Push Down Automata

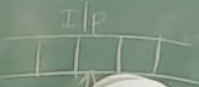
Automata Theory





Push Down Automata

Automata Theory



Type 0  $\rightarrow$  RE  $\rightarrow$  TM

Type 1  $\rightarrow$  CSL  $\rightarrow$  LBA

Type 2  $\rightarrow$  CFL  $\rightarrow$  PDA

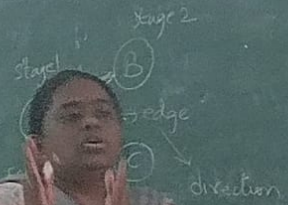
Type 3  $\rightarrow$  RL  $\rightarrow$  FA



17/05/2022

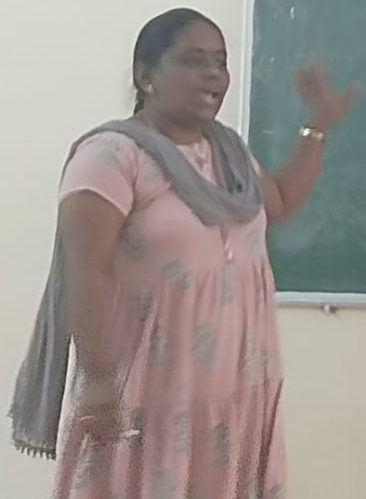
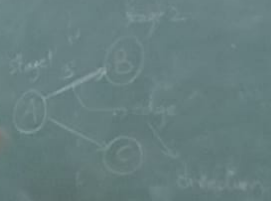
Multistage graph

$$G = (V, E, W)$$



17/03/2012

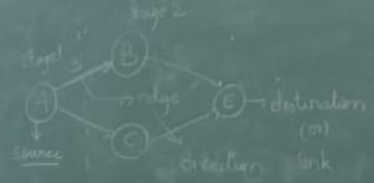
# Multistage graph





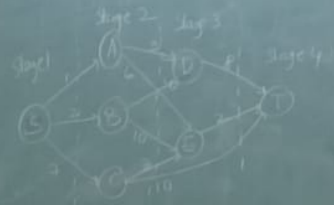
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### Multistage graph



$G(V, E, W)$

- ① BRUTE FORCE
- ② SIMPLE GREEDY METHOD
- ③ DYNAMIC PROGRAMING

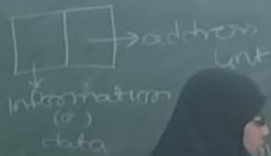




array



int a[3];  
4x3  
a[50] 50x4  
=200



struct node {  
int



11/02/2022

array



int a[3]; 4x3  
 a[507] 50x4  
 0 = 200



struct node {  
 int a;  
 struct node \*next;



## COMPUTER NETWORKS

- LAN → Local Area Network (1000km)
- MAN → Metropolitan Area Network (1000km)
- WAN → Wide Area Network (more than 1000km)

Client ← Server model

COMPUTER NETWORKS

- LAN → Local Area Network
- MAN → Metro
- WAN



# COMPUTER NETWORKS

Reference model

ISO → OSI

→ 7 layers

LAN

→ Local Area Network (1000m)

MAN

→ Metropolitan Area Network (100km)

WAN

→ Wide Area Network (more than 1000km)

server model

Research

ARPANET → Agency Project Internet

