

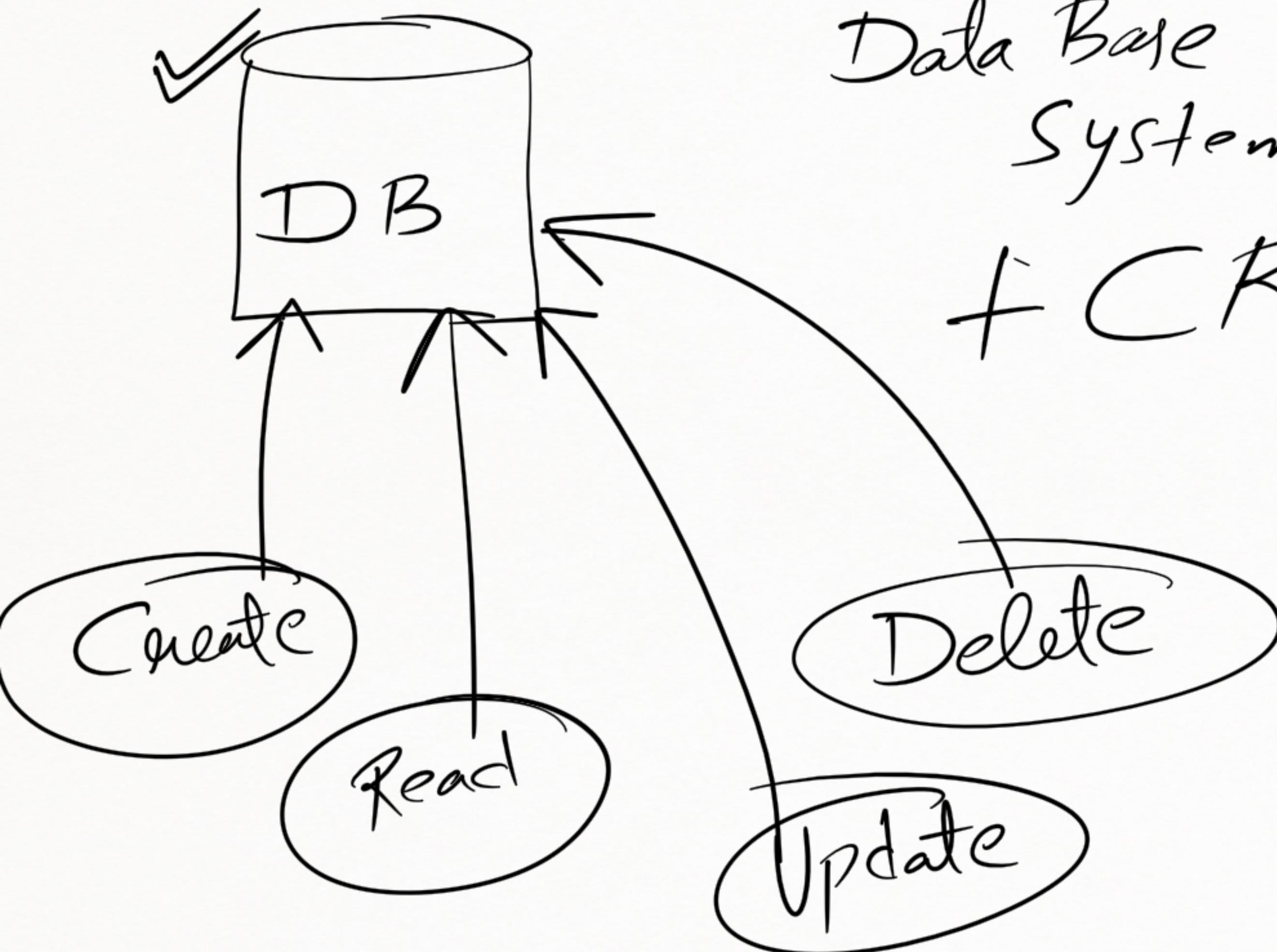
Data? → Information
Text, Videos, Speech, Images

Databases? Collection of Related
Data

- Shopping List
- Playlist
- Contacts/Phonebook

- Attendance Register
- Products on Flipkart





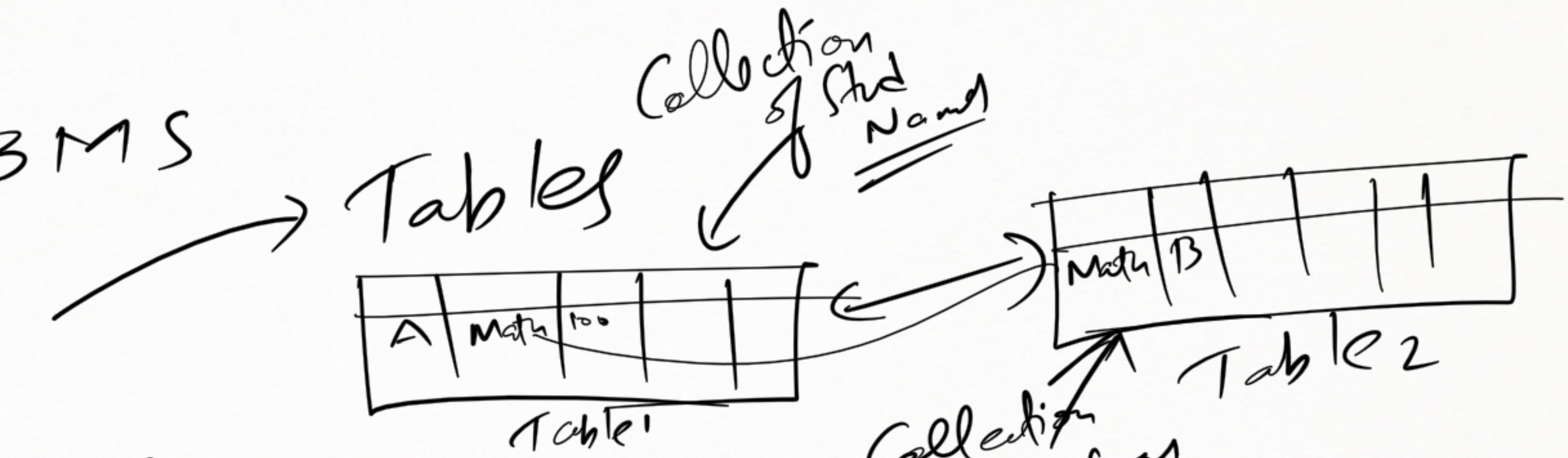
DBMS
Data Base Management
System

Collections
of
softwares ✓
operations ✓

+ Security
+ Interactions/
Connectors
+ Backups + Concurrency

#Types of DBMS

① Relational



② Non Relational

{ "Key": "Value" }

JSON [{ }, { }, { },]

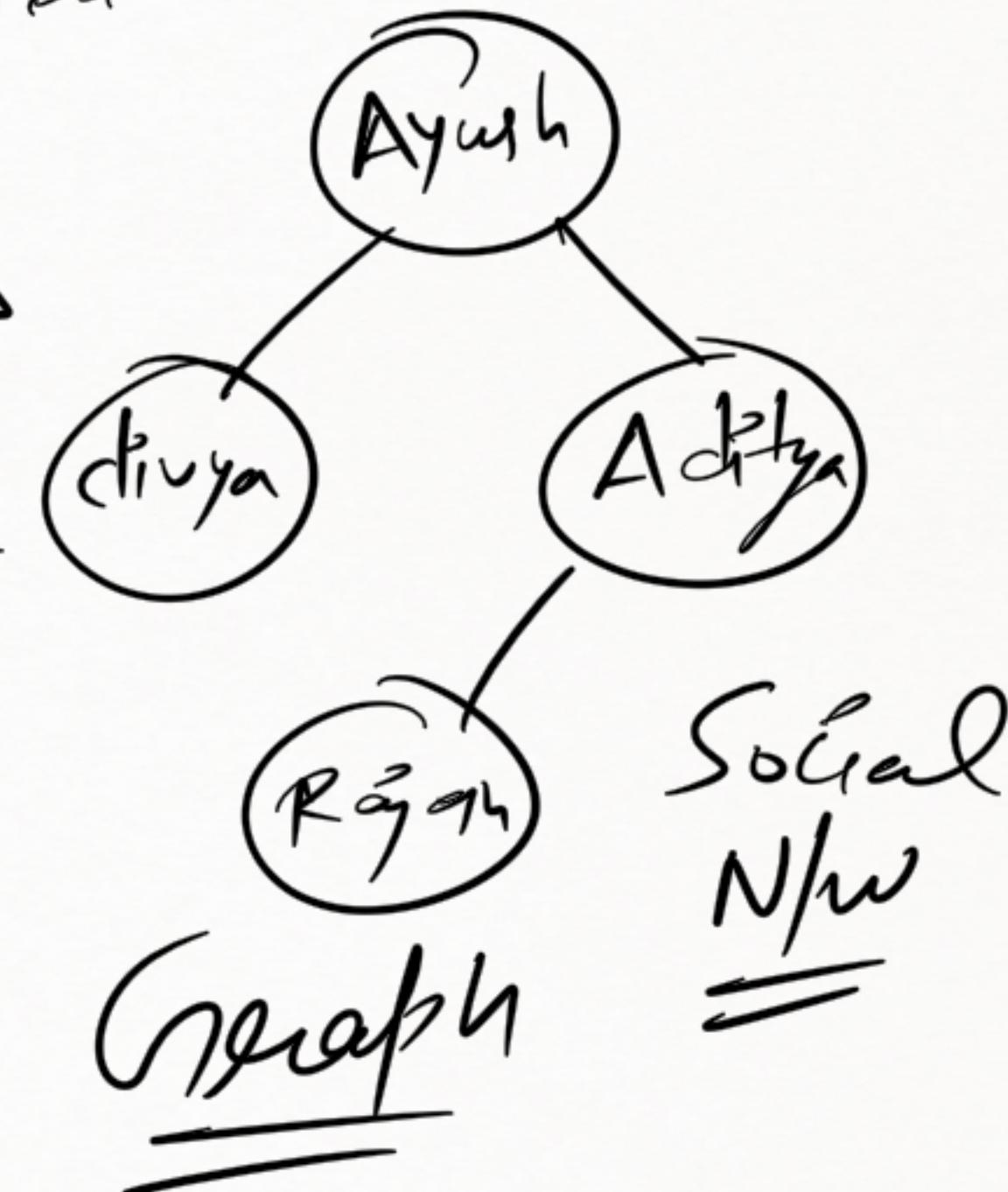
X Tables

Text



Read

Insert



Examples of DBMS

① Relational :

MySQL, PostgreSQL, SQLite } They follow a standard ^{SYNTAX} for
Oracle DB, Maria DB, etc. } CRUD oper.

② Non Relational :

MongoDB, DynamoDB }
Elastic Search, Firebase }

X standard

Relational DBMS

→ They follow standard - syntax.

→ SQL => Standardized Query Language

MySQL
Oracle DB
PostgreSQL

Data



CRUD

SQL

Language to talk to the DB
Create a new \equiv

standard

Query

2016

I Relational DB

Millions

- Multiple Tables
- Related to each other

Name	Branch	Rank
Ayush	CSE	2
Swabindra	IT	1
Saankhya	Mech.	4
Aditya	Elect	3

✓ Student

College

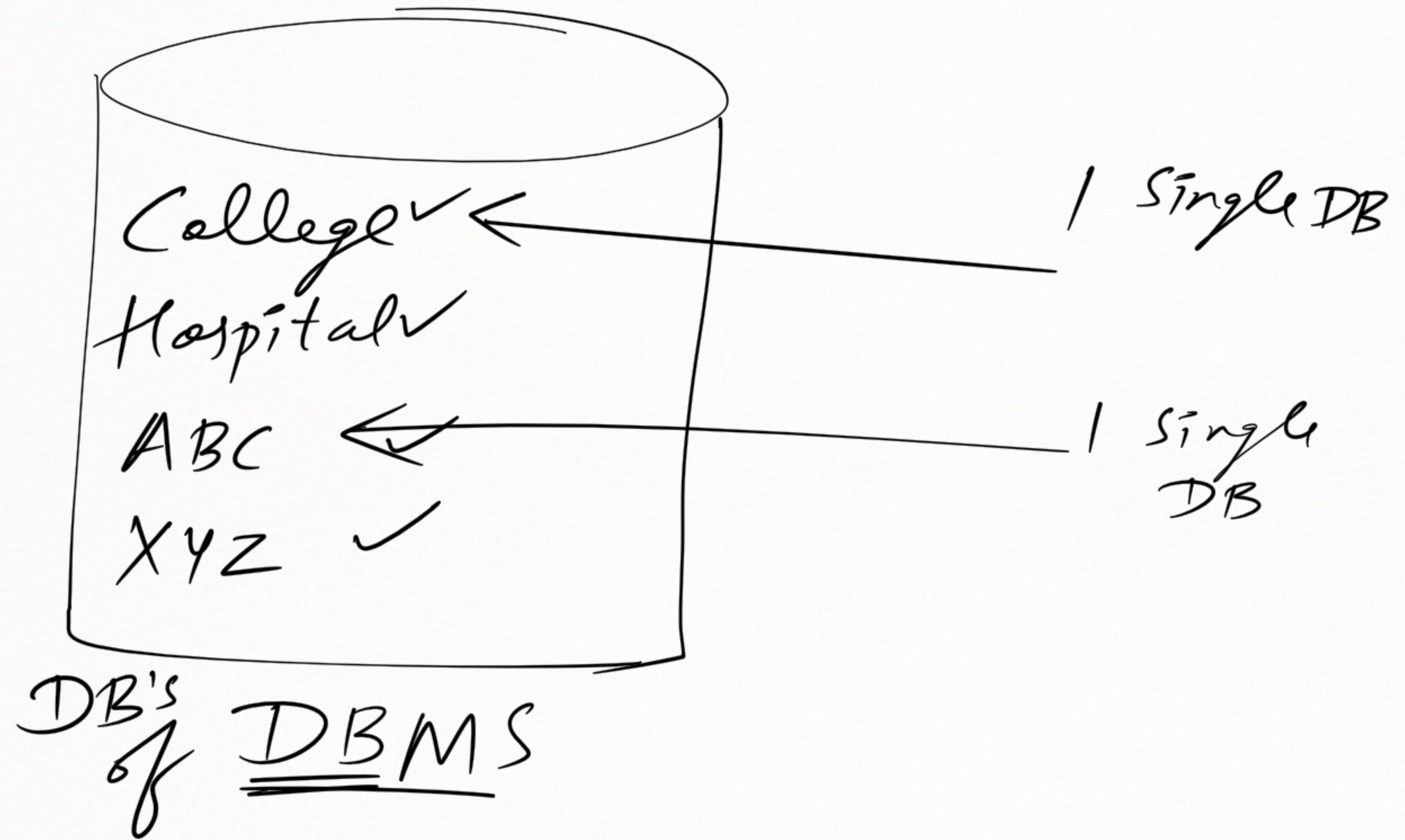
Branch	HOD
CSE	A
IT	B
Mech	C
Elect	D

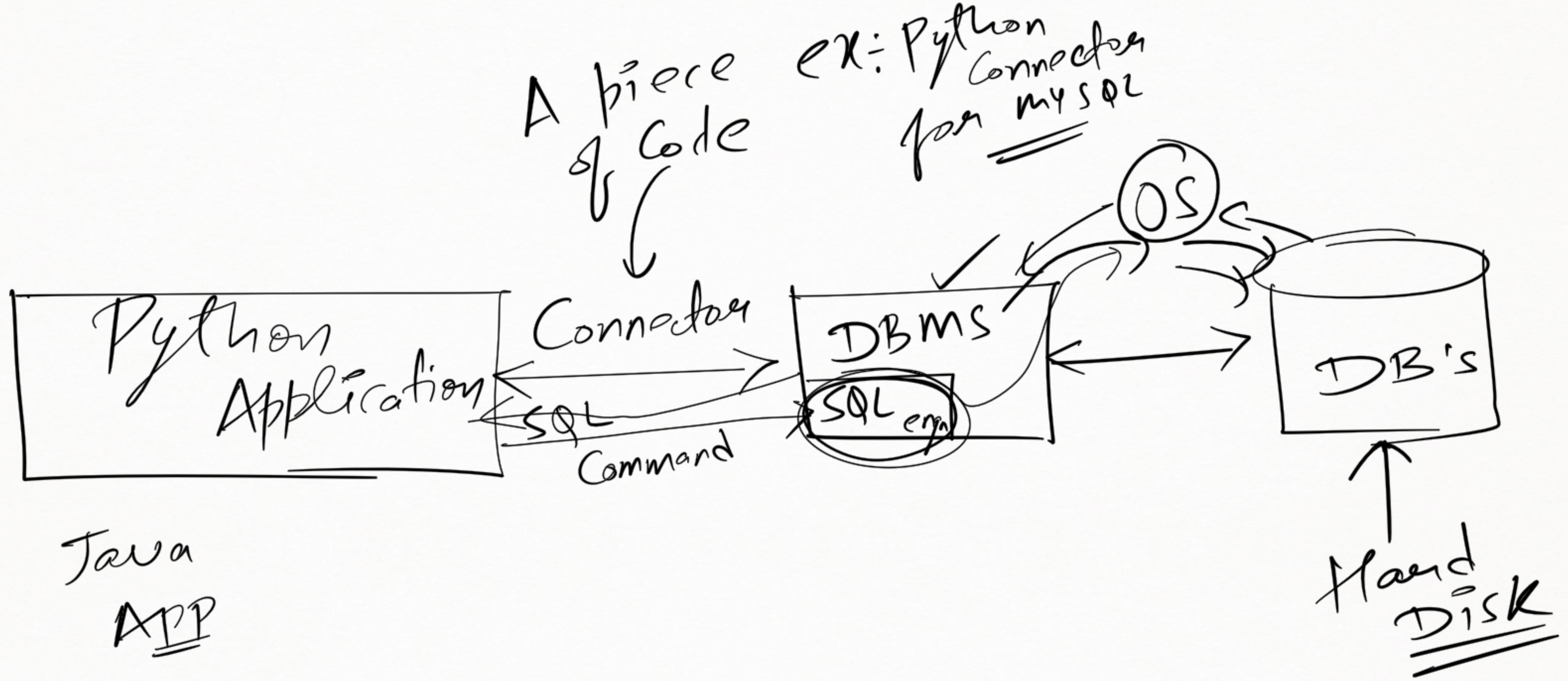
↑ Branch HOD

Who is the HOD of Ayush
⇒ A

Teacher Name	Subjects
X	Maths
Y	Python
Z	DBMS

✓ Teachers





3 tier Architecture

