

# Databases

Collection of Data

→ Products on Flipkart

→ Students data on classmate.com.  
edureka.com.

# Data → Text, Video, Speech

? info, facts

## # DBMS

Collection of Software Systems :-

- ① Storing the data
  - ② Securing the data
  - ③ Retrieving the data
- Connector  
Query editor  
(UI Tool)

## # Types of DBS

① Relational

Tables

ER Modelling

Name	Hindi	Eng	Marks of student
A	50	70	50
B	70	80	30
C	80	30	30

② Non Relational → × ER Modelling

JSON

{ "key": "Value" } → × Tables

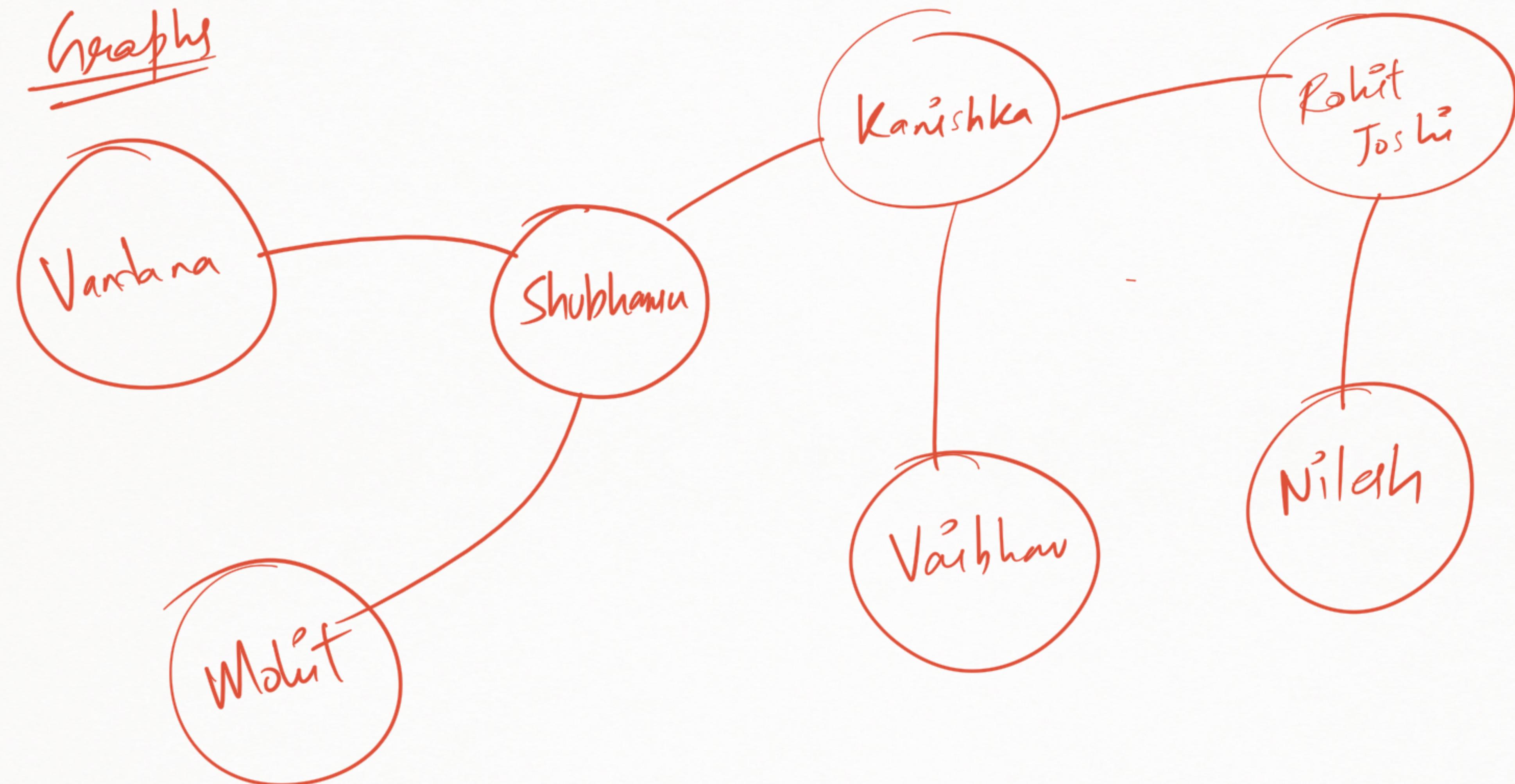
```

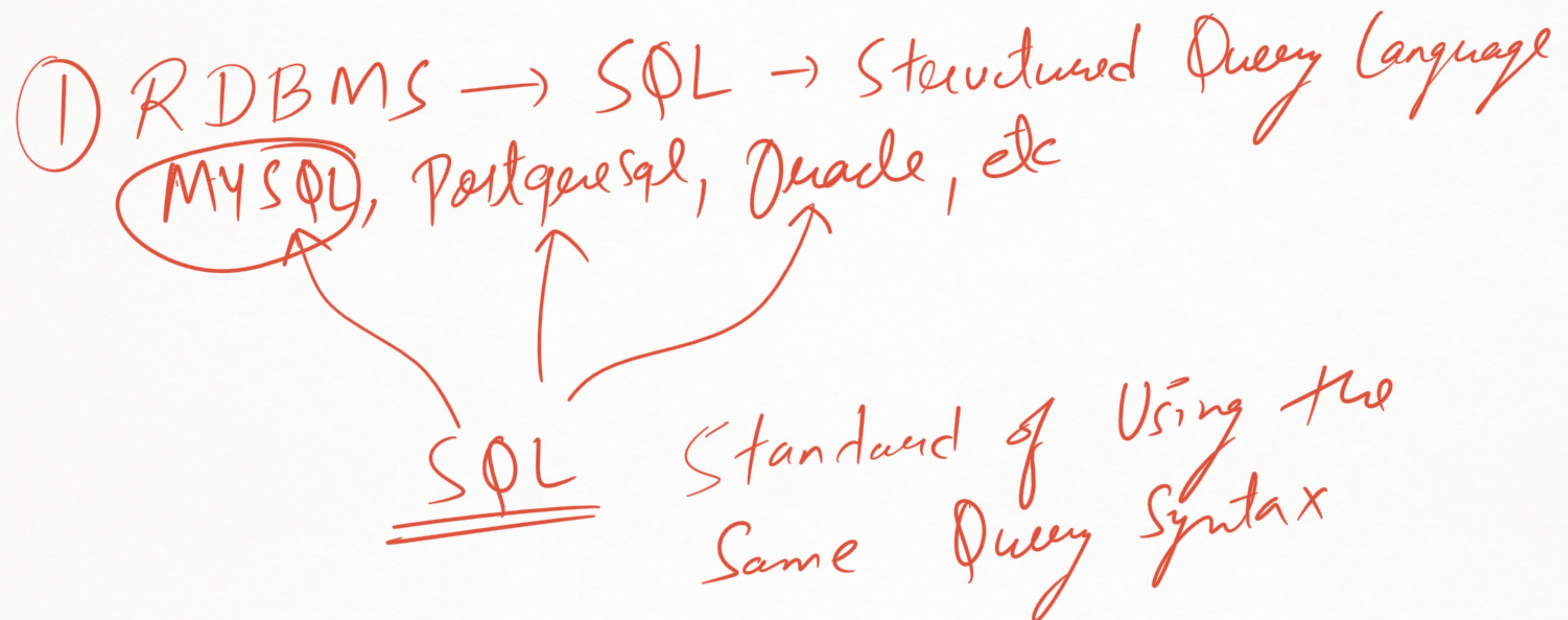
{
  "mysql": 8,
  "python": 3
}
  
```

Name	Pan/Fail
A	P
B	P
C	F

Pan-fail-table

## Graphs



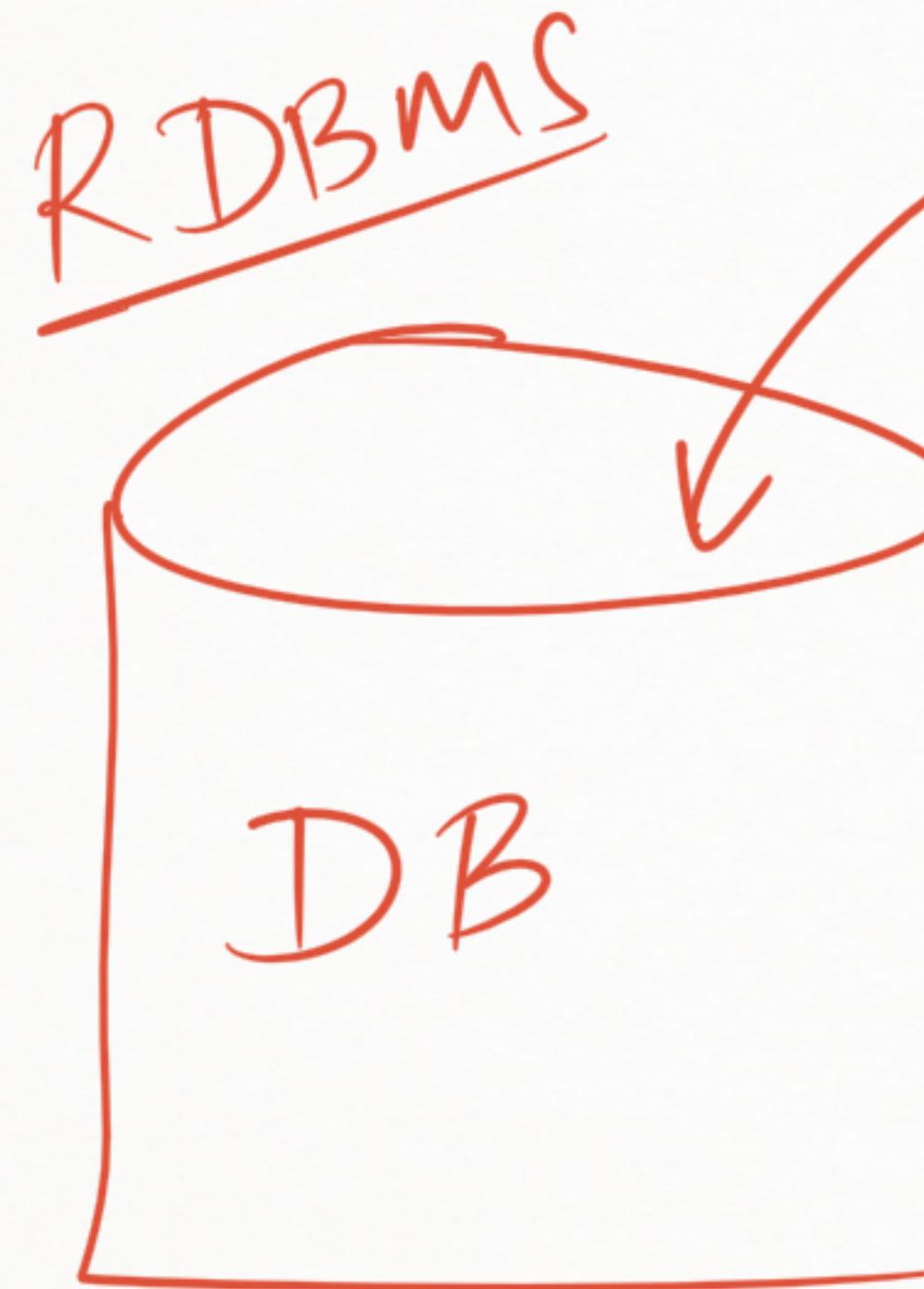


- Query Analyzer ✓
- Workbench ✓
- CLI ✓

## ② NRDBMS

NoSQL - { MongoDB, Dynamo DB, Elastic search }  
Firebase

They do not follow  
any Standard



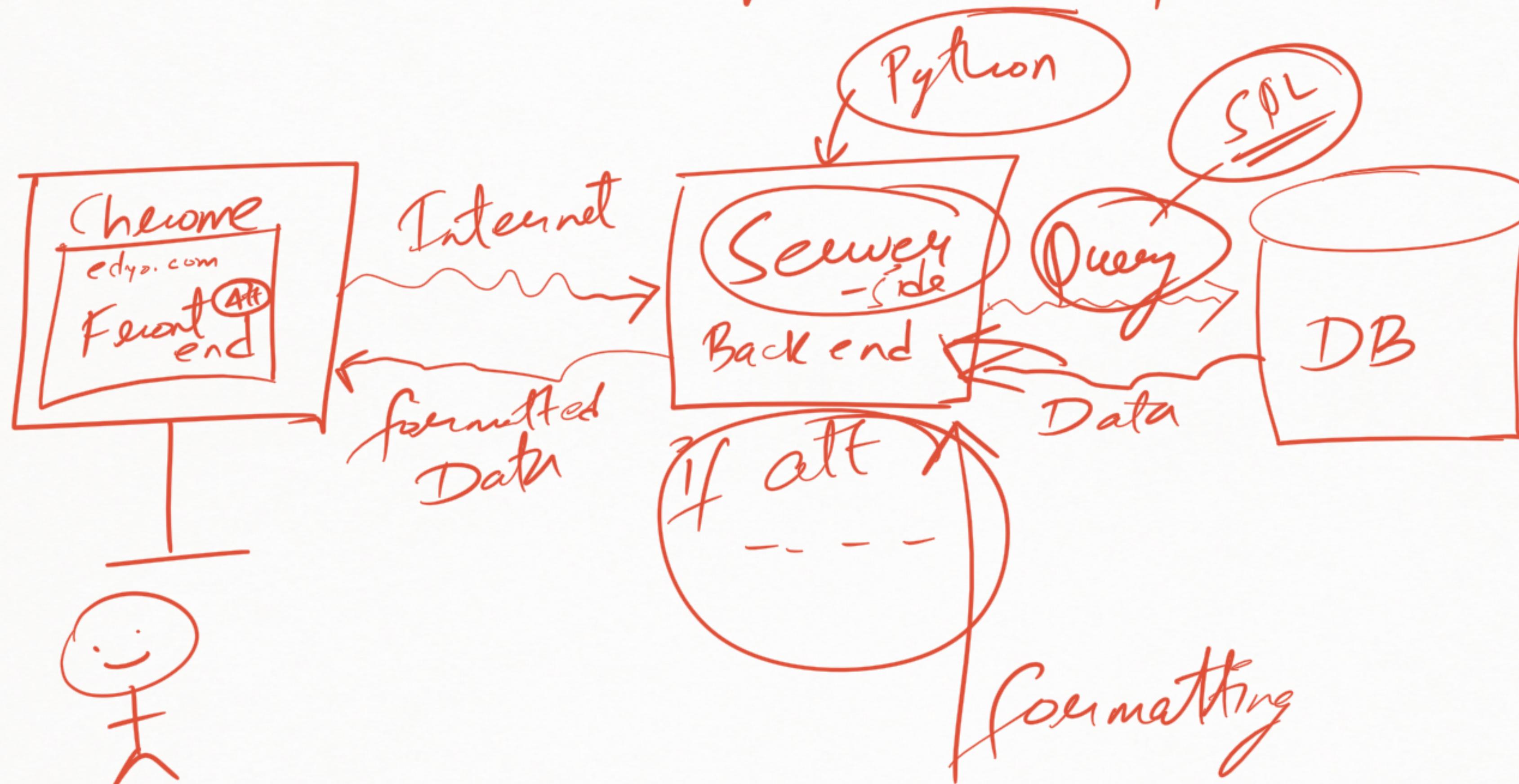
Standard Syntax  
(SQL)

Query

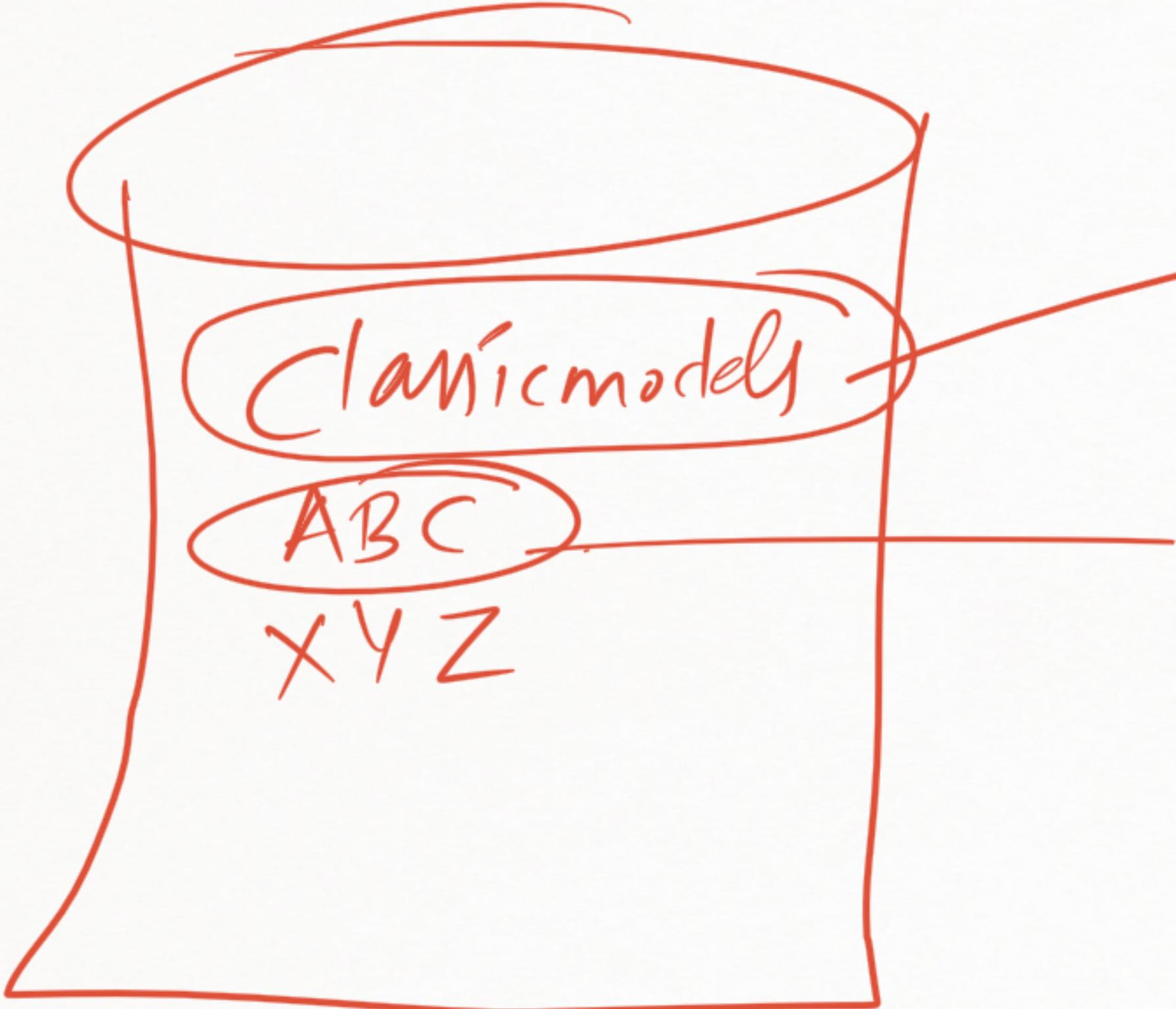
Server Side Language (Python)

# 3-Tier Architecture

## Web Development

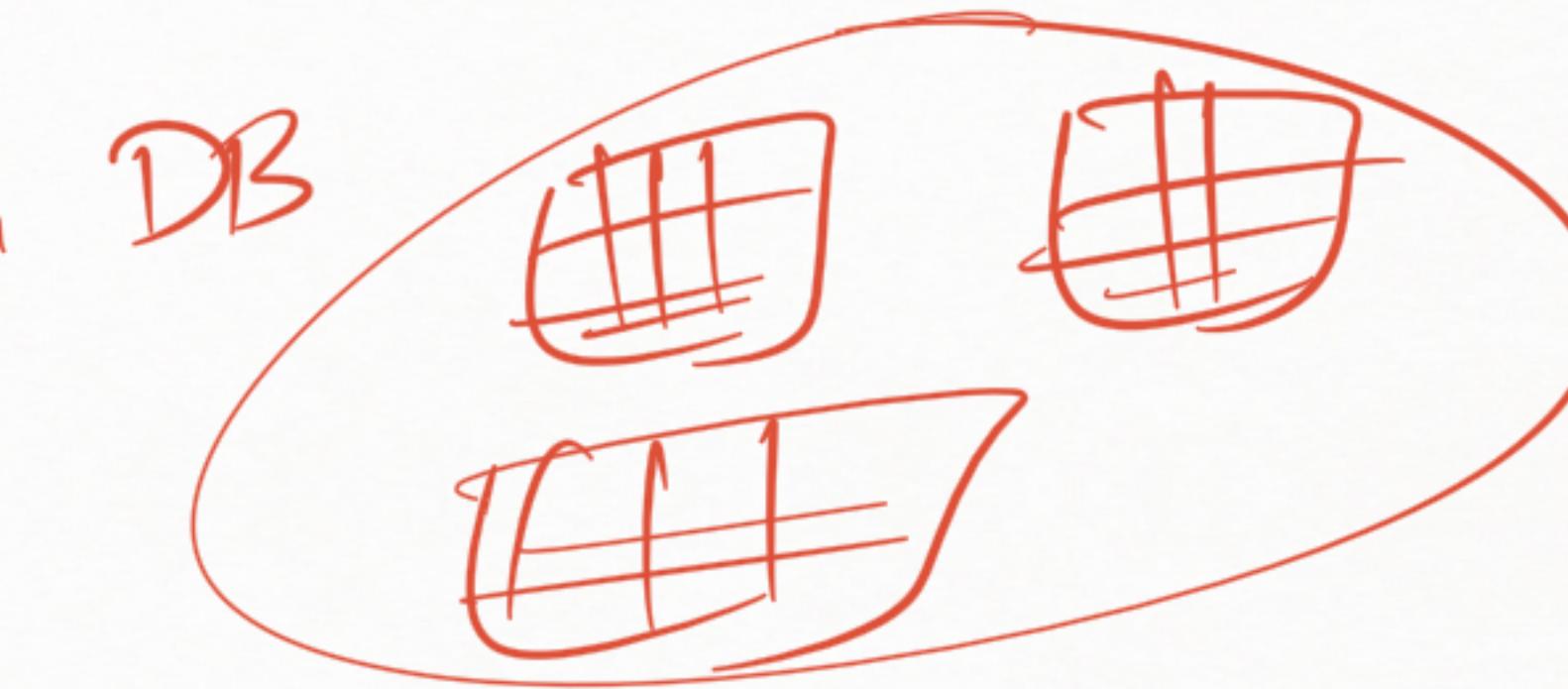


RDBMS



Single DB

Another DB



## ~~#SQL~~

→ Not a Case Sensitive language

Select, SELECT

SELECT

→ Delimiter => ; Semicolon

→ Conventions => SQL Keyword → Capitals  
Not a SQL Keyword -> all small.

Student-id	Name	major
1	Jack	Bio
2	Kate	Socio
3	Claire	English
4	Jack	Bio
5	Mike	Comp. Sci