

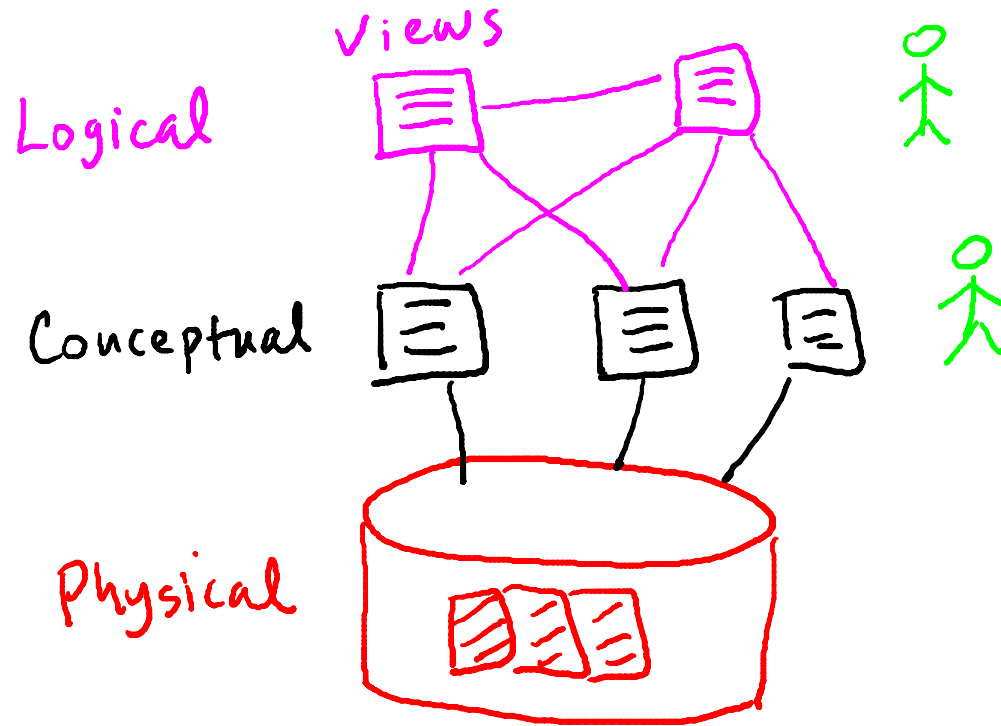


Views

Defining and Using Views

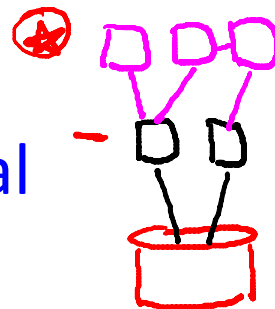
Three-level vision of database

Physical – Conceptual – Logical



Why use views?

- Hide some data from some users
- Make some queries easier / more natural
- Modularity of database access



Real applications tend to use lots and lots (and lots and lots!) of views

Defining and using views

- View V = ViewQuery(R_1, R_2, \dots, R_n)
- Schema of V is schema of query result
- Query Q involving V , conceptually:

V := ViewQuery(R_1, R_2, \dots, R_n)
Evaluate Q

- In reality, Q rewritten to use R_1, \dots, R_n instead of V
- Note: R_i could itself be a view

SQL Syntax

Create View Vname AS
<Query>



SQL Syntax

```
Create View Vname (A1, A2, ..., An) AS  
<Query>
```



Demo: simple college admissions database

College(cName, state, enrollment)

Student(sID, sName, GPA, sizeHS)

Apply(sID, cName, major, decision)