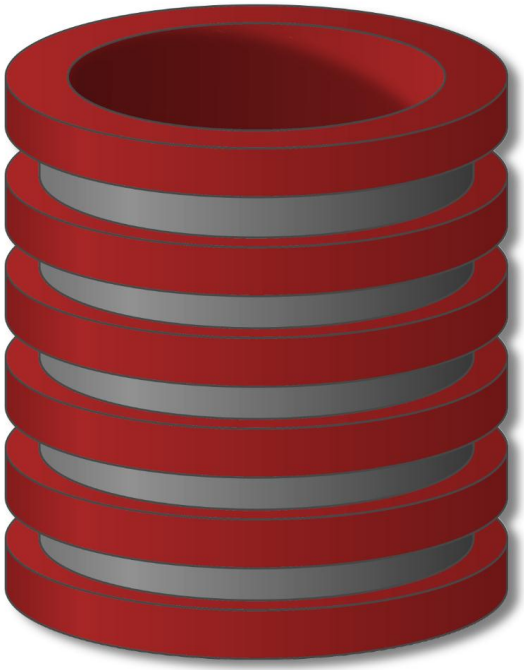
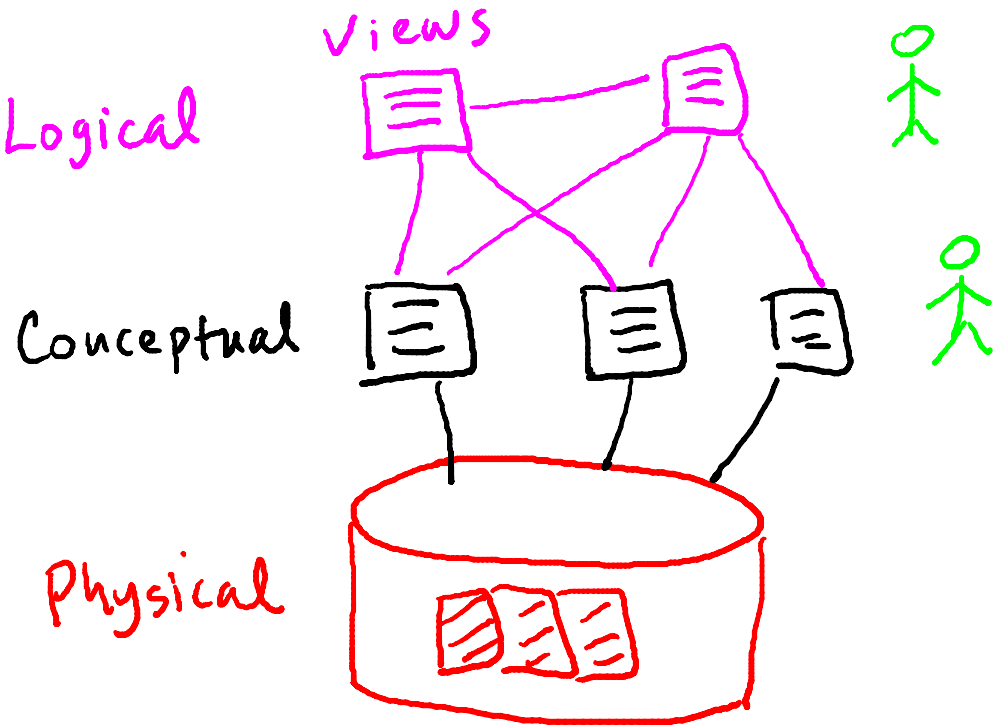


Views

Defining and Using Views

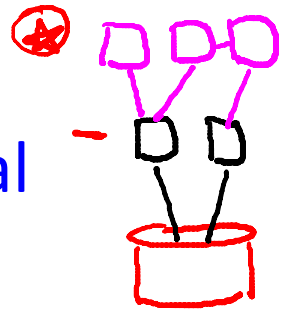
Three-level vision of database

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

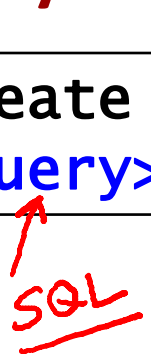
- View V = ViewQuery(R_1, R_2, …, R_n)
- Schema of V is schema of query result
- Query Q involving V, conceptually:

```
V := ViewQuery(R1,R2,…,Rn)
Evaluate Q
```

- In reality, Q rewritten to use R_1,…,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)