

Agenda

① Representing Inheritance

② DB Relⁿ Mappings

③ fetch Types

→ lazy

→ eager

④ Spring JPA Queries

1:1

1:m

m:1

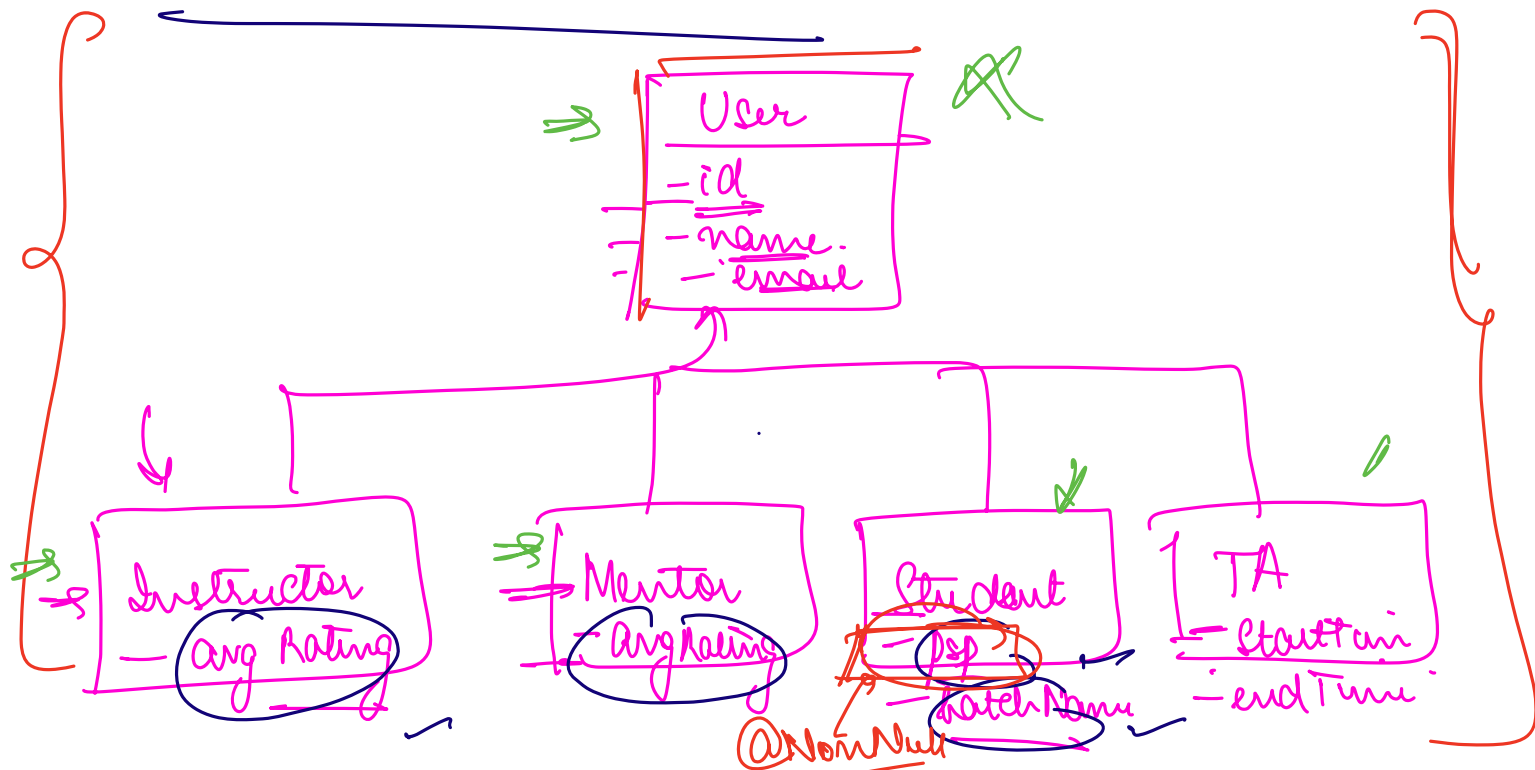
m:m

Will start
at 9:10 PM

Lot + More Nuance
(Cascade)

→ Hibernate N+1 Problem

REPRESENTING INHERITANCE



① Mapped Superclass

→ No table for the parent class
users

→ One table for each child class
↳ include attributes of the parent table

Typically this is used when parent class is abstract.

② Table per Class

→ very very similar to mapped superclass
→ but also there will be a table for the parent.

→ child classes will have attr of parent as well.

list <User> v =

user Repository.find All()

Student

Students

users → X

parent's repo

all obj of user
+

all obj of all child

user — to — mentor — Students —

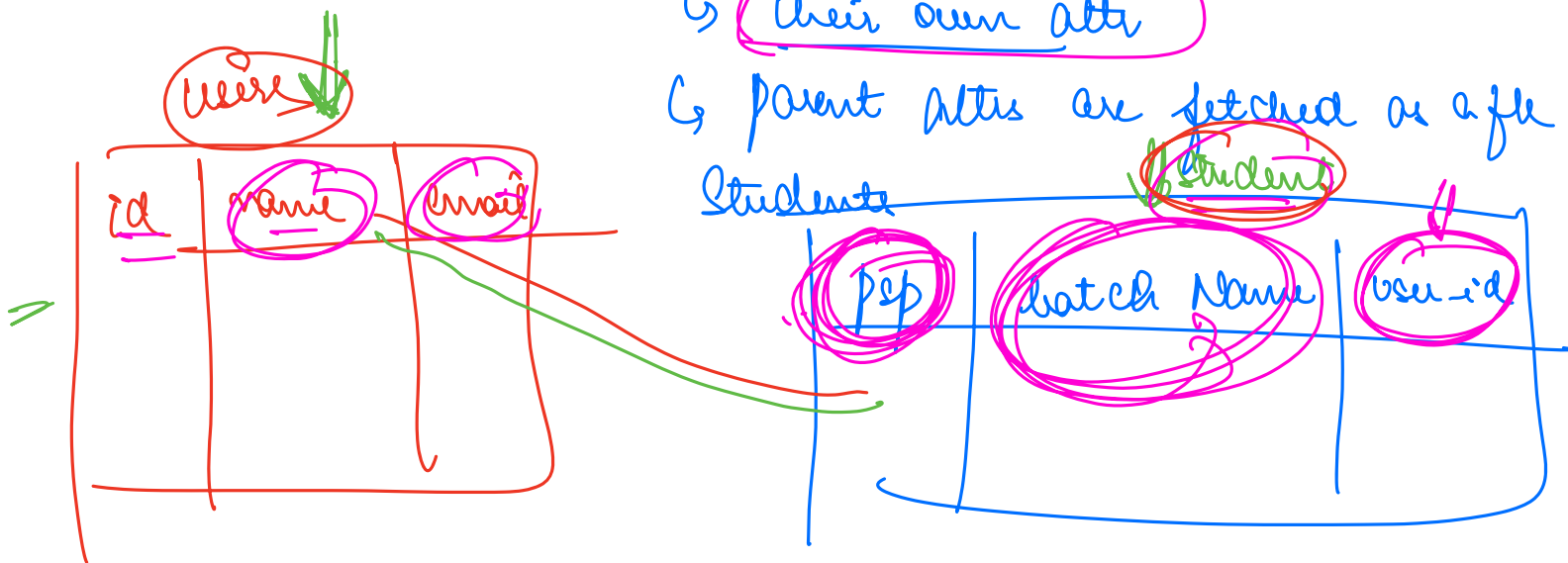
~~select id, name, email from users~~
 UNION
~~select id, name, email from students~~
 UNION
 select id, name, email from tot.

often is the best approach
 ② Joined Table

- table for parent as well as each child.
- all of the attr of parent are ONLY present in parent class
- Table of child

↳ their own attr

↳ parent attr are fetched as a file



Pros: select name from users;

Con: Need join to get child obj.

Student s = ~~from BB~~

↓
Query will require
join

④ Single Table

→ one giant table

Users

NON NULL

differentiator

id	name	email	avgRating	pp	atTime	entTime	type
-	-	-	-	-	-	-	1
-	-	-	α	-	×	×	1
-	-	-	N	N	N	N	2
							1
							3
							3

Pro → No joins. → Fast Reads.

Cons → Wastage of Space.

→ impossible to have NOT NULL constraints
on child's attr.

Table per Class

base

id	name	email

← just user

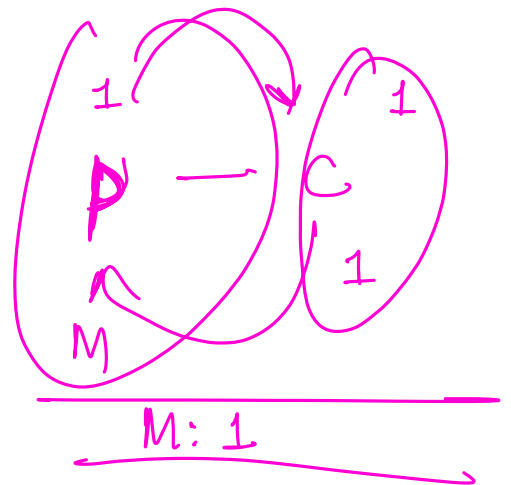
Students

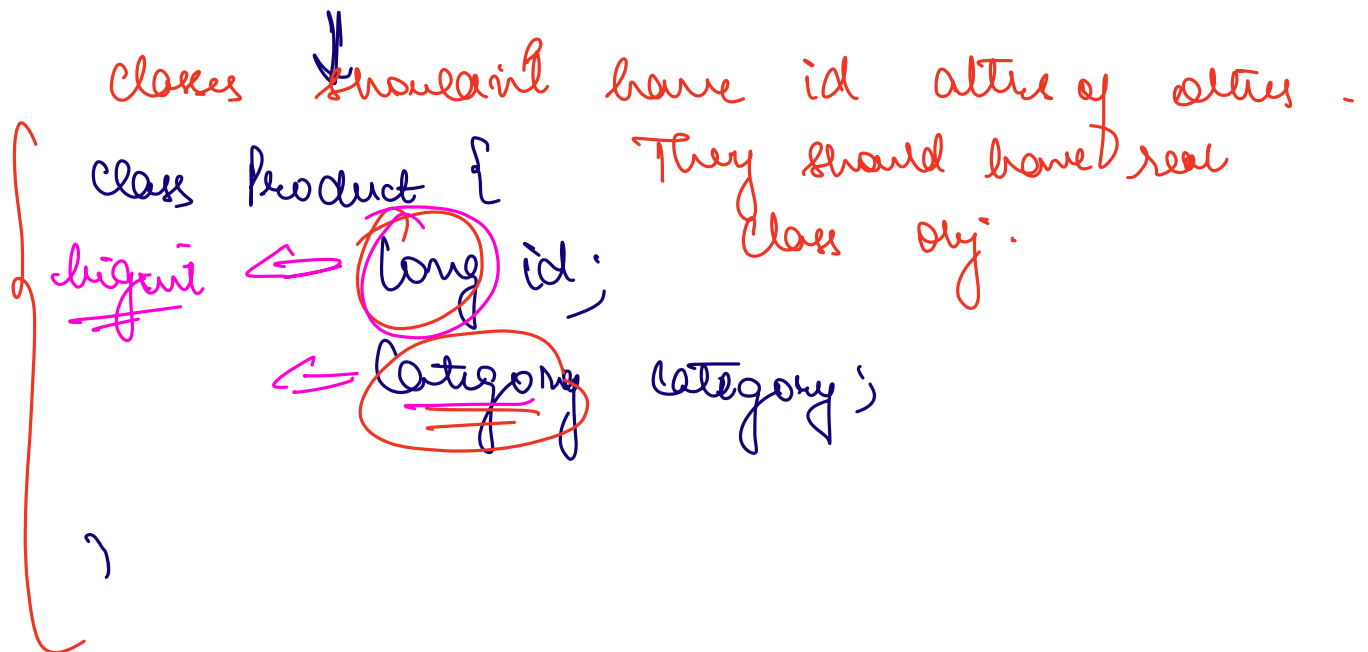
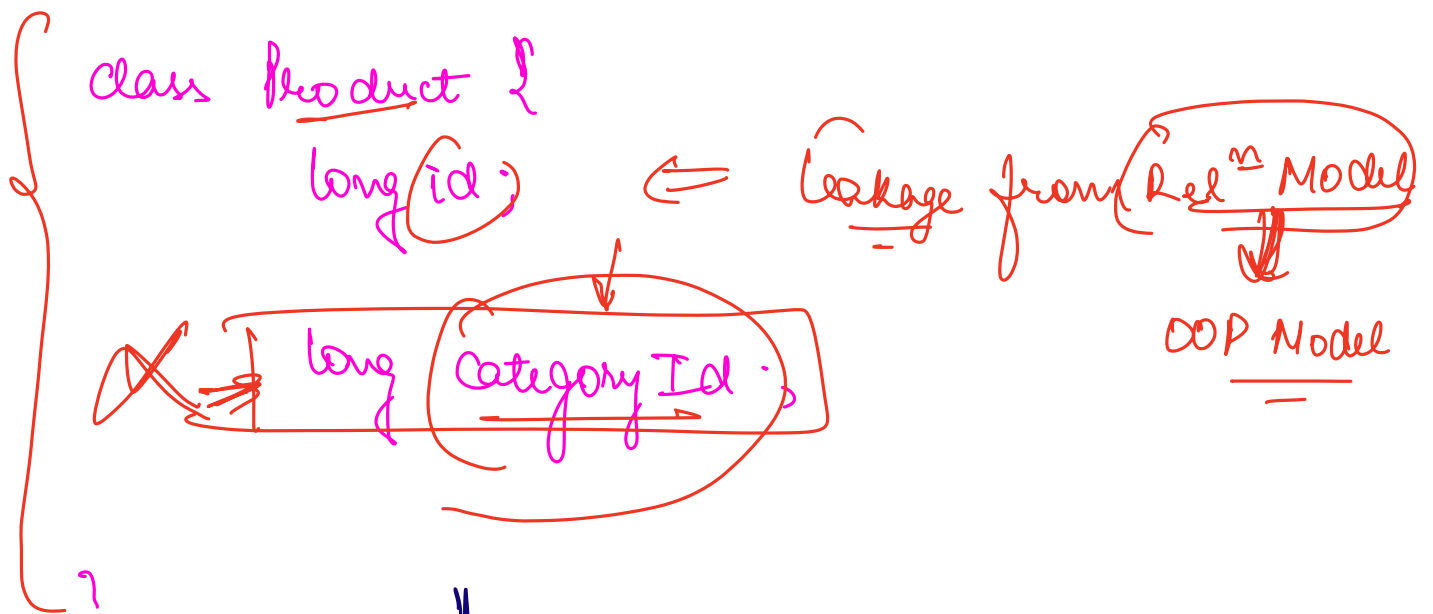
id	name	email	pho	alt

id	name	email	av	lar

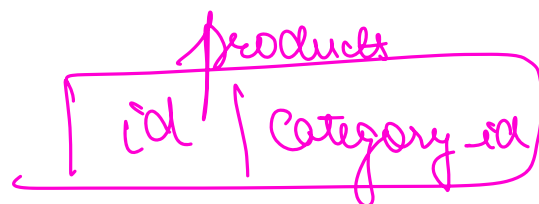
Cardinality Mappings in the DB

- ⇒ 1:1
- ⇒ 1:m
- ⇒ m:1
- ⇒ m:m





In your table though, how will you store obj attr.



1:1 \Rightarrow

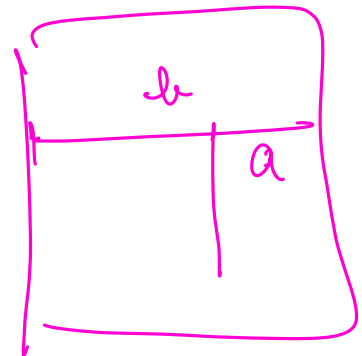
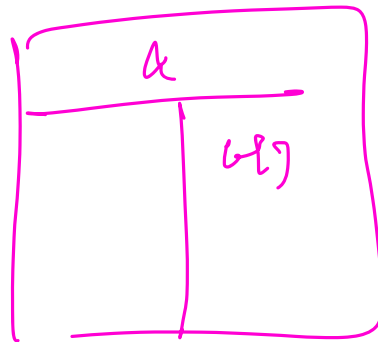
id of any 1 side on any other side

$\left(\begin{array}{l} 1:M \\ \text{or} \\ M:1 \end{array} \right)$

\Rightarrow id of 1 side on M side

$\# A \{$

$\text{list} \langle B \rangle^M$



?

α

$M:M$

Mapping Table

