Hibernate Advanced Mapping

In DB

1 Multiple Tables

2 Relationship btw tables

Need to model this with Hibernate

Types

1 one to one

Ex : An instructor can have instructor details , Similar instrctur profile

Instructor(T)-> Instructor Details(T)

2 one to many , many to one

Ex: One to many

instructor can have many courses inverse of this is many to one relation many courses can have single Instrctor

3 many to many

Ex : A course an have many student and student can have many courses

Database concepts

1 primary key and Foreign key

-primary key : identify unique row in a table

-Foreign key : Link table together -> a field in one table refer to primary key in another table

2 cascade

Apply same operation to related entites

If I save Instrctor it will cascade and save instructor\_details also

If we save Instructor it performs same operation to Instructor\_details

If we delete Instructor should delete their instructor details also bcz they no longer have record known as “**CASCADE DELETE**”

We have to be carefull with cascade delete in terms Many to many we should not delete check use case

Fetch Types: Eager VS Lazy Loading => “should we retrieve everything”

Eager will retrieve everything

Lazy will retrieve on request

Uni – Directional Relationship

One way relation using Instrctor get instructor details

Instructor-> Instrctor\_details

Bi –directional

Both ways

Instructor<--> Instrctor\_details

ONE TO ONE

1st uni – directional example

Deveolpment process one to one

1 Define database tables

2 create instructor\_details class

3 create instructor class

4 create main App

Table : instructor\_details

create table instructor\_detail(id serial PRIMARY KEY , youtube\_channel VARCHAR(200) DEFAULT NULL,hobby VARCHAR(100) DEFAULT NULL);

Table : instructor

CREATE TABLE instructor (id serial PRIMARY KEY,first\_name varchar(45) DEFAULT NULL,last\_name varchar(45) DEFAULT NULL,email varchar(45) DEFAULT NULL,

instructor\_detail\_id int DEFAULT null, CONSTRAINT fk\_detail FOREIGN KEY (instructor\_detail\_id) REFERENCES instructor\_detail(id)

)

Need to set relation to the table instructor\_detail\_id

Link the tbale using FK

Definf FK

CONSTRAINT fk\_detail FOREIGN KEY (instructor\_detail\_id) REFERENCES instructor\_detail(id)

Forieng key

Preserve relatiosnship btween tbles

Referential Integrity

Prevents the operations that would destroy relatiosnhship

Ensuer only valid data is inserted into the foreign key column

Can contain only valid referenc to the primary key anoher table