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Spring Boot 9AM

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Spring Data JPA: Association Mapping

Hibernate Based Code:-

[https://github.com/javabyraghu?](https://github.com/javabyraghu?tab=repositories&q=hibernate&type=&language=)

[tab=repositories&q=hibernate&type=&language=](https://github.com/javabyraghu?tab=repositories&q=hibernate&type=&language=)

Multiplicity (DB): Connecting multiple table using PK-FK concept.

=> One Table PK is taken as another table FK.

=> Multiplicity 4 types

a. 1...1 (one-to-one)

b. 1...* (one-to-many)

c. *...1 (many-to-one)

d. *...* (many-to-many)

Primary Key -> No Duplicates allowed in table.

Value can not be null.

ID Column/ Unique column.

Foreign Key -> This column always used to link another table
(linkwith PK)

FK can accept null values, even duplicates.

Value can not be inserted if it is not exist
on its PK column.

#1. For 1...* and *...1 create FK column at many side.

#2. For *...* create one extra table with two FK columns

#3. For 1...1 use *...1 create FK column at many side
apply unique condition at FK column.

IS-A, HAS-A

Employee IS-A Person

Car HAS-A Engine

1...*

Company HAS-A Branch

1...*

Dept HAS-A Employee

1...*

Book HAS-A Author

*...1

If both side 1...* then choose *...*

1...*

Student HAS-A Course

*...1

If both side 1..* then choose *...*

*)Hint : In English , if we use having, had, has---> in Java HAS-A
Stmt: One Person is having so many (multiple) CreditCards in
realtime.

1 ... *
Person HAS-A CreditCard

1...* = one row in one(parent) table is connected with multiple rows
in
another (Child) table

*...1 = Many rows in Parent table are connected to one row in child
table

(Java)Association Mapping[HAS-A]----(DB)Multiplicity

=> Multiplicity is divided into 2 types in Java.

- a) Non-Collection based (Do not use Collection) [Child is 1]
- b) Collection based (Use Collection:List/Set) [Child is *]

Non-Collection

Collection

1...1

*...1

1...*

...

----Association Mapping Implementation Steps---

- a) write Two Model classes and apply
HAS-A Relation between Model classes
- b) Check For Collection/Non-Collection Type
if Collection type then modify HAS-A Variable
as Collection variable.

c) Apply Multiplicity Annotation

1...1 @ManyToOne + Unique

1...* @OneToMany

*...1 @ManyToOne

... @ManyToMany

d) Provide JoinColumn (FK Column) or JoinTable(JoinColumn +
JoinColumn)