

Enterprise Programming 1

Lesson 02: JPA

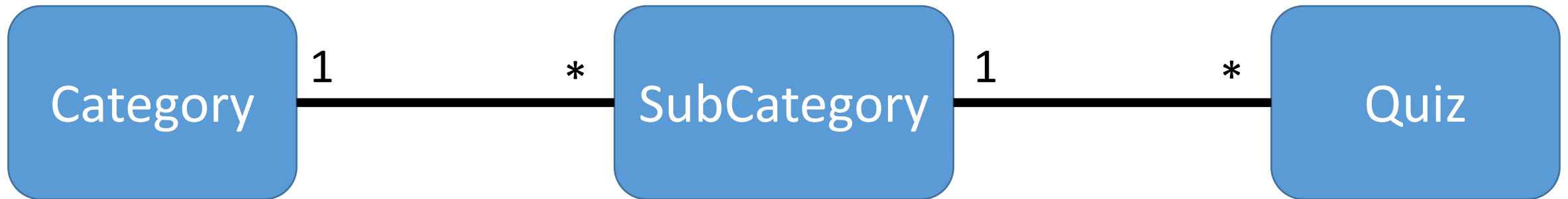
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About these slides

- These slides are just high level overviews of the topics covered in class
- The details are directly in the code comments on the Git repository

Relationships

Database (DB) tables can have relationship among them



- A category can have many subcategories
- A subcategory has one parent category
- Same kind of relations between SubCategory and Quiz
- “Links” are *foreignkey* constraints

Relationship Annotations

- 5 kinds of annotations
- @OneToOne
- @OneToMany
- @ManyToOne
- @ManyToMany
- @ElementCollection

EntityManager

- Object used to sync the entities with the data in the DB
- Different operations
 - `persist()`
 - `clear()`
 - `find()`
 - `contains()`
 - `merge()`
 - `remove()`
 - etc.

Java Persistence query language (JPQL)

- You can use `EntityManager#find()` to query an `@Entity` with a given id
- But what if you need to find all quizzes in a given category?
- You can of course use SQL
- JPQL: similar to SQL in syntax, but works by referring directly to `@Entity`, and not tables in DB
- JPA will translate JPQL into SQL at runtime

Git Repository Modules

- *NOTE: most of the explanations will be directly in the code as comments, and not here in the slides*
- **intro/jee/jpa/relationship**
- **intro/jee/jpa/manager**
- **intro/jee/jpa/jpql**
- **intro/jee/jpa/fetch**
- Exercises for Lesson 02 (see documentation)