



CS544 EA

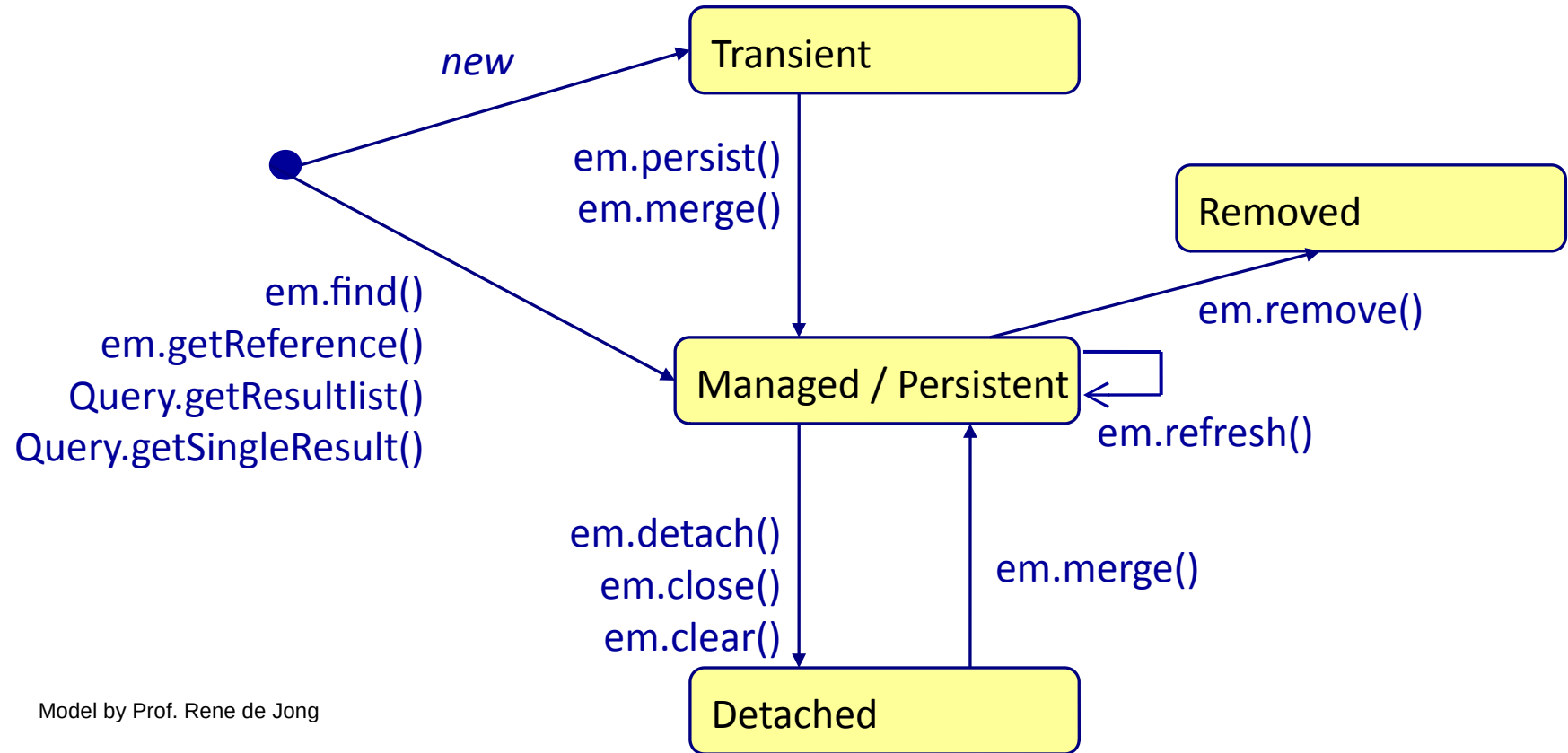
Hibernate

Entity Management

Entity Life Cycle

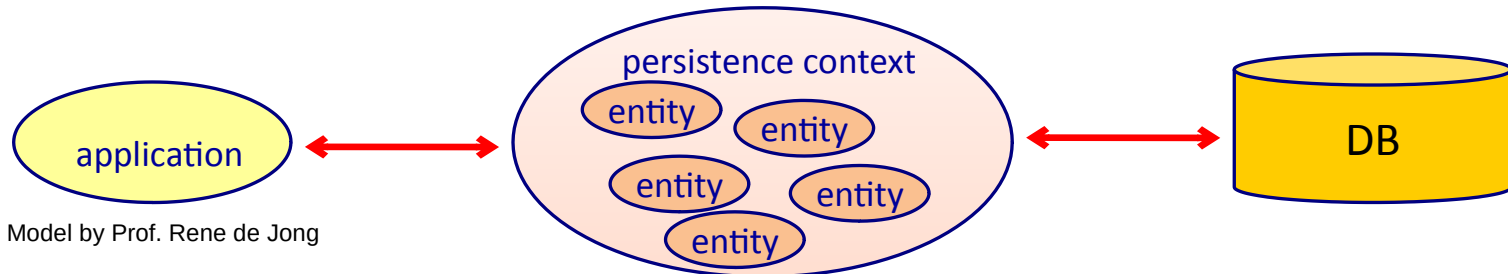
- We've seen how to map entities
 - But haven't discussed the EntityManager
 - We first have to understand the Entity Life Cycle
- The **Entity Life Cycle** consists of the following **4 states**:
 - Managed, Transient, Detached, Removed
 - Methods of the EntityManager change the state of Entities

States and Methods



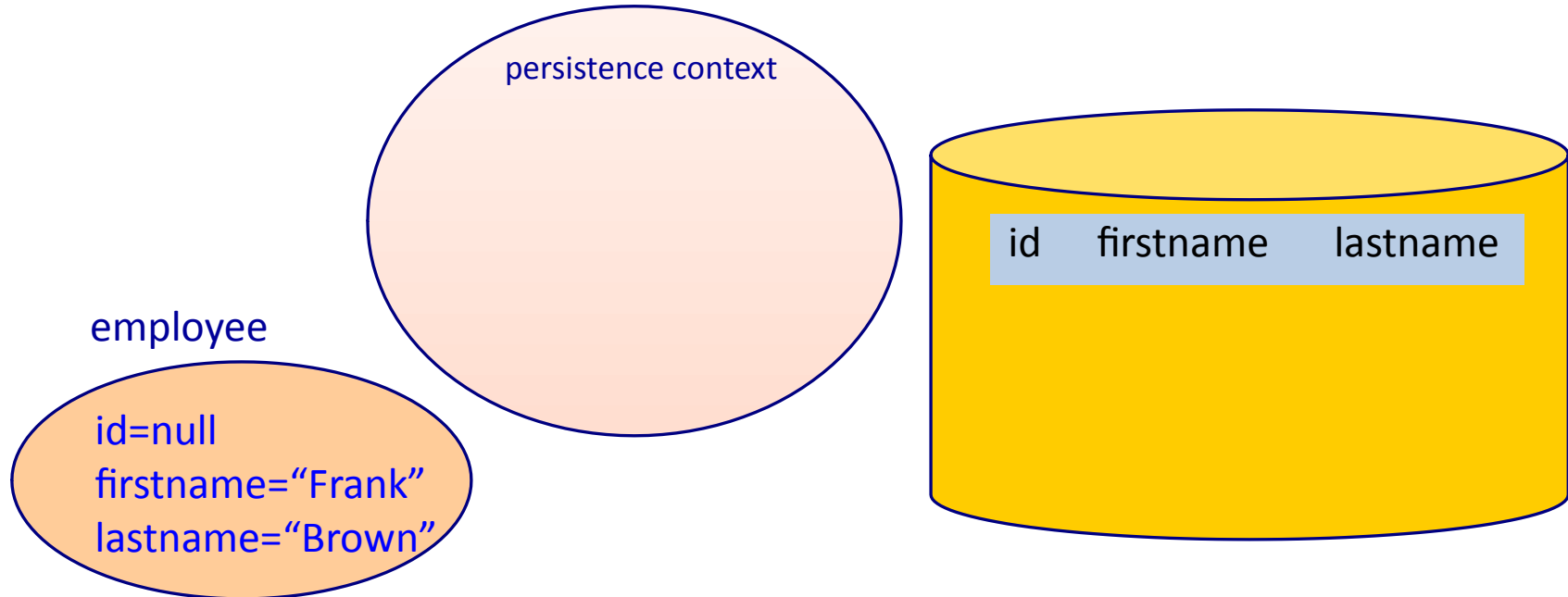
Persistence Context

- PersistenceContext is another name for EntityManager
 - Uses same principles as Spring's ApplicationContext
- The PersistenceContext:
 - Guarantees managed entities are **saved** in DB
 - **Tracks changes** and pushes them to DB
 - Works like a **cache**



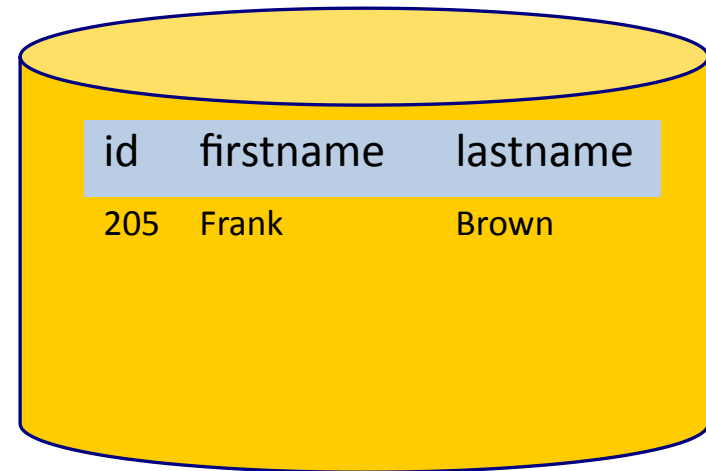
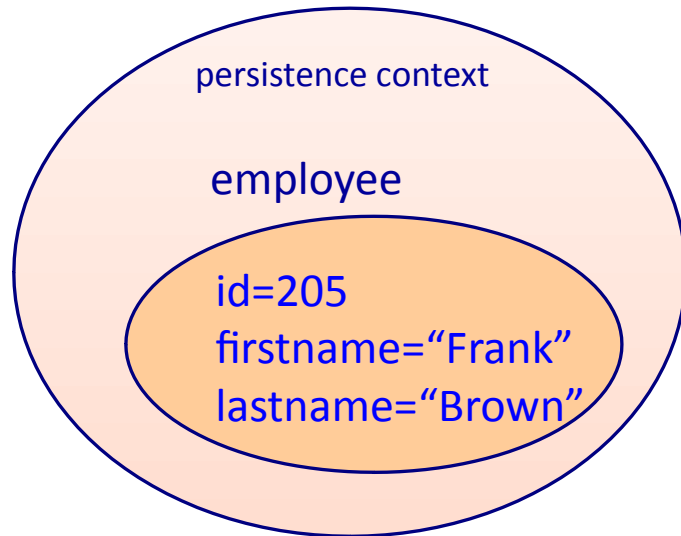
Transient Entity

- A transient entity has no database identity



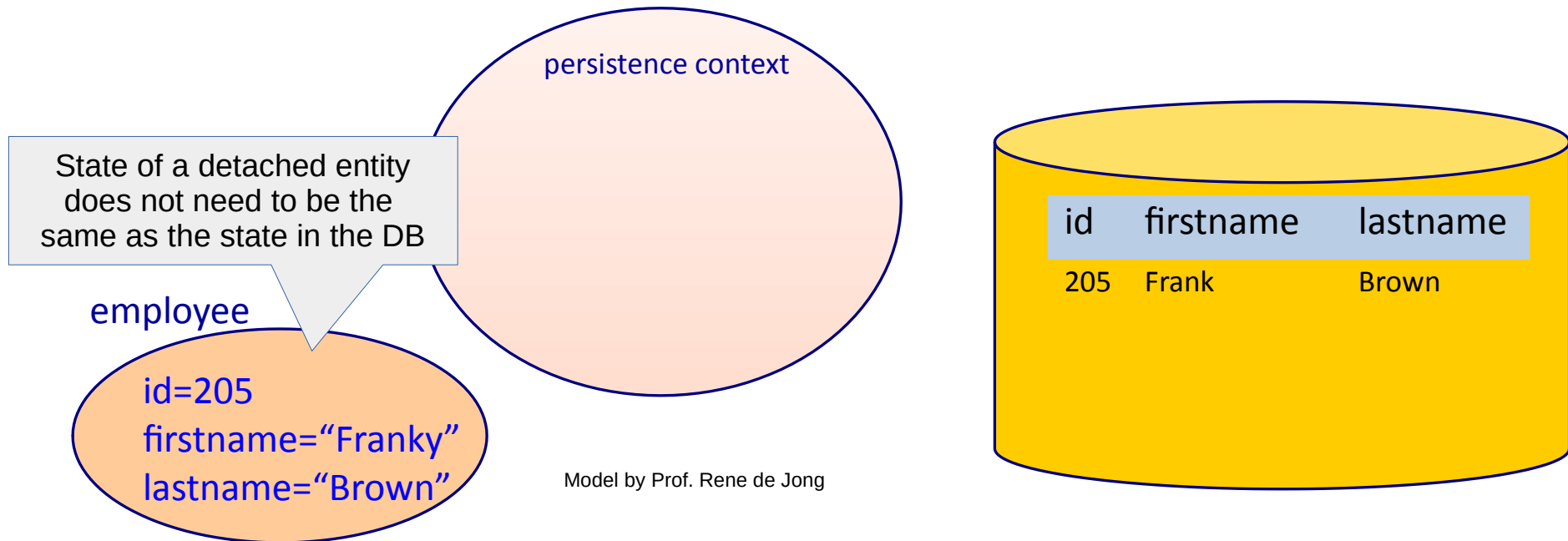
Managed Entity

- A managed entity is managed by the persistence context (em) and has a DB identity



Detached Entity

- A detached entity has a database identity
 - But is not managed by the current persistence ctx.



Removed

- A removed Entity is removed from the DB and persistence ctx
 - But the object may not yet be garbage collected in Java

