JPA with Hibernate 3.0

Lesson2:The Persistence Life Cycle

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Lesson Objectives

After completing this lesson, participants will be able to understand:
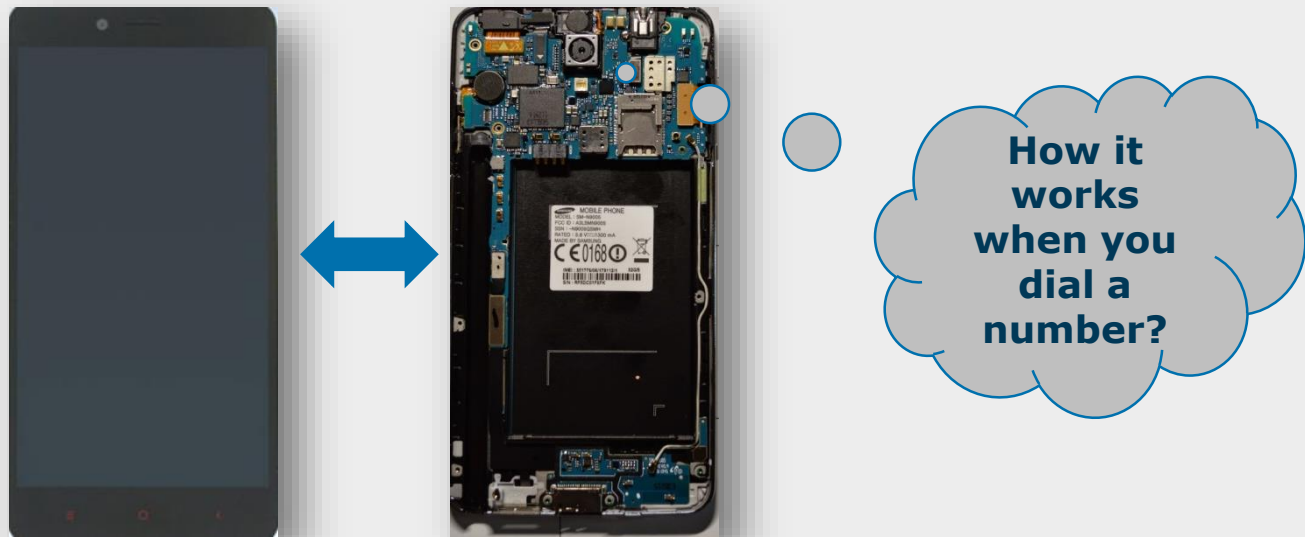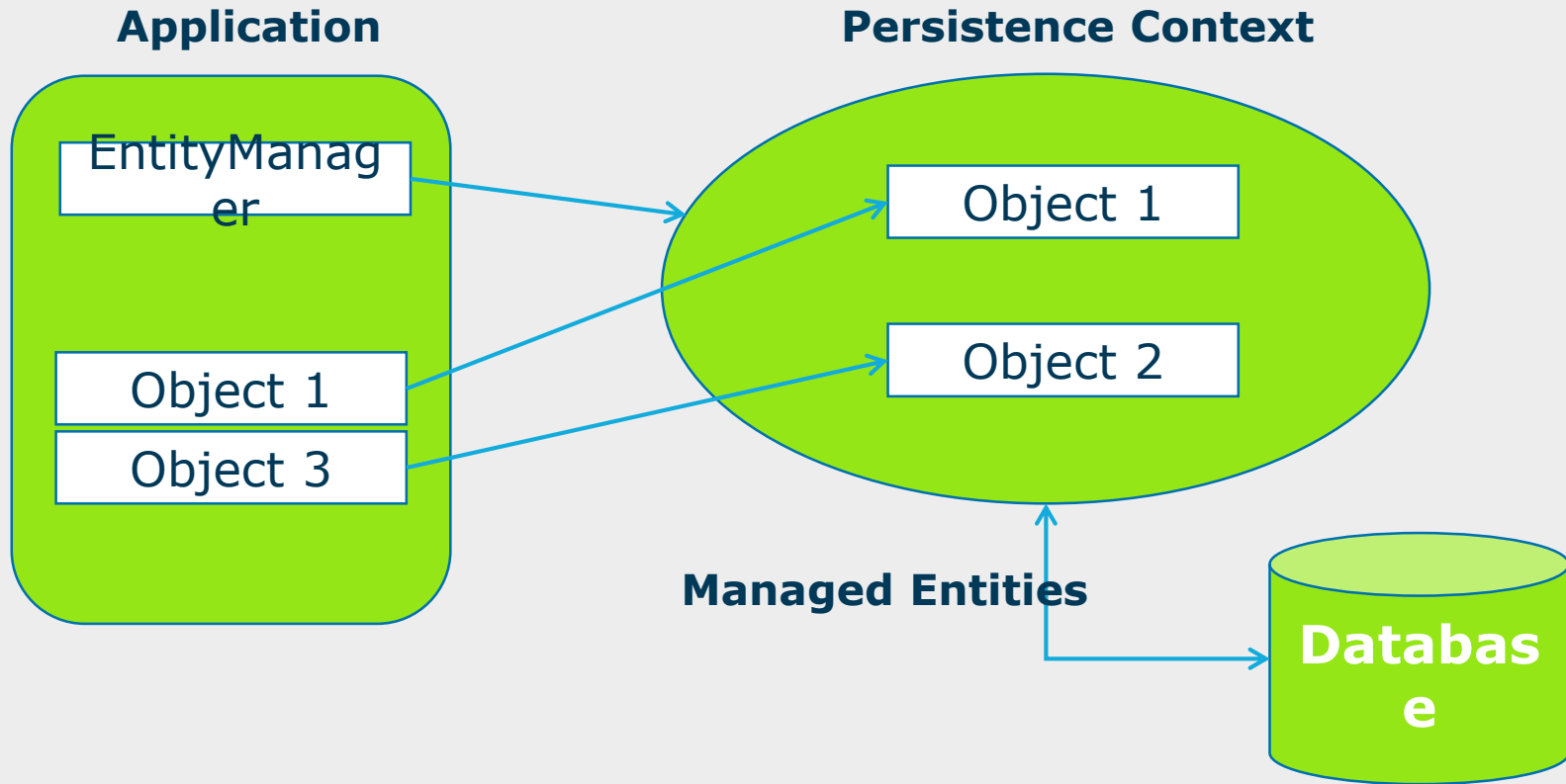- What is persistence?
- Persistence Life Cycle

How ORM works?

ORM provides high-level of abstraction

JPA Runtime Overview

Sample JPA Runtime:

Application

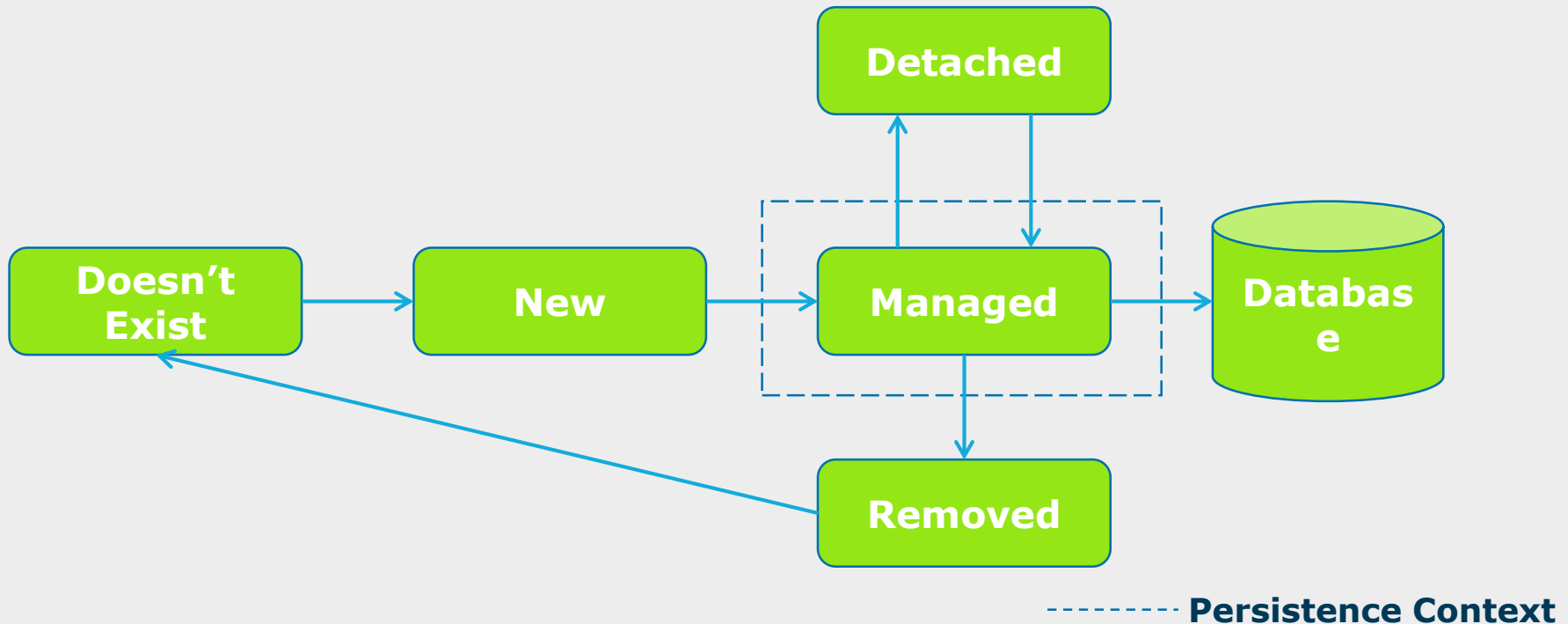**Persistence Context**

EntityManager

Object 1

Object 1

Object 2

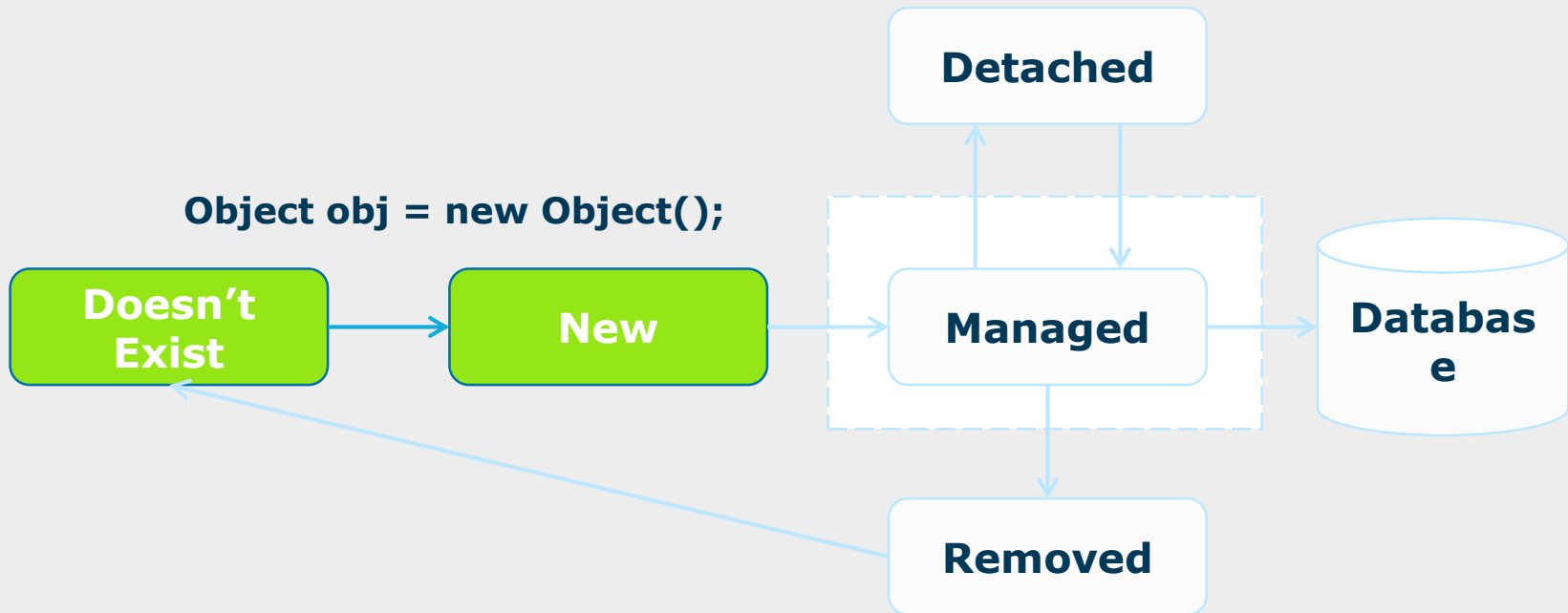Object 3

Managed Entities

Database

Persistence Life Cycle

Object/Entity managed by ORM (using EntityManager) passes through different stages during its persistence.

Detached

Doesn't Exist → New → Managed → Database

Removed

- - - - - - - **Persistence Context**

New / Transient State

An entity is new if it has just been instantiated using the new operator, and it is not associated with a persistence context. It has no persistent representation in the database and no identifier value has been assigned.
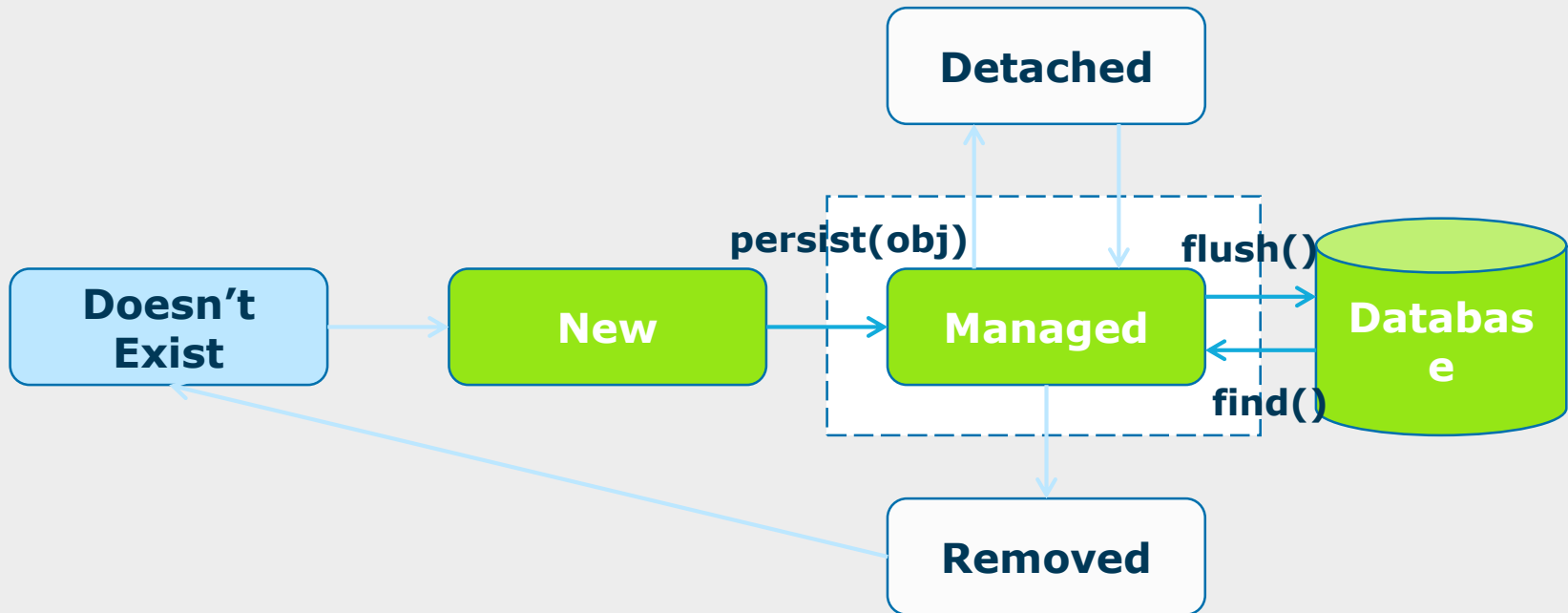
Managed State

A managed entity instance is an instance with a persistent identity that is currently associated with a persistence context.
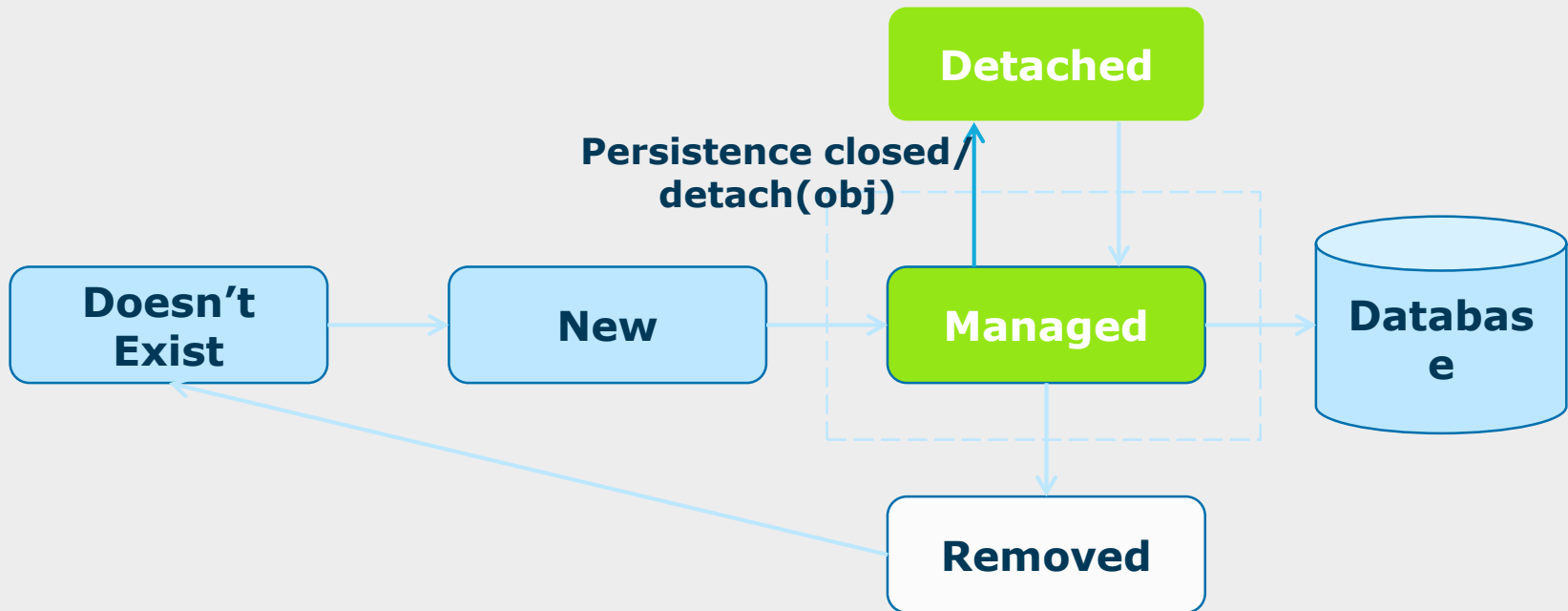
Detached State

The entity instance is an instance with a persistent identity that is no longer associated with a persistence context, usually because the persistence context was closed or the instance was evicted from the context.
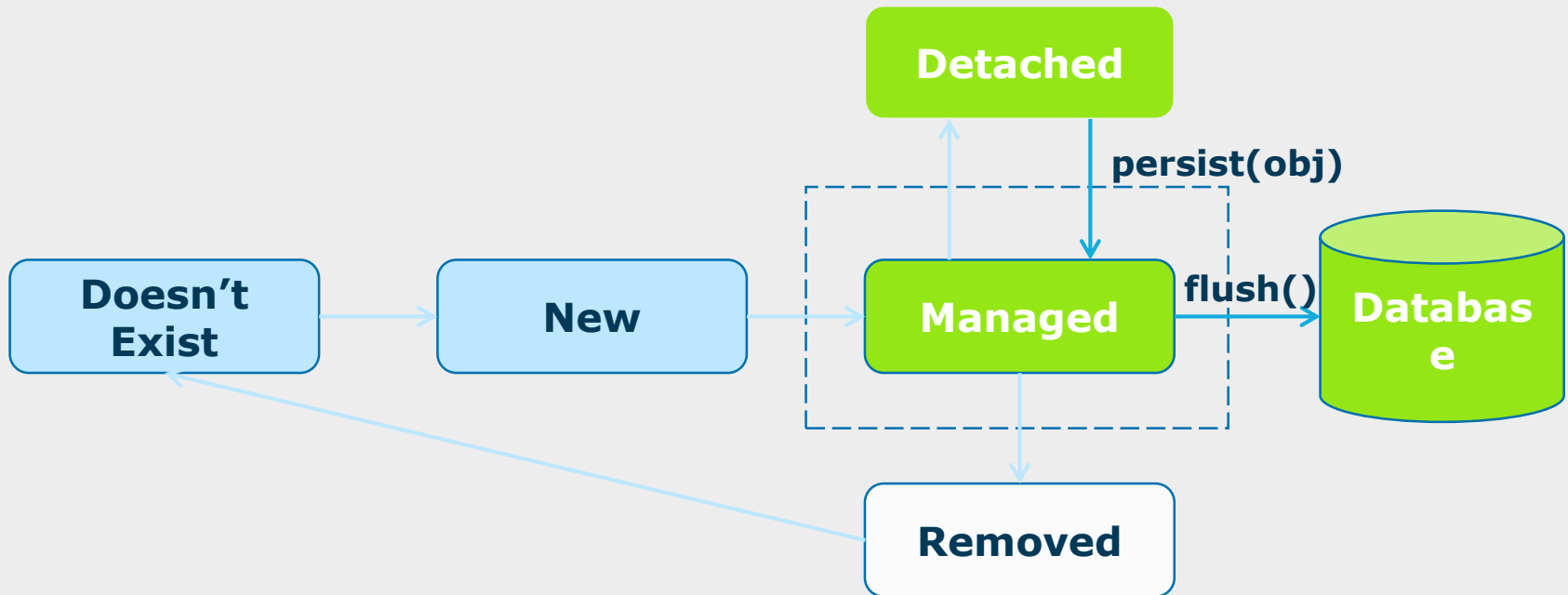
Detached State

A detached entity instance can be restored into managed state, when you persist it again. The ORM ensures state of entity instance is in sync with database.
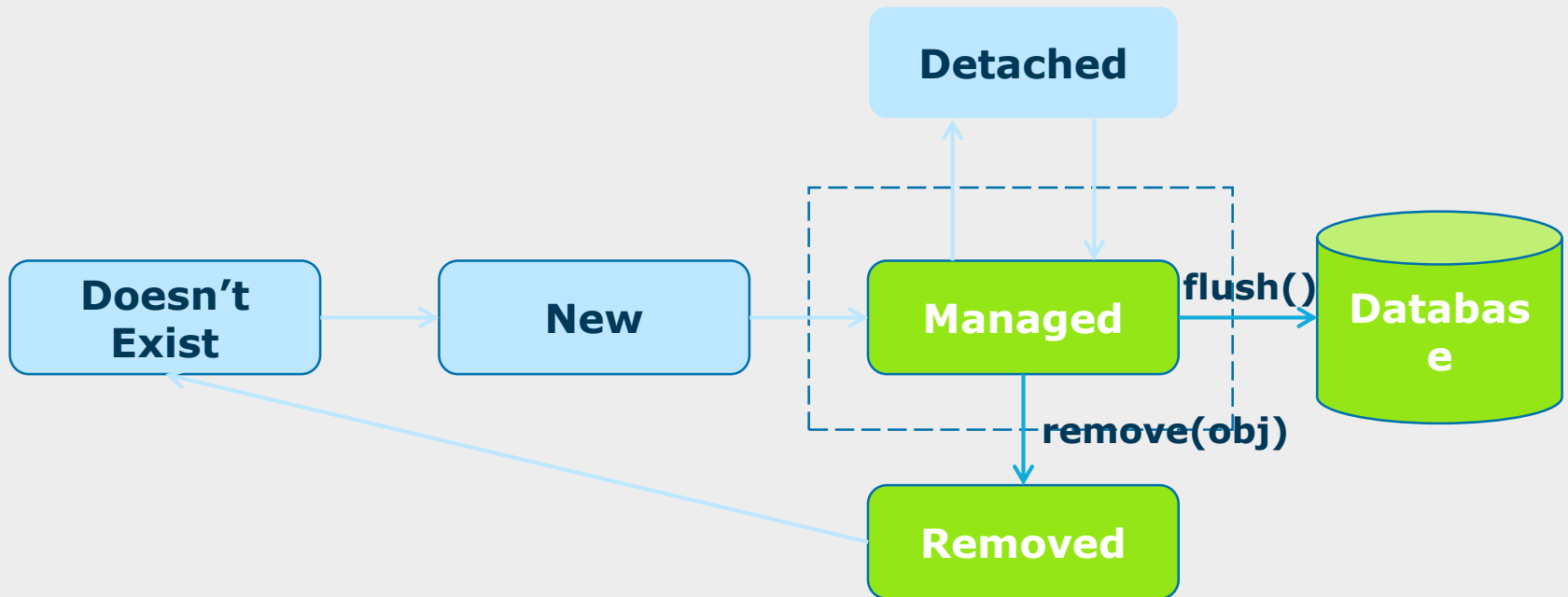
Removed State

A removed entity instance is an instance with a persistent identity, associated with a persistence context, but scheduled for removal from the database

Summary

In this lesson, you have learned about:
- Persistence Life Cycle

Question 1: When we persist entity it becomes managed.
- True
- False

Question 2: When an entity instance is with a persistent identity and currently associated with a persistence context, then it is _____ state.
- New
- Managed
- Removed