



CS544 EA

Hibernate

EntityManager: Retrieving Entity Objects

em.find() and em.getReference()

- .find() and .getReference() are very similar
 - Both **retrieve an entity by its primary key** value
 - SELECT * FROM ... WHERE id = ...
 - If an entity is already cached the DB is not hit
 - What's the difference?

```
em.getTransaction().begin();  
Person p1 = em.find(Person.class, 1L);
```

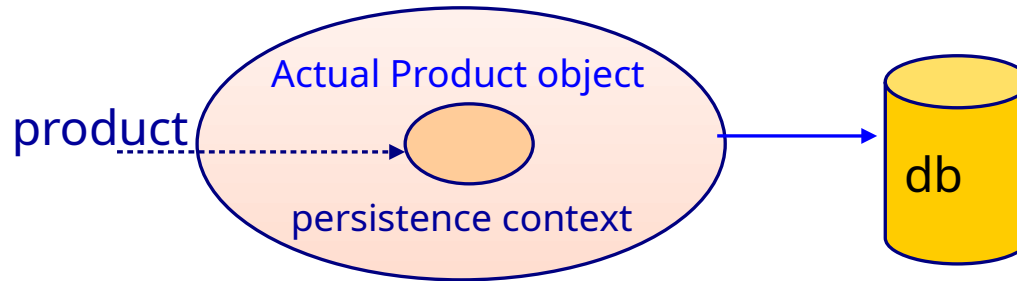
```
em.getTransaction().begin();  
Person p1 = em.getReference(Person.class, 1L);
```

Difference

- `.find()` retrieves the object **right away**
 - Creating a DB hit right away
- `.getReference()` **provides a proxy**
 - Does not load the object's values until first needed

.find()

```
Product product = em.find(Product.class, 1L);
```

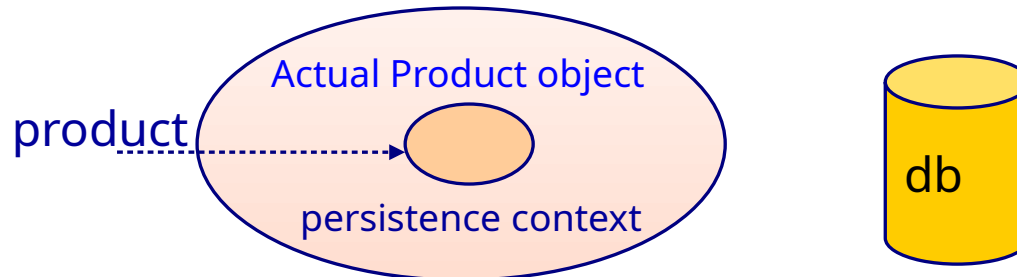


Goes to the DB

If the product with this ID does not exist
.find() returns null

```
product.getPrice()
```

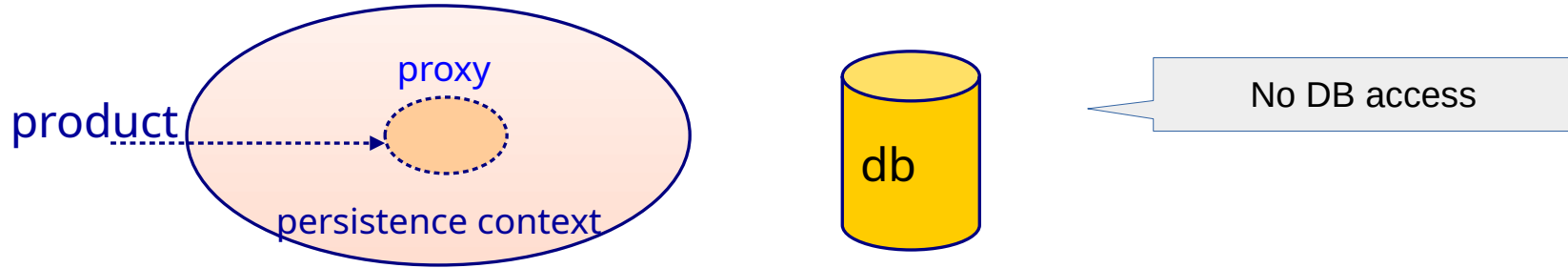
Model by Prof. Rene de Jong



No DB access

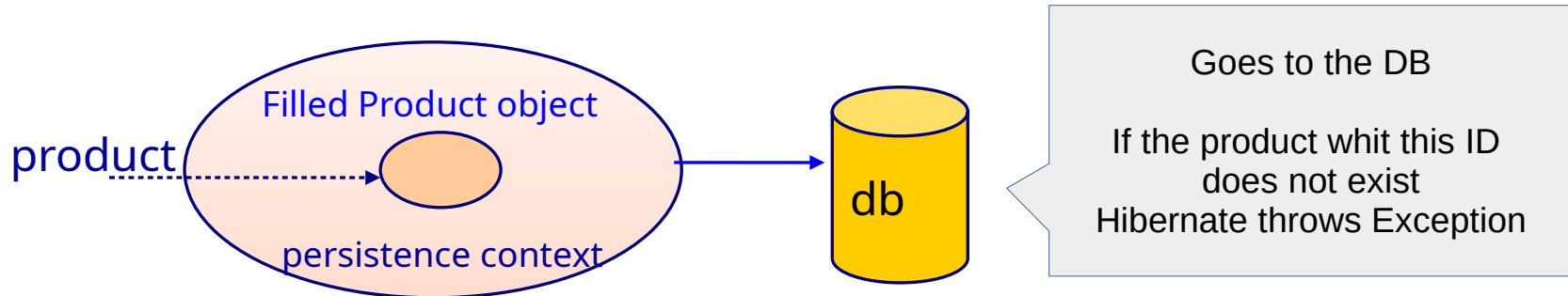
.getReference()

```
Product product = em.getReference(Product.class, 1L);
```



```
product.getPrice()
```

Model by Prof. Rene de Jong



When to use .getReference()

.getReference() is especially useful **combined** with **.remove()**

```
Person p1 = em.find(Person.class, 1L);  
em.remove(p1);
```

```
Person p1 = em.getReference(Person.class, 1L);  
em.remove(p1);
```

- 2 DB hits
 - One for .find()
 - One for .remove()
- 1 DB hit
 - 0 for .getReference()
 - 1 for .remove()