

EJB Entity methods

Business methods

- As defined in component interface

virtual persistent field CMP

- abstract getter/setter methods for each virtual persistent field
 - field that maps to column in database
- Perhaps should not be business methods
 - Might want to have separate business methods that perform integrity checks

Container Managed Relationships

- Rather than having
 - Movie { ... DirectoryKey getDirectorID() ... }
- We want
 - Movie { ... Director getDirector() ... }
 - Director { ... Collection getMovies() ... }

Container Managed Relationships

- Define abstract getter/setter methods
 - return Local interface, or Collection of Local interface
- Each end of a relationship can have a multiplicity of one or many
- An end can be marked as cascade-delete
 - If my partner is deleted, delete me
- Much of this done in XML DD

Home methods

- Want to define arbitrary methods in home
- home is just an interface, no code allowed
- Defined in entity bean
 - updateAll() on home invokes ejbHomeUpdateAll() on a pooled entity bean
 - error on page 345 of HF EJB

Finder/Select methods

- The home interface can define finder methods
- ```
public interface CustomerHome
 extends EJBLocalHome {
 public CustomerLocal findByName(
 String lastName, String firstName)
 throws ...;
 public Collection findByCity(
 String city, String state) throws ...;
```

# findByName

```
<query>
 <query-method>
 <method-name>findByName</method-name>
 <method-params>
 <method-param>java.lang.String</method-param>
 <method-param>java.lang.String</method-param>
 </method-params> </query-method>
 <ejb-ql>
 Select Object (c) from Customer c where c.lastName = ?1 and c.firstName = ?2
 </ejb-ql>
</query>
```

# findByCity

```
<query>
 <query-method>
 <method-name>findByCity</method-name>
 <method-params>
 <method-param>java.lang.String</method-param>
 <method-param>java.lang.String</method-param>
 </method-params> </query-method>
 <ejb-ql>
 Select Object (c) from Customer c where c.city = ?1 and c.state = ?2
 </ejb-ql>
</query>
```

# Finder methods

- Can return either EJBObjects or value types
  - e.g., return a set of ZipCodes
- Value types can be more efficient
  - particularly if passed across network
- But value types are no longer connected to database

# Select methods

- Same as finder methods, except only available to bean
  - execute in transaction context on calling method