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 …;
<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-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-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 EJBObjets 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