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```
<?xml version='1.0' encoding='utf-8'?>
<!DOCTYPE hibernate-configuration PUBLIC</pre>
"-//Hibernate/Hibernate Configuration DTD 3.0//EN"
"http://hibernate.sourceforge.net/hibernate-configuration-3.0.dtd">
<hibernate-configuration>
<session-factory>
<!-- Database connection settings -->
cproperty name="connection.driver_class">com.mysql.jdbc.Driver/property>
property
name="connection.url">jdbc:mysql://localhost:3306/test</property>
connection.username">root
connection.password">
<!-- JDBC connection pool (use the built-in) -->
connection.pool_size">1
<!-- SQL dialect -->
cproperty name="dialect">org.hibernate.dialect.MySQL5Dialect/property>
<!-- Disable the second-level cache -->
cache.provider_class">org.hibernate.cache.NoCacheProvider/property>
<!-- Echo all executed SQL to stdout -->
cproperty name="show_sql">true/property>
<!-- Drop and re-create the database schema on startup -->
cproperty name="hbm2ddl.auto">create/property>
<!-- Names the annotated entity class -->
```

```
<mapping class="Product"/>
<mapping class="Customer"/>
<mapping class="Manufacturer"/>
</session-factory>
</hibernate-configuration>
```

### i) insert a new record inside product table

```
Session session = sessionFactory.openSession();
Transaction tx = null; try { tx =
session.beginTransaction(); Product product = new
Product(); product.setName("Product 1");
Customer customer = new Customer();
customer.setName("Customer 1"); Manufacturer
manufacturer = new Manufacturer();
manufacturer.setName("Manufacturer 1");
product.setCustomer(customer);
product.setManufacturer(manufacturer);
session.save(product); tx.commit();
}
catch (HibernateException e) { if
(tx!=null) tx.rollback();
e.printStackTrace();
} finally {
session.close();
}
```

# ii) update an existing record in product table

```
Session session = sessionFactory.openSession();
Transaction tx = null; try { tx =
    session.beginTransaction();
Product product = (Product)session.get(Product.class, 1);
product.setName("Updated Product 1");
session.update(product); tx.commit();
}
catch (HibernateException e) { if
    (tx!=null) tx.rollback();
    e.printStackTrace();
} finally {
    session.close();
}
```

## iii) delete an existing record from product table

```
Session session = sessionFactory.openSession();
Transaction tx = null; try { tx =
    session.beginTransaction();
Product product = (Product)session.get(Product.class, 1);
session.delete(product); tx.commit();
}
catch (HibernateException e) { if
    (tx!=null) tx.rollback();
e.printStackTrace();
} finally {
    session.close();
}
```

iv) execute an query and return the manufacturer list for a given product name.

```
Session session = sessionFactory.openSession();
Transaction tx = null; try { tx =
session.beginTransaction();
List manufacturers = session.createQuery("FROM Manufacturer m WHERE
m.name = :name").setParameter("name", "Manufacturer 1").list(); for
(Iterator iterator = manufacturers.iterator(); iterator.hasNext();){
Manufacturer manufacturer = (Manufacturer) iterator.next();
System.out.println(manufacturer.getName());
}
tx.commit();
}
catch (HibernateException e) { if
(tx!=null) tx.rollback();
e.printStackTrace();
} finally {
session.close();
}
```

### **Product Table:**

```
CREATE TABLE product ( id int NOT NULL AUTO_INCREMENT, name varchar(255) NOT NULL, price decimal(10,2) NOT NULL, PRIMARY KEY (id)
```

### **Customer Table:**

```
CREATE TABLE customer ( id int NOT NULL AUTO_INCREMENT, name varchar(255) NOT NULL, address varchar(255) NOT NULL, PRIMARY KEY (id) );
```

## **Manufacturer Table:**

```
CREATE TABLE manufacturer ( id int NOT NULL AUTO_INCREMENT, name varchar(255) NOT NULL, PRIMARY KEY (id)
);
```