

HIBERNATE

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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)
```

);

```
<?xml version='1.0' encoding='utf-8'?>
```

```
<!DOCTYPE hibernate-configuration PUBLIC
```

```
"-//Hibernate/Hibernate Configuration DTD 3.0//EN"
```

```
"http://hibernate.sourceforge.net/hibernate-configuration-3.0.dtd">
```

```
<hibernate-configuration>
```

```
<session-factory>
```

```
<!-- Database connection settings -->
```

```
<property
```

```
name="connection.driver_class">com.mysql.jdbc.Driver</property>
```

```
<property
```

```
name="connection.url">jdbc:mysql://localhost:3306/test</property>
```

```
<property name="connection.username">root</property>
```

```
<property name="connection.password"></property>
```

```
<!-- JDBC connection pool (use the built-in) -->
```

```
<property name="connection.pool_size">1</property>
```

```
<!-- SQL dialect -->
```

```
<property name="dialect">org.hibernate.dialect.MySQL5Dialect</property>
```

```
<!-- Disable the second-level cache -->
```

```
<property
```

```
name="cache.provider_class">org.hibernate.cache.NoCacheProvider</property>
```

```

<!-- Echo all executed SQL to stdout -->
<property name="show_sql">true</property>

<!-- Drop and re-create the database schema on startup -->
<property 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();

}
```