



CS544 EA

Hibernate

Basic Example

Basic Example

- The following example is similar to what we will use in the labs
 - **Not very real world**
 - not part of a big N-Tier application
 - Simple console app
 - Easy to understand
 - Easy to test / practice with individual features
 - You should never write real Hibernate code like this!

```

package cs544.hibernate01.basic;

import java.util.List;

import javax.persistence.EntityManager;
import javax.persistence.EntityManagerFactory;
import javax.persistence.Persistence;
import javax.persistence.TypedQuery;

public class App {
    private static EntityManagerFactory emf;

    public static void main(String[] args) throws Exception {
        /* Reads persistence.xml and looks for specified unit name */
        emf = Persistence.createEntityManagerFactory("cs544.01.basic");

        EntityManager em = emf.createEntityManager();
        em.getTransaction().begin();
        Customer c = new Customer("Jack", "Welsh");
        em.persist(c);
        em.getTransaction().commit();

        em.getTransaction().begin();
        TypedQuery<Customer> q = em.createQuery("from Customer", Customer.class);
        List<Customer> customers = q.getResultList();
        for (Customer c2 : customers) {
            System.out.println(c2.getFirstName() + " " + c2.getLastName());
        }
        em.getTransaction().commit();

        emf.close();
    }
}

```

```

package cs544.hibernate01.basic;

import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;

@Entity
public class Customer {
    @Id
    @GeneratedValue
    private Long id;
    private String firstName;
    private String lastName;

    ...
}

```

Customer Table

id	firstName	lastName
1	Jack	Welsh

Jack Welsh

Persistence.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<persistence xmlns="http://xmlns.jcp.org/xml/ns/persistence"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/persistence
    http://xmlns.jcp.org/xml/ns/persistence/persistence_2_1.xsd"
  version="2.1">

  <persistence-unit name="cs544.01.basic">
    <description>
      Persistence unit for Hibernate
    </description>

    <provider>org.hibernate.jpa.HibernatePersistenceProvider</provider>
    <properties>
      <property name="packagesToScan" value="cs544.hibernate01.basic" />
      <property name="javax.persistence.jdbc.url" value="jdbc:mysql://localhost:3306/cs544?useSSL=false"/>
      <property name="javax.persistence.jdbc.driver" value="com.mysql.jdbc.Driver"/>
      <property name="javax.persistence.jdbc.user" value="root"/>
      <property name="javax.persistence.jdbc.password" value="root"/>
      <property name="javax.persistence.schema-generation.database.action" value="drop-and-create"/>
      <property name="hibernate.dialect" value="org.hibernate.dialect.MySQL5Dialect" />
      <property name="hibernate.cache.provider_class" value="org.hibernate.cache.NoCacheProvider"/>
      <property name="hibernate.id.new_generator_mappings" value="false" />
      <property name="hibernate.show_sql" value="true" />
      <property name="hibernate.format_sql" value="true" />
    </properties>
  </persistence-unit>
</persistence>
```