



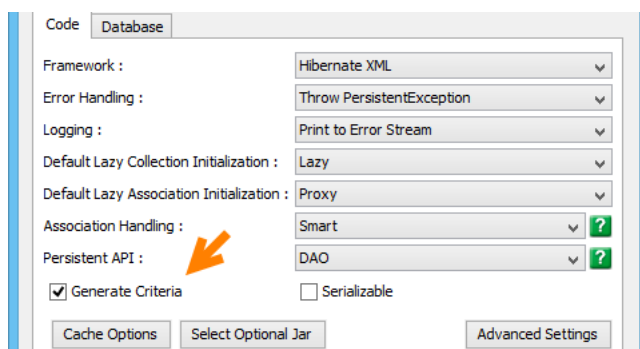
How to Use Hibernate Criteria

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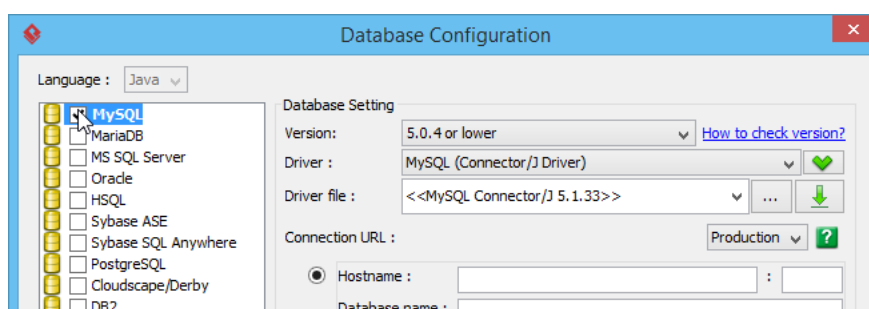
Object-Relational Mapping (ORM) provides many ways to retrieve data from database. Criteria is one of the efficient and easy way to query database. This tutorial will show you how to generate and use Criteria to retrieve data in Visual Paradigm.

Generating Criteria

1. Open *CriteriaTest.vpp* in [Visual Paradigm](#).
2. Select **Tools > Hibernate > Generate Code...** from the application toolbar.
3. The **Database Code Generation** window appear. Keep the option **Generate Criteria** selected. Click **OK** to start generating ORM code.



4. If you don't have any default database chosen, you are now asked to select one. Select the DBMS you use and fill in the connection settings in the **Database Configuration** window, and then confirm.



Using Criteria

1. Execute the Java class `CreateOrmDatabaseSchema` in the generated `ormsamples` package to create database tables.
2. Download the sample java code [Create.java](#). You can also find this file at the bottom of this tutorial.
3. Execute the Java class `Create` to create sample data.
4. Create a class with the following code to retrieve all open order, sort by descending order data:

```
OrderCriteria orderCriteria = new OrderCriteria();
orderCriteria.status.eq(Order.STATUS_OPEN);
orderCriteria.orderDate.order(false);
Order[] listOrder = orderCriteria.listOrder();
SimpleDateFormat dateFormat = new SimpleDateFormat("dd/MM/yyyy hh:mm:ss");for (int i = 0;
i < listOrder.length; i++) {
    System.out.println(listOrder[i].getCustomer().getAccountNo() + ", "
        + dateFormat.format(listOrder[i].getOrderDate()) + ", "
        + (listOrder[i].getStatus() == Order.STATUS_OPEN));
}
```

More Examples on Criteria

- Join multiple tables with conditions:

```
OrderLineCriteria orderLineCriteria = new OrderLineCriteria();// quantity less than 5
orderLineCriteria.quantity.lt(5);// join order table
OrderCriteria orderCriteria = orderLineCriteria.createOrderCriteria();
orderCriteria.status.eq(Order.STATUS_OPEN);// join customer table
CustomerCriteria customerCriteria = orderCriteria.createCustomerCriteria();
customerCriteria.accountNo.eq("C1232122");
OrderLine[] listOrderLine = orderLineCriteria.listOrderLine();for (int i = 0; i < listOrderLine.length;
i++) {
    System.out.println(listOrderLine[i].getItemNo() + ", " + listOrderLine[i].getQuantity());
}
```
- Calculate the total quantity of all open orders:

```
OrderLineCriteria orderLineCriteria = new OrderLineCriteria();// join order table
OrderCriteria orderCriteria = orderLineCriteria.createOrderCriteria();
orderCriteria.status.eq(Order.STATUS_OPEN);
orderLineCriteria.setProjection(Projections.sum(OrderLine.PROP_QUANTITY));
System.out.println(orderLineCriteria.uniqueResult());
```
- Controlling the first and number of results, useful for pagination:

```
OrderCriteria orderCriteria = new OrderCriteria();
orderCriteria.setFirstResult(11);
orderCriteria.setMaxResults(10);
Order[] listOrder = orderCriteria.listOrder();for (int i = 0; i < listOrder.length; i++) {
    System.out.println(listOrder[i].getID());
}
```

Resources

1. [Create.java](#)
2. [CriteriaTest.vpp](#)

Related Links

- [User's Guide - Using ORM Criteria](#)
- [More Hibernate ORM features](#)



Visual Paradigm home page
(<https://www.visual-paradigm.com/>)

Visual Paradigm tutorials
(<https://www.visual-paradigm.com/tutorials/>)