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Hibernate Query examples (HQL)

Published: February 11, 2010 , Updated: May 17, 2011 , Author: mkyong

Hibernate created a new language named Hibernate Query Language (HQL), the syntax is quite similar to SQL language. The main difference between is **HQL uses class name instead of table name, and property instead of column name.**

HQL is extremely simple to learn and use, and the code is always self-explanatory.

1. HQL Select Query Example

Retrieve a stock data where stock code is "7277".

```
Query query = session.createQuery("from Stock where stockCode = :code ");
query.setParameter("code", "7277");
List list = query.list();
```

```
Query query = session.createQuery("from Stock where stockCode = '7277' ");
List list = query.list();
```

2. HQL Update Query Example

Update a stock name to "DIALOG1" where stock code is "7277".

```
Query query = session.createQuery("update Stock set stockName = :stockName +
                                " where stockCode = :stockCode");
query.setParameter("stockName", "DIALOG1");
query.setParameter("stockCode", "7277");
int result = query.executeUpdate();
```

```
Query query = session.createQuery("update Stock set stockName = 'DIALOG2' +  
                                \" where stockCode = '7277'");  
int result = query.executeUpdate();
```

3. HQL Delete Query Example

Delete a stock where stock code is "7277".

```
Query query = session.createQuery("delete Stock where stockCode = :stockCode");  
query.setParameter("stockCode", "7277");  
int result = query.executeUpdate();
```

```
Query query = session.createQuery("delete Stock where stockCode = '7277'");  
int result = query.executeUpdate();
```

4. HQL Insert Query Example

In HQL, only the INSERT INTO ... SELECT ... is supported; there is no INSERT INTO ... VALUES. HQL insert from another table. For example

```
"insert into Object (id, name) select oo.id, oo.name from OtherObject oo";
```

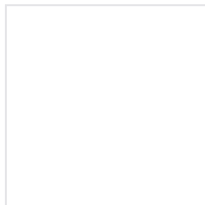
Insert a stock record from another backup_stock table. This can also called bulk-insert statement.

```
Query query = session.createQuery("insert into Stock(stock_code, stock_name) " +  
                                "select stock_code, stock_name from backup_stock");  
int result = query.executeUpdate();
```

The `query.executeUpdate()` will return how many number of record has been inserted, updated or deleted

Reference

1. [Hibernate 3.3.2 query documentation](#)



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To Whom It May Concern,

If you have any Java questions or problems, please post at this new JavaNullPointer.com forum.

*Best Regards,
mkyong*

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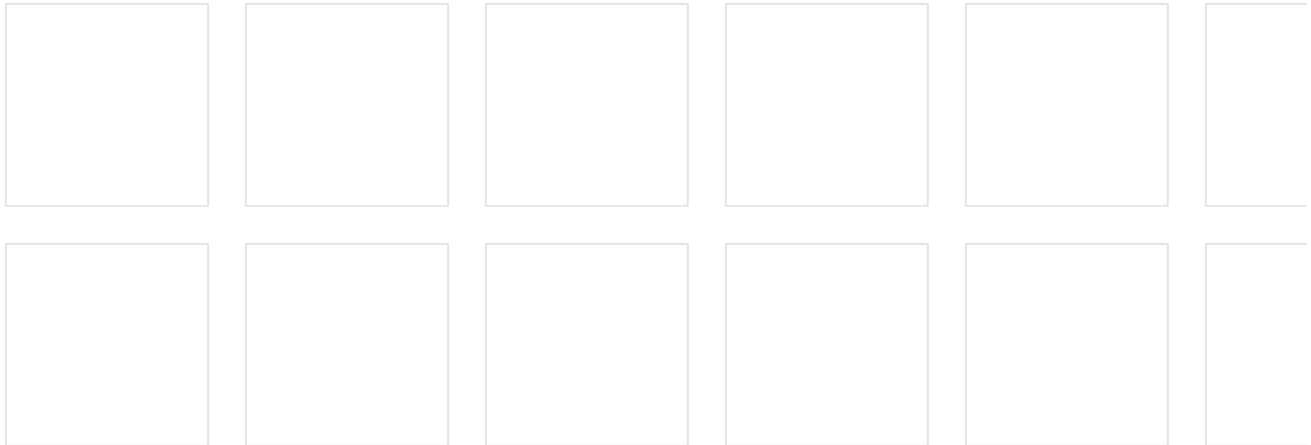
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minah says:

January 6, 2012 at 10:51 am

thank you
easy to study HQL ..



Portland Insulation says:

September 18, 2011 at 5:24 am

Awesome read. I just passed this onto a buddy who was doing some research on that. He just had lunch as I found it for him! So let me rephrase: Thanx for lunch!



callshop software says:

September 7, 2011 at 3:32 pm

Purely to follow up on the up-date of this theme on your site and would want to let you know sir much I liked the time you took to write this beneficial post. Inside the post, you actually spoke re how to definitely handle this issue with all comfort. It would be my personal pleasure to get some ideas from your web-site and come as much as offer others what I have benefited from you. I appreciate your usual wonderful effort.



Ebay Wholesale says:

August 31, 2011 at 7:37 am

I wish to get across my affection for your generosity supporting individuals who really want help content. Your real commitment to passing the solution all through has been unbelievably functional in every case made associates much like me to arrive at their objectives. Your own useful guidance denotes a lot a person like me and additionally to my office workers. Thanks a lot; from everyone



mkyong says:

September 2, 2011 at 8:48 am

Thanks for your kind words 😊

Rej



Mohanakannan says:

July 28, 2011 at 5:24 pm

HI

we are using the postgres polygon data type how can i insert the polygon(which is belongs to m latitude ,longitude)through hibernate



fouding says:

May 17, 2011 at 10:00 pm

Dear all,

I have a question: how to get the id of the new record(if the id is auto-incremented) when using
createQuery("insert into table values()").executeUpdate()?

From your code:

```
Query query = session.createQuery("insert into Stock(stock_code, stock_name
                                \"select stock_code, stock_name from backup_stock\");
int result = query.executeUpdate();
```

If the Stock table is sequence-generated, how to get the new reocrd's id?

Thanks,
Fouding



mkyong says:

May 17, 2011 at 11:32 pm

Hibernate's Query is let developer execute native SQL (pure SQL statement) in datab
To get back the affected record id, you need to issue another find query.

Normally, people use session.save() to save an object, as it can get back the new rec
automatically.

Rej



Naeem says:

June 15, 2011 at 5:20 pm

What if another find/select query return many results and in multi threaded
environment you can't select MAX record from the list.

However session.save() can be used when we have a proper Hibernate Ent

Reply



devlab says:

March 7, 2011 at 3:16 am

<http://docs.jboss.org/hibernate/core/3.3/reference/en/html/queryhql.htm> – Oops! This link appea



mkyong says:

May 17, 2011 at 11:26 pm

Link is updated, hibernate documentation changed too fast ~

Rej



chary1112004 says:

December 21, 2010 at 2:43 am

I read reference about hibernate but still didn't know how to map between field which reference with property in POJO.

In Oracle, I have Event and Location. In type of Event has location_ref field which reference to c Location. Matter is how config in hibernate-mapping and property in POJO to use hql or default hibernate. If you know, let say here. Thanks Mkyong!

```
//Type Location
CREATE TYPE Location_objtyp AS OBJECT
(
  id INTEGER,
  name VARCHAR2(255)
);

//Table Location
CREATE TABLE Location_objtab OF Location_objtyp
(
  id PRIMARY KEY
) OBJECT IDENTIFIER IS PRIMARY KEY;

//Type Event
CREATE TYPE Event_objtyp AS OBJECT
(
  id INTEGER,
  location_ref REF Location_objtyp,
  name NVARCHAR2(100)
);

//Table Event
CREATE TABLE Event_objtab OF Event_objtyp
(
  id PRIMARY KEY
) OBJECT IDENTIFIER IS PRIMARY KEY;

ALTER TABLE Event_objtab ADD (SCOPE FOR(location_ref) IS Location_objtab);
```



salmon says:

December 14, 2010 at 12:57 pm

Hi Yong,

I have a requirement, where i need to save 5000 records at a time. currently for saving 1000 rec

saving more than 1 minute. in such a case for saving 5000 records it may take around 5 minute. adding the code what i have written. please suggest how can i reduce save time. i am using merge saving..if i dont use merge, if i use saveOrUpdate() or save() i am getting nonuniqueobject exception please suggest me....

```
for (LoadGsCmpTape loadGsCmpTape : cmpTapeList) {  
    if(loadGsCmpTape.getCmpSetId()== null || loadGsCmpTape.getCmpSetId()== 0L){  
        loadGsCmpTape.setCmpSetId(currentSetId);  
    }  
    this.getHibernateTemplate().merge(loadGsCmpTape);  
}
```

Thanks,
Salmon



mkyong says:

December 14, 2010 at 1:12 pm

May i know where are these 5k records come from? adhoc or frequent request? Some flash in my mind...

1. Try set auto commit after 100, 200.. bulk inserted, until you find the optimal value.
2. If dump from one db to another db, issue a SQL command like "insert into....select"
3. Upgrade hardware 😊

After all, 5k records have to take some time. Hope help.

Rej



salmon says:

December 14, 2010 at 4:35 pm

Hi Yong,
we fetch 5k records from one table and we need to save to another table. pl
can u share code to optimize saving time.

Thanks,
Salmon

Reply



mkyong says:

December 14, 2010 at 4:47 pm

In this case, pick the idea #2, shoot a "insert into...select" SQL command instead of using hibernate. If you still insist want to do it in code, try idea #1, send a db commit every 200, 500 or xxx records inserted to free your server and database resources, tune it to a optimal point that suits your hardware limit.

Reply



salmon says:

December 14, 2010 at 5:10 pm

Hi Yong,

The problem is the table has 32 columns.individually we cannot specify...the reason why i used merge() is it can do both insert/update.some times i need to update also.



mkyong says:

December 14, 2010 at 9:57 pm

Then try tune the db commit for every xxx records inserted or updated, the performance should be increase..a bit.

Sometime, the code is not really the root caused, the use case or the tool you choose are. If this is a data migration task or once time ad-hoc request, really not worth to create a complex Java app to cater it, just use normal SQL or store procedure can done within minutes.



chary1112004 says:

December 14, 2010 at 12:39 pm

Dear! But i didn't see hibernate.cfg.xml config to use hsql! Can you give it here?



chary1112004 says:

December 19, 2010 at 12:28 pm

When using hql with Oracle, don't need config anything out of default!

Re



Deepak Lalchandani says:

October 26, 2010 at 5:08 pm

hi Mkyong, can u illustrate more examples on HQL and native SQL.



Yonathan says:

June 21, 2010 at 3:01 pm

hai, i'm trying to use HQL Update Query Example but get this error :

cannot find symbol

symbol:method setParameter(java.lang.String,java.lang.String)

location:class javax.management.Query

what is correct package i should import.

i'm using import javax.management.Query;

thank u for your answer



Mailarus says:

January 19, 2012 at 4:06 am

Because this is HQL, the package you should be using is org.hibernate.Query, not javax.management.Query. Hope this helps.

Re

Hibernate Tutorials says:

June 14, 2010 at 11:06 pm

[...] Hibernate Query examples (HQL) HQL CRUD examples , select, update , delete and batch single insert support). [...]

Reply



Naveed says:

May 20, 2010 at 7:31 pm

very easy and useful to start hql. thnx



JuserNt says:

April 4, 2010 at 3:11 pm

thanks ... useful as initiation to HQL



Amit says:

March 9, 2010 at 4:12 pm

Awesome ! Your articles are very easy to understand and explains the concept very well. I won't have come through inheritance strategies and hibernate caching?



mkyong says:

March 9, 2010 at 11:46 pm

Thanks for the suggestions, i will write those in future 😊

Re

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- ☐ JavaServer Faces (JSF 1.x)
- ☐ JavaServer Faces (JSF 2.x)
- ☐ JBoss Seam
- ☐ No framework, code in JSP
- ☐ Oracle Application Framework
- ☐ Others
- ☐ Spring MVC
- ☐ Spring WebFlow
- ☐ Stripes

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