**Hibernate Query Language (HQL)**

* Hibernate created a new language named Hibernate Query Language (HQL), the syntax is quite similar to database SQL language.
* The main difference between is **HQL uses class name instead of table name, and property names instead of column name**.
* In SQL, we can write a Single Query to update the multiple columns present in multiple tables
* But we cannot write a Single SQL query which insert data into multiple tables & also we cannot write a Single SQL query which delete data from multiple tables (So hibernate session.delete() & hibernate session.save() will help in this case but still we can make use of HQL for this as well)
* **Possible:**

**update students\_info si, students\_otherinfo soi**

**set si.lastname='XXX', soi.password='XXX'**

**where si.regno = soi.regno**

**and si.regno = 1;**

* **Not-Possible:**

**delete from students\_info si, students\_otherinfo soi**

**where si.regno = soi.regno**

**and si.regno = 1;**

* Hibernate provides a query language similar to standard SQL to perform operations on the Hibernate Objects. Unlike SQL Queries which operate on DB Tables, HQL operates on the Java Beans
* HQL’s syntax is very similar to standard SQL & the advantage of using HQL over standard SQL is that, SQL is DB Dependent whereas HQL is DB independent
* HQL is case insensitive **except the Java Bean class name** and its property names. Hence keyword “from”&“FROM” are same in Hibernate whereas “StudentsInfoBean” **is not** as same as “STUDENTSINFOBEAN”
* We can also use direct package name in the HQL i.e.

String hibernateQuery = "from com.jspiders.hibernate.beans.Students where regno >= :minRegNo";

* To write & execute the HQL we can follow below steps

1. Construct HQL

For ex : **String hql = “from JavaBeanName”;**

1. Create “org.hibernate.Query” Object

**Query query = session.createQuery(hql);**

1. Execute the HQL by using appropriate methods on “Query” object
   * Invoke “getResultList()” method is the Query is of type SELECT

**List listResult** = **query.getResultList();**

* + Invoke “executeUpdate()” method is the Query is of type INSERT / UPDATE / DELETE

**int rowsAffected = query.executeUpdate();**

* Extract result returned from the query depending of the type of the query. For example, “getResultList()” method return java.util.List of Objects & “executeUpdate()” method returns rows affected integer count
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**\* HQL : Delete Example**

**\*/**

**String deleteQuery = "delete from StudentBean where regno >= :minRegNo";**

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**\* HQL : Update Example for Single Table**

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**String updateQuery**

**= "update StudentBean set firstNM = :fNM where regno >= :minRegNo";**

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**\* HQL : Single Table, ALL columns selection**

**\*/**

**String singleTableQuery = "from StudentBean";**

**String singleTableQuery = "from StudentBean where regno>= 5";**

**String singleTableQuery = "from StudentBean where firstNM like '111%'";**

**String singleTableQuery** = "**from StudentBean where regno >= :minRegNo";**

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**\* HQL : Multiple Table, ALL columns selection**

**\*/**

**String multipleTableQuery**

**= "from StudentBean s, GuardianBean g " +**

**" where s.regno = g.regno " +**

**" and s.regno >= :minRegNo";**