Hibernate Criteria and Query

Built-in functions can only do limited operations with the help of Criteria and Query interfaces we will do all possible SQL operations.

Create two tables as follows.

Country Table

```
CREATE TABLE `studentmanagement`.`country` (
 `cid` INTEGER UNSIGNED NOT NULL AUTO_INCREMENT,
 `cname` VARCHAR(45) NOT NULL,
 PRIMARY KEY (`cid`)
)
```

Student Table with foreign key.

```
CREATE TABLE `studentmanagement`.`student` (
 `sid` INTEGER UNSIGNED NOT NULL AUTO_INCREMENT,
 `sname` VARCHAR(45) NOT NULL,
 `sphone` VARCHAR(45) NOT NULL,
 `cid` INTEGER UNSIGNED NOT NULL,
 PRIMARY KEY (`sid`),
 CONSTRAINT `FK_student_1` FOREIGN KEY `FK_student_1` (`cid`)
  REFERENCES `country` (`cid`)
  ON DELETE RESTRICT
  ON UPDATE RESTRICT
)
```

Criteria

```java
package com.javabykiran;

import java.util.List;

import org.hibernate.Criteria;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;
import org.hibernate.criterion.Expression;

public class CriteriaTest {
        public static void main(String[] args) {

                Configuration cfg = new Configuration();
                cfg.configure().addAnnotatedClass(Student.class).addAnnotatedClass(Country.class);
                SessionFactory sf = cfg.buildSessionFactory();
                Session session = sf.openSession();
                Criteria criteria = session.createCriteria(Student.class);
                List<Student> studentList = criteria.list();
                for (Student student : studentList) {
                        System.out.println(student.getSname());
                }

                ////// adding where condition

                Criteria criteria1 = session.createCriteria(Student.class);
                criteria1.add(Expression.eq("sname", "jbk44"));

                List<Student> studentList1 = criteria1.list();
                for (Student student : studentList1) {
                        System.out.println(student.getSname());
                }

        }
}
```

Query

We need to write HQL Query.

```
package com.javabykiran;

import java.util.List;

import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;

public class QueryTest {
        public static void main(String[] args) {
                Configuration cfg = new Configuration();

        cfg.configure().addAnnotatedClass(Student.class).addAnnotatedClass(Country.class);
                SessionFactory sf = cfg.buildSessionFactory();
                Session session = sf.openSession();

                Query query = session.createQuery("from Student");
                List<Student> studentList = query.list();
                for (Student student : studentList) {
                        System.out.println(student.getSname());
                }

                ////// adding where condition and column names
                Query query1 = session.createQuery("select sname from Student where
sname='jbk44'");
                List<String> studentList1 = query1.list();
                for (String sname : studentList1) {
                        System.out.println(sname);
                }

        }
}
```

Homework:

1. Fetch all students whose names are like jbk below should be result
   By using criteria and query
   a. Jbk12
   b. Jbk34
   c. 23jbk44
2. Do all above operations with country cname columns
3. Fetch 2 columns sname and sphone from student table by using
   Query interface.
   a. It will return List<Object[] obj>

DOWNLOAD source code:

http://javabykiran.in/hibernate/hibernatebuiltinmeth odsex.zip