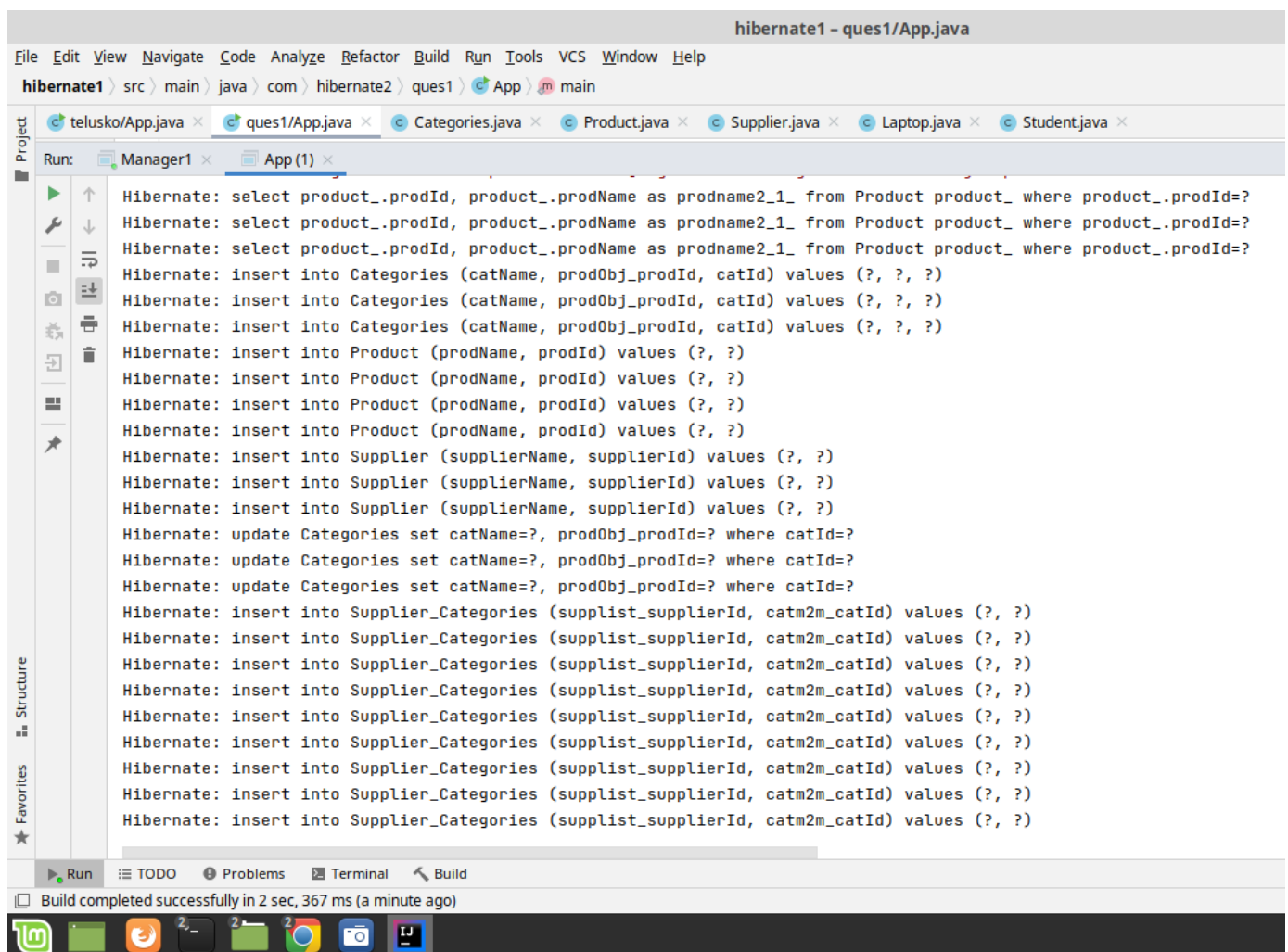


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Assignment Hibernate 2

Ques 1: Ecommerce ----- Product (product to categories is one-to-many) Categories () Supplier (many to many with Categories)



```
hibernate1 - ques1/App.java
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
hibernate1 > src > main > java > com > hibernate2 > ques1 > App > main
telusko/App.java x ques1/App.java x Categories.java x Product.java x Supplier.java x Laptop.java x Student.java x
Run: Manager1 x App (1) x
Hibernate: select product_.prodId, product_.prodName as prodname2_1_ from Product product_ where product_.prodId=?
Hibernate: select product_.prodId, product_.prodName as prodname2_1_ from Product product_ where product_.prodId=?
Hibernate: select product_.prodId, product_.prodName as prodname2_1_ from Product product_ where product_.prodId=?
Hibernate: insert into Categories (catName, prodObj_prodId, catId) values (?, ?, ?)
Hibernate: insert into Categories (catName, prodObj_prodId, catId) values (?, ?, ?)
Hibernate: insert into Categories (catName, prodObj_prodId, catId) values (?, ?, ?)
Hibernate: insert into Product (prodName, prodId) values (?, ?)
Hibernate: insert into Product (prodName, prodId) values (?, ?)
Hibernate: insert into Product (prodName, prodId) values (?, ?)
Hibernate: insert into Product (prodName, prodId) values (?, ?)
Hibernate: insert into Supplier (supplierName, supplierId) values (?, ?)
Hibernate: insert into Supplier (supplierName, supplierId) values (?, ?)
Hibernate: insert into Supplier (supplierName, supplierId) values (?, ?)
Hibernate: update Categories set catName=?, prodObj_prodId=? where catId=?
Hibernate: update Categories set catName=?, prodObj_prodId=? where catId=?
Hibernate: update Categories set catName=?, prodObj_prodId=? where catId=?
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Hibernate: insert into Supplier_Categories (supplist_supplierId, catm2m_catId) values (?, ?)
Build completed successfully in 2 sec, 367 ms (a minute ago)
```

Console output

H2 Console

127.0.1.1:8082/login.do?sessionId=b29bb1421b36dffce53ccde4ac0a5ecd

Auto commit: ☒ Max rows: 1000 Auto complete: Off Auto select: On

jdbc:h2:~/test

- CATEGORIES
- EMPLOYEE
- PERSON
- PRODUCT
- SUPPLIER
- SUPPLIER_CATEGORIES
- INFORMATION_SCHEMA
- Sequences
- Users

H2 1.4.199 (2019-03-13)

Run Run Selected Auto complete Clear SQL statement:

SELECT * from product

SELECT * from product;

PROID	PRODNAME
1	Soft drinks
2	Coffees
3	Cheese
4	Fish

(4 rows, 3 ms)

Edit

Product Table

H2 Console

127.0.1.1:8082/login.do?sessionId=b29bb1421b36dffce53ccde4ac0a5ecd

Auto commit: ☒ Max rows: 1000 Auto complete: Off

jdbc:h2:~/test

- CATEGORIES
- EMPLOYEE
- PERSON
- PRODUCT
- SUPPLIER
- SUPPLIER_CATEGORIES
- INFORMATION_SCHEMA
- Sequences
- Users

H2 1.4.199 (2019-03-13)

Run Run Selected Auto complete Clear SQL statement:

SELECT * FROM SUPPLIER |

SELECT * FROM SUPPLIER;

SUPPLIERID	SUPPLIERNAME
1	Tokyo Traders
2	Zaheer Khan
3	BBK Electronics

(3 rows, 3 ms)

Edit

Supplier Table

Not secure | 192.168.1.4:8082/login.do?jsessionid=a2d88e3ca4ef840855e35939ed566fea

Auto commit ☒ Max rows: 1000 Auto complete Off Auto select On

jdbc:h2:~/test

- CATEGORIES
- EMPLOYEE
- LAPTOP
- PERSON
- PRODUCT
- STUDENT
- SUPPLIER
- SUPPLIER_CATEGORIES
- INFORMATION_SCHEMA
- Sequences
- Users
- H2 1.4.199 (2019-03-13)

Run Run Selected Auto complete Clear SQL statement:

SELECT * FROM CATEGORIES |

SELECT * FROM CATEGORIES;

CATID	CATNAME	PRODOBJ_PRODID
1	Beverages	1
2	Dairy Products	1
3	Seafood	3

(3 rows, 2 ms)

Edit

Categories table mapping with products table (Product to Category : One to Many)

In the above image: Product with ID 1 belongs to Category 1 and 2 both

Auto commit ☒ Max rows: 1000 Auto complete Off

jdbc:h2:~/test

- CATEGORIES
- EMPLOYEE
- PERSON
- PRODUCT
- SUPPLIER
- SUPPLIER_CATEGORIES
- INFORMATION_SCHEMA
- Sequences
- Users
- H2 1.4.199 (2019-03-13)

Run Run Selected Auto complete Clear SQL statement:

SELECT * FROM SUPPLIER_CATEGORIES |

SELECT * FROM SUPPLIER_CATEGORIES;

SUPPLIST_SUPPLIERID	CATM2M_CATID
1	1
1	2
1	3
2	1
2	2
2	3
3	1
3	2
3	3

(9 rows, 6 ms)

Supplier to Categories (Many to Many Mapping)

Ques 2: Fix the problem in many to many for given example

Error Code:

```
public class Manager1 {
    public static void main(String args[]) {
        Session ses = Util.getSession();
        Categories c1 = new Categories();
        c1.setCategoryId(1);
        c1.setCategoryName("cat 1");
        Categories c2 = new Categories();
        c2.setCategoryId(2);
        c2.setCategoryName("cat 2");

        Item i1 = new Item();
        Item i2 = new Item();

        i1.setItemId(101);
        i1.setItemName("item1");

        i2.setItemId(102);
        i2.setItemName("item2");

        Set s = new HashSet();
        s.add(i1);
        s.add(i2);
        c1.setItems(s);
        c2.setItems(s);

        Transaction tx = ses.beginTransaction();
        ses.save(c1);
        ses.save(c2);
        tx.commit();
        System.out.println("Man to Many using annotations been
done...!!!!");
        ses.close();
    }
}
```

Fixed Code:

```
public class Manager1 {
    public static void main(String args[]) {
        Session ses = Util.getSession();
        Categories c1 = new Categories();
        c1.setCategoryId(1);
        c1.setCategoryName("cat 1");
        Categories c2 = new Categories();
        c2.setCategoryId(2);
        c2.setCategoryName("cat 2");

        Item i1 = new Item();
        Item i2 = new Item();
```

```

i1.setItemId(101);
i1.setItemName("item1");

i2.setItemId(102);
i2.setItemName("item2");

Set s = new HashSet();
s.add(i1);
s.add(i2);
c1.setItems(s);
c2.setItems(s);

Set itemset = new HashSet();
itemset.add(c1);
itemset.add(c2);

i1.setCategories(itemset);
i2.setCategories(itemset);


Transaction tx = ses.beginTransaction();
ses.save(c1);
ses.save(c2);

ses.save(i1);
ses.save(i2);

tx.commit();
System.out.println("Man to Many using annotations been
done...!!!!");
ses.close();
    }
}

```

Fix: In the Manager1 class, the HashSet for Items is not set. Since it is a many to many mapping, we need the HashSet of Items in Categories class, and Hashset of Categories in Items class, and the same needs to be set for both the classes in the Manager Class. So the implementation of addition of Items hashset was missing in manager 1.

Ques 3: Create an application for many to one other than sample example




Creating two classes: Student and Laptop. With a many to one relationship between (Many to one mapping between Laptop to Student => Many laptops can belong to one student)


The screenshot shows an IDE with a project named 'hibernate2'. The 'Run' tab is active, showing the output of the application. The output includes the following log messages:





```
INFO: HHH10001003: Autocommit mode: false
Mar 01, 2021 12:56:10 PM org.hibernate.engine.jdbc.connections.internal.DriverManagerConnectionProviderImpl$PooledConnections <init>
INFO: HHH000115: Hibernate connection pool size: 20 (min=1)
Mar 01, 2021 12:56:11 PM org.hibernate.dialect.Dialect <init>
INFO: HHH000400: Using dialect: org.hibernate.dialect.H2Dialect
Hibernate: drop table if exists Laptop CASCADE
Mar 01, 2021 12:56:14 PM org.hibernate.resource.transaction.backend.jdbc.internal.DdlTransactionIsolatorNonJtaImpl getIsolatedConnection
INFO: HHH10001501: Connection obtained from JdbcConnectionAccess [org.hibernate.engine.jdbc.env.internal.JdbcEnvironmentInitiator$ConnectionProviderJdbcConne
Hibernate: drop table if exists Student CASCADE
Hibernate: create table Laptop (lid integer not null, lname varchar(255), student_rollno integer, primary key (lid))
Hibernate: create table Student (rollno integer not null, marks integer not null, name varchar(255), primary key (rollno))
Hibernate: alter table Laptop add constraint FkN8pdrsdaxhe8jlkf4vj9xne foreign key (student_rollno) references Student
Mar 01, 2021 12:56:14 PM org.hibernate.resource.transaction.backend.jdbc.internal.DdlTransactionIsolatorNonJtaImpl getIsolatedConnection
INFO: HHH10001501: Connection obtained from JdbcConnectionAccess [org.hibernate.engine.jdbc.env.internal.JdbcEnvironmentInitiator$ConnectionProviderJdbcConne
Mar 01, 2021 12:56:14 PM org.hibernate.engine.transaction.jta.platform.internal.JtaPlatformInitiator initiateService
INFO: HHH000490: Using JtaPlatform implementation: [org.hibernate.engine.transaction.jta.platform.internal.NoJtaPlatform]
Hibernate: select student_.rollno, student_.marks as marks2_1, student_.name as name3_1_ from Student student_ where student_.rollno=?
Hibernate: insert into Laptop (lname, student_rollno, lid) values (?, ?, ?)
Hibernate: insert into Student (lname, student_rollno, lid) values (?, ?, ?)
Hibernate: insert into Student (marks, name, rollno) values (?, ?, ?)
Hibernate: update Laptop set lname=?, student_rollno=? where lid=?
Hibernate: update Laptop set lname=?, student_rollno=? where lid=?

Process finished with exit code 0
```

← → 🔒 Not secure 192.168.137.1:8082/login.do?sessionId=e13d85aab7dc5e970a1c3ee83f5531f1


 Auto commit

 Max rows: 1000


 Auto complete

jdbc:h2:~/test


+

 CATEGORIES


+

 CATEGORIES_ITEM


+

 EMPLOYEE


+

 ITEM


+

 LAPTOP


+

 PERSON


+

 STUDENT


+

 INFORMATION_SCHEMA

+

 Sequences

+

 Users

📘 H2 1.4.199 (2019-03-13)

Run

Run Selected

Auto complete

Clear

SQL statement:

SELECT * FROM LAPTOP

SELECT * FROM LAPTOP;

LID	LNAME	STUDENT_ROLLNO
100	HP	3195
101	Dell	3195

(2 rows, 2 ms)

← → ↻ ⚠ Not secure | 192.168.137.1:8082/login.do?jsessionid=e13d85aab7dc5e970a1c3ee83f5531f1 🔍 ☆ 📶 🖨 ⚙ K ⋮

🔗 jdbc:h2:~/test

+

📄 CATEGORIES

+

📄 CATEGORIES_ITEM

+

📄 EMPLOYEE

+

📄 ITEM

+

📄 LAPTOP

+

📄 PERSON

+

📄 STUDENT

+

📁 INFORMATION_SCHEMA

+

🔢 Sequences

+

👤 Users

ℹ

H2 1.4.199 (2019-03-13)

🔍

🔗

☒ Auto commit

↶ ↷

✎

Max rows: 1000 ▾

🟢 🔍

🔴

📄

Auto complete Off ▾

Auto select On ▾

?

Run

Run Selected

Auto complete

Clear

SQL statement:

SELECT * FROM STUDENT |

SELECT * FROM STUDENT;

ROLLNO	MARKS	NAME
3195	95	Kishan

(1 row, 2 ms)

Student Class