EIE3112 Lab1 Report

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CreateDB.sql

DROP DATABASE IF EXISTS Lab1; CREATE DATABASE IF NOT EXISTS Lab1: USE Lab1; -- MySQL Workbench Forward Engineering SET @OLD UNIQUE CHECKS=@@UNIQUE CHECKS, UNIQUE CHECKS=0; @OLD FOREIGN KEY CHECKS=@@FOREIGN KEY CHECKS, FOREIGN KEY CHECKS=0; @OLD SQL MODE=@@SQL MODE, SET SQL MODE='ONLY FULL GROUP BY,STRICT TRANS TABLES,NO ZERO IN DATE, NO ZERO DATE, ERROR FOR DIVISION BY ZERO, NO ENGINE SUBSTITUTION'; -- Schema mydb -- ------- Schema Homework1 -- Table 'Customer' CREATE TABLE IF NOT EXISTS 'Customer' ('CustNo' CHAR(8) NOT NULL, 'FirstName' VARCHAR(45) NULL, 'LastName' VARCHAR(45) NULL, 'Street' VARCHAR(45) NULL, 'City' VARCHAR(45) NULL, 'State' VARCHAR(45) NULL, 'PhoneNo' VARCHAR(45) NULL, 'CustBal' VARCHAR(45) NULL, PRIMARY KEY ('CustNo')) ENGINE = InnoDB;

```
-- Table 'Employee'
CREATE TABLE IF NOT EXISTS 'Employee' (
 'EmpNo' CHAR(8) NOT NULL,
'FirstName' VARCHAR(45) NULL,
 'LastName' VARCHAR(45) NULL,
'PhoneNo' VARCHAR(45) NULL,
 'Email' VARCHAR(45) NULL,
PRIMARY KEY ('EmpNo'))
ENGINE = InnoDB;
-- Table 'Order'
-- -----
CREATE TABLE IF NOT EXISTS 'Order' (
 'OrderNo' CHAR(8) NOT NULL,
 'OrderDate' VARCHAR(45) NULL,
 'Customer CustNo' CHAR(8) NOT NULL,
 'Employee EmpNo' CHAR(8) NULL,
 'CustName' VARCHAR(45) NULL,
 'Street' VARCHAR(45) NULL,
 'City' VARCHAR(45) NULL,
 'State' VARCHAR(45) NULL,
 'PhoneNo' VARCHAR(45) NULL,
PRIMARY KEY ('OrderNo'),
INDEX 'fk Order Customer idx' ('Customer CustNo' ASC) VISIBLE,
INDEX 'fk Order Employee1 idx' ('Employee EmpNo' ASC) VISIBLE,
CONSTRAINT 'fk Order Customer'
 FOREIGN KEY ('Customer CustNo')
 REFERENCES 'Customer' ('CustNo')
 ON DELETE NO ACTION
 ON UPDATE NO ACTION,
CONSTRAINT 'fk Order Employee1'
 FOREIGN KEY ('Employee EmpNo')
 REFERENCES 'Employee' ('EmpNo')
 ON DELETE NO ACTION
  ON UPDATE NO ACTION)
ENGINE = InnoDB;
-- Table 'Product'
CREATE TABLE IF NOT EXISTS 'Product' (
 'ProdNo' CHAR(8) NOT NULL,
 'ProdName' VARCHAR(45) NULL,
```

'Mfg' VARCHAR(45) NULL,

```
'Stock' INT NULL,
 'Price' VARCHAR(45) NULL,
 PRIMARY KEY ('ProdNo'))
ENGINE = InnoDB;
-- Table 'ProductInOrder'
CREATE TABLE IF NOT EXISTS 'ProductInOrder' (
 'Order OrderNo' CHAR(8) NOT NULL,
 'Product ProdNo' CHAR(8) NOT NULL,
 'Qty' INT NULL,
 INDEX 'fk ProductInOrder Order1 idx' ('Order OrderNo' ASC) VISIBLE,
 INDEX 'fk ProductInOrder Product1 idx' ('Product ProdNo' ASC) VISIBLE,
 PRIMARY KEY ('Order OrderNo', 'Product ProdNo'),
 CONSTRAINT `fk ProductInOrder Order1`
  FOREIGN KEY ('Order OrderNo')
  REFERENCES 'Order' ('OrderNo')
  ON DELETE NO ACTION
  ON UPDATE NO ACTION.
 CONSTRAINT `fk ProductInOrder Product1`
  FOREIGN KEY ('Product ProdNo')
  REFERENCES 'Product' ('ProdNo')
  ON DELETE NO ACTION
  ON UPDATE NO ACTION)
ENGINE = InnoDB;
SET SQL MODE=@OLD SQL MODE;
SET FOREIGN KEY CHECKS=@OLD FOREIGN KEY CHECKS;
SET UNIQUE CHECKS=@OLD UNIQUE CHECKS;
LoadData.sql
SET GLOBAL local infile = 'ON';
SHOW VARIABLES LIKE "local infile";
SHOW VARIABLES LIKE "secure file priv";
Set FOREIGN KEY CHECKS = 0;
Load data infile "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Customer.txt"
into table 'customer' Fields Terminated by ',' Enclosed
Lines terminated by '\r\n' starting by ";
Set FOREIGN KEY CHECKS = 0;
```

```
Load
           data
                      infile
                                  "C:/ProgramData/MySQL/MySQL
                                                                         Server
8.0/Uploads/Employee.txt"
into table 'employee' Fields Terminated by ',' Enclosed
by ""
Lines terminated by '\r\n' starting by ";
Set FOREIGN KEY CHECKS = 0;
Load data infile "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Order.txt"
into table 'order' Fields Terminated by ',' Enclosed
bv ""
Lines terminated by '\r\n' starting by ";
Set FOREIGN KEY CHECKS = 0;
Load data infile "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Product.txt"
into table 'product' Fields Terminated by ',' Enclosed
by ""
Lines terminated by '\r\n' starting by ";
Set FOREIGN KEY CHECKS = 0;
Load
           data
                      infile
                                  "C:/ProgramData/MySQL/MySQL
                                                                         Server
8.0/Uploads/ProductInOrder.txt"
into table 'productinorder' Fields Terminated by ',' Enclosed
by ""
Lines terminated by '\r\n' starting by ";
USE lab1;
SELECT * FROM customer;
USE lab1;
SELECT * FROM employee;
USE lab1;
SELECT * FROM `order`;
USE lab1;
SELECT * FROM product;
USE lab1;
SELECT * FROM productinorder;
USE lab1;
INSERT INTO 'Customer'
               ("C1234567", "Zhiheng", "TANG", "Yuk
                                                          Choi
                                                                    Rd","Hong
VALUES
Kong","HK","12345_6789","$100");
SELECT * FROM `customer` WHERE LastName = 'TANG';
USE lab1;
```

INSERT INTO 'order'

VALUES ("O1234567","5/25/2013","C1234567","E1329594","Zhiheng

TANG","Yuk Choi Rd.","Hong Kong","HK","12345-6789");

INSERT INTO 'order'

VALUES ("O1111111","10/1/2007","C1234567","E8544399","Zhiheng

TANG", "Yuk Choi Rd.", "Hong Kong", "HK", "12345-6789");

SELECT * FROM 'order' WHERE Customer CustNo = 'C1234567';

USE lab1;

INSERT INTO 'order'

VALUES ("O1234567","5/25/2013","C1234567","E1329594","Zhiheng

TANG","Yuk Choi Rd.","Hong Kong","HK","12345-6789");

INSERT INTO 'order'

VALUES ("O1111111","10/1/2007","C1234567","E8544399","Zhiheng

TANG","Yuk Choi Rd.","Hong Kong","HK","12345-6789");

SELECT * FROM 'order' WHERE Customer CustNo = 'C1234567';

PART 3.4 (Before inserting my name)

Code:

USE lab1;

SELECT * FROM customer;

Output:

Code:

USE lab1;
SELECT * FROM employee;
Output:

Code:
USE lab1;
SELECT * FROM `order`;
Output:

Code:

USE lab1; SELECT * FROM product; Output:

Code:

USE lab1; SELECT * FROM productinorder;

NULL	NULL	NULL
09919699	P4200344	1
O9919699	P1114590	1

PART 3.5 (Inserting my name)

Code:

USE lab1;

INSERT INTO 'Customer'

Rd","Hong ("C1234567", "Zhiheng", "TANG", "Yuk Choi

Kong","HK","12345 6789","\$100");

SELECT * FROM `customer` WHERE LastName = 'TANG';

Output:

```
USE lab1;
  2 • INSERT INTO 'Customer'
       VALUES ("C1234567", "Zhiheng", "TANG", "Yuk Choi Rd", "Hong Kong", "HK", "12345_6789", $100");
      SELECT * FROM `customer` WHERE LastName = 'TANG';
Edit: 🕍 📆 Export/Import: 🏣 👸 | Wrap Cell Content: 🖽
                                               State PhoneNo
                                                               CustBal
                             Street
 C1234567 Zhiheng TANG
                            Yuk Choi Rd Hong Kong HK 12345_6789 $100
```

Code:

USE lab1;

INSERT INTO 'order'

("O1234567", "5/25/2013", "C1234567", "E1329594", "Zhiheng

TANG", "Yuk Choi Rd.", "Hong Kong", "HK", "12345-6789");

INSERT INTO 'order'

VALUES ("O1111111","10/1/2007","C1234567","E8544399","Zhiheng

TANG", "Yuk Choi Rd.", "Hong Kong", "HK", "12345-6789");

SELECT * FROM 'order' WHERE Customer CustNo = 'C1234567';



PART 4: Single Table Queries

(1) Code:

SELECT CustNo, FirstName, LastName, CustBal FROM customer WHERE State = 'CO'

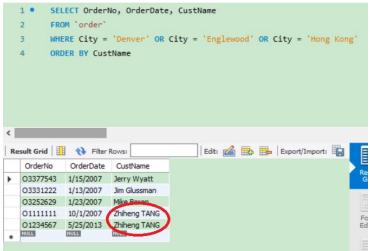
(2) Code:

SELECT CustNo, FirstName, LastName, Street, City, State FROM customer WHERE City = 'Hong Kong'

Output:

(**3**) Code:

SELECT OrderNo, OrderDate, CustName FROM `order` WHERE City = 'Denver' OR City = 'Englewood' OR City = 'Hong Kong' ORDER BY CustName



```
(4)
Code:

SELECT *
FROM 'order'
ORDER BY STR_TO_DATE(OrderDate, "%m/%d/%Y")
Output:
```

WHERE STR_TO_DATE(OrderDate, "%m/%d/%Y") BETWEEN '2007-1-1' AND

(5) Code:

SELECT * FROM 'order'

Output:

'2007-1-15' AND Employee_EmpNo IS NULL

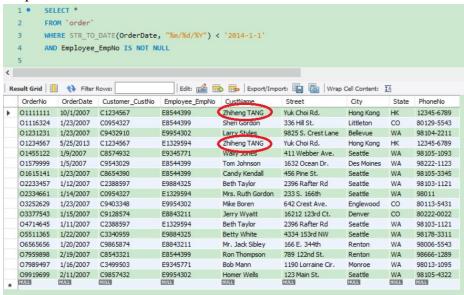
(6) Code:

SELECT *

FROM 'order'

WHERE STR_TO_DATE(OrderDate, "%m/%d/%Y") < '2014-1-1' AND Employee EmpNo IS NOT NULL

Output:



(**7**) Code:

SELECT *

FROM product

WHERE ProdName LIKE '%Ink Jet%'



```
(8)
Code:
SELECT *
FROM product
WHERE CAST(SUBSTRING(Price,2) AS DECIMAL(9,2)) > 30
ORDER BY CAST(SUBSTRING(Price,2) AS DECIMAL(9,2))
Output:
(9)
Code:
SELECT CustNo, FirstName, LastName, City, CustBal
FROM customer
WHERE City = 'Seattle' AND CAST(SUBSTRING(CustBal,2) AS DECIMAL(9,2))
OR City = 'Hong Kong' AND CAST(SUBSTRING(CustBal,2) AS DECIMAL(9,2))
> 50
```

(10) Code:
SELECT DISTINCT City, State FROM 'order'
Output:
(11) Code:
SELECT CustNo, CONCAT(FirstName,' ',LastName) AS 'Name', CustBal, State, PhoneNo, CustBal FROM customer
Output:

Part 5: Multiple Tables Queries

(1) Code:

SELECT `order`.OrderNo, `order`.OrderDate, customer.CustNo, customer.FirstName, customer.LastName
FROM customer INNER JOIN (`order`)
ON customer.CustNo = `order`.Customer_CustNo
WHERE customer.State = 'CO' AND `order`.State = 'WA'

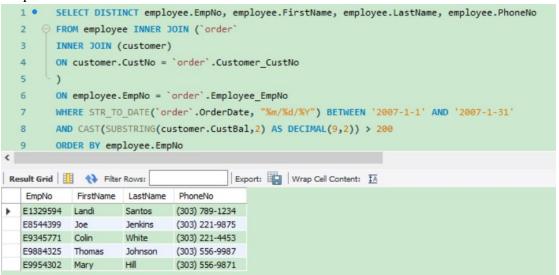
Output:

(2) Code:

SELECT `order`.OrderNo, `order`.OrderDate, customer.CustNo, customer.FirstName, customer.LastName
FROM customer INNER JOIN (`order`)
ON customer.CustNo = `order`.Customer_CustNo
WHERE STR_TO_DATE(OrderDate, "%m/%d/%Y") > '2007-1-2'AND
(`order`.State = 'CO' OR `order`.State = 'HK')

(**3**) Code:

```
SELECT DISTINCT employee.EmpNo, employee.FirstName, employee.LastName, employee.PhoneNo
FROM employee INNER JOIN ('order'
INNER JOIN (customer)
ON customer.CustNo = 'order'.Customer_CustNo
)
ON employee.EmpNo = 'order'.Employee_EmpNo
WHERE STR_TO_DATE('order'.OrderDate, "%m/%d/%Y") BETWEEN '2007-1-1'
AND '2007-1-31'
AND CAST(SUBSTRING(customer.CustBal,2) AS DECIMAL(9,2)) > 200
ORDER BY employee.EmpNo
```



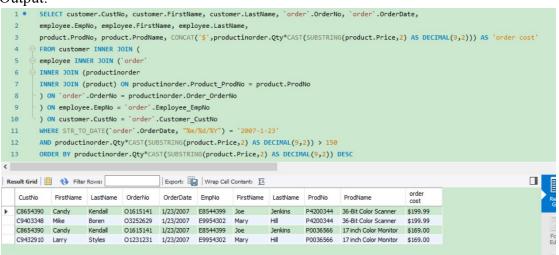
(4) Code:

SELECT customer.CustNo, customer.FirstName, customer.LastName, 'order'.OrderNo, `order`.OrderDate, employee.EmpNo, employee.FirstName, employee.LastName, product.ProdNo, product.ProdName, CONCAT('\$',productinorder.Qty*CAST(SUBSTRING(product.Price,2) DECIMAL(9,2))) AS 'order cost' FROM customer INNER JOIN (employee INNER JOIN ('order' INNER JOIN (productinorder INNER JOIN (product) ON productinorder.Product ProdNo = product.ProdNo) ON 'order'.OrderNo = productinorder.Order OrderNo) ON employee.EmpNo = 'order'.Employee EmpNo) ON customer.CustNo = `order`.Customer CustNo WHERE STR TO DATE('order'). OrderDate, "%m/%d/%Y") = '2007-1-23'

> 150
ORDER BY productinorder.Qty*CAST(SUBSTRING(product.Price,2) AS DECIMAL(9,2)) DESC

AS

AND productinorder.Qty*CAST(SUBSTRING(product.Price,2) AS DECIMAL(9,2))



```
Code:

SELECT product.ProdNo, product.ProdName , product.Price
FROM product INNER JOIN(
productinorder INNER JOIN (
'order' INNER JOIN (
customer
) ON customer.CustNo = 'order'.Customer_CustNo
) ON 'order'.OrderNo = productinorder.Order_OrderNo
) ON productinorder.Product_ProdNo = Product.ProdNo
WHERE customer.CustNo = 'C0954327' AND STR_TO_DATE('order'.OrderDate, "%m/%d/%Y") BETWEEN '2007-1-1' AND '2007-1-31'
```

(5)

```
(6) Code:
```

```
SELECT customer.FirstName, customer.LastName, employee.FirstName, employee.LastName
FROM customer INNER JOIN (
employee INNER JOIN ('order'
) ON employee.EmpNo = 'order'.Employee_EmpNo
) ON customer.CustNo = 'order'.Customer_CustNo
WHERE employee.FirstName = 'Amy' AND employee.LastName = 'Tang'
```

(7) Code:

```
SELECT customer.FirstName, customer.LastName
FROM customer INNER JOIN (
employee INNER JOIN ('order'
) ON employee.EmpNo = 'order'.Employee_EmpNo
) ON customer.CustNo = 'order'.Customer_CustNo
WHERE CONCAT(customer.FirstName,' ',customer.LastName)
IN (SELECT CONCAT(employee.FirstName,' ',employee.LastName) FROM
employee)
```

```
SELECT customer.FirstName, customer.LastName

FROM customer INNER JOIN (

employee INNER JOIN ('order')

Non employee.EmpNo = 'order'.Employee_EmpNo

Non customer.CustNo = 'order'.Customer_CustNo

WHERE CONCAT(customer.FirstName,' ', customer.LastName)

IN (SELECT CONCAT(employee.FirstName,' ', employee.LastName) FROM employee)

Result Grid Filter Rows:

| Export: | Wrap Cell Content: | Wrap Cell Content: | Mary | Hill | Mary | Mary
```

(8)

Code:

SELECT `order`.OrderNo, `order`.OrderDate, customer.CustNo, `Order`.CustName, customer.State, `order`.state
FROM customer INNER JOIN (`order`
) ON customer.CustNo = `order`.Customer_CustNo
WHERE customer.State <> `order`.state

