

# Database fundamentals final project

Name and student number

23 March 2014

## Question 4

```
mysql> SELECT Prod_SKU, Prod_Desc, Prod_Type, Prod_Base, Prod_Category, Prod_P
-> FROM LGPRODUCT
-> WHERE Prod_Base like 'water' AND Prod_Category like 'sealer';
+-----+-----+-----+-----+-----+-----+
| Prod_SKU | Prod_Desc          | Prod_Type | Prod_Base | Prod_Category | Prod_P |
+-----+-----+-----+-----+-----+-----+
|          7 | Tzanchan Rehydrate | Solid     | Water     | Sealer        |      ? |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
SELECT Prod.SKU, Prod.Desc, Prod.Type, Prod.Base,
       Prod.Category, Prod.Price
FROM LGPRODUCT
WHERE Prod.Base like 'water' AND Prod.Category like '
       sealer';
```

## Question 5

```
SELECT Emp.Fname, Emp.Lname, Emp.Email
FROM LGEMPLOYEE
WHERE (Emp.Hiredate BETWEEN '2010-01-01' AND '2013-12-31'
)
ORDER BY Emp.Lname, Emp.Fname;
```

```
mysql> SELECT Emp_Fname, Emp_Lname, Emp_Email
-> FROM LGEMPLOYEE
-> WHERE (Emp_Hiredate BETWEEN '2010-01-01' AND '2013-12-31')
-> ORDER BY Emp_Lname, Emp_Fname;
```

Emp_Fname	Emp_Lname	Emp_Email
Chew	Bacca	chewy@hotmail.com
Obi Wan	Kenobi	obk@hotmail.com
Princess	Leiya	PLeiya@hotmail.com
Annakin	Skywalker	annyskywalker@hotmail.com
Luke	Skywalker	lukesw@hotmail.com
Han	Solo	flyingsolo@hotmail.com
Mace	Windu	mastermace@hotmail.com
Master	Yoda	yodamaster@hotmail.com

8 rows in set (0.00 sec)

## Question 6

```
mysql> SELECT Emp_Fname, Emp_Lname, Emp_Phone, Emp_Title, Dept_Num
-> FROM LGEMPLOYEE
-> WHERE Dept_Num = 300 OR BINARY Emp_Title like "CLERK1"
-> ORDER BY Emp_Lname, Emp_Fname;
```

Emp_Fname	Emp_Lname	Emp_Phone	Emp_Title	Dept_Num
Chew	Bacca	0114587456	CLERK1	200
Obi Wan	Kenobi	0837458965	Manager	300
Master	Yoda	0827854123	Senior Associate	300

3 rows in set (0.00 sec)

```
SELECT Emp_Fname, Emp_Lname, Emp_Phone, Emp_Title
      , Dept_Num
FROM LGEMPLOYEE
WHERE Dept_Num = 300 OR BINARY Emp_Title like "CLERK1"
ORDER BY Emp_Lname, Emp_Fname;
```

## Question 7

```
SELECT LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Lname,
      LGEMPLOYEE.Emp_Fname, LGSALARY_HISTORY.
      Sal_From , LGSALARY_HISTORY.Sal_End ,
      LGSALARY_HISTORY.Sal_Amount
FROM LGEMPLOYEE INNER JOIN LGSALARY_HISTORY ON LGEMPLOYEE
      .Emp_Num=LGSALARY_HISTORY.Emp_Num
```

```
WHERE LGEMPLOYEE.Emp_Num = 83731 OR LGEMPLOYEE.Emp_Num =
      83745 OR LGEMPLOYEE.Emp_Num = 84039
ORDER BY LGEMPLOYEE.Emp_Num, LGSALARY_HISTORY.Sal_From;
```

```
mysql> SELECT LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Lname, LGEMPLOYEE.Emp_Fname,
-> FROM LGEMPLOYEE INNER JOIN LGSALARY_HISTORY ON LGEMPLOYEE.Emp_Num=LGSALARY_HISTORY.Emp_Num
-> WHERE LGEMPLOYEE.Emp_Num = 83731 OR LGEMPLOYEE.Emp_Num = 83745 OR LGEMPLOYEE.Emp_Num = 84039
-> ORDER BY LGEMPLOYEE.Emp_Num, LGSALARY_HISTORY.Sal_From;

+-----+-----+-----+-----+-----+-----+
| Emp_Num | Emp_Lname | Emp_Fname | Sal_From | Sal_End | Sal_Amount |
+-----+-----+-----+-----+-----+-----+
| 83745 | Kenobi | Obi Wan | 2010-02-01 | 2011-03-02 | 121000.00 |
| 83745 | Kenobi | Obi Wan | 2011-03-03 | 2013-12-31 | 12000.00 |
| 84039 | Skywalker | Annakin | 2010-02-01 | 2011-03-02 | 4000.00 |
| 84039 | Skywalker | Annakin | 2011-03-03 | 2013-12-31 | 40000.00 |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

## Question 8

```
SELECT DISTINCT LGCUSTOMER.Cust_Fname, LGCUSTOMER.Cust_Lname, LGCUSTOMER.Cust_Street,
LGCUSTOMER.Cust_City, LGCUSTOMER.Cust_Province, LGCUSTOMER.Cust_Zip
FROM LGCUSTOMER, LGBRAND, LGINVOICE, LGPRODUCT
WHERE LGBRAND.Brand_Name like 'Tatooine Dust' AND
      LGPRODUCT.Prod_Category like 'Top Coat' AND (LGINVOICE.Inv_Date BETWEEN '2011-07-15' AND '2013-07-31')
ORDER BY LGCUSTOMER.Cust_Province, LGCUSTOMER.Cust_Lname, LGCUSTOMER.Cust_Fname;
```

```
mysql> SELECT DISTINCT LGCUSTOMER.Cust_Fname, LGCUSTOMER.Cust_Lname, LGCUSTOMER.Cust_Street,
-> FROM LGCUSTOMER, LGBRAND, LGINVOICE, LGPRODUCT
-> WHERE LGBRAND.Brand_Name like 'Tatooine Dust' AND LGPRODUCT.Prod_Category like 'Top Coat' AND (LGINVOICE.Inv_Date BETWEEN '2011-07-15' AND '2013-07-31')
-> ORDER BY LGCUSTOMER.Cust_Province, LGCUSTOMER.Cust_Lname, LGCUSTOMER.Cust_Fname;

+-----+-----+-----+-----+-----+
| Cust_Fname | Cust_Lname | Cust_Street | Cust_City | Cust_Province |
+-----+-----+-----+-----+-----+
| Iron Man | 3 | 9 Tony Stark Road | California | Gauteng |
| John | Doe | 1 Yale Road | Johannesburg | Gauteng |
| Incep | Tion | 6 9th Street | Panem | Gauteng |
| The Hunger | Games | 11 Katniss Everdeen Street | Panem | Limpopo |
| Pacific | Rim | 9 Jager Road | Kaijulan | Western Cape |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

## Question 9

```

SELECT LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Lname,
       LGEMPLOYEE.Emp_Email, LGEMPLOYEE.Emp_Title,
       LGDEPARTMENT.Dept_Name
FROM LGEMPLOYEE INNER JOIN LGDEPARTMENT ON LGEMPLOYEE.
       Dept_Num=LGDEPARTMENT.Dept_Num
WHERE Emp_Title like '%Associate'
ORDER BY LGDEPARTMENT.Dept_Name, LGEMPLOYEE.Emp_Title;

```

```

mysql> SELECT LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Lname, LGEMPLOYEE.Emp_Email, LGEMPLOYEE.Emp_Title, LGDEPARTMENT.Dept_Name
-> FROM LGEMPLOYEE INNER JOIN LGDEPARTMENT ON LGEMPLOYEE.Dept_Num=LGDEPARTMENT.Dept_Num
-> WHERE Emp_Title like '%Associate'
-> ORDER BY LGDEPARTMENT.Dept_Name, LGEMPLOYEE.Emp_Title;
+-----+-----+-----+-----+-----+
| Emp_Num | Emp_Lname | Emp_Email | Emp_Title | Dept_Name |
+-----+-----+-----+-----+-----+
| 12345 | Doe | jd@gmail.com | Senior Associate | Admin |
| 84789 | Solo | flyingsolo@hotmail.com | Junior Associate | Finance |
| 84756 | Leiya | PLeiya@hotmail.com | Junior Associate | Marketing |
| 84564 | Yoda | yodamaster@hotmail.com | Senior Associate | Sales |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> █

```

## Question 10

```

SELECT LGBRAND.Brand_Name, COUNT(*) AS 'Amount'
FROM LGPRODUCT JOIN LGBRAND ON LGPRODUCT.Brand_ID=LGBRAND
       .Brand_ID
GROUP BY LGBRAND.Brand_Name
ORDER BY LGBRAND.Brand_Name;

```

```

mysql> SELECT LGBRAND.Brand_Name, COUNT(*) AS 'Amount'
-> FROM LGPRODUCT JOIN LGBRAND ON LGPRODUCT.Brand_ID=LGBRAND.Brand_ID
-> GROUP BY LGBRAND.Brand_Name
-> ORDER BY LGBRAND.Brand_Name;
+-----+-----+
| Brand_Name | Amount |
+-----+-----+
| Coruscant Painters | 2 |
| Light Sabers | 2 |
| Racer Pod Ballers | 2 |
| Tatooine Dust | 1 |
+-----+-----+
4 rows in set (0.00 sec)

mysql> █

```

## Question 11

```
SELECT Prod_Category, COUNT(*) AS 'Amount'
FROM LGPRODUCT
WHERE Prod_Base like 'water'
GROUP BY Prod_Category;
```

```
mysql> SELECT Prod_Category, COUNT(*) AS 'Amount'
-> FROM LGPRODUCT
-> WHERE Prod_Base like 'water'
-> GROUP BY Prod_Category;
+-----+-----+
| Prod_Category | Amount |
+-----+-----+
| Cleaner      | 1      |
| Primer       | 1      |
| Sealer       | 1      |
| Top Coat     | 1      |
+-----+-----+
4 rows in set (0.00 sec)

mysql> █
```

## Question 12

```
SELECT Prod_Base, Prod_Type, COUNT(*) AS 'Amount'
FROM LGPRODUCT
GROUP BY Prod_Base, Prod_Type;
```

```
mysql> SELECT Prod_Base, Prod_Type, COUNT(*) AS 'Amount'
-> FROM LGPRODUCT
-> GROUP BY Prod_Base, Prod_Type;
+-----+-----+-----+
| Prod_Base | Prod_Type | Amount |
+-----+-----+-----+
| Cement    | Solid     | 2      |
| Polystyrene | Poly Filler | 1      |
| Water     | Paint     | 1      |
| Water     | Shiny     | 1      |
| Water     | Solid     | 1      |
| Water     | Turpentine | 1      |
+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> █
```

### Question 13

```
mysql> SELECT LGBRAND.Brand_ID, COUNT(*) AS 'Amount'
-> FROM LGBRAND JOIN LGPRODUCT ON LGBRAND.Brand_ID=LGPRODUCT.Brand_ID
-> GROUP BY Brand_ID
-> ORDER BY Brand_ID DESC;

+-----+-----+
| Brand_ID | Amount |
+-----+-----+
|         4 |       2 |
|         3 |       2 |
|         2 |       1 |
|         0 |       2 |
+-----+-----+
4 rows in set (0.00 sec)

mysql> █
```

```
SELECT LGBRAND.Brand_ID , COUNT(*) AS 'Amount'
FROM LGBRAND JOIN LGPRODUCT ON LGBRAND.Brand_ID=LGPRODUCT
.Brand_ID
GROUP BY Brand_ID
ORDER BY Brand_ID DESC;
```

### Question 14(17)

```
SELECT LGPRODUCT.Brand_ID , LGBRAND.Brand_Name ,
ROUND(AVG(LGPRODUCT.Prod_Price) , 2) AS '
Average'
FROM LGBRAND JOIN LGPRODUCT ON LGBRAND.Brand_ID=LGPRODUCT
.Brand_ID
GROUP BY LGPRODUCT.Brand_ID
ORDER BY LGBRAND.Brand_Name;
```

```
mysql> SELECT LGPRODUCT.Brand_ID, LGBRAND.Brand_Name, ROUND(AVG(LGPRODUCT.Prod
-> FROM LGBRAND JOIN LGPRODUCT ON LGBRAND.Brand_ID=LGPRODUCT.Brand_ID
-> GROUP BY LGPRODUCT.Brand_ID
-> ORDER BY LGBRAND.Brand_Name;

+-----+-----+-----+
| Brand_ID | Brand_Name          | Average |
+-----+-----+-----+
|         3 | Coruscant Painters  | 200.00 |
|         0 | Light Sabers        | 250.00 |
|         4 | Racer Pod Ballers   | 240.00 |
|         2 | Tatooine Dust       | 400.00 |
+-----+-----+-----+
4 rows in set (0.01 sec)
```

### Question 15(18)

```
mysql> SELECT Dept_Num, MAX(Emp_Hiredate) AS 'Max Hiredate'
-> FROM LGEMPLOYEE
-> GROUP BY Dept_Num
-> ORDER BY Dept_Num;
```

Dept_Num	Max Hiredate
200	2014-03-17
300	2010-06-25
400	2012-05-14
500	2012-12-05

4 rows in set (0.00 sec)

```
SELECT Dept_Num, MAX(Emp_Hiredate) AS 'Max_
Hiredate'
FROM LGEMPLOYEE
GROUP BY Dept_Num
ORDER BY Dept_Num;
```

### Question 16(19)

```
mysql> SELECT LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Fname, LGEMPLOYEE.Emp_Lname,
-> FROM LGEMPLOYEE JOIN LGSALARY_HISTORY ON LGEMPLOYEE.Emp_Num=LGSALARY_HI
-> WHERE LGEMPLOYEE.Dept_Num = 200
-> GROUP BY LGEMPLOYEE.Emp_Num
-> ORDER BY LGSALARY_HISTORY.Sal_Amount;
```

Emp_Num	Emp_Fname	Emp_Lname	Largest Salary Amount
83677	Mace	Windu	123000.00
12345	John	Doe	97000.00

2 rows in set (0.00 sec)

```
SELECT LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Fname,
LGEMPLOYEE.Emp_Lname, MAX(LGSALARY_HISTORY.
Sal_Amount) AS 'Largest_Salary_Amount'
FROM LGEMPLOYEE JOIN LGSALARY_HISTORY ON LGEMPLOYEE.
Emp_Num=LGSALARY_HISTORY.Emp_Num
WHERE LGEMPLOYEE.Dept_Num = 200
GROUP BY LGEMPLOYEE.Emp_Num
ORDER BY LGSALARY_HISTORY.Sal_Amount;
```

## Question 20

```
SELECT LGCUSTOMER.Cust_Code, LGCUSTOMER.Cust_Fname, LGCUSTOMER.Cust_Lname, SUM(LGINVOICE.Inv_Total) AS 'Sum_of_Invoice_Totals'
FROM LGCUSTOMER JOIN LGINVOICE ON LGCUSTOMER.Cust_Code = LGINVOICE.Cust_Code
WHERE LGINVOICE.Inv_Total > 1500
GROUP BY LGINVOICE.Cust_Code
ORDER BY SUM(LGINVOICE.Inv_Total) DESC;
```

```
mysql> SELECT LGCUSTOMER.Cust_Code, LGCUSTOMER.Cust_Fname, LGCUSTOMER.Cust_Lname,
-> FROM LGCUSTOMER JOIN LGINVOICE ON LGCUSTOMER.Cust_Code = LGINVOICE.Cust_Code
-> WHERE LGINVOICE.Inv_Total > 1500
-> GROUP BY LGINVOICE.Cust_Code
-> ORDER BY SUM(LGINVOICE.Inv_Total) DESC;
+-----+-----+-----+-----+
| Cust_Code | Cust_Fname | Cust_Lname | Sum of Invoice Totals |
+-----+-----+-----+-----+
| 3 | The Hunger | Games | 151020.00 |
| 1 | Pacific | Rim | 84800.00 |
| 2 | Iron Man | 3 | 56120.00 |
| 0 | John | Doe | 22500.00 |
| 4 | Incep | Tion | 18040.00 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> █
```

## Question 21

```
SELECT LGDEPARTMENT.Dept_Num, LGDEPARTMENT.Dept_Name, LGDEPARTMENT.Dept_Phone,
LGDEPARTMENT.Emp_Num, LGEMPLOYEE.Emp_Lname
FROM LGDEPARTMENT JOIN LGEMPLOYEE ON LGDEPARTMENT.Emp_Num
= LGEMPLOYEE.Emp_Num
WHERE LGEMPLOYEE.Emp_Title like "manager"
ORDER BY LGDEPARTMENT.Dept_Name;
```



```
mysql> SELECT LGDEPARTMENT.Dept_Num, LGDEPARTMENT.Dept_Name, LGDEPARTMENT.Dept
-> FROM LGDEPARTMENT JOIN LGEMPLOYEE ON LGDEPARTMENT.Dept_Num = LGEMPLOYEE.Dept_Num
-> WHERE LGEMPLOYEE.Emp_Title like "manager"
-> ORDER BY LGDEPARTMENT.Dept_Name;
```

Dept_Num	Dept_Name	Dept_Phone	Emp_Num	Emp_Lname
200	Admin	0111234567	83677	Windu
500	Finance	0117858989	83649	Skywalker
400	Marketing	0117854589	84039	Skywalker
300	Sales	0117852369	83745	Kenobi

```
4 rows in set (0.00 sec)

mysql>
```

## Question 22

```
SELECT LGSUPPLIES.Vend_ID , LGVENDOR.Vend_Name ,
       LGBRAND.Brand_Name , COUNT(*) AS 'Amount '
FROM LGVENDOR JOIN (LGSUPPLIES JOIN (LGPRODUCT JOIN
    LGBRAND ON LGPRODUCT.Brand_ID=LGBRAND.Brand_ID) ON
    LGSUPPLIES.Prod_SKU=LGPRODUCT.Prod_SKU) ON LGVENDOR.
    Vend_ID=LGSUPPLIES.Vend_ID
GROUP BY LGSUPPLIES.Vend_ID , LGPRODUCT.Brand_ID
ORDER BY LGVENDOR.Vend_Name , LGBRAND.Brand_Name ;
```

```
mysql> SELECT LGSUPPLIES.Vend_ID, LGVENDOR.Vend_Name, LGBRAND.Brand_Name, COUNT(*)
-> FROM LGVENDOR JOIN (LGSUPPLIES JOIN (LGPRODUCT JOIN LGBRAND ON LGPRODUCT.Brand_ID=LGSUPPLIES.Vend_ID
-> GROUP BY LGSUPPLIES.Vend_ID, LGPRODUCT.Brand_ID
-> ORDER BY LGVENDOR.Vend_Name, LGBRAND.Brand_Name;
```

Vend_ID	Vend_Name	Brand_Name	Amount
0	AB Devillies	Coruscant Painters	1
0	AB Devillies	Racer Pod Ballers	1
0	AB Devillies	Tatooine Dust	1
4	C Adam	Coruscant Painters	1
4	C Adam	Light Sabers	1
4	C Adam	Racer Pod Ballers	1
4	C Adam	Tatooine Dust	1
5	C Crouch	Coruscant Painters	1
5	C Crouch	Light Sabers	1
5	C Crouch	Racer Pod Ballers	1
1	DW Steyn	Light Sabers	1
1	DW Steyn	Racer Pod Ballers	2
2	F Du Plessis	Coruscant Painters	1
2	F Du Plessis	Racer Pod Ballers	1
2	F Du Plessis	Tatooine Dust	1
3	S Gerrard	Coruscant Painters	1
3	S Gerrard	Light Sabers	1
3	S Gerrard	Racer Pod Ballers	1

```
18 rows in set (0.00 sec)
```

## Question 23

```
select LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Fname,
       LGEMPLOYEE.Emp_Lname, sum(LGINVOICE.Inv_Total)
       as 'Total_Invoices'
from LGEMPLOYEE, LGINVOICE
where LGEMPLOYEE.Emp_Num = LGINVOICE.Employee_ID group by
       LGEMPLOYEE.Emp_Num
order by LGEMPLOYEE.Emp_Fname, LGEMPLOYEE.Emp_Lname;
```

```
mysql> select LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Fname, LGEMPLOYEE.Emp_Lname,
-> from LGEMPLOYEE, LGINVOICE
-> where LGEMPLOYEE.Emp_Num = LGINVOICE.Employee_ID group by LGEMPLOYEE.Emp_Num
-> order by LGEMPLOYEE.Emp_Fname, LGEMPLOYEE.Emp_Lname;
```

Emp_Num	Emp_Fname	Emp_Lname	Total Invoices
84039	Annakin	Skywalker	85300.00
83649	Luke	Skywalker	5100.00
83677	Mace	Windu	206060.00
83745	Obi Wan	Kenobi	36520.00

```
4 rows in set (0.00 sec)
```

## Question 24

```
SELECT AVG(Prod_Price) AS 'Largest_Average_
Product_Price'
FROM LGPRODUCT
GROUP BY Brand_ID
ORDER BY AVG(Prod_Price) DESC
LIMIT 1;
```

## Question 25

```
#Instead of having two nested queries a HAVING
may work better
SELECT Brand_Id, Brand_Name, Brand_Type, MAX(
Average_Price_Of_Products) AS 'Max_Average_Price_Of_
Products'
FROM (
SELECT LGBRAND.Brand_Id, LGBRAND.Brand_Name,
LGBRAND.Brand_Type, AVG(LGPRODUCT.Prod_Price)
AS 'Average_Price_Of_Products'
FROM LGBRAND JOIN LGPRODUCT ON LGBRAND.Brand_Id =
LGPRODUCT.Brand_Id
GROUP BY LGBRAND.Brand_Id) Avgerages;
```

```
mysql> SELECT Brand_Id, Brand_Name, Brand_Type, MAX(Average_Price_Of_Products)
-> FROM (
-> SELECT LGBRAND.Brand_Id, LGBRAND.Brand_Name, LGBRAND.Brand_Type, AVG(LG
-> FROM LGBRAND JOIN LGPRODUCT ON LGBRAND.Brand_Id = LGPRODUCT.Brand_Id
-> GROUP BY LGBRAND.Brand_Id) Avgerages;
+-----+-----+-----+-----+
| Brand_Id | Brand_Name | Brand_Type | Max Average Price of Products |
+-----+-----+-----+-----+
|          0 | Light Sabers | Premium | 624.995000 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> █
```

## Question 26

```
SELECT CONCAT(M.Emp_Fname, ' ', M.Emp_Lname) AS '
Manager_Name', LGDEPARTMENT.Dept_Name,
LGDEPARTMENT.Dept_Phone, CONCAT(E.Emp_Fname, '
', E.Emp_Lname) AS 'Emp_Name', CONCAT(
LGCUSTOMER.Cust_Fname, ' ', LGCUSTOMER.
Cust_Lname) AS 'Cust_Name', LGINVOICE.Inv_Date
, LGINVOICE.Inv_Total
FROM LGCUSTOMER JOIN (LGINVOICE JOIN (LGEMPLOYEE E JOIN (
LGDEPARTMENT JOIN LGEMPLOYEE M ON LGDEPARTMENT.Emp_Num
=M.Emp_Num) ON E.Dept_Num=LGDEPARTMENT.Dept_Num) ON
LGINVOICE.Employee_ID=E.Emp_Num) ON LGCUSTOMER.
Cust_Code=LGINVOICE.Cust_Code
WHERE Cust_Lname like 'Doe' AND Inv_Date='2013-03-23';
```

```
mysql> SELECT CONCAT(M.Emp_Fname, ' ', M.Emp_Lname) AS 'Manager_Name', LGDEPAR
me', CONCAT(LGCUSTOMER.Cust_Fname, ' ', LGCUSTOMER.Cust_Lname) AS 'Cust_Name',
-> FROM LGCUSTOMER JOIN (LGINVOICE JOIN (LGEMPLOYEE E JOIN (LGDEPARTMENT J
N LGINVOICE.Employee_ID=E.Emp_Num) ON LGCUSTOMER.Cust_Code=LGINVOICE.Cust_Code
-> WHERE Cust_Lname like 'Doe' AND Inv_Date='2013-03-23';
+-----+-----+-----+-----+-----+-----+
| Manager_Name | Dept_Name | Dept_Phone | Emp_Name | Cust_Name | Inv_Date |
+-----+-----+-----+-----+-----+-----+
| Luke Skywalker | Finance | 0117858989 | Han Solo | Jane Doe | 2013-03-23 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

## Question 27

```
mysql> select *
      -> from LGPRODUCT
      -> where Prod_Price > 50;
```

Prod_SKU	Prod_Desc	Prod_Type	Prod_Base	Prod_Category
2	No more holes	Poly Filler	Polystyrene	Filler
3	Best paint Tatooine	Paint	Water	Top Coat
4	Opimus Primer	Shiny	Water	Primer
5	Navy Sealer	Solid	Cement	Sealer
6	Green Seal	Solid	Cement	Sealer

```
5 rows in set (0.00 sec)
```

```
select *
from LGPRODUCT
where Prod_Price > 50;
```

## Question 28

```
SELECT LGSALARY_HISTORY.Sal_Amount
FROM LGSALARY_HISTORY JOIN LGEMPLOYEE ON LGSALARY_HISTORY
.Emp_Num=LGEMPLOYEE.Emp_Num
WHERE LGEMPLOYEE.Dept_Num=300 AND LGSALARY_HISTORY.
Sal_End IS NULL
ORDER BY LGSALARY_HISTORY.Sal_Amount DESC;
```

## Question 29

```
#with this query the earliest Sal_From date is
automatically selected.
SELECT Emp_Num, Sal_Amount
FROM LGSALARY_HISTORY
GROUP BY Emp_Num
HAVING MIN(Sal_From)
ORDER BY Emp_Num;
```

```
mysql> #with this query the earliest Sal_From date is automatically selected.
mysql> SELECT Emp_Num, Sal_Amount
-> FROM LGSALARY_HISTORY
-> GROUP BY Emp_Num
-> HAVING MIN(Sal_From)
-> ORDER BY Emp_Num;
```

Emp_Num	Sal_Amount
12345	12000.00
83649	1000.00
83677	12000.00
83745	121000.00
84039	4000.00
84564	41000.00

```
6 rows in set (0.00 sec)

mysql>
```

### Question 3

```
mysql> SELECT *
-> FROM LGDEPARTMENT;
```

Dept_num	Dept_Name	Dept_Mail_Box	Dept_Phone	Emp_Num
200	Admin	500	0111234567	83677
300	Sales	250	0117852369	83745
400	Marketing	280	0117854589	84039
500	Finance	210	0117858989	83649

```
4 rows in set (0.00 sec)
```

```
SELECT *
FROM LGDEPARTMENT;
```

## Question 30

```
mysql> SELECT LGINVOICE.Inv_Num, LGLINE.Prod_SKU, LGPRODUCT.Prod_Desc, LGBRAND
-> FROM LGINVOICE JOIN (LGLINE JOIN (LGPRODUCT JOIN LGBRAND ON LGPRODUCT.B
NE.Inv_Num
-> WHERE LGPRODUCT.Prod_Category like 'sealer' OR LGPRODUCT.Prod_Category
-> GROUP BY LGPRODUCT.Brand_ID, LGINVOICE.Inv_Num;
```

Inv_Num	Prod_SKU	Prod_Desc	Brand_ID
3	5	Navy Sealer	0
5	5	Navy Sealer	0
2	3	Best paint Tatooine	3
4	3	Best paint Tatooine	3

4 rows in set (0.00 sec)

```
SELECT LGINVOICE.Inv_Num, LGLINE.Prod_SKU,
       LGPRODUCT.Prod_Desc, LGBRAND.Brand_ID
FROM LGINVOICE JOIN (LGLINE JOIN (LGPRODUCT JOIN LGBRAND
ON LGPRODUCT.Brand_ID=LGBRAND.Brand_ID) ON LGLINE.
Prod_SKU=LGPRODUCT.Prod_SKU) ON LGINVOICE.Inv_Num=
LGLINE.Inv_Num
WHERE LGPRODUCT.Prod_Category like 'sealer' OR LGPRODUCT.
Prod_Category like 'top_coat'
GROUP BY LGPRODUCT.Brand_ID, LGINVOICE.Inv_Num;
```

## Question 31

```
mysql> select LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Fname, LGEMPLOYEE.Emp_Lname,
-> from LGEMPLOYEE, LGINVOICE, LGLINE, LGPRODUCT, LGBRAND
-> where LGBRAND.Brand_Name like 'Coruscant Painters' and LGBRAND.Brand_ID
-> and LGLINE.Inv_Num = LGINVOICE.Inv_Num and LGINVOICE.Employee_ID = LGEM
-> order by LGEMPLOYEE.Emp_Lname;
```

Emp_Num	Emp_Fname	Emp_Lname	Emp_Email	Total sold
83745	Obi Wan	Kenobi	obk@hotmail.com	4

1 row in set (0.00 sec)

```
select LGEMPLOYEE.Emp_Num, LGEMPLOYEE.Emp_Fname,
       LGEMPLOYEE.Emp_Lname, LGEMPLOYEE.Emp_Email,
       sum(LGLINE.Line_Qty) as 'Total_sold'
from LGEMPLOYEE, LGINVOICE, LGLINE, LGPRODUCT, LGBRAND
```

```

where LGBRAND.Brand_Name like 'Coruscant_Painters' and
      LGBRAND.Brand_ID = LGPRODUCT.Brand_ID and LGPRODUCT.
      Prod_SKU = LGLINE.Prod_SKU
and LGLINE.Inv_Num = LGINVOICE.Inv_Num and LGINVOICE.
      Employee_ID = LGEMPLOYEE.Emp_Num and LGINVOICE.
      Inv_Date between '2011-11-01' and '2013-12-01'
order by LGEMPLOYEE.Emp_Lname;

```

## Question 32

```

SELECT L1.Cust_Code , LGCUSTOMER.Cust_Fname ,
      LGCUSTOMER.Cust_Lname
FROM LGINVOICE L1 JOIN (LGCUSTOMER JOIN LGINVOICE L2 ON
      LGCUSTOMER.Cust_Code=L2.Cust_Code) ON L1.Cust_Code=
      LGCUSTOMER.Cust_Code
WHERE L1.Employee_ID=83649 AND L2.Employee_ID=83677
ORDER BY LGCUSTOMER.Cust_Lname , LGCUSTOMER.Cust_Fname;

```

## Question 33

```

SELECT LGCUSTOMER.Cust_Code , LGCUSTOMER.
      Cust_Fname , LGCUSTOMER.Cust_Lname , CONCAT(
      LGCUSTOMER.Cust_Street , ' ' , LGCUSTOMER.
      Cust_City , ' ' , LGCUSTOMER.Cust_Province , ' ' ,
      LGCUSTOMER.Cust_ZIP) AS 'Full_Address' ,
      LGINVOICE.Inv_Date , MAX(LGINVOICE.Inv_Total)
      AS 'Largest_Invoice'
FROM LGCUSTOMER JOIN LGINVOICE ON LGCUSTOMER.Cust_Code=
      LGINVOICE.Cust_Code
WHERE LGCUSTOMER.Cust_Province like 'Gauteng'
GROUP BY LGCUSTOMER.Cust_Code;

```

```

mysql> SELECT LGCUSTOMER.Cust_Code, LGCUSTOMER.Cust_Fname, LGCUSTOMER.Cust_Lname,
e, ' ', LGCUSTOMER.Cust_ZIP) AS 'Full_Address', LGINVOICE.Inv_Date, MAX(LGINVO.
-> FROM LGCUSTOMER JOIN LGINVOICE ON LGCUSTOMER.Cust_Code=LGINVOICE.Cust_C
-> WHERE LGCUSTOMER.Cust_Province like 'Gauteng'
-> GROUP BY LGCUSTOMER.Cust_Code;
+-----+-----+-----+-----+
| Cust_Code | Cust_Fname | Cust_Lname | Full_Address
+-----+-----+-----+-----+
| 0 | John | Doe | 1 Yale Road Johannesburg Gauteng 0000
| 2 | Iron Man | 3 | 9 Tony Stark Road California Gauteng 1
| 4 | Incep | Tion | 6 9th Street Panem Gauteng 45677
| 5 | Jane | Doe | 1 Yale Road Johannesburg Gauteng 0000
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

```



## Question 34

```
mysql> SELECT LGBRAND.Brand_Name, LGBRAND.Brand_Type, AVG(LGPRODUCT.Prod_Price)
-> FROM LGBRAND JOIN (LGPRODUCT JOIN LGLINE ON LGPRODUCT.Prod_SKU=LGLINE.P
-> GROUP BY LGBRAND.Brand_ID;
+-----+-----+-----+-----+
| Brand_Name | Brand_Type | Average | Total Units Sold |
+-----+-----+-----+-----+
| Light Sabers | Premium | 250.000000 | 10 |
| Tatooine Dust | Regular | 400.000000 | 3 |
| Coruscant Painters | Premium | 300.000000 | 6 |
| Racer Pod Ballers | Regular | 310.000000 | 16 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
SELECT LGBRAND.Brand_Name, LGBRAND.Brand_Type,
      AVG(LGPRODUCT.Prod_Price) AS 'Average', SUM(
      LGLINE.Line_Qty) AS 'Total Units Sold'
FROM LGBRAND JOIN (LGPRODUCT JOIN LGLINE ON LGPRODUCT.
      Prod_SKU=LGLINE.Prod_SKU) ON LGBRAND.Brand_ID=
      LGPRODUCT.Brand_ID
GROUP BY LGBRAND.Brand_ID;
```

## Question 35

```
select LGBRAND.Brand_Name, LGBRAND.Brand_Type,
      LGPRODUCT.Prod_SKU, LGPRODUCT.Prod_Desc,
      LGPRODUCT.Prod_Price from LGBRAND, LGPRODUCT
where LGPRODUCT.Brand_ID = LGBRAND.Brand_ID
and LGBRAND.Brand_Type not like 'Premium' and
      LGPRODUCT.Prod_Price > (select Max(LGPRODUCT.
      Prod_Price) from LGPRODUCT, LGBRAND where
      LGBRAND.Brand_ID = LGPRODUCT.Brand_ID and
      LGBRAND.Brand_Type like 'Premium');
```

```
mysql> select LGBRAND.Brand_ID, LGBRAND.Brand_Name, LGBRAND.Brand_Type, LGPROD
-> from LGBRAND, LGPRODUCT
-> where LGPRODUCT.Brand_ID = LGBRAND.Brand_ID and LGBRAND.Brand_Type not
-> (select Max(LGPRODUCT.Prod_Price) from LGPRODUCT, LGBRAND where LGBRAND
+-----+-----+-----+-----+
| Brand_ID | Brand_Name | Brand_Type | Prod_SKU | Prod_Desc | Prod_
+-----+-----+-----+-----+
| 2 | Tatooine Dust | Regular | 2 | No more holes | 4
| 4 | Racer Pod Ballers | Regular | 4 | Opimus Primer | 4
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```