1 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
+----------+-------------------+-----------+-----------+---------------+------
|        7 | Tzanchan Rehydrate | Solid    | Water     | Sealer        |
+----------+-------------------+-----------+-----------+---------------+------
1 row in set (0.00 sec)
```

```sql
        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';
```

2 Question 5

```sql
        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)
```

3 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;

4 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=LGSAL
    -> WHERE LGEMPLOYEE.Emp_Num = 83731 OR LGEMPLOYEE.Emp_Num = 83745 OR LGEMP
    -> 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)
```

5 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, LGCUSTOME
    -> FROM LGCUSTOMER, LGBRAND, LGINVOICE, LGPRODUCT
    -> WHERE LGBRAND.Brand_Name like 'Tatooine Dust' AND LGPRODUCT.Prod_Catego
    -> ORDER BY LGCUSTOMER.Cust_Province, LGCUSTOMER.Cust_Lname, LGCUSTOMER.Cus
+------------+------------+---------------------------+--------------+--------
| Cust_Fname | Cust_Lname | Cust_Street               | Cust_City    | Cust_P
+------------+------------+---------------------------+--------------+--------
| Iron Man   | 3          | 9 Tony Stark Road         | California    | Gauten
| John       | Doe        | 1 Yale Road               | Johannesburg | Gauten
| Incep      | Tion       | 6 9th Street              | Panem        | Gauten
| The Hunger | Games      | 11 Katniss Everdeen Street | Panem       | Limpop
| Pacific    | Rim        | 9 Jager Road              | Kaijuland    | Wester
+------------+------------+---------------------------+--------------+--------
5 rows in set (0.00 sec)
```

6 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, |
    -> FROM LGEMPLOYEE INNER JOIN LGDEPARTMENT ON LGEMPLOYEE.Dept_Num=LGDEPART
    -> 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>
```

Database fundementals final project

Name and student number

23 March 2014

7 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>
```

8 Question 11

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

5

```
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>
```

9   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>
```

10 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**;

11 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)
```

7

12 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;
```

13 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_Salery_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;
```

14   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_Lna
    -> FROM LGCUSTOMER JOIN LGINVOICE ON LGCUSTOMER.Cust_Code = LGINVOICE.Cust_
    -> 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>
```

15   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.Emp_Num = LGEMPLOYEE.
    -> 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>
```

16   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, COUN
    -> FROM LGVENDOR JOIN (LGSUPPLIES JOIN (LGPRODUCT JOIN LGBRAND ON LGPRODU
D=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)
```

17 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
    -> 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)
```

18   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;
```

19   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(LGB
    -> 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>
```

20 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)
```

13

21 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;
```

22 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;
```

23 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>
```

24 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;

25 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;
```

26 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;
```

27   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;
```

28   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_Lnam
e, ' ', LGCUSTOMER.Cust_ZIP) AS 'Full_Address', LGINVOICE.Inv_Date, MAX(LGINVO:
    -> FROM LGCUSTOMER JOIN LGINVOICE ON LGCUSTOMER.Cust_Code=LGINVOICE.Cust_Co
    -> 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)
```

29   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 ;

30   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)
```

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