

Hi Sarah,

It was really nice seeing you at the house party!

I went through all of the questions you asked me (happy to help) and provided my responses below. The details on the database diagram and one of the queries are attached, but hopefully this info helps you out.

If you have any questions please let me know. I did hear about Raj but not about Kim and Lawrence. Let's get together next Tuesday and we can chat more.

Talk soon!

Sincerely,

Aaron

-
1. What are the recipe titles that are either a vegetable or a salad? I want to provide this information to my friend, please give me a SINGLE query that does this without any numbers in the query.

-----+

RecipeTitle	
+-----+	
Garlic Green Beans	
Asparagus	
Mike's Summer Salad	

```
SELECT RecipeTitle FROM Recipes r LEFT JOIN Recipe_Classes c ON  
c.RecipeClassID = r.RecipeClassID WHERE c.RecipeClassDescription =  
'Vegetable'OR c.RecipeClassDescription = 'Salad';
```

```
mysql> SELECT RecipeTitle FROM Recipes r LEFT JOIN Recipe_Classes c ON c.RecipeClassID = r.RecipeClassID WHERE c.RecipeClassDescription = 'Vegetable' OR c.RecipeClassDescription = 'Salad';
```

RecipeTitle
Garlic Green Beans
Asparagus
Mike's Summer Salad

```
3 rows in set (0.03 sec)
```

- I have someone that is allergic to seafood coming over, please list all the dishes that contain seafood. Once again, one query with no numbers in it, please.

```
+-----+
```

```
| RecipeTitle |
```

```
+-----+
```

```
| Salmon Filets in Parchment Paper |
```

```
| Huachinango Veracruzana (Red Snapper, Veracruz style) |
```

```
SELECT RecipeTitle FROM Recipes r LEFT JOIN Recipe_Ingredients ri ON ri.RecipeID = r.RecipeID LEFT JOIN Ingredients i ON i.IngredientID = ri.IngredientID LEFT JOIN Ingredient_Classes ic ON ic.IngredientClassID = i.IngredientClassID WHERE ic.IngredientClassDescription = 'Seafood';
```

```
mysql> SELECT RecipeTitle FROM Recipes r LEFT JOIN Recipe_Ingredients ri ON ri.RecipeID = r.RecipeID LEFT JOIN Ingredients i ON i.IngredientID = ri.IngredientID LEFT JOIN Ingredient_Classes ic ON ic.IngredientClassID = i.IngredientClassID WHERE i.IngredientClassDescription = 'Seafood';
```

RecipeTitle
Salmon Filets in Parchment Paper
Huachinango Veracruzana (Red Snapper, Veracruz style)

```
2 rows in set (0.03 sec)
```

- Raj and the rest of the database team are coming over next week, and they really like beef and garlic, what can I make for everyone that contains beef and garlic?

```
+-----+
```

```
| RecipeTitle |
```

```
+-----+
```

```
| Roast Beef |
```

```
SELECT RecipeTitle FROM Recipes WHERE Preparation LIKE '%beef%' AND Preparation LIKE '%garlic%';
```

```
mysql> SELECT RecipeTitle FROM Recipes WHERE Preparation LIKE '%beef%' AND Preparation LIKE '%garlic%';
+-----+
| RecipeTitle |
+-----+
| Roast Beef  |
+-----+
1 row in set (0.01 sec)
```

4. In the ro_company1 database, can you give me the names of those employees who work in the Operations department? Once again, please don't put any numbers in your query.

```
+-----+
| employee_name |
+-----+
| Susan,Hawthorne |
| Helen,Fleming   |
| Chris,Tucker    |
| Sarah,Parker     |
| Jane,Grossman   |
| Paula,Roberts    |
| Thomas,Ziegler   |
| Samantha,Jameson |
| John,Blake       |
| Cindy,Mason      |
| Frank,Portman    |
| Theresa,Markham  |
| Beth,Fowler      |
| Rick,Tulman      |
+-----+
```

```
mysql> SELECT CONCAT(fname, ' ', lname) AS employee_name FROM employee e LEFT JOIN department d ON e.dept_id = d.dept_id WHERE d.name LIKE 'Operations';
```

employee_name
Susan,Hawthorne
Helen,Fleming
Chris,Tucker
Sarah,Parker
Jane,Grossman
Paula,Roberts
Thomas,Ziegler
Samantha,Jameson
John,Blake
Cindy,Mason
Frank,Portman
Theresa,Markham
Beth,Fowler
Rick,Tulman

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

5. Also, employee Paula Roberts, has opened a large number of accounts, can you let me know on what dates she opened accounts on and what the address of those customers are? (one query)

full_address	cust_id	open_date
47 Mockingbird LnLynnfieldMA01940	1	2000-01-15
47 Mockingbird LnLynnfieldMA01940	1	2004-06-30
372 Clearwater BlvdWoburnMA01801	2	2001-03-12
29 Admiral LnWilmingtonMA01887	7	2004-01-12
287A Corporate AveWilmingtonMA01887	11	2004-03-22

```
mysql> SELECT CONCAT(fname, ' ', lname) AS employee_name FROM employee e LEFT JOIN department d ON e.dept_id = d.dept_id WHERE d.name LIKE 'Operations';
```

employee_name
Susan,Hawthorne
Helen,Fleming
Chris,Tucker
Sarah,Parker
Jane,Grossman
Paula,Roberts
Thomas,Ziegler
Samantha,Jameson
John,Blake
Cindy,Mason
Frank,Portman
Theresa,Markham
Beth,Fowler
Rick,Tulman

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

6. Can you provide me a list of _all_ our employees and their manager's ID?

SUBORDINATE	MANAGER
-------------	---------

+-----+-----+

MichaelSmith	NULL	
SusanBarker	MichaelSmith,1	
RobertTyler	MichaelSmith,1	
SusanHawthorne	RobertTyler,3	
JohnGooding	SusanHawthorne,4	
HelenFleming	SusanHawthorne,4	
ChrisTucker	HelenFleming,6	
SarahParker	HelenFleming,6	
JaneGrossman	HelenFleming,6	
PaulaRoberts	SusanHawthorne,4	
ThomasZiegler	PaulaRoberts,10	
SamanthaJameson	PaulaRoberts,10	
JohnBlake	SusanHawthorne,4	
CindyMason	JohnBlake,13	
FrankPortman	JohnBlake,13	
TheresaMarkham	SusanHawthorne,4	
BethFowler	TheresaMarkham,16	
RickTulman	TheresaMarkham,16	

```
mysql> SELECT CONCAT (a.fname, a.lname) AS SUBORDINATE, CONCAT (b.fname, b.lname, ',', a.superior_emp_id) AS MANAGER FROM employee a LEFT JOIN employee b ON b.emp_id = a.superior_emp_id;
```

SUBORDINATE	MANAGER
MichaelSmith	NULL
SusanBarker	MichaelSmith,1
RobertTyler	MichaelSmith,1
SusanHawthorne	RobertTyler,3
JohnGooding	SusanHawthorne,4
HelenFleming	SusanHawthorne,4
ChrisTucker	HelenFleming,6
SarahParker	HelenFleming,6
JaneGrossman	HelenFleming,6
PaulaRoberts	SusanHawthorne,4
ThomasZiegler	PaulaRoberts,10
SamanthaJameson	PaulaRoberts,10
JohnBlake	SusanHawthorne,4
CindyMason	JohnBlake,13
FrankPortman	JohnBlake,13
TheresaMarkham	SusanHawthorne,4
BethFowler	TheresaMarkham,16
RickTulman	TheresaMarkham,16

18 rows in set (0.00 sec)

7. Can you give me a list of all accounts that have not been closed, the available balance, the state the customer is located in, and the name of the customer's business if they have one?

account_id	avail_balance	state	name
1	1057.75	MA	NULL
2	500.00	MA	NULL
3	3000.00	MA	NULL
4	2258.02	MA	NULL
5	200.00	MA	NULL
7	1057.75	MA	NULL
8	2212.50	MA	NULL
10	534.12	MA	NULL
11	767.77	MA	NULL
12	5487.09	MA	NULL
13	2237.97	NH	NULL
14	122.37	MA	NULL

	15		10000.00		MA		NULL	
	17		5000.00		MA		NULL	
	18		3487.19		NH		NULL	
	19		387.99		NH		NULL	
	21		125.67		MA		NULL	
	22		9345.55		MA		NULL	
	23		1500.00		MA		NULL	
	24		23575.12		NH		Chilton Engineering	
	25		0.00		NH		Chilton Engineering	
	27		9345.55		MA		Northeast Cooling Inc.	
	28		38552.05		NH		Superior Auto Body	
	29		50000.00		MA		AAA Insurance Inc.	

```
mysql> SELECT a.account_id, a.avail_balance, c.state, b.name FROM account a LEFT JOIN customer c ON a.cust_id = c.cust_id LEFT JOIN business b ON c.cust_id = b.cust_id WHERE a.status = 'ACTIVE';
```

account_id	avail_balance	state	name
1	1057.75	MA	NULL
2	500.00	MA	NULL
3	3000.00	MA	NULL
4	2258.02	MA	NULL
5	200.00	MA	NULL
7	1057.75	MA	NULL
8	2212.50	MA	NULL
10	534.12	MA	NULL
11	767.77	MA	NULL
12	5487.09	MA	NULL
13	2237.97	NH	NULL
14	122.37	MA	NULL
15	10000.00	MA	NULL
17	5000.00	MA	NULL
18	3487.19	NH	NULL
19	387.99	NH	NULL
21	125.67	MA	NULL
22	9345.55	MA	NULL
23	1500.00	MA	NULL
24	23575.12	NH	Chilton Engineering
25	0.00	NH	Chilton Engineering
27	9345.55	MA	Northeast Cooling Inc.
28	38552.05	NH	Superior Auto Body
29	50000.00	MA	AAA Insurance Inc.

24 rows in set (0.01 sec)

8. Can you provide a list of employees that work at a branch with the address of "422 Maple St."?

	EMPLOYEE		branch_id		name	
+	-----	+	-----	+	-----	+

PaulaRoberts	2 Woburn Branch
ThomasZiegler	2 Woburn Branch
SamanthaJameson	2 Woburn Branch

```
mysql> SELECT CONCAT(e.fname, e.lname) AS EMPLOYEE, b.branch_id, b.name FROM employee e LEFT JOIN branch b ON b.branch_id =
e.assigned_branch_id WHERE b.address = '422 Maple St.';
+-----+-----+
| EMPLOYEE | branch_id | name |
+-----+-----+
| PaulaRoberts | 2 | Woburn Branch |
| ThomasZiegler | 2 | Woburn Branch |
| SamanthaJameson | 2 | Woburn Branch |
+-----+-----+
3 rows in set (0.01 sec)
```

Using the **world** database, can you find:

1) 5 random cities that have a population of 13,000 and below 500,000 and are not located in North America?

Name	Population
Abohar	107163
Nice	342738
San Jose	111009
Kudus	95300
Burnpur	174933

```
mysql> SELECT c.Name, c.Population FROM city c LEFT JOIN country b ON b.Code = c.CountryCode WHERE c.Population >= '13000'
AND c.Population < '500000' AND b.Continent <> 'North America' ORDER BY RAND() LIMIT 5;
+-----+-----+
| Name | Population |
+-----+-----+
| Abohar | 107163 |
| Nice | 342738 |
| San Jose | 111009 |
| Kudus | 95300 |
| Burnpur | 174933 |
+-----+-----+
5 rows in set (0.01 sec)
```

2) How many cities are in a Constitutional Monarchy?

611


```
mysql> SELECT COUNT(*) FROM city c LEFT JOIN country b ON b.Code = c.CountryCode WHERE b.GovernmentForm LIKE '%Constitutional Monarchy%';
+-----+
| COUNT(*) |
+-----+
|        611 |
+-----+
1 row in set (0.01 sec)
```

3) 5 random cities that a population above 13000 and below 500,000 that don't speak English as an official language and are not a Republic?

```
+-----+-----+-----+
| Name      | Population | Language |
+-----+-----+-----+
| Baidyabati | 90601      | Hindi    |
| Araguaína | 114948     | Italian  |
| Inglewood  | 112580     | Polish   |
| Kaiyuan    | 91999      | Tujia    |
| Jhansi     | 300850     | Malajalam |
+-----+-----+-----+
```

SELECT c.Name, c.Population, d.Language FROM city c LEFT JOIN country b ON b.Code = c.CountryCode LEFT JOIN countrylanguage d ON d.CountryCode = b.Code WHERE c.Population > '13000' AND c.Population < '500000' AND b.GovernmentForm <> 'Republic' AND ((d.Language <> 'English') OR (d.Language = 'English' AND d.IsOfficial = 'F')) ORDER BY RAND() LIMIT 5;

```
mysql> SELECT c.Name, c.Population, d.Language FROM city c LEFT JOIN country b ON b.Code = c.CountryCode LEFT JOIN countrylanguage d ON d.CountryCode = b.Code WHERE c.Population > '13000' AND c.Population < '500000' AND b.GovernmentForm <> 'Republic' AND ((d.Language <> 'English') OR (d.Language = 'English' AND d.IsOfficial = 'F')) ORDER BY RAND() LIMIT 5;
+-----+-----+-----+
| Name      | Population | Language |
+-----+-----+-----+
| Kawagoe   | 327211    | Chinese  |
| Kaiyuan    | 124219    | Chinese  |
| Ikorodu   | 184900    | Ibibio   |
| Serpuhov  | 132000    | Tatar    |
| Xuchang   | 208815    | Tibetan  |
+-----+-----+-----+
5 rows in set (0.25 sec)
```

Using the ro_research1 database:

1. Can you let me know the ptstatus, Fitbit date, and the total number of steps and how far off the user was from their goal for all users?

This is a lot of data to share in the email so I have attached that information in the email. Since you wanted fitbit dates, we had to get a row of data for each date for each user, producing 736 rows. The command which produced this was **SELECT u.user_id, u.ptstatus, d.fitbit_date, d.fitbit_steps AS TOTAL_STEPS, d.fitbit_steps - fitbit_goal AS OFF_GOAL FROM suth_user u LEFT JOIN day_entity d ON d.user_id = u.user_id ORDER BY u.user_id;**

The file name is **Fitbit_User_Data**.

```
mysql> SELECT u.user_id, u.ptstatus, d.fitbit_date, d.fitbit_steps AS TOTAL_STEPS, d.fitbit_steps - fitbit_goal AS OFF_GOAL
FROM suth_user u LEFT JOIN day_entity d ON d.user_id = u.user_id ORDER BY u.user_id;
```

Using the **ro_employee** database:

1. From 1985-01-01 to 1986-01-01, how many people were on payroll with a title that contained the word "Engineer"?

9,278

```
mysql> SELECT COUNT(DISTINCT d.emp_no) FROM dept_emp d LEFT
JOIN titles t ON t.emp_no = d.emp_no WHERE d.from_date BETWEEN
'1985-01-01' AND '1986-01-01' AND t.title LIKE '%engineer%';
```

```
+-----+
| COUNT(DISTINCT d.emp_no) |
+-----+
|           9278 |
+-----+

1 row in set (0.20 sec)
```

```
mysql> SELECT COUNT(DISTINCT d.emp_no) FROM dept_emp d LEFT JOIN titles t ON t.emp_no = d.emp_no WHERE d.from_date BETWEEN
'1985-01-01' AND '1986-01-01' AND t.title LIKE '%engineer%';
+-----+
| COUNT(DISTINCT d.emp_no) |
+-----+
|           9278 |
+-----+
1 row in set (0.20 sec)
```

2. How many people work in the Production department anytime between 1985-01-01 to 1992-01-01?

31,700

```
mysql> SELECT COUNT(DISTINCT d.emp_no) FROM dept_emp d LEFT JOIN departments z ON d.dept_no = z.dept_no WHERE d.from_date >= '1985-01-01' AND d.from_date <= '1992-01-01' AND z.dept_name = 'Production';
```

```
+-----+
| COUNT(DISTINCT d.emp_no) |
+-----+
|          31700          |
```

```
mysql> SELECT COUNT(DISTINCT d.emp_no) FROM dept_emp d LEFT JOIN departments z ON d.dept_no = z.dept_no WHERE d.from_date >= '1985-01-01' AND d.from_date <= '1992-01-01' AND z.dept_name = 'Production';
+-----+
| COUNT(DISTINCT d.emp_no) |
+-----+
|          31700          |
+-----+
1 row in set (0.24 sec)
```

3. Can you give a list of the names of 20 random employees, their current salary, and their current title?

```
+-----+-----+-----+
| NAME           | salary | title           |
+-----+-----+-----+
| KaukoCairo     | 67645  | Senior Staff    |
| SupotMoehrke   | 71483  | Senior Staff    |
| NobuyoshiKitsuregawa | 50061 | Senior Staff    |
| HeonMcClurg    | 48792  | Engineer        |
| JoydipBorstler | 81383  | Technique Leader |
| BerntKranzdorf | 70687  | Engineer        |
| EmranLitzler   | 72809  | Engineer        |
```

AdibSiprelle	72115	Senior Staff	
RicharaKamble	77684	Technique Leader	
MohammadHedayat	66476	Senior Engineer	
ToshimoBergere	105141	Staff	
DivineBreugel	56556	Staff	
MorrisHalloran	58319	Engineer	
ChirstianZongker	69775	Senior Staff	
TakushiBellmore	85207	Engineer	
FelicidadBroomell	72243	Staff	
KasturiLorie	88144	Staff	
ShaoweiSudbeck	118730	Senior Staff	
BranimirCollette	64744	Engineer	
MooiDenti	58859	Engineer	

+-----+-----+-----+

```
SELECT CONCAT(e.first_name, e.last_name) AS NAME, s.salary, t.title
FROM employees e LEFT JOIN salaries s ON s.emp_no = e.emp_no LEFT
JOIN titles t ON t.emp_no = e.emp_no WHERE s.to_date > now() ORDER By
RAND() LIMIT 20;
```

```
mysql> SELECT CONCAT(e.first_name, e.last_name) AS NAME, s.salary, t.title FROM employees e LEFT JOIN salaries s ON s.emp_no = e.emp_no LEFT JOIN titles t ON t.emp_no = e.emp_no WHERE s.to_date > now() ORDER By RAND() LIMIT 20;
```

NAME	salary	title
KaukoCairo	67645	Senior Staff
SupotMoehrke	71483	Senior Staff
NobuyoshiKitsuregawa	50061	Senior Staff
HeonMcClurg	48792	Engineer
JoydipBorstler	81383	Technique Leader
BerntKranzdorf	70687	Engineer
EmranLitzler	72809	Engineer
AdibSiprelle	72115	Senior Staff
RicharaKamble	77684	Technique Leader
MohammadHedayat	66476	Senior Engineer
ToshimoBergere	105141	Staff
DivineBreugel	56556	Staff
MorrisHalloran	58319	Engineer
ChirstianZongker	69775	Senior Staff
TakushiBellmore	85207	Engineer
FelicidadBroomell	72243	Staff
KasturiLorie	88144	Staff
ShaoweiSudbeck	118730	Senior Staff
BranimirCollette	64744	Engineer
MooiDenti	58859	Engineer

20 rows in set (5.74 sec)