NEW Apprenticeship SQL Presentation

Resources:

- https://github.com/mbrock76/NEW
- https://livesql.oracle.com
- https://tinyurl.com/MikeBrockSQL

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How can I view a tree map of all company locations?

```sql
1  select regions.region_name, countries.country_name, locations.city
2  from HR.regions
3  join HR.countries on regions.region_id = countries.region_id
4  join HR.locations on countries.country_id = locations.country_id;
5  |
```

REGION_NAME	COUNTRY_NAME	CITY
Europe	Switzerland	Geneva
Europe	Switzerland	Bern
Europe	Germany	Munich
Europe	Italy	Roma
Europe	Italy	Venice
Europe	Netherlands	Utrecht
Europe	United Kingdom	London
Europe	United Kingdom	Oxford
Europe	United Kingdom	Stretford
Americas	Brazil	Sao Paulo
Americas	Canada	Toronto
Americas	Canada	Whitehorse

How can I view a tree map of employees and their department managers?

```sql
with mytable as (select departments.department_name as dept,
    (select employees.first_name || ' ' || employees.last_name
    from HR.employees
    where employees.employee_id = departments.manager_id) as mngr,
    employees.first_name || ' ' || employees.last_name as emp
    from HR.departments
    join HR.employees on departments.department_id = employees.department_id)

select *
from mytable
where mytable.emp <> mytable.mngr
order by mytable.dept;
```

DEPT	MNGR	EMP
Accounting	Shelley Higgins	William Gietz
Executive	Steven King	Lex De Haan
Executive	Steven King	Neena Kochhar
Finance	Nancy Greenberg	Jose Manuel Urman
Finance	Nancy Greenberg	Daniel Faviet

How can I view a list of salaries for each job, and the number of employees in that role?

```sql
1  select distinct jobs.job_title, ((jobs.min_salary + jobs.max_salary) / 2)
2      as "avg salary", count(*) over (partition by employees.job_id) as "#Emps"
3  from HR.jobs
4  join HR.employees on jobs.job_id = employees.job_id
5  order by "avg salary" desc;
6  |
```

JOB_TITLE	avg salary	#Emps
President	30040	1
Administration Vice President	22500	2
Sales Manager	15040	5
Accounting Manager	12100	1
Finance Manager	12100	1

How can I view the duration employees have worked at a job?

```sql
1   select distinct jobs.job_title,
2       max(floor(months_between(job_history.end_date, job_history.start_date)/12))
3       over (partition by jobs.job_title) as "Years",
4       max(floor(mod(job_history.end_date - job_history.start_date, 360)/30))
5       over (partition by jobs.job_title) as "Months",
6       max(floor(mod(job_history.end_date - job_history.start_date, 30)))
7       over (partition by jobs.job_title) as "Days"
8   from HR.jobs
9   join HR.job_history on jobs.job_id = job_history.job_id
10  order by "Years" desc;
11  
```

JOB_TITLE	Years	Months	Days
Stock Manager	14	10	14
Administration Assistant	5	10	0
Programmer	5	7	8
Public Accountant	4	6	27
Accounting Manager	3	5	4
Marketing Representative	3	10	21
Stock Clerk	1	9	17
Sales Manager	0	0	4
Sales Representative	0	9	12