

Lab 3 – Week 3 (Single-Line Functions)

This week's lab continues using the SELECT command and learning the interfaces for both SQL Developer and introduces the use of single-line functions.

Getting Started

Your submission will be a single text-based SQL file with appropriate header and commenting. Please ensure your file runs when the entire file is executed in SQL Developer.

Create a new Worksheet in SQL Developer. Save the file as L03_ID#_LASTNAME.sql

Your submission needs to be commented and include the question, the solutions, and the results. An example is provided!

Tasks

- Write a query to display the tomorrow's date in the following format:
January 10th of year 2019
the result will depend on the day when you RUN/EXECUTE this query. Label the column "Tomorrow".

Advanced Option: Define an SQL variable called "tomorrow", assign it a value of tomorrow's date, use it in an SQL statement. Don't forget to undefine it!

- For each employee in departments 20, 50 and 60 display last name, first name, salary, and salary increased by 4% and expressed as a whole number. Label the column "Good Salary".
Also add a column that subtracts the old salary from the new salary and multiplies by 12. Label the column "Annual Pay Increase".

| | Last Name | First Name | Salary | Good Salary | Annual Pay Increase |
|----|-----------|------------|----------|-------------|---------------------|
| 1 | Hartstein | Michael | \$13,000 | \$13,520 | \$6,240 |
| 2 | Fay | Pat | \$6,000 | \$6,240 | \$2,880 |
| 3 | Mourgos | Kevin | \$5,800 | \$6,032 | \$2,784 |
| 4 | Rajs | Trenna | \$3,500 | \$3,640 | \$1,680 |
| 5 | Davies | Curtis | \$3,100 | \$3,224 | \$1,488 |
| 6 | Matos | Randall | \$2,600 | \$2,704 | \$1,248 |
| 7 | Vargas | Peter | \$2,500 | \$2,600 | \$1,200 |
| 8 | Hunold | Alexander | \$9,000 | \$9,360 | \$4,320 |
| 9 | Ernst | Bruce | \$6,000 | \$6,240 | \$2,880 |
| 10 | Lorentz | Diana | \$4,200 | \$4,368 | \$2,016 |

- Write a query that displays the employee's Full Name and Job Title in the following format:

DAVIES, CURTIS is ST_CLERK

Only employees whose last name ends with S and first name starts with C or K. Give this column an appropriate label like Person and Job. Sort the result by the employees' last names.

| | Employee Jobs |
|---|-----------------------------|
| 1 | DAVIES, CURTIS is ST_CLERK |
| 2 | GRANTS, KIMBERELY is SA_REP |
| 3 | MOURGOS, KEVIN is ST_MAN |

- For each employee hired before 1997, display the employee's last name, hire date and calculate the number of YEARS between TODAY and the date the employee was hired.
 - Label the column Years worked.
 - Order your results by the number of years employed. Round the number of years employed up to the closest whole number.

| | Last Name | Hire Date | Years Worked |
|----|-----------|-----------|--------------|
| 1 | Hartstein | 96-02-17 | 23 |
| 2 | Abel | 96-05-11 | 23 |
| 3 | Rajs | 95-10-17 | 24 |
| 4 | Gietz | 94-06-07 | 25 |
| 5 | Higgins | 94-06-07 | 25 |
| 6 | De Haan | 93-01-13 | 26 |
| 7 | Ernst | 91-05-21 | 28 |
| 8 | Hunold | 90-01-03 | 29 |
| 9 | Kochhar | 89-09-21 | 30 |
| 10 | Whalen | 87-09-17 | 32 |
| 11 | King | 87-06-17 | 32 |

- Create a query that displays the city names, country codes and state province names, but only for those cities that starts with S and has at least 8 characters in their name. If city does not have a province name assigned, then put Unknown Province. Be cautious of case sensitivity!

| | City | Country | Province |
|---|---------------------|---------|------------------|
| 1 | Southlake | US | Texas |
| 2 | South San Francisco | US | California |
| 3 | South Brunswick | US | New Jersey |
| 4 | Singapore | SG | Unknown Province |
| 5 | Stretford | UK | Manchester |
| 6 | Sao Paulo | BR | Sao Paulo |

- Display each employee's last name, hire date, and salary review date, which is the first Thursday after a year of service, but only for those hired after 2017.
 - Label the column REVIEW DAY.
 - Format the dates to appear in the format like:
THURSDAY, August the Thirty-First of year 2018
 - Sort by review date

| | Last Name | Hire Date | Review Date | |
|---|-----------|-----------|-------------------|-----------------------------|
| 1 | Jacobs | 17-04-18 | THURSDAY , April | the nineteenth of year 2018 |
| 2 | Wandiko | 17-04-18 | THURSDAY , April | the nineteenth of year 2018 |
| 3 | Gregson | 17-04-18 | THURSDAY , April | the nineteenth of year 2018 |
| 4 | LeBlanc | 17-04-18 | THURSDAY , April | the nineteenth of year 2018 |
| 5 | de Man | 17-05-08 | THURSDAY , May | the tenth of year 2018 |
| 6 | Pallomine | 17-07-27 | THURSDAY , August | the second of year 2018 |

Example Submission

```
-- *****
-- Name: Your Name
-- ID: #####
-- Date: The current date
-- Purpose: Lab 3 DBS301
-- *****
```

```
-- Question 1 - write a brief note about what the
question is asking
-- Q1 SOLUTION --
```

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SELECT * FROM TABLE;
```

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-- Question 2 - blah blah blah
```