Lab 01 – Single-row 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.

Submission

Your submission will consist of two files:

- (a) A single text-based SQL file with appropriate header and commenting and
- (b) An output file demonstrating that your queries work

Please ensure your SQL file runs when the entire file is executed.

Your file names should be L01-lastname-firstname

For example: L01-King-Les.sql and L01-King-Les.output or L01-King-Les.pdf, etc.

Your submission needs to be commented. At a minimum, your comments before each SQL statement should include the complete question below you are answering.

Tasks

-- Q1: 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".

-- Q2: Define an SQL variable called "tomorrow", assign it a value of tomorrow's date and use it in an SQL statement. Here the question is asking you to use a Substitution variable. Instead of using the constant values in your queries, you can use variables to store and reuse the values.

See the following example:

```
select *
from employees
where employee_id = 107;
```

You can also have the following code:

```
define emp_id number = 107;
select *
from employees
where employee id = &emp id;
```

After you use the variable, you can undefined the variable:

```
undefine emp_id;
```

Define a variable of type datetime:

```
define toay datetime = sysdate; -- Assigning current date to the today variable.
```

Or

```
define tomorrow = sysdate + 1;
```

-- Q3: For each product in category 2, 3, and 5, show product ID, product name, list price, and the new list price increased by 2%. Display a new list price as a whole number.

In your result, add a calculated column to show the difference of old and new list prices.

Sort the result according to category ID first and then based on product ID.

You output has to match the following result. This result is partially displayed as it has 158 rows.

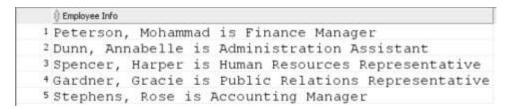
See the result for the first 10 rows.

⊕ Pi	roduct ID () Product Name	UST_PRICE	New Price	Price Difference
1	3 Corsair CB-9060011-WW	799.99	816	16.01
2	4 AMD 100-505989	2699.99	2754	54.01
3	5 PNY VCQK6000-PB	2290.79	2337	46.21
4	6Zotac ZT-P10810A-10P	849.99	867	17.01
5	11 PNY VCQP5000-PB	2015.11	2055	39.89
6	12 Gigabyte GV-N108TAORUSK W-11GD	824.98	841	16.02
7	48 AMD FirePro S7000	1218.5	1243	24.5
8	58 Gigabyte GV-N108TAORUS X-11GD	784.98	801	16.02
9	83 Asus STRIX-GTX1080TI-011G-GAMING	829.99	847	17.01
10	86MSI GTX 1080 TI SEA HAWK X	804.98	821	16.02

-- **Q4:** For employees whose manager ID is 2, write a query that displays the employee's Full Name and Job Title in the following format:

Summer, Payne is Public Accountant.

Sort the result based on employee ID.

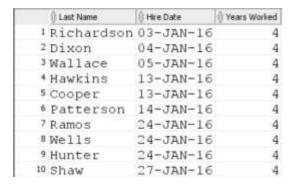


- -- **Q5:** For each employee hired before October 2016, display the employee's last name, hire date and calculate the number of YEARS between TODAY and the date the employee was hired.
 - Label the column Years worked.

 Order your results by the number of years employed. Round the number of years employed up to the closest whole number.

The output result includes 89 rows. See the partial result (The first 10 rows).

If you get the result in a different order, sort the result first based on the hire date column and then based on the number of years worked.



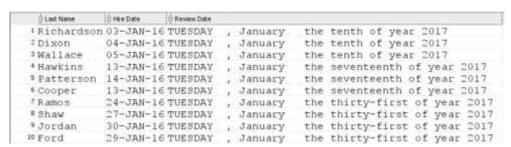
- -- **Q6:** Display each employee's last name, hire date, and the review date, which is the first Tuesday after a year of service, but only for those hired after January 1, 2016.
 - Label the column REVIEW DAY.
 - Format the dates to appear in the format like:

 TUESDAY, August the Thirty-First of year 2016

You can use **ddspth** to have the above format for the day.

Sort by review date

The Query returns 107 rows. See the first 10 rows of the output result.



-- Q7: For all warehouses, display warehouse id, warehouse name, city, and state. For warehouses with the null value for the state column, display "unknown". Sort the result based on the warehouse ID.

9	Warehouse ID	() Warehouse Name	() CRy	() State
1	1	Southlake, Texas	Southlake	Texas
2	2	San Francisco	South San Francisco	California
3	3	New Jersey	South Brunswick	New Jersey
9	4	Seattle, Washington	Seattle	Washington
5	5	Toronto	Toronto	Ontario
6	6	Sydney	Sydney	New South Wales
7	7	Mexico City	Mexico City	Distrito Federal,
8	8	Beijing	Beijing	Unknown
9	9	Bombay	Bombay	Maharashtra

Example Submission

```
__ ************
```

-- Name: Your Name
-- ID: ########

-- Question 1 - Copy the question from above here

-- Q1 SOLUTION --

SELECT * FROM TABLE;

-- Question 2 - Copy the question from above here

-- Q2 Solution -

SELECT * FROM TABLE;