311-Lab06W8 stored procedures 2

Lab 6 – Week 8 (Stored Procedures/Iterative Statements)

**Submission**

***ON Blackboard***

Create a new Worksheet in SQL Developer. Save the file as L06\_ID#\_LASTNAME.txt 🡸 need a txt file

Your submission needs to be commented and include the question and the solutions.

In this Lab, you create PL/SQL stored procedures to perform the following tasks. As you know, a stored procedure does not return any value. To send values back to the caller, you can use OUT parameters.

A parameter can be

* IN parameter
* OUT parameter
* IN OUT parameter

See the following template:

|  |
| --- |
| **CREATE** **OR REPLACE** *procedure\_name*(**arg1** **IN**/**OUT/IN OUT** data\_type, ...) AS  **BEGIN**  ....  **EXCEPTION**  **WHEN OTHERS**  **THEN**  DBMS\_OUTPUT.PUT\_LINE ('Error!');  **END** procedure\_name; |

For all the stored procedures make sure you handle all exceptions such as

* TOO\_MANY\_ROWS
* NO\_DATA\_FOUND
* OTHERS
* . . .

Besides checking all required exceptions, have the OTHER exception checked just in case any error occurs that has not been anticipated at the time you write the code.

Tasks

1 The company wants to calculate what the employees’ annual salary would be:

Do NOT change any salaries in the table.

Assume that the starting salary or sometimes called base salary was $10,000.

Every year of employment after that, the salary increases by 5%.

Write a stored procedure named ***calculate\_salary***XX (where XX is your Oracle ID) which gets an employee ID from the user and for that employee, calculates the salary based on the number of years the employee has been working in the company. (Use a loop construct the calculation of the salary).

The procedure calculates and prints the salary.

Sample output:

First Name: first\_name

Last Name: last\_name

Salary: $9999,99

If the employee does not exist, the procedure displays a proper message.

2 **Do these 3 tries without an exception handler**.

For a given CITY name, you need to find out Department\_id and Department\_name that exists in that city. There are 3 scenarios here;

In a given CITY, there is a SINGLE department

In a given CITY, there is a MORE THAN ONE department

In a given CITY, there is NO department

Do the problem using SOUTHLAKE as the city first and see the result.

Then try TORONTO

Then try SEATTLE

**Submit the code and the results**.

3 Write a stored procedure named **employee\_works\_hereXX** to print the employee\_id, employee Last name and department name.

This is sample output

Employee # Last Name Department Name

9999 Able Manufacturing

9998 Notsoable Shipping

If the value of the department name is null or does not exist, display “no department name”.

The value of employee ID ranges from your Oracle id's last 2 digits (ex: dbs311\_203g37 would use 37)

to employee 105.

(NOTE: Check manually and not in the procedure, to see if your number is in the employee table. If not pick the first employee number higher that does exist)

Since you are looping there will be missing employee numbers. At that stage you can get out of the loop that displays the data about each employee.

DO NOT USE CURSORS

Go to next page to see sample submission

Example Submission

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
-- Name: Your Name  
-- ID: #########  
-- Date: The current date  
-- Purpose: Lab 6 DBS311  
-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
  
-- Question 1 – write a brief note about what the question is asking  
-- Q1 SOLUTION –

CREATE OR REPLACE procedure\_name(arg1 data\_type, ...) AS

BEGIN

....

EXCEPTION

WHEN OTHERS

THEN

DBMS\_OUTPUT.PUT\_LINE (Error!');

END procedure\_name;  
  
-- Question 2 –

-- Q2 Solution –