

January 2025 CSE216: Database Sessional

Online Assignment on PL/SQL

Subsection: A1+A2

Time: 60 minutes

Marks: 10+10+10

Question 1.

Write a PL/SQL procedure named **LONGEST_SERVING_EMPLOYEE** that takes a **REGION_NAME** as input and identifies the employee who has been working for the longest time within that region.

Retrieve and display the following details for that employee.

- Full Name (First Name + Last Name)
- Job Title
- Hire Date
- Country Name
- Department Name
- City

Make sure to handle exceptions with appropriate messages.

Continent	Name	Job Title	Hire Date	Country	Department	City
Asia	XYZ	Scientist	13 FEB 2004	Japan	Physics	Tokyo

```
Longest Serving Employee in Region: Americas
Name       : Lex Garcia
Job Title  : Administration Vice President
Hire Date  : 13-JAN-2011
Country    : United States of America
Department : Executive
City       : Seattle
```

Question 2.

Write a procedure named **RANK_JOBS** in Oracle HR schema. The procedure should rank jobs based on the following criteria:

1. **Number of Employees:** Jobs should be ranked in descending order of their number of employees. The job with the highest number of employees should be ranked as 1.
2. **Average Salary:** If multiple jobs have the same number of employees, the ranking should be determined based on the average salary in that job, in descending order.

The output should display the following information:

- **Rank**
- **Job Title**
- **Total Number of Employees**
- **Average Salary**
- **Maximum Salary**
- **Minimum Salary**

Output:

```
Rank: 1
-----
Job Title: Sales Representative
Employees: 30
Avg Salary: 8350
Max Salary: 11500
Min Salary: 6100
Rank: 2
-----
Job Title: Shipping Clerk
Employees: 20
Avg Salary: 3215
Max Salary: 4200
Min Salary: 2500
Rank: 3
-----
Job Title: Stock Clerk
Employees: 20
Avg Salary: 2785
Max Salary: 3600
Min Salary: 2100
..
..
```

Question 3.

Create a trigger that activates when an employee leaves the job (i.e., when a DELETE operation is performed on the Employee table).

1 new table: Leaves

(fields:

 employee_id,
 employee_working_instead_of_him/her,
 current date

)

Conditions:

1. If that employee has a manager, his/her work should be done by the employee who has the same manager and has the closest salary to him/her.
2. In case the employee is a manager, his/her work is done by a manager who has the closest subordinate count as him/her.
3. If an employee meets both conditions 1 and 2 (is a manager and has a manager), go for 2.
4. If no substitute employee is found, keep that field null.

No changes in the Job table and the Job_history table are necessary for your ease.