**Case Study: Employee Salary Management**

**Problem Statement:**

Design and implement an Employee Management System using Oracle SQL and PL/SQL. The system will be used to manage employees, departments, positions, and salaries. Your task is to create the necessary database schema, populate the database with sample data, and develop PL/SQL procedures to handle employee hiring, salary updates, and generating employee reports.

**Requirements:**

1. **Employee Management**:
   * Implement the functionality to add, update, delete, and search for employees.
   * Ensure that each employee has attributes such as EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, DOB, GENDER, EMAIL, PHONE\_NUMBER, DEPARTMENT\_ID, POSITION\_ID, and SALARY.
2. **Department Management**:
   * Implement the functionality to add, update, delete, and search for departments.
   * Ensure that each department has attributes such as DEPARTMENT\_ID and NAME.
3. **Position Management**:
   * Implement the functionality to add, update, delete, and search for positions.
   * Ensure that each position has attributes such as POSITION\_ID and TITLE.
4. **Salary Management**:
   * Implement the functionality to update employee salaries.
   * Ensure that each salary update is recorded with attributes such as SALARY\_UPDATE\_ID, EMPLOYEE\_ID, OLD\_SALARY, NEW\_SALARY, and EFFECTIVE\_DATE.

**Tasks:**

1. **Design the Database Schema**:
   * Create the Employees, Departments, Positions, and Salary\_Updates tables with the appropriate fields and constraints.
   * Define primary keys and foreign keys to maintain data integrity.
2. **Populate the Database with Sample Data**:
   * Insert sample records into the Employees, Departments, Positions, and Salary\_Updates tables to facilitate testing of the system.
3. **Develop PL/SQL Procedures**:
   * Create a procedure to handle employee hiring. The procedure should insert a new employee record with default salary and position.
   * Create a procedure to handle salary updates. The procedure should update the employee's salary and record the salary update.
   * Create a procedure to generate employee reports, including details such as employee information, department, position, salary history, and current salary.

**Expected Outcomes:**

1. **Employees Table**:
   * Contains all information about the employees in the system.
2. **Departments Table**:
   * Contains details of all departments in the organization.
3. **Positions Table**:
   * Contains details of all positions in the organization.
4. **Salary\_Updates Table**:
   * Tracks the salary history of employees, including salary update details and effective dates.
5. **PL/SQL Procedures**:
   * Efficiently manage employee hiring, salary updates, and generating employee reports, maintaining accurate records in the database.

**Deliverables:**

1. SQL scripts to create the Employees, Departments, Positions, and Salary\_Updates tables.
2. SQL scripts to insert sample data into the tables.
3. PL/SQL scripts for the procedures to hire employees, update salaries, and generate employee reports.
4. Documentation explaining how to set up and use the system, including how to run the PL/SQL procedures.

**Database Schema:**

1. **Employees Table**:
   * **EMPLOYEE\_ID**: Number, Primary Key
   * **FIRST\_NAME**: Varchar2(50)
   * **LAST\_NAME**: Varchar2(50)
   * **DOB**: Date
   * **GENDER**: Varchar2(10)
   * **EMAIL**: Varchar2(100)
   * **PHONE\_NUMBER**: Varchar2(15)
   * **DEPARTMENT\_ID**: Number, Foreign Key References Departments(DEPARTMENT\_ID)
   * **POSITION\_ID**: Number, Foreign Key References Positions(POSITION\_ID)
   * **SALARY**: Number
2. **Departments Table**:
   * **DEPARTMENT\_ID**: Number, Primary Key
   * **NAME**: Varchar2(100)
3. **Positions Table**:
   * **POSITION\_ID**: Number, Primary Key
   * **TITLE**: Varchar2(100)
4. **Salary\_Updates Table**:
   * **SALARY\_UPDATE\_ID**: Number, Primary Key
   * **EMPLOYEE\_ID**: Number, Foreign Key References Employees(EMPLOYEE\_ID)
   * **OLD\_SALARY**: Number
   * **NEW\_SALARY**: Number
   * **EFFECTIVE\_DATE**: Date

**Case Study Task:**

* **Design**: Create the database schema as provided.
* **Implement**: Insert sample data into the tables.
* **Develop**: Write PL/SQL procedures for hiring employees, updating salaries, and generating employee reports.
* **Test**: Test the procedures with various scenarios (e.g., hiring an employee, updating a salary, generating reports, ensuring proper updates).