

## Database Triggers Lab

1. Create trigger to audit the user updates in the employees table and tracing the salary changes

And insert data in new table emp\_audit table

Table columns

employee\_id , user\_name , upd\_time , old\_sal , new\_sal

```
create table emp_audit(  
employee_id number(4),  
user_name varchar2(50),  
upd_time date,  
old_sal number(8,2),  
new_sal number(8,2)  
);
```

```
create or replace trigger update_emp_salary  
    after update of salary on employees  
    for each row  
begin  
    if :old.salary != :new.salary then  
        insert into emp_audit  
            (employee_id , user_name , upd_time , old_sal , new_sal)  
        values  
            (:old.employee_id, :old.first_name||' '|:old.last_name, sysdate,  
            :old.salary, :new.salary);  
        end if;  
    end;
```

2. The rows in the JOBS table store a minimum and maximum salary allowed for different JOB\_ID values. You are asked to write code to ensure that employees' salaries fall in the range allowed for their job type. ( case for update salary )

```
create or replace trigger update_emp_sal_check_input  
    before update of salary on employees  
    for each row  
declare  
    v_min_sal number(8,2);  
    v_max_sal number(10,2);  
begin  
    select min_salary, max_salary  
    into v_min_sal, v_max_sal  
    from jobs  
    where job_id = :new.job_id;  
  
    if :new.salary < v_min_sal or :new.salary > v_max_sal then  
        raise_application_error(-20001, 'Salary is out of allowed range for the  
        job.');
```