

## 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.');
```