create or replace trigger salary\_check

before insert on emp for each row

declare

minsal number;

maxsal number;

jobE varchar2(10);

salary\_out\_of\_range exception;

no\_data\_found1 exception;

begin

begin

if inserting then

:new.ename := upper(:new.ename);

:new.job := upper(:new.job);

select min(sal), max(sal) into minsal, maxsal from emp where job = :new.job;

if minsal is null then

raise no\_data\_found1; -- indicates that the job does not exist

elsif minsal > :new.sal or maxsal < :new.sal then

raise salary\_out\_of\_range; -- salary below/above min/max

end if;

end if;

end;

exception

WHEN salary\_out\_of\_range THEN

raise\_application\_error(-20002, 'Salary out of range.');

WHEN no\_data\_found1 THEN

raise\_application\_error(-20001, 'Job ' || :new.job || ' does not exist. We cant have that!');

end;

/

create or replace trigger emp\_log

after insert or update or delete on emp for each row

declare

operation varchar2(20);

message varchar2(256);

time date := to\_char(sysdate);

begin

if inserting then

operation := 'insert';

message := operation || ' a row for ' || :new.ename;

insert into log\_table values (:new.empno, operation, message, time);

end if;

end;

/

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

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7369 SMITH CLERK 7902 17-DEC-80 800 20

7499 ALLEN SALESMAN 7698 20-FEB-81 1600 300 30

7521 WARD SALESMAN 7698 22-FEB-81 1250 500 30

7566 JONES MANAGER 7839 02-APR-81 2975 20

7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

7782 CLARK MANAGER 7839 09-JUN-81 2450 10

7788 SCOTT ANALYST 7566 19-APR-87 3000 20

7839 KING PRESIDENT 17-NOV-81 5000 10

7844 TURNER SALESMAN 7698 08-SEP-81 1500 0 30

7876 ADAMS CLERK 7788 23-MAY-87 1100 20

7900 JAMES CLERK 7698 03-DEC-81 950 30

7902 FORD ANALYST 7566 03-DEC-81 3000 20

7934 MILLER CLERK 7782 23-JAN-82 1300 10

7300 CURRY CLERK 7698 23-MAY-94 1150 0 30

7400 GEORGE ACCOUNTANT 7839 07-MAY-90 2300 0 10

7500 MOSBY ACCOUNTANT 7839 02-APR-92 2250 0 10

7600 SUNDAR ACCOUNTANT 7839 03-SEP-98 2350 0 10

7700 BLAIR SALESMAN 7698 24-NOV-96 1800 400 30

7800 KERR ANALYST 7566 09-DEC-19 2450 0 20

8000 ELLA SALESMAN 7698 12-DEC-98 1300 0 30

8002 ELAINA ANALYST 7566 12-JUL-96 3000 0 20

8004 JAKE CLERK 7839 16-MAR-06 1100 0 10

8008 AIDEN ACCOUNTANT 7839 15-NOV-10 2300 0 10

8010 CALLIE SALESMAN 7698 02-JAN-11 1400 0 30

25 rows selected.

EMP\_ID OPERATION MESSAGE TIME

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8000 insert insert a row for ELLA 17-NOV-22

8002 insert insert a row for ELAINA 17-NOV-22

8004 insert insert a row for JAKE 17-NOV-22

8008 insert insert a row for AIDEN 17-NOV-22

8010 insert insert a row for CALLIE 17-NOV-22