**Date Base Project**

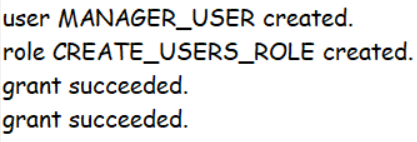
**As SYS**

create user manager\_user identified by 123;

create role create\_users\_role;

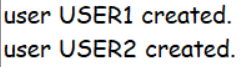
grant create session, create user to create\_users\_role;

grant create\_users\_role to manager\_user;



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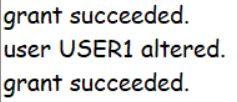
**As manager\_user**

create user user1 identified by 123;

create user user2 identified by 123;

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**As SYS**

grant create session, create table to user1;

alter user user1 quota 50M on system;

grant create session to user2;

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**AS user1**

create table Department (

ID INTEGER PRIMARY KEY,

department\_name VARCHAR2(50)

);

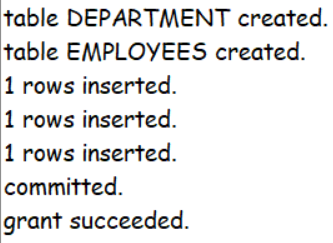
create table Employees (

ID INTEGER PRIMARY KEY,

name VARCHAR2(50),

salary NUMBER,

department\_id NUMBER REFERENCES Department(ID)

);

insert into Department values(1,'HR');

insert into Department values(2,'IT');

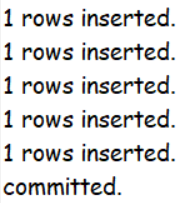
insert into Department values(3,'Finance');

commit;

grant all on Employees to user2;

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**As user2**

INSERT INTO user1.Employees VALUES (1, 'Ahmed', 20000, 1);

INSERT INTO user1.Employees VALUES (2, 'Youssef', 40000, 1);

INSERT INTO user1.Employees VALUES (3, 'Mohamed', 60000, 2);

INSERT INTO user1.Employees VALUES (4, 'Mostafa', 80000, 2);

INSERT INTO user1.Employees VALUES (5, 'Karim', 100000, 3);

commit;

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**As user1**

update Employees set salary = salary \* 1.1 where department\_id = 1;

**As user2**

UPDATE user1.Employees SET salary = salary \* 1.1 WHERE department\_id = 1;



**As SYS**

select username, sid, serial#, blocking\_session, seconds\_in\_wait from v$session where blocking\_session is not null;



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**As user1**

update Employees set salary = salary \* 1.1 where department\_id = 1;

**As user2**

update user1.Employees set salary = salary \* 1.1 where department\_id = 2; **As user1**

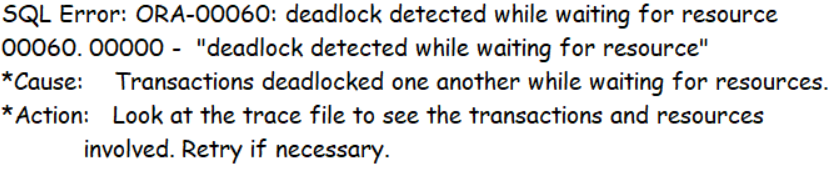
update Employees set salary = salary \* 1.1 where department\_id = 2;



**As user2**

update user1.Employees set salary = salary \* 1.1 where department\_id = 1;





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**As SYS**

set serveroutput on;

CREATE OR REPLACE FUNCTION avg\_salary(req\_id INTEGER)

RETURN NUMBER IS avg\_salary NUMBER;

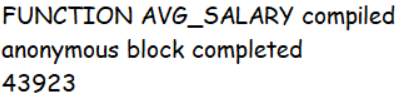
BEGIN

SELECT AVG(salary) INTO avg\_salary FROM user1.Employees  
 WHERE req\_id = department\_id;

RETURN avg\_salary;

END;

/

begin

dbms\_output.put\_line(avg\_salary(1));

end;

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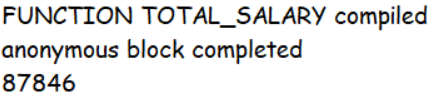
CREATE OR REPLACE FUNCTION total\_salary(req\_id INTEGER)   
RETURN NUMBER IS total\_salary NUMBER;

BEGIN

SELECT SUM(salary) INTO total\_salary FROM user1.Employees   
 WHERE req\_id = department\_id;

RETURN total\_salary;

END;

/

begin

dbms\_output.put\_line(total\_salary(1));

end;

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CREATE OR REPLACE FUNCTION max\_salary   
RETURN NUMBER IS max\_salary\_val NUMBER;

BEGIN

SELECT MAX(salary) INTO max\_salary\_val FROM user1.Employees;

RETURN max\_salary\_val;

END;

/

begin

dbms\_output.put\_line(max\_salary);

end;

