

PRACTICAL NO 2

Triggers

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ADVANCED DATABASE

Practical No 2

Aim:

Place the replication of global conceptual schema on different nodes and execute queries that will demonstrate distributed databases environment.

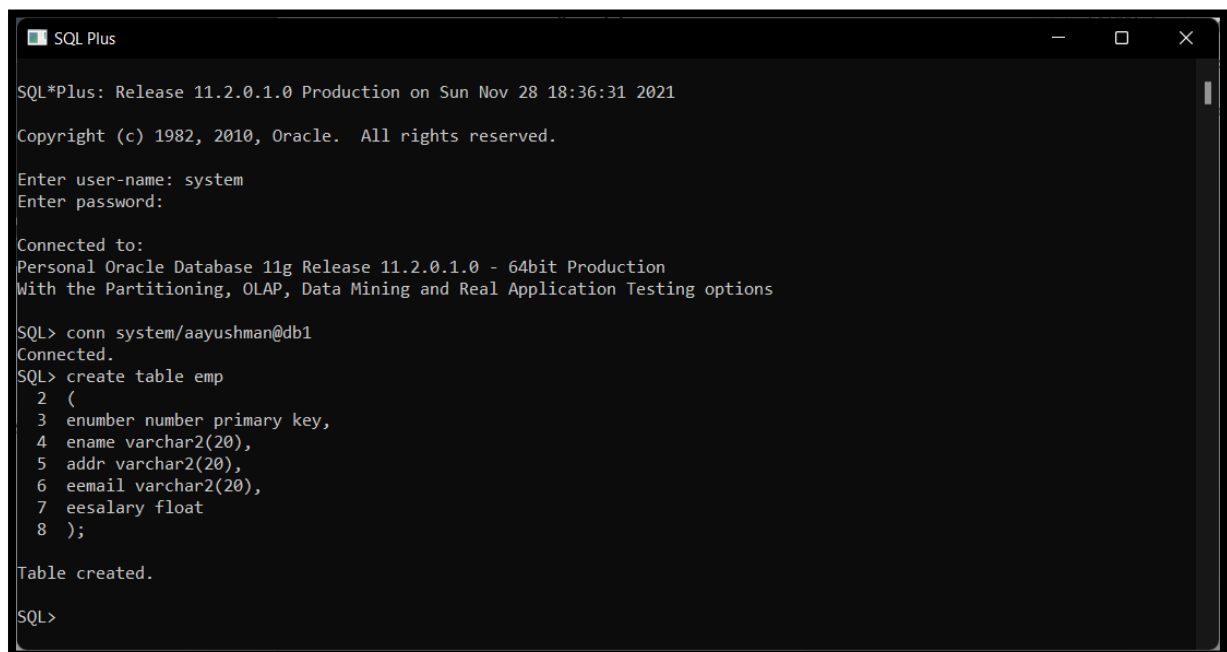
Software Requirement:

Oracle 11g

Query:

1. Update any record in db1 & show in db2
2. Delete any record in db1 & show in db2.
3. Find the salary of all employees.
4. Find the email of all employees where salary = 15000
5. Find the employee name and email where employee number is known.
6. Find the employee name and address where employee number is known.

Step 1: Create Table in db1.



```
SQL*Plus
SQL*Plus: Release 11.2.0.1.0 Production on Sun Nov 28 18:36:31 2021
Copyright (c) 1982, 2010, Oracle. All rights reserved.

Enter user-name: system
Enter password:

Connected to:
Personal Oracle Database 11g Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> conn system/aayushman@db1
Connected.
SQL> create table emp
2 (
3  enumber number primary key,
4  ename varchar2(20),
5  addr varchar2(20),
6  eemail varchar2(20),
7  eesalary float
8 );

Table created.

SQL>
```

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Step 2: Create Table in db2.

```
SQL Plus
SQL> conn system/aayushman@db2
Connected.
SQL> create table emp
 2 (
 3  enumber number primary key,
 4  ename varchar2(20),
 5  addr varchar2(20),
 6  eemail varchar2(20),
 7  eesalary float
 8  );

Table created.

SQL>
```

Step 3: Create Database link.

```
SQL Plus
SQL> create database link db1todb3 connect to system identified by aayushman using 'db3';

Database link created.

SQL> create database link db3todb1 connect to system identified by aayushman using 'db1';

Database link created.

SQL> _
```

Step 4: Create Trigger to Insert Data.

```
SQL Plus
SQL> conn system/aayushman@db1
Connected.
SQL> create or replace Trigger insert_data
 2 after insert on emp
 3 for each row
 4 begin
 5  insert into emp@db1todb2
 6  values(:new.enumber,:new.ename,:new.addr,:new.eemail,:new.eesalary);
 7 end;
 8 /

Trigger created.

SQL> _
```

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Step 5: Create Trigger to Update Data in Table.

```
SQL Plus
SQL> create or replace Trigger del_data
  2 before delete on emp
  3 for each row
  4 begin
  5 delete from emp@db1todb2
  6 where enumber=:old.enumber;
  7 end;
  8 /

Trigger created.
SQL> _
```

```
SQL Plus
SQL> create or replace Trigger update_data
  2 after update on emp
  3 for each row
  4 begin
  5 update emp@db1todb2
  6 set enumber= :new.enumber,
  7 ename= :new.ename,
  8 addr= :new.addr,
  9 eemail= :new.eemail,
  10 eesalary= :new.eesalary
  11 where enumber= :old.enumber;
  12 end;
  13 /

Trigger created.
```

Step 6: Insert Values in Created Table.

```
SQL Plus
SQL> insert into emp values(111,'Aayushman','Bhayandar','aayush@yahoo.com',100000);
1 row created.

SQL> insert into emp values(112,'Sagar','Goregaon','sagar@yahoo.com',10400);
1 row created.

SQL> insert into emp values(113,'Aashi','Borivali','Aashi@yahoo.com',100000);
1 row created.

SQL> insert into emp values(114,'Ashish','Bhayandar','ash@yahoo.com',15000);
1 row created.

SQL> insert into emp values(115,'Tejas','Bhayandar','tej@yahoo.com',5000);
1 row created.

SQL> insert into emp values(116,'Shubham','Malad','shub@yahoo.com',100000);
1 row created.

SQL> insert into emp values(117,'Priyanka','Vasai','priya@yahoo.com',15000);
1 row created.

SQL> insert into emp values(118,'Swapna','Nalasopara','swap@yahoo.com',300000);
1 row created.

SQL> insert into emp values(119,'Samodaya','Goregaon','sam@yahoo.com',15000);
1 row created.

SQL> insert into emp values(120,'Aman','Jogeshwari','aman@yahoo.com',20000);_
```

ADVANCED DATABASE

Show Create Tables

```
SQL Plus

SQL> set linesize 500
SQL> select * from emp;
```

ENUMBER	ENAME	ADDR	EEMAIL	EESALARY
111	Aayushman	Bhayandar	aayush@yahoo.com	100000
112	Sagar	Goregaon	sagar@yahoo.com	10400
113	Aashi	Borivali	Aashi@yahoo.com	100000
114	Ashish	Bhayandar	ash@yahoo.com	15000
115	Tejas	Bhayandar	tej@yahoo.com	5000
116	Shubham	Malad	shub@yahoo.com	100000
117	Priyanka	Vasai	priya@yahoo.com	15000
118	Swapna	Nalasopara	swap@yahoo.com	300000
119	Samodaya	Goregaon	sam@yahoo.com	15000

```
9 rows selected.

SQL>
```

Query

1. Update any record in db1 & show in db2

```
SQL Plus

SQL> update emp
2 set eesalary=800000
3 where enumber=114;
```

```
1 row updated.

SQL> select * from emp;
```

ENUMBER	ENAME	ADDR	EEMAIL	EESALARY
111	Aayushman	Bhayandar	aayush@yahoo.com	100000
112	Sagar	Goregaon	sagar@yahoo.com	10400
113	Aashi	Borivali	Aashi@yahoo.com	100000
114	Ashish	Bhayandar	ash@yahoo.com	800000
115	Tejas	Bhayandar	tej@yahoo.com	5000
116	Shubham	Malad	shub@yahoo.com	100000
117	Priyanka	Vasai	priya@yahoo.com	15000
118	Swapna	Nalasopara	swap@yahoo.com	300000
119	Samodaya	Goregaon	sam@yahoo.com	15000

```
9 rows selected.

SQL>
```

ADVANCED DATABASE

Show Updated Table in db2

```
Select SQL Plus
SQL> conn system/aayushman@db2
Connected.
SQL> select * from emp;

  ENUMBER  ENAME          ADDR          EEMAIL          EESALARY
-----
    111    Aayushman    Bhayandar    aayush@yahoo.com    100000
    112     Sagar      Goregaon    sagar@yahoo.com     10400
    113     Aashi      Borivali    Aashi@yahoo.com    100000
    114    Ashish      Bhayandar    ash@yahoo.com      800000
    115     Tejas      Bhayandar    tej@yahoo.com        5000
    116   Shubham        Malad      shub@yahoo.com    100000
    117   Priyanka        Vasai     priya@yahoo.com     15000
    118   Swapna      Nalasopara  swap@yahoo.com     300000
    119   Samodaya      Goregaon    sam@yahoo.com       15000

9 rows selected.

SQL> _
```

2. Delete any record in db1 & show in db2.

```
SQL Plus
SQL> conn system/aayushman@db1
Connected.
SQL> delete from emp where enumber=111;

1 row deleted.

SQL> conn system/aayushman@db2
Connected.
SQL> select * from emp;

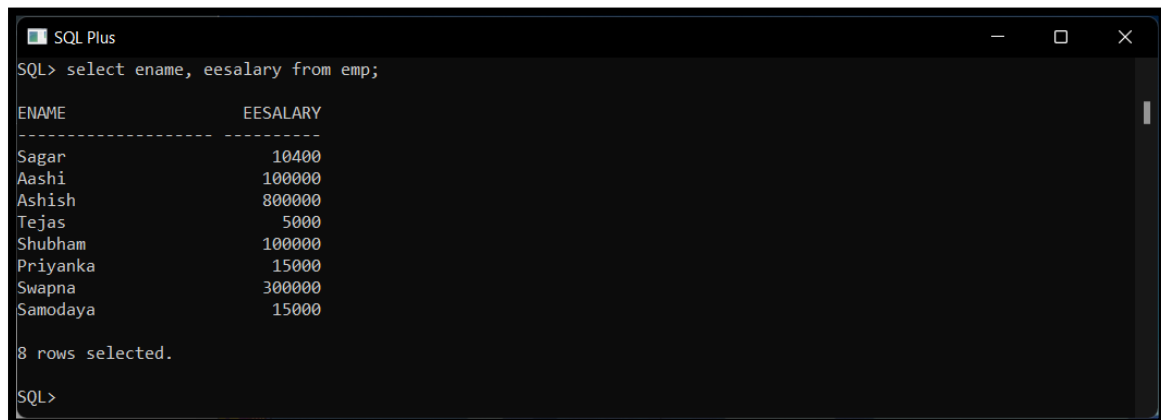
  ENUMBER  ENAME          ADDR          EEMAIL          EESALARY
-----
    112     Sagar      Goregaon    sagar@yahoo.com     10400
    113     Aashi      Borivali    Aashi@yahoo.com    100000
    114    Ashish      Bhayandar    ash@yahoo.com      800000
    115     Tejas      Bhayandar    tej@yahoo.com        5000
    116   Shubham        Malad      shub@yahoo.com    100000
    117   Priyanka        Vasai     priya@yahoo.com     15000
    118   Swapna      Nalasopara  swap@yahoo.com     300000
    119   Samodaya      Goregaon    sam@yahoo.com       15000

8 rows selected.

SQL> _
```

ADVANCED DATABASE

3. Find the salary of all employees.

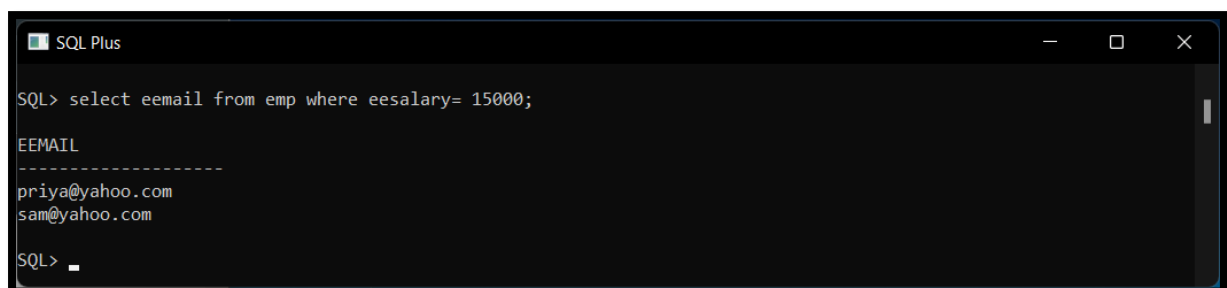


```
SQL> select ename, eesalary from emp;
```

ENAME	EESALARY
Sagar	10400
Aashi	100000
Ashish	800000
Tejas	5000
Shubham	100000
Priyanka	15000
Swapna	300000
Samodaya	15000

```
8 rows selected.  
SQL>
```

4. Find the email of all employees where salary = 15000.

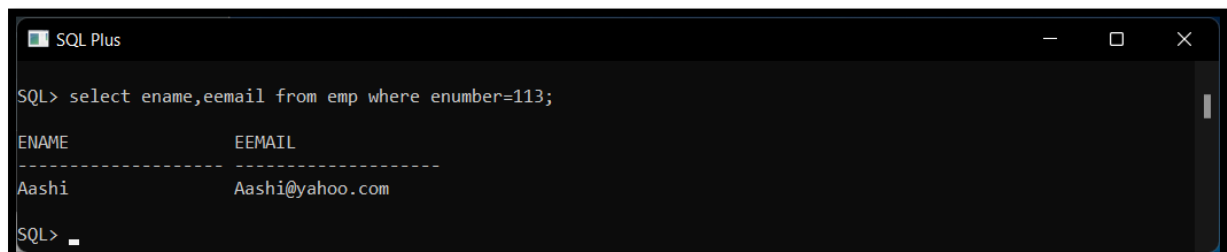


```
SQL> select eemail from emp where eesalary= 15000;
```

EEMAIL
priya@yahoo.com
sam@yahoo.com

```
SQL>
```

5. Find the employee name and email where employee number is known.

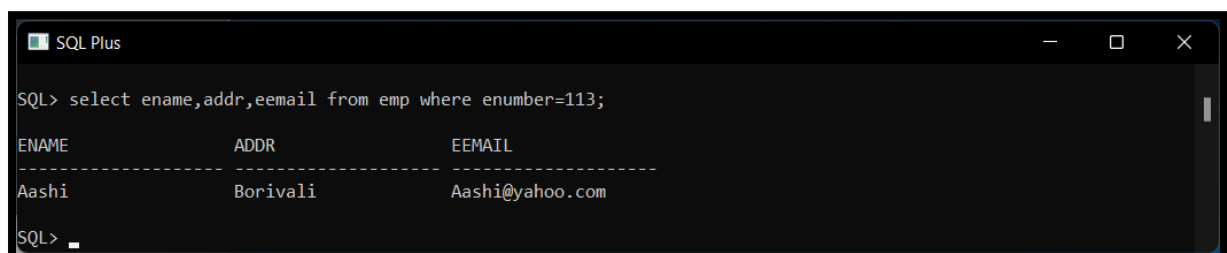


```
SQL> select ename,eemail from emp where enumber=113;
```

ENAME	EEMAIL
Aashi	Aashi@yahoo.com

```
SQL>
```

6. Find the employee name and address where employee number is known.



```
SQL> select ename,addr,eemail from emp where enumber=113;
```

ENAME	ADDR	EEMAIL
Aashi	Borivali	Aashi@yahoo.com

```
SQL>
```

Conclusion: Successfully Created Triggers and Perform Different Queries on them.