East West University
Department of Computer Science and Engineering

CSE 302: LAB 06
Course Instructor: Mahmuda Rawnak Jahan

Writing SQL Statements involving Outer Joins, Creating Views and Granting and Revoking Authorization

Lab Objective

Familiarize students with Outer joins, Views and Authorization in Oracle.

Lab Outcome

After completing this lab successfully, students will be able to:

1. **Construct** SQL Statements involving outer joins.
2. **Understand, create and use** views in a SQL Statement.
3. **Understand and execute** authorization statements.

Psychomotor Learning Levels

This lab involves activities that encompass the following learning levels in the psychomotor domain.

Level	Category	Meaning	Keywords
P1	Imitation	Copy action of another; observe and replicate.	Relate, Repeat, Choose, Copy, Follow, Show, Identify, Isolate.
P2	Manipulation	Reproduce activity from instruction or memory	Copy, response, trace, Show, Start, Perform, Execute, Recreate.

Lab Activities

Activity 1: Outer Joins

➔ Find both account holder and non-account holder customers.

```
select * from customer natural left join depositor;
```

Activity 2: Views

➔ Create a view named CustomerAtStamford that contains customer name and street and those who live in Stamford.

```
create view CustomerAtStamford as
     select customer_name, customer_street
     from customer
     where customer_city = 'Stamford';
```

➔ Check the user-defined views by executing the following SQL statement.

```
select * from user_views;
```

➔ Show the content of CustomerAtStamford view.

```
select * from CustomerAtStamford;
```

➔ Create another view named CustomerAtStamford_Putnam that contains name of customers who live in 'Putnam' street based on CustomerAtStamford view.

```
create view CustomerAtStamford_Putnam as
     Select customer_name
     From CustomerAtStamford_yourname
     Where customer_street = 'Putnam';
```

➔ Check the content of the `CustomerAtStamford_Putnam` view.

Activity 3: Authorization

➔ Create a user `c##alice` with minimum privileges.

```
create user c##alice identified by cse301;

grant resource, connect, create session, unlimited tablespace,
create table, create view to c##alice;
```

➔ Grant the privilege to alice so that she can access (only select and insert) `CustomerAtStamford` view created by you.

```
Grant select, insert on CustomerAtStamford to c##alice;
```

➔ Now, **connect as alice** to the database and execute the following SQL statement.

```
Select * from <owner_name>.CustomerAtStamford;
```

➔ Insert a tuple into the view CustomerAtStamford.

```
Insert into <owner_name>.CustomerAtStamford values ('Peter',
'Bricklane');
```

➔ **Is this view updatable?**

➔ Check the granted authorizations to/from alice by executing the following SQL statement.

```
Select * from user_tab_privs;
```

➔ Revoke insert privilege from alice. (executed by your account)

```
Revoke insert on CustomerAtStamford_yourname from c##alice;
```

➔ **Check the granted authorizations to/from alice again. Can you see any change?**