## Practical-7

**To apply the concept of Aggregating Data using Group functions.**

Q-1 Write a query to display the last name and hire date of any employee in the same department as smith. Exclude smith.

A

```
SQL> select l_name, hiredate from employee
  2  where l_name <> (select l_name from employee where emp_name = 'Smith')
  3  and dept_name = (select dept_name from employee where emp_name = 'Smith');

L_NAME          HIREDATE
--------------- ---------
Wales           30-NOV-95
```

Q-2 Give name of customers who are depositors having same branch city of mr. sunil.

A

```
SQL> select c.cname from customer1 c, deposit d, branch b where c.cname = d.cname and
  2  c.city = (select branch.city from branch where branch.bname =
  3  (select deposit.bname from deposit where deposit.cname = 'Sunil'));

no rows selected
```

Q-3 Give deposit details and loan details of customer in same city where pramod is living.

A

```
SQL> select d.A_no,d.cname,d.bname,d.amount,d.a_date,b.loanno,b.bname,b.amount from deposit d,borrow b,customer1 c
  2  where c.cname = d.cname and c.city = (select customer1.city from customer1 where customer1.cname='Pramod');

no rows selected
```

Q-4 Create a query to display the employee numbers and last names of all employees who earn more than the average salary. Sort the results in ascending order of salary.

A

```
SQL> select emp_no,l_name from employee where emp_sal>(select avg(emp_sal) from employee) order by emp_sal;

    EMP_NO L_NAME
---------- --------------
       106 Joseph
       107 Jha
       104 Sharma
       105 Patel
```

Q-5 Give names of depositors having same living city as mr. anil and having deposit amount greater than 2000.

A

```
SQL> select d.cname from deposit d, customer1 c where d.cname = c.cname
  2  and c.city = (select customer1.city from customer1 where customer1.cname = 'Anil')
  3  and d.amount>2000;

CNAME
---------------
Anil
```

| | |
|---|---|
| Q-6 | Display the last name and salary of every employee who reports to ford. |
| A | `SQL> select last_name, salary from employees`<br>`  2  where manager_id in(select manager_id from employees where last_name = 'Ford');`<br><br>`no rows selected` |
| Q-7 | Display the department number, name, and job for every employee in the accounting department. |
| A | `SQL> select e.department_id,e.first_name,j.job_title from employees e, departments d, jobs j`<br>`  2  where d.department_id = e.department_id and e.job_id = j.job_id`<br>`  3  and d.department_name = 'Accounting';`<br><br>`DEPARTMENT_ID FIRST_NAME  JOB_TITLE`<br>`------------- -------------------- ----------------------------------`<br>`  110 Shelley  Accounting Manager`<br>`  110 William  Public Accountant` |
| Q-8 | List the name of branch having highest number of depositors. |
| A | `SQL> select bname from deposit group by bname having`<br>`  2  count (bname)>=ALL (select count(d.bname) from deposit d group by d.bname);`<br><br>`BNAME`<br>`----------`<br>`Andheri` |
| Q-9 | Give the name of cities where in which the maximum numbers of branches are located. |
| A | `SQL> select city from branch group by city`<br>`  2  having count(city)>=all(select count(b.city) from branch b group by b.city);`<br><br>`CITY`<br>`--------------------`<br>`Delhi`<br>`Bombay` |
| Q-10 | Give name of customers living in same city where maximum depositors are located. |
| A | `SQL> select customer1.cname from customer1 where customer1.city=`<br>`  2  (select branch.city from branch where branch.bname =`<br>`  3  (select bname from deposit group by bname having count (bname)>=`<br>`  4  All(select count(d.bname) from deposit d group by d.bname)));`<br><br>`CNAME`<br>`--------------------`<br>`Shivani`<br>`Kranti`<br>`Naren` |

## Practical-8

**(i)** **Manipulating Data**

Q-1 Give 10% interest to all depositors.

A

```
SQL> select * from deposit;

A_NO  CNAME           BNAME          AMOUNT A_DATE
----- --------------- ---------- ---------- ---------
101   Anil            Andheri          7000 01-JAN-06
102   Sunil           Virar            5000 15-JUL-06
103   Jay             Villeparle       6500 12-MAR-06
104   Vijay           Andheri          8000 17-SEP-06
105   Keyur           Dadar            7500 19-NOV-06
106   Mayur           Borivali         5500 21-DEC-06

6 rows selected.

SQL> update deposit set amount = amount * (1.1);

6 rows updated.

SQL> select * from deposit;

A_NO  CNAME           BNAME          AMOUNT A_DATE
----- --------------- ---------- ---------- ---------
101   Anil            Andheri          7700 01-JAN-06
102   Sunil           Virar            5500 15-JUL-06
103   Jay             Villeparle       7150 12-MAR-06
104   Vijay           Andheri          8800 17-SEP-06
105   Keyur           Dadar            8250 19-NOV-06
106   Mayur           Borivali         6050 21-DEC-06

6 rows selected.
```

Q-2 Give 10% interest to all depositors having branch vrce.

A

```
SQL> select * from deposit;

A_NO  CNAME           BNAME          AMOUNT A_DATE
----- --------------- ---------- ---------- ---------
101   Anil            Andheri          7700 01-JAN-06
102   Sunil           Virar            5500 15-JUL-06
103   Jay             Villeparle       7150 12-MAR-06
104   Vijay           Andheri          8800 17-SEP-06
105   Keyur           Dadar            8250 19-NOV-06
106   Mayur           Borivali         6050 21-DEC-06

6 rows selected.

SQL> update deposit set amount = amount * (1.1) where bname = 'Vrce';

0 rows updated.
```

| | |
|---|---|
| Q-3 | Give 10% interest to all depositors living in nagpur and having branch city bombay. |
| A | |

```
SQL> update deposit set amount = amount * (1.1)
  2  where cname IN(select cname from customer1 where city = 'Nagpur')
  3  and bname IN(select bname from branch where city = 'Bombay');

0 rows updated.
```

| | |
|---|---|
| Q-4 | Write a query which changes the department number of all employees with empno 7788's job to employee 7844'current department number. |
| A | |

```
SQL> update employees
  2  set department_id = (select department_id from employees where employee_id = 7844)
  3  where job_id = (select job_id from employees where employee_id = 7788);

0 rows updated.
```

| | |
|---|---|
| Q-5 | Transfer 10 Rs from account of anil to sunil if both are having same branch. |
| A | |

```
SQL> update deposit set amount=amount+10
  2  where cname = 'Sunil' and
  3  bname in (select d2.bname from deposit d2 where d2.cname = 'Anil');

0 rows updated.
```

| | |
|---|---|
| Q-6 | Give 100 Rs more to all depositors if they are maximum depositors in their respective branch. |
| A | |

```
SQL> select * from deposit;

A_NO  CNAME           BNAME          AMOUNT A_DATE
----- --------------- ---------- ---------- ---------
101   Anil            Andheri          7700 01-JAN-06
102   Sunil           Virar            5500 15-JUL-06
103   Jay             Villeparle       7150 12-MAR-06
104   Vijay           Andheri          8800 17-SEP-06
105   Keyur           Dadar            8250 19-NOV-06
106   Mayur           Borivali         6050 21-DEC-06

6 rows selected.

SQL> update deposit set amount = amount + 100 where amount IN(select max(amount) from deposit group by bname);

5 rows updated.

SQL> select * from deposit;

A_NO  CNAME           BNAME          AMOUNT A_DATE
----- --------------- ---------- ---------- ---------
101   Anil            Andheri          7700 01-JAN-06
102   Sunil           Virar            5600 15-JUL-06
103   Jay             Villeparle       7250 12-MAR-06
104   Vijay           Andheri          8900 17-SEP-06
105   Keyur           Dadar            8350 19-NOV-06
106   Mayur           Borivali         6150 21-DEC-06

6 rows selected.
```

| | |
|---|---|
| Q-7 | Delete depositors of branches having number of customers between 1 and 3. |
| A | |

```
SQL> select * from deposit;

A_NO  CNAME           BNAME          AMOUNT A_DATE
----- --------------- ---------- ---------- ---------
101   Anil            Andheri          7700 01-JAN-06
102   Sunil           Virar            5600 15-JUL-06
103   Jay             Villeparle       7250 12-MAR-06
104   Vijay           Andheri          8900 17-SEP-06
105   Keyur           Dadar            8350 19-NOV-06
106   Mayur           Borivali         6150 21-DEC-06

6 rows selected.

SQL> delete from deposit
  2  where cname IN(select d1.cname from deposit d1 group by d1.bname, d1.cname
  3  having count (d1.cname) between 1 and 3);

6 rows deleted.

SQL> select * from deposit;

no rows selected
```

| | |
|---|---|
| Q-8 | Delete deposit of vijay. |
| A | |

```
SQL> delete from deposit where cname = 'Vijay';

0 rows deleted.
```

| | |
|---|---|
| Q-9 | Delete borrower of branches having average loan less than 1000. |
| A | |

```
SQL> select * from borrow;

LOANNO CNAME          BNAME              AMOUNT
------ -------------- -------------- ----------
201    Anil           Ville Parle          1000
206    Sunil          Ahmedabad            5000
311    Jay            Ahmedabad            3000
321    Vijay          Virar                2000
375    Keyur          Dadar                8000
481    Mayur          Borivali             3000

6 rows selected.

SQL> delete from borrow where amount IN(select b1.amount from borrow b1 group by b1.bname,b1.amount having avg(b1.amount)<1000);

0 rows deleted.
```

| (ii) | **To study various Data Control Languages(DCL), Transfer Control Language(TCL) commands** |
|---|---|
| Q-1 | Develop a query to grant all privileges of employees table to new user. |
| A | |

```
SQL> connect c##22ce083;
Enter password: ▪
Connected.
SQL> grant all on employee to c##Temp;

Grant succeeded.

SQL> connect c##Temp;
Enter password: ▪
Connected.
SQL> select * from c##22ce083.employee;

   EMP_NO EMP_NAME                       EMP_SAL   EMP_COMM    DEPT_NO L_NAME         DEPT_NAME                   JOB_ID    LOCATION       MANAGER_ID HIREDATE  PHONE
--------- ------------------------------ --------- --------- --------- --------------- ------------------------------ --------- --------------- ---------- --------- ----------
      108 Bhavi                            1900                  10 Naik          Blockchain                  bk_ch     Australia             105 16-JUL-97
      101 Smith                             800                  10 Shah          Machine Learning            fi_mgr    Toronto               105 09-AUG-96
      102 Snehal                           1600       300        25 Gupta         Data Science                lec       Las Vegas                 14-MAR-96
      103 Darshita                         1100       500        20 Wales         Machine Learning            mk_mgr    Ontario               105 30-NOV-95
      104 Aman                             3000                  10 Sharma        Virtual Reality             comp_op   Mexico                 12 02-OCT-97
      105 Anita                            5000     50000        10 Patel         Big Data Analytics          comp_op   Germany               107 01-JAN-98
      106 Sneha                            2450     24500        10 Joseph        Big Data Analytics          fi_acc    Melbourne             105 26-SEP-97
      107 Anamika                          2975                  30 Jha           Artificial Intelligence     it_prog   New York                  15-JUL-97

8 rows selected.
```

| Q-2 | Develop a query to grant some privileges of employees table to new user. |
|---|---|
| A | |

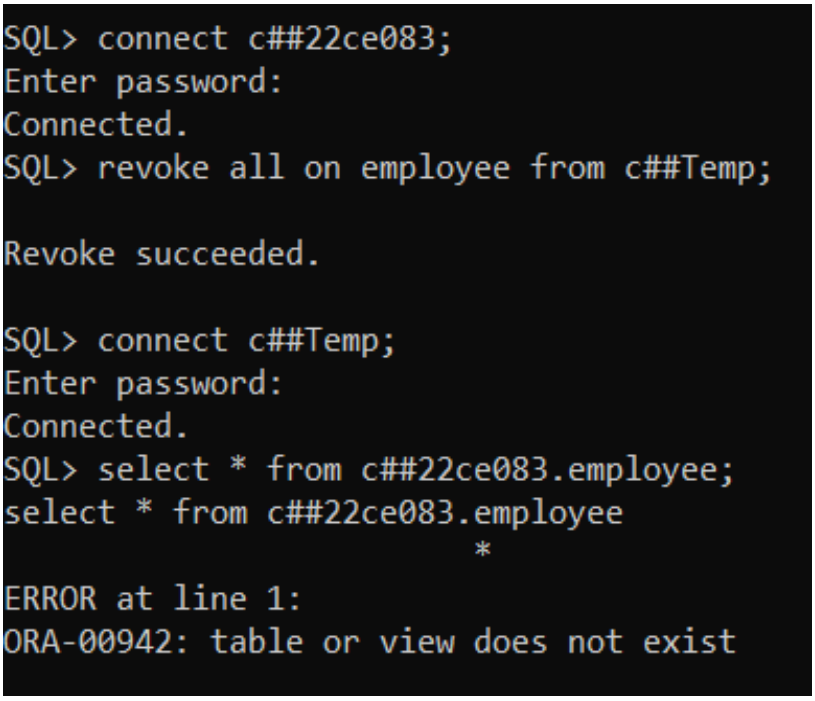
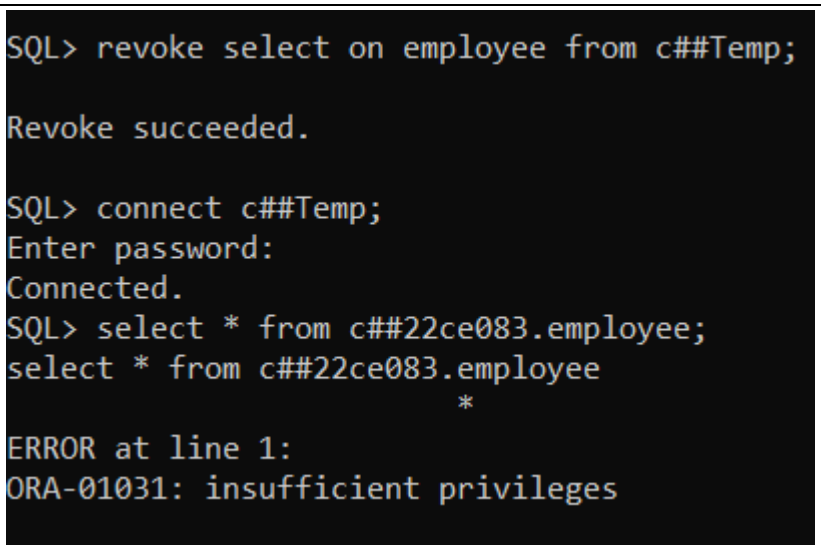
```
SQL> connect c##22ce083;
Enter password: ▪
Connected.
SQL> grant select,insert,update on employee to c##Temp;

Grant succeeded.

SQL> connect c##Temp;
Enter password: ▪
Connected.
SQL> select * from c##22ce083.employee;

   EMP_NO EMP_NAME                       EMP_SAL   EMP_COMM    DEPT_NO L_NAME         DEPT_NAME                   JOB_ID    LOCATION       MANAGER_ID HIREDATE  PHONE
--------- ------------------------------ --------- --------- --------- --------------- ------------------------------ --------- --------------- ---------- --------- ----------
      108 Bhavi                            1900                  10 Naik          Blockchain                  bk_ch     Australia             105 16-JUL-97
      101 Smith                             800                  10 Shah          Machine Learning            fi_mgr    Toronto               105 09-AUG-96
      102 Snehal                           1600       300        25 Gupta         Data Science                lec       Las Vegas                 14-MAR-96
      103 Darshita                         1100       500        20 Wales         Machine Learning            mk_mgr    Ontario               105 30-NOV-95
      104 Aman                             3000                  10 Sharma        Virtual Reality             comp_op   Mexico                 12 02-OCT-97
      105 Anita                            5000     50000        10 Patel         Big Data Analytics          comp_op   Germany               107 01-JAN-98
      106 Sneha                            2450     24500        10 Joseph        Big Data Analytics          fi_acc    Melbourne             105 26-SEP-97
      107 Anamika                          2975                  30 Jha           Artificial Intelligence     it_prog   New York                  15-JUL-97

8 rows selected.
```

| | |
|---|---|
| Q-3 | Develop a query to revoke all privileges of employees table from user. |
| A |  |
| Q-4 | Develop a query to revoke some privileges of employees table from user. |
| A |  |

```
SQL> connect c##22ce083;
Enter password:
Connected.
SQL> revoke all on employee from c##Temp;

Revoke succeeded.

SQL> connect c##Temp;
Enter password:
Connected.
SQL> select * from c##22ce083.employee;
select * from c##22ce083.employee
                         *
ERROR at line 1:
ORA-00942: table or view does not exist
```

```
SQL> revoke select on employee from c##Temp;

Revoke succeeded.

SQL> connect c##Temp;
Enter password:
Connected.
SQL> select * from c##22ce083.employee;
select * from c##22ce083.employee
                         *
ERROR at line 1:
ORA-01031: insufficient privileges
```