**UCS1412 – Database Lab**

**Assignment – 2**

**NAME:** Rahul Ram M

**ROLL NO:** 185001121

SQL> rem Part I : DML Update operations & TCL statements;

SQL> drop table classes;

Table dropped.

SQL> create table classes

  2  (class varchar2(15) constraint class\_pk primary key,type varchar2(2),

  3  country varchar2(15),numGuns number(1),bore number(2),displacement number(5));

Table created.

SQL> rem Inserting explicitly by specifying the columns;

SQL> insert into classes (displacement, numGuns, type, class, country, bore)

  2  values (32000, 8, 'bb', 'Bismark', 'Germany', 14);

1 row created.

SQL> insert into classes (country, bore, displacement, numGuns, type, class)

  2  values ('USA', 16, 46000, 9, 'bb', 'Iowa');

1 row created.

SQL> rem Inserting directly without specifying the columns;

SQL> insert into classes values ('Kongo', 'bc', 'Japan', 8, 15, 42000);

1 row created.

SQL> insert into classes values ('North Carolina', 'bb', 'USA', 9, 16, 37000);

1 row created.

SQL> insert into classes values ('Revenge', 'bb', 'Gt. Britain', 8, 15, 29000);

1 row created.

SQL> insert into classes values ('Renown', 'bc', 'Gt. Britain', 6, 15, 32000);

1 row created.

SQL> rem Displaying the populated relation;

SQL> select \* from classes;

CLASS           TY COUNTRY            NUMGUNS       BORE DISPLACEMENT

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Bismark         bb Germany                  8         14        32000

Iowa            bb USA                      9         16        46000

Kongo           bc Japan                    8         15        42000

North Carolina  bb USA                      9         16        37000

Revenge         bb Gt. Britain              8         15        29000

Renown          bc Gt. Britain              6         15        32000

6 rows selected.

SQL> rem Creating a savepoint;

SQL> savepoint after\_insert;

Savepoint created.

SQL> rem Changing the displacement of Bismark;

SQL> update classes set displacement = 34000 where class = 'Bismark';

1 row updated.

SQL> rem Increasing the disp. by 10%;

SQL> update classes set displacement = displacement + 0.1\*displacement

  2  where ((numGuns > 8) or (bore > 14));

5 rows updated.

SQL> select \* from classes;

CLASS           TY COUNTRY            NUMGUNS       BORE DISPLACEMENT

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Bismark         bb Germany                  8         14        34000

Iowa            bb USA                      9         16        50600

Kongo           bc Japan                    8         15        46200

North Carolina  bb USA                      9         16        40700

Revenge         bb Gt. Britain              8         15        31900

Renown          bc Gt. Britain              6         15        35200

6 rows selected.

SQL> rem Deleting Kongo ship class;

SQL> delete from classes where class = 'Kongo';

1 row deleted.

SQL> rem Displaying the changes

SQL> select \* from classes;

CLASS           TY COUNTRY            NUMGUNS       BORE DISPLACEMENT

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Bismark         bb Germany                  8         14        34000

Iowa            bb USA                      9         16        50600

North Carolina  bb USA                      9         16        40700

Revenge         bb Gt. Britain              8         15        31900

Renown          bc Gt. Britain              6         15        35200

SQL> rem Discaring the recent updates;

SQL> rollback to savepoint after\_insert;

Rollback complete.

SQL> rem committing the changes made;

SQL> commit;

Commit complete.

SQL> spool off

SQL> drop table employees;

Table dropped.

SQL> REM Running the Employee Script file;

SQL> @D:\Academics\Sem4\12\_DB\_Lab\EX2\employees.sql

SQL> rem Displaying the first name, job id and salary of all the employees.

SQL> select first\_name, job\_id, salary from employees;

FIRST\_NAME           JOB\_ID         SALARY

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Steven               AD\_PRES         24000

Neena                AD\_VP           17000

Lex                  AD\_VP           17000

Alexander            IT\_PROG          9000

Bruce                IT\_PROG          6000

David                IT\_PROG          4800

Valli                IT\_PROG          4800

Diana                IT\_PROG          4200

Kevin                ST\_MAN           5800

Trenna               ST\_CLERK         3500

Curtis               ST\_CLERK         3100

FIRST\_NAME           JOB\_ID         SALARY

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Randall              ST\_CLERK         2600

Peter                ST\_CLERK         2500

Eleni                SA\_MAN          10500

Ellen                SA\_REP          11000

Jonathon             SA\_REP           8600

Kimberely            SA\_REP           7000

Jennifer             AD\_ASST          4400

Michael              MK\_MAN          13000

Pat                  MK\_REP           6000

Shelley              AC\_MGR          12000

William              AC\_ACCOUNT       8300

22 rows selected.

SQL> rem Display the id, name(first & last), salary and annual salary of all the employees.

SQL> REM Sort the employees by first name. Label the columns as (EMPLOYEE\_ID, FULL NAME, MONTHLY SAL, ANNUAL SALARY)

SQL> select employee\_id, concat(concat(first\_name, ' '), last\_name) as full\_name,

  2  salary as monthly\_sal, salary\*12 as annual\_salary from employees order by first\_name;

EMPLOYEE\_ID FULL\_NAME                                      MONTHLY\_SAL ANNUAL\_SALARY

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        103 Alexander Hunold                                      9000        108000

        104 Bruce Ernst                                           6000         72000

        142 Curtis Davies                                         3100         37200

        105 David Austin                                          4800         57600

        107 Diana Lorentz                                         4200         50400

        149 Eleni Zlotkey                                        10500        126000

        174 Ellen Abel                                           11000        132000

        200 Jennifer Whalen                                       4400         52800

        176 Jonathon Taylor                                       8600        103200

        124 Kevin Mourgos                                         5800         69600

        178 Kimberely Grant                                       7000         84000

EMPLOYEE\_ID FULL\_NAME                                      MONTHLY\_SAL ANNUAL\_SALARY

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        102 Lex De Haan                                          17000        204000

        201 Michael Hartstein                                    13000        156000

        101 Neena Kochhar                                        17000        204000

        202 Pat Fay                                               6000         72000

        144 Peter Vargas                                          2500         30000

        143 Randall Matos                                         2600         31200

        205 Shelley Higgins                                      12000        144000

        100 Steven King                                          24000        288000

        141 Trenna Rajs                                           3500         42000

        106 Valli Pataballa                                       4800         57600

        206 William Gietz                                         8300         99600

22 rows selected.

SQL> rem List the different jobs in which the employees are working for.

SQL> select distinct(job\_id) from employees;

JOB\_ID

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IT\_PROG

AC\_MGR

AC\_ACCOUNT

ST\_MAN

AD\_ASST

AD\_VP

SA\_MAN

MK\_MAN

AD\_PRES

SA\_REP

MK\_REP

JOB\_ID

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ST\_CLERK

12 rows selected.

SQL> rem Display the id, first name, job id, salary and commission of employees who are earning commissions.

SQL> select employee\_id, first\_name, job\_id, salary, commission\_pct

  2  from employees where commission\_pct is not null;

EMPLOYEE\_ID FIRST\_NAME           JOB\_ID         SALARY COMMISSION\_PCT

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        149 Eleni                SA\_MAN          10500             .2

        174 Ellen                SA\_REP          11000             .3

        176 Jonathon             SA\_REP           8600             .2

        178 Kimberely            SA\_REP           7000            .15

SQL> rem Display the details (id, first name, job id, salary and dept id) of employees who are MANAGERS.

SQL> select e1.employee\_id, e1.first\_name, e1.job\_id, e1.salary, e1.department\_id

  2  from employees e1, employees e2 where e1.employee\_id = e2.manager\_id;

EMPLOYEE\_ID FIRST\_NAME           JOB\_ID         SALARY DEPARTMENT\_ID

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        100 Steven               AD\_PRES         24000            90

        100 Steven               AD\_PRES         24000            90

        102 Lex                  AD\_VP           17000            90

        103 Alexander            IT\_PROG          9000            60

        103 Alexander            IT\_PROG          9000            60

        103 Alexander            IT\_PROG          9000            60

        103 Alexander            IT\_PROG          9000            60

        100 Steven               AD\_PRES         24000            90

        124 Kevin                ST\_MAN           5800            50

        124 Kevin                ST\_MAN           5800            50

        124 Kevin                ST\_MAN           5800            50

EMPLOYEE\_ID FIRST\_NAME           JOB\_ID         SALARY DEPARTMENT\_ID

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        124 Kevin                ST\_MAN           5800            50

        100 Steven               AD\_PRES         24000            90

        149 Eleni                SA\_MAN          10500            80

        149 Eleni                SA\_MAN          10500            80

        149 Eleni                SA\_MAN          10500            80

        101 Neena                AD\_VP           17000            90

        100 Steven               AD\_PRES         24000            90

        201 Michael              MK\_MAN          13000            20

        101 Neena                AD\_VP           17000            90

        205 Shelley              AC\_MGR          12000           110

21 rows selected.

SQL> rem Display the details of employees other than sales representatives

SQL> REM (id, first name, hire date, job id, salary and dept id)

SQL> REM who are hired after ‘01May1999’ or whose salary is at least 10000.

SQL> select employee\_id, first\_name, hire\_date, job\_id, salary, department\_id from

  2  (select \* from employees where hire\_date > '01-May-1999' or salary >= 10000) where job\_id not like 'SA\_REP';

EMPLOYEE\_ID FIRST\_NAME           HIRE\_DATE JOB\_ID         SALARY DEPARTMENT\_ID

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        100 Steven               17-JUN-87 AD\_PRES         24000            90

        101 Neena                21-SEP-89 AD\_VP           17000            90

        102 Lex                  13-JAN-93 AD\_VP           17000            90

        124 Kevin                16-NOV-99 ST\_MAN           5800            50

        149 Eleni                29-JAN-00 SA\_MAN          10500            80

        201 Michael              17-FEB-96 MK\_MAN          13000            20

        205 Shelley              07-JUN-94 AC\_MGR          12000           110

7 rows selected.

SQL> spool off