Lab Sheet Number : 06

Topic: Writing SQL Queries – Part II

Reg. No: E/18/397

Task

1) A) select * from movie where director in (select name from reviewer);

```
mysql> select * from movie where director in (select name from reviewer);
+-----+---------+------+---------------+
| Mid | Title   | Year | Director      |
+-----+---------+------+---------------+
| 105 | Titanic | 1997 | James Cameron |
| 107 | Avatar  | 2009 | James Cameron |
+-----+---------+------+---------------+
2 rows in set (0.01 sec)
```

B) select * from movie where director not in (select name from reviewer);

```
mysql> select * from movie where director not in (select name from reviewer);
+-----+-------------------------+------+------------------+
| Mid | Title                   | Year | Director         |
+-----+-------------------------+------+------------------+
| 101 | Gone with the Wind      | 1939 | Victor Fleming   |
| 102 | Star Wars               | 1977 | George Lucas     |
| 103 | The Sound of Music      | 1965 | Robert Wise      |
| 104 | E.T.                    | 1982 | Steven Spieibrg  |
| 108 | Raiders of the Lost Ark | 1981 | Steven Spielberg |
+-----+-------------------------+------+------------------+
5 rows in set (0.01 sec)
```

2) A) select * from rating where rid in (select rid from reviewer where name= "Sarah Martinez");

```
mysql> select * from rating where rid in (select rid from
 reviewer where name= "Sarah Martinez");
+------+------+-------+------------+
| Rid  | Mid  | Stars | Rdate      |
+------+------+-------+------------+
|  201 |  101 |     2 | 2011-01-22 |
|  201 |  101 |     4 | 2011-01-27 |
+------+------+-------+------------+
2 rows in set (0.00 sec)
```

B) select * from rating where rid not in (select rid from reviewer where name= "Sarah Martinez");

```
mysql> select * from rating where rid not in (select rid
from reviewer where name= "Sarah Martinez");
+-------+-------+-------+-------------+
| Rid   | Mid   | Stars | Rdate       |
+-------+-------+-------+-------------+
|   202 |   106 |     4 | NULL        |
|   203 |   103 |     3 | 2011-01-20  |
|   203 |   108 |     5 | 2011-01-12  |
|   203 |   108 |     3 | 2011-01-30  |
|   204 |   101 |     3 | 2011-01-09  |
|   205 |   103 |     3 | 2011-01-27  |
|   205 |   104 |     2 | 2011-01-22  |
|   205 |   108 |     4 | NULL        |
|   206 |   107 |     3 | 2011-01-15  |
|   206 |   106 |     5 | 2011-01-19  |
|   207 |   107 |     5 | 2011-01-20  |
|   208 |   104 |     3 | 2011-01-02  |
+-------+-------+-------+-------------+
12 rows in set (0.00 sec)
```

3) A) select mid from rating where stars < ANY (select stars from rating where mid=103);

```
mysql> select mid from rating where stars < ANY (select stars from rating
where mid=103);
+------+
| mid  |
+------+
|  101 |
|  104 |
+------+
2 rows in set (0.01 sec)
```

B) select mid from rating where stars <= ANY (select stars from rating where mid=103);

```
mysql> select mid from rating where stars <= ANY (select stars from rating
 where mid=103);
+------+
| mid  |
+------+
|  101 |
|  103 |
|  108 |
|  101 |
|  103 |
|  104 |
|  107 |
|  104 |
+------+
8 rows in set (0.00 sec)
```

C) select mid from rating where stars = ANY (select stars from rating where mid=103);

```
mysql> select mid from rating where stars = ANY (select stars from rating
where mid=103);
+------+
| mid  |
+------+
|  103 |
|  108 |
|  101 |
|  103 |
|  107 |
|  104 |
+------+
6 rows in set (0.00 sec)
```

D) select mid from rating where stars > ANY (select stars from rating where mid=103);

```
mysql> select mid from rating where stars > ANY (select stars from rating
where mid=103);
+------+
| mid  |
+------+
|  101 |
|  106 |
|  108 |
|  108 |
|  106 |
|  107 |
+------+
6 rows in set (0.00 sec)
```

E) select mid from rating where stars >= ANY (select stars from rating where mid=103);

```
mysql> select mid from rating where stars >= ANY (select stars from rating
 where mid=103);
+------+
| mid  |
+------+
|  101 |
|  106 |
|  103 |
|  108 |
|  108 |
|  101 |
|  103 |
|  108 |
|  107 |
|  106 |
|  107 |
|  104 |
+------+
12 rows in set (0.00 sec)
```

F) select mid from rating where stars <> ANY (select stars from rating where mid=103);

```
mysql> select mid from rating where stars <> ANY (select stars from rating
 where mid=103);
+------+
| mid  |
+------+
|  101 |
|  101 |
|  106 |
|  108 |
|  104 |
|  108 |
|  106 |
|  107 |
+------+
8 rows in set (0.00 sec)
```

4) select rid from rating where mid in (select mid from rating where rdate = "2011-01-12") AND stars IN (select stars from rating where rdate="2011-01-12");

```
mysql> select rid from rating where mid in (select mid from rating where
rdate = "2011-01-12") AND stars IN (select stars from rating where rdate=
"2011-01-12");
+------+
| rid  |
+------+
|  203 |
+------+
1 row in set (0.00 sec)
```

5) A) select distinct year from movie, rating where movie.mid = rating.mid AND (rating.stars=4 or rating.stars=5) ORDER BY year ASC;

```
mysql> select distinct year from movie, rating where movie.mid = rating.mid AND
 (rating.stars=4 or rating.stars=5) ORDER BY year ASC;
+------+
| year |
+------+
| 1937 |
| 1939 |
| 1981 |
| 2009 |
+------+
4 rows in set (0.00 sec)
```

B) select year from movie where mid in (select mid from rating where stars=4 or stars=5) order by year asc;

```
mysql> select year from movie where mid in (select mid from rating where stars=
4 or stars=5) order by year asc;
+-------+
| year |
+-------+
| 1937 |
| 1939 |
| 1981 |
| 2009 |
+-------+
4 rows in set (0.00 sec)
```

6) A) select title from movie where mid not in (select mid from rating);

```
mysql> select title from movie where mid not in (select mid from rating);
+-----------+
| title     |
+-----------+
| Star Wars |
| Titanic   |
+-----------+
2 rows in set (0.00 sec)
```

B) select title from movie a where mid <> all (select mid from rating b where a.mid = b.mid);

```
mysql> select title from movie a where mid <> all (select mid from rating b where
 a.mid = b.mid);
+-----------+
| title     |
+-----------+
| Star Wars |
| Titanic   |
+-----------+
2 rows in set (0.00 sec)
```

7) A) select name from reviewer, rating where rating.rid = reviewer.rid AND rdate is NULL;

```
mysql> select name from reviewer, rating where rating.rid = reviewer.rid AND rdate
 is NULL;
+---------------+
| name          |
+---------------+
| Daniel Lewis  |
| Chris Jackson |
+---------------+
2 rows in set (0.00 sec)
```

B) select name from reviewer where rid in (select rid from rating where rdate is NULL);

```
mysql> select name from reviewer where rid in (select rid from rating where rdate
 is NULL);
+---------------+
| name          |
+---------------+
| Daniel Lewis  |
| Chris Jackson |
+---------------+
2 rows in set (0.00 sec)
```

C) select name from reviewer where rid = ANY(select rid from rating where rdate is NULL and reviewer.rid = rating.rid);

```
mysql> select name from reviewer where rid = ANY(select rid from rating where
 rdate is NULL and reviewer.rid = rating.rid);
+---------------+
| name          |
+---------------+
| Daniel Lewis  |
| Chris Jackson |
+---------------+
2 rows in set (0.00 sec)
```

8) A) select title , MAX(stars) from movie, rating where movie.mid = rating.mid group by movie.mid order by movie.title asc;

```
mysql> select title , MAX(stars) from movie, rating where movie.mid =
rating.mid group by movie.mid order by movie.title asc;
+------------------------+------------+
| title                  | MAX(stars) |
+------------------------+------------+
| Avatar                 |          5 |
| E.T.                   |          3 |
| Gone with the Wind     |          4 |
| Raiders of the Lost Ark |          5 |
| Snow White             |          5 |
| The Sound of Music     |          3 |
+------------------------+------------+
6 rows in set (0.00 sec)
```

B) select title , MIN(stars) from movie, rating where movie.mid = rating.mid group by movie.mid order by movie.title asc;

```
mysql> select title , MIN(stars) from movie, rating where movie.mid =
rating.mid group by movie.mid order by movie.title asc;
+---------------------------+------------+
| title                     | MIN(stars) |
+---------------------------+------------+
| Avatar                    |          3 |
| E.T.                      |          2 |
| Gone with the Wind        |          2 |
| Raiders of the Lost Ark   |          3 |
| Snow White                |          4 |
| The Sound of Music        |          3 |
+---------------------------+------------+
6 rows in set (0.00 sec)
```

C) select title , AVG(stars) from movie, rating where movie.mid = rating.mid group by movie.mid order by movie.title asc;

```
mysql> select title , AVG(stars) from movie, rating where movie.mid =
rating.mid group by movie.mid order by movie.title asc;
+---------------------------+------------+
| title                     | AVG(stars) |
+---------------------------+------------+
| Avatar                    |     4.0000 |
| E.T.                      |     2.5000 |
| Gone with the Wind        |     3.0000 |
| Raiders of the Lost Ark   |     4.0000 |
| Snow White                |     4.5000 |
| The Sound of Music        |     3.0000 |
+---------------------------+------------+
6 rows in set (0.00 sec)
```

D) select title , SUM(stars) from movie, rating where movie.mid = rating.mid group by movie.mid order by movie.title asc;

```
mysql> select title , SUM(stars) from movie, rating where movie.mid =
rating.mid group by movie.mid order by movie.title asc;
+---------------------------+------------+
| title                     | SUM(stars) |
+---------------------------+------------+
| Avatar                    |          8 |
| E.T.                      |          5 |
| Gone with the Wind        |          9 |
| Raiders of the Lost Ark   |         12 |
| Snow White                |          9 |
| The Sound of Music        |          6 |
+---------------------------+------------+
6 rows in set (0.00 sec)
```

E) select title , COUNT(*) from movie, rating where movie.mid = rating.mid group by movie.mid order by movie.title asc;

```
mysql> select title , COUNT(*) from movie, rating where movie.mid = rating.mid
 group by movie.mid order by movie.title asc;
+--------------------------+----------+
| title                    | COUNT(*) |
+--------------------------+----------+
| Avatar                   |        2 |
| E.T.                     |        2 |
| Gone with the Wind       |        3 |
| Raiders of the Lost Ark  |        3 |
| Snow White               |        2 |
| The Sound of Music       |        2 |
+--------------------------+----------+
6 rows in set (0.00 sec)
```

9) A) select name from reviewer , rating where rating.rid = reviewer.rid GROUP by rating.rid HAVING COUNT(*) >= 3;

```
mysql> select name from reviewer , rating where rating.rid = reviewer.rid
GROUP by rating.rid HAVING COUNT(*) >= 3;
+-----------------+
| name            |
+-----------------+
| Brittany Harris |
| Chris Jackson   |
+-----------------+
2 rows in set (0.00 sec)
```

B) select name from reviewer where rid in (select rid from rating group by rating.rid HAVING COUNT(*) >=3);

```
mysql> select name from reviewer where rid in (select rid from rating group
by rating.rid HAVING COUNT(*) >=3);
+-----------------+
| name            |
+-----------------+
| Brittany Harris |
| Chris Jackson   |
+-----------------+
2 rows in set (0.00 sec)
```

C) select name from reviewer where 3 <= ANY (select count(*) from rating where reviewer.rid = rating.rid);

```
mysql> select name from reviewer where 3 <= ANY (select count(*) from rating
 where reviewer.rid = rating.rid);
+----------------+
| name           |
+----------------+
| Brittany Harris |
| Chris Jackson  |
+----------------+
2 rows in set (0.00 sec)
```

10) select title, avg(stars) from movie, rating where movie.mid = rating.mid GROUP by movie.mid ORDER by avg(stars) desc, title asc;

```
mysql> select title, avg(stars) from movie, rating where movie.mid = rating.
mid GROUP by movie.mid ORDER by avg(stars) desc, title asc;
+-------------------------+------------+
| title                   | avg(stars) |
+-------------------------+------------+
| Snow White              |     4.5000 |
| Avatar                  |     4.0000 |
| Raiders of the Lost Ark |     4.0000 |
| Gone with the Wind      |     3.0000 |
| The Sound of Music      |     3.0000 |
| E.T.                    |     2.5000 |
+-------------------------+------------+
6 rows in set (0.00 sec)
```

11) delete from rating where mid in (select mid from movie where year<1970 or year>2000);

```
mysql> select * from rating;
+-------+-------+-------+------------+
| Rid   | Mid   | Stars | Rdate      |
+-------+-------+-------+------------+
|   201 |   101 |     2 | 2011-01-22 |
|   201 |   101 |     4 | 2011-01-27 |
|   202 |   106 |     4 | NULL       |
|   203 |   103 |     3 | 2011-01-20 |
|   203 |   108 |     5 | 2011-01-12 |
|   203 |   108 |     3 | 2011-01-30 |
|   204 |   101 |     3 | 2011-01-09 |
|   205 |   103 |     3 | 2011-01-27 |
|   205 |   104 |     2 | 2011-01-22 |
|   205 |   108 |     4 | NULL       |
|   206 |   107 |     3 | 2011-01-15 |
|   206 |   106 |     5 | 2011-01-19 |
|   207 |   107 |     5 | 2011-01-20 |
|   208 |   104 |     3 | 2011-01-02 |
+-------+-------+-------+------------+
14 rows in set (0.00 sec)

mysql> delete from rating where mid in (select mid from movie where
 year<1970 or year>2000);
Query OK, 9 rows affected (0.04 sec)

mysql> select * from rating;
+-------+-------+-------+------------+
| Rid   | Mid   | Stars | Rdate      |
+-------+-------+-------+------------+
|   203 |   108 |     5 | 2011-01-12 |
|   203 |   108 |     3 | 2011-01-30 |
|   205 |   104 |     2 | 2011-01-22 |
|   205 |   108 |     4 | NULL       |
|   208 |   104 |     3 | 2011-01-02 |
+-------+-------+-------+------------+
5 rows in set (0.00 sec)
```

12) delete from rating where rdate is null;

```
mysql> delete from rating where rdate is null;
Query OK, 1 row affected (0.01 sec)

mysql> select * from rating;
+-------+-------+-------+------------+
| Rid   | Mid   | Stars | Rdate      |
+-------+-------+-------+------------+
|   203 |   108 |     5 | 2011-01-12 |
|   203 |   108 |     3 | 2011-01-30 |
|   205 |   104 |     2 | 2011-01-22 |
|   208 |   104 |     3 | 2011-01-02 |
+-------+-------+-------+------------+
4 rows in set (0.00 sec)
```

13) insert into rating select rid, mid , 5 , null from reviewer, movie where name = "James Cameron";

```
mysql> insert into rating select rid, mid , 5 , null from reviewer,
 movie where name = "James Cameron";
Query OK, 8 rows affected (0.01 sec)
Records: 8  Duplicates: 0  Warnings: 0
```

```
mysql> select * from rating;
+-------+-------+--------+------------+
| Rid   | Mid   | Stars  | Rdate      |
+-------+-------+--------+------------+
|   203 |   108 |      5 | 2011-01-12 |
|   203 |   108 |      3 | 2011-01-30 |
|   205 |   104 |      2 | 2011-01-22 |
|   208 |   104 |      3 | 2011-01-02 |
|   207 |   101 |      5 | NULL       |
|   207 |   102 |      5 | NULL       |
|   207 |   103 |      5 | NULL       |
|   207 |   104 |      5 | NULL       |
|   207 |   105 |      5 | NULL       |
|   207 |   106 |      5 | NULL       |
|   207 |   107 |      5 | NULL       |
|   207 |   108 |      5 | NULL       |
+-------+-------+--------+------------+
12 rows in set (0.00 sec)
```

14) update movie set year = year + 25 where mid in (select rating.mid from rating group by rating.mid having avg(stars)>=4);

```
mysql> update movie set year = year + 25 where mid in (select rating.mid from
 rating group by rating.mid having avg(stars)>=4);
Query OK, 7 rows affected (0.01 sec)
Rows matched: 7  Changed: 7  Warnings: 0

mysql> select * from rating;
+-------+-------+--------+------------+
| Rid   | Mid   | Stars  | Rdate      |
+-------+-------+--------+------------+
|   203 |   108 |      5 | 2011-01-12 |
|   203 |   108 |      3 | 2011-01-30 |
|   205 |   104 |      2 | 2011-01-22 |
|   208 |   104 |      3 | 2011-01-02 |
|   207 |   101 |      5 | NULL       |
|   207 |   102 |      5 | NULL       |
|   207 |   103 |      5 | NULL       |
|   207 |   104 |      5 | NULL       |
|   207 |   105 |      5 | NULL       |
|   207 |   106 |      5 | NULL       |
|   207 |   107 |      5 | NULL       |
|   207 |   108 |      5 | NULL       |
+-------+-------+--------+------------+
12 rows in set (0.00 sec)
```