

# Department of Computer Engineering

## University of Peradeniya CO226-Database Systems

Lab Sheet Number : 06

Topic : Writing SQL Queries - Part II

Lab Date : 05th January 2022 from 3:00 PM to 5:00 PM

Due Date : 24th January 2022 before 11:55 PM

NAME- VINDULA K.P.A

E NUM-E/18/375

### QUERIES

1.

A. SELECT \*

-> FROM MOVIE

-> WHERE MOVIE.Director IN (

-> SELECT REVIEWER.ReviewerName

-> FROM REVIEWER);

B. SELECT \*

-> FROM MOVIE

-> WHERE MOVIE.Director NOT IN (

-> SELECT REVIEWER.ReviewerName

-> FROM REVIEWER);

A. SELECT \*

-> FROM RATING  
-> WHERE RATING.ReviewerID=(  
-> SELECT REVIEWER.ReviewerID  
-> FROM REVIEWER  
-> WHERE REVIEWER.ReviewerName='Sarah Martinez');

B. SELECT \*

-> FROM RATING  
-> WHERE RATING.ReviewerID NOT IN (  
-> SELECT REVIEWER.ReviewerID  
-> FROM REVIEWER  
-> WHERE REVIEWER.ReviewerName='Sarah Martinez');

3.

A. SELECT DISTINCT RATING.MovieID

-> FROM RATING  
-> WHERE RATING.Stars< ANY (  
-> SELECT RATING.Stars  
-> FROM RATING  
-> WHERE RATING.MovieID=103);

B. SELECT DISTINCT RATING.MovieID

-> FROM RATING  
-> WHERE RATING.Stars<= ANY (  
-> SELECT RATING.Stars  
-> FROM RATING

-> WHERE RATING.MovieID=103);

C. SELECT DISTINCT RATING.MovieID

-> FROM RATING

-> WHERE RATING.Stars IN (

-> SELECT RATING.Stars

-> FROM RATING

-> WHERE RATING.MovieID=103);

D. SELECT DISTINCT RATING.MovieID

-> FROM RATING

-> WHERE RATING.Stars > ANY (

-> SELECT RATING.Stars

-> FROM RATING

-> WHERE RATING.MovieID=103);

E. SELECT DISTINCT RATING.MovieID

-> FROM RATING

-> WHERE RATING.Stars >= ANY (

-> SELECT RATING.Stars

-> FROM RATING

-> WHERE RATING.MovieID=103);

F. SELECT DISTINCT RATING.MovieID

-> FROM RATING

-> WHERE RATING.Stars NOT IN (

-> SELECT RATING.Stars

-> FROM RATING

-> WHERE RATING.MovieID=103);

4. SELECT REVIEWER.ReviewerID FROM REVIEWER,RATING WHERE REVIEWER.ReviewerID =  
RATING.ReviewerID and MovieID=(

-> SELECT DISTINCT MovieID FROM RATING WHERE RatingDate='2011-01-12') AND Stars=(

-> SELECT DISTINCT Stars FROM RATING WHERE RatingDate='2011-01-12');

5.

A. SELECT DISTINCT MOVIE.Year

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND (RATING.Stars=4 OR RATING.Stars=5)

-> ORDER BY Year ASC;

B. SELECT DISTINCT MOVIE.Year

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IN (

-> SELECT RATING.Stars

-> FROM RATING

-> WHERE Stars=4 OR Stars=5)

-> ORDER BY Year ASC;

6.

A. SELECT MOVIE.Title

-> FROM MOVIE

-> WHERE MOVIE.MovieID NOT IN (

-> SELECT RATING.MovieID

-> FROM RATING);

B. SELECT M1.Title

-> FROM MOVIE M1

-> WHERE 0=(

-> SELECT COUNT(MovieID)

-> FROM RATING R1

-> WHERE M1.MovieID=R1.MovieID);

7.

A. SELECT REVIEWER.ReviewerName

-> FROM REVIEWER,RATING

-> WHERE REVIEWER.ReviewerID=RATING.ReviewerID AND RATING.RatingDate IS NULL;

B. SELECT ReviewerName

-> FROM REVIEWER

-> WHERE ReviewerID IN (

-> SELECT ReviewerID

-> FROM RATING

-> WHERE RatingDate IS NULL);

C. SELECT R1.ReviewerName

-> FROM REVIEWER R1

-> WHERE R1.ReviewerID=(

-> SELECT DISTINCT RA.ReviewerID

-> FROM RATING RA

-> WHERE RA.ReviewerID=R1.ReviewerID AND RA.RatingDate IS NULL);

8.

A. SELECT MOVIE.Title,MAX(Stars)

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL

-> GROUP BY RATING.MovieID

-> ORDER BY Title;

B. SELECT MOVIE.Title,MIN(Stars)

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL

-> GROUP BY RATING.MovieID

-> ORDER BY Title;

C. SELECT MOVIE.Title,AVG(Stars)

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL

-> GROUP BY RATING.MovieID

-> ORDER BY Title;

D. SELECT MOVIE.Title,SUM(Stars)

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL

-> GROUP BY RATING.MovieID

-> ORDER BY Title;

E. SELECT MOVIE.Title,COUNT(Stars)

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL

-> GROUP BY RATING.MovieID

-> ORDER BY Title;

9.

A. SELECT REVIEWER.ReviewerName

-> FROM REVIEWER,RATING

-> WHERE REVIEWER.ReviewerID=RATING.ReviewerID

-> GROUP BY REVIEWER.ReviewerID

-> HAVING COUNT(Stars)>=3;

B. SELECT ReviewerName

-> FROM REVIEWER

-> WHERE ReviewerID IN (

-> SELECT ReviewerID

-> FROM RATING

-> GROUP BY ReviewerID

-> HAVING COUNT(ReviewerID)>=3);

C. SELECT RE.ReviewerName

-> FROM REVIEWER RE

-> WHERE (SELECT COUNT(RA.ReviewerID) FROM RATING RA WHERE  
RE.ReviewerID=RA.ReviewerID)>=3;

10. SELECT MOVIE.Title,AVG(RATING.Stars)

-> FROM MOVIE,RATING

-> WHERE MOVIE.MovieID=RATING.MovieID

-> GROUP BY MOVIE.Title

-> ORDER BY AVG(RATING.Stars) DESC,MOVIE.Title ASC;

#### 11. DELETE FROM RATING

-> WHERE MovieID IN (  
-> SELECT MovieID  
-> FROM MOVIE  
-> WHERE Year<1970 OR Year>2000);

#### 12. DELETE FROM RATING

-> WHERE RatingDate IS NULL;

#### 13. INSERT INTO RATING

-> VALUES(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);

#### 14. UPDATE MOVIE

-> SET Year=Year+25  
-> WHERE MOVIE.MovieID IN (  
-> SELECT MovieID  
-> FROM RATING  
-> GROUP BY MovieID  
-> HAVING AVG(Stars)>=4);



## SCREENSHOTS

```
mysql> SELECT *
-> FROM MOVIE
-> WHERE MOVIE.Director IN (
-> SELECT REVIEWER.ReviewerName
-> FROM REVIEWER);
```

MovieID	Title	Year	Director
105	Titanic	1997	James Cameron
107	Avatar	2009	James Cameron

```
2 rows in set (0.02 sec)
```

```
mysql> SELECT *
-> FROM MOVIE
-> WHERE MOVIE.Director NOT IN (
-> SELECT REVIEWER.ReviewerName
-> FROM REVIEWER);
```

MovieID	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 Spielberg
108	Raiders of the Lost Ark	1981	Steven Spielberg

```
5 rows in set (0.07 sec)
```

```
mysql> SELECT *
-> FROM RATING
-> WHERE RATING.ReviewerID=(
-> SELECT REVIEWER.ReviewerID
-> FROM REVIEWER
-> WHERE REVIEWER.ReviewerName='Sarah Martinez');
```

ReviewerID	MovieID	Stars	RatingDate
201	101	2	2011-01-22
201	101	4	2011-01-27

```
2 rows in set (0.06 sec)
```

```
mysql> SELECT *
-> FROM RATING
-> WHERE RATING.ReviewerID NOT IN (
-> SELECT REVIEWER.ReviewerID
-> FROM REVIEWER
-> WHERE REVIEWER.ReviewerName='Sarah Martinez');
```

ReviewerID	MovieID	Stars	RatingDate
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)

```
mysql> SELECT DISTINCT RATING.MovieID
-> FROM RATING
-> WHERE RATING.Stars< ANY (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE RATING.MovieID=103);
```

MovieID
101
103
104
108

```
mysql> SELECT DISTINCT RATING.MovieID
-> FROM RATING
-> WHERE RATING.Stars<= ANY (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE RATING.MovieID=103);
```

MovieID
101
103
104
107
108

5 rows in set (0.00 sec)

```
mysql> SELECT DISTINCT RATING.MovieID
-> FROM RATING
-> WHERE RATING.Stars IN (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE RATING.MovieID=103);
```

MovieID
101
103
108
104
107

5 rows in set (0.00 sec)

```
mysql> SELECT DISTINCT RATING.MovieID
-> FROM RATING
-> WHERE RATING.Stars > ANY (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE RATING.MovieID=103);
```

MovieID
101
103
104
106
107
108

6 rows in set (0.00 sec)

```
mysql> SELECT DISTINCT RATING.MovieID
-> FROM RATING
-> WHERE RATING.Stars >= ANY (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE RATING.MovieID=103);
```

```
+-----+
| MovieID |
+-----+
|      101 |
|      103 |
|      104 |
|      106 |
|      107 |
|      108 |
+-----+
```

6 rows in set (0.00 sec)

```
mysql> SELECT DISTINCT RATING.MovieID
-> FROM RATING
-> WHERE RATING.Stars NOT IN (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE RATING.MovieID=103);
```

```
+-----+
| MovieID |
+-----+
|      101 |
|      106 |
|      108 |
|      107 |
+-----+
```

```
mysql> SELECT REVIEWER.ReviewerID FROM REVIEWER,RATING WHERE REVIEWER.ReviewerID = RATING.ReviewerID and MovieID=(
-> SELECT DISTINCT MovieID FROM RATING WHERE RatingDate='2011-01-12') AND Stars=(
-> SELECT DISTINCT Stars FROM RATING WHERE RatingDate='2011-01-12');
```

```
+-----+
| ReviewerID |
+-----+
|          203 |
|          205 |
+-----+
```

2 rows in set (0.06 sec)

```
mysql> SELECT DISTINCT MOVIE.Year
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND (RATING.Stars=4 OR RATING.Stars=5)
-> ORDER BY Year ASC;
+-----+
| Year |
+-----+
| 1937 |
| 1939 |
| 1981 |
| 2009 |
+-----+
4 rows in set (0.00 sec)
```

```
mysql> SELECT DISTINCT MOVIE.Year
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IN (
-> SELECT RATING.Stars
-> FROM RATING
-> WHERE Stars=4 OR Stars=5)
-> ORDER BY Year ASC;
+-----+
| Year |
+-----+
| 1937 |
| 1939 |
| 1981 |
| 2009 |
+-----+
4 rows in set (0.00 sec)
```

```
mysql> SELECT MOVIE.Title
-> FROM MOVIE
-> WHERE MOVIE.MovieID NOT IN (
-> SELECT RATING.MovieID
-> FROM RATING);
+-----+
| Title |
+-----+
| Star Wars |
| Titanic |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT M1.Title
-> FROM MOVIE M1
-> WHERE 0=(
-> SELECT COUNT(MovieID)
-> FROM RATING R1
-> WHERE M1.MovieID=R1.MovieID);
```

```
+-----+
| Title   |
+-----+
| Star Wars |
| Titanic  |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT REVIEWER.ReviewerName
-> FROM REVIEWER,RATING
-> WHERE REVIEWER.ReviewerID=RATING.ReviewerID AND RATING.RatingDate IS NULL;
```

```
+-----+
| ReviewerName |
+-----+
| Daniel Lewis  |
| Chris Jackson |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT ReviewerName
-> FROM REVIEWER
-> WHERE ReviewerID IN (
-> SELECT ReviewerID
-> FROM RATING
-> WHERE RatingDate IS NULL);
```

```
+-----+
| ReviewerName |
+-----+
| Daniel Lewis  |
| Chris Jackson |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT R1.ReviewerName
-> FROM REVIEWER R1
-> WHERE R1.ReviewerID=(
-> SELECT DISTINCT RA.ReviewerID
-> FROM RATING RA
-> WHERE RA.ReviewerID=R1.ReviewerID AND RA.RatingDate IS NULL);
```

ReviewerName
Daniel Lewis
Chris Jackson

```
2 rows in set (0.00 sec)
```

```
mysql> SELECT MOVIE.Title,MAX(Stars)
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL
-> GROUP BY RATING.MovieID
-> ORDER BY Title;
```

Title	MAX(Stars)
Avatar	5
E.T	3
Gone with the Wind	4
Raiders of the Lost Ark	4
Snow White	5
The Sound of Music	3

```
6 rows in set (0.00 sec)
```

```
mysql> SELECT MOVIE.Title,MIN(Stars)
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL
-> GROUP BY RATING.MovieID
-> ORDER BY Title;
```

Title	MIN(Stars)
Avatar	3
E.T	2
Gone with the Wind	2
Raiders of the Lost Ark	2
Snow White	4
The Sound of Music	2

```
6 rows in set (0.00 sec)
```

```
mysql> SELECT MOVIE.Title,AVG(Stars)
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL
-> GROUP BY RATING.MovieID
-> ORDER BY Title;
```

Title	AVG(Stars)
Avatar	4.0000
E.T	2.5000
Gone with the Wind	3.0000
Raiders of the Lost Ark	3.3333
Snow White	4.5000
The Sound of Music	2.5000

6 rows in set (0.06 sec)

```
mysql> SELECT MOVIE.Title,SUM(Stars)
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL
-> GROUP BY RATING.MovieID
-> ORDER BY Title;
```

Title	SUM(Stars)
Avatar	8
E.T	5
Gone with the Wind	9
Raiders of the Lost Ark	10
Snow White	9
The Sound of Music	5

6 rows in set (0.00 sec)

```
mysql> SELECT MOVIE.Title,COUNT(Stars)
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID AND RATING.Stars IS NOT NULL
-> GROUP BY RATING.MovieID
-> ORDER BY Title;
```

Title	COUNT(Stars)
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)



```
mysql> SELECT REVIEWER.ReviewerName
-> FROM REVIEWER,RATING
-> WHERE REVIEWER.ReviewerID=RATING.ReviewerID
-> GROUP BY REVIEWER.ReviewerID
-> HAVING COUNT(Stars)>=3;
+-----+
| ReviewerName |
+-----+
| Brittany Harris |
| Chris Jackson |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT ReviewerName
-> FROM REVIEWER
-> WHERE ReviewerID IN (
-> SELECT ReviewerID
-> FROM RATING
-> GROUP BY ReviewerID
-> HAVING COUNT(ReviewerID)>=3);
+-----+
| ReviewerName |
+-----+
| Brittany Harris |
| Chris Jackson |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT RE.ReviewerName
-> FROM REVIEWER RE
-> WHERE (SELECT COUNT(RA.ReviewerID) FROM RATING RA WHERE RE.ReviewerID=RA.ReviewerID)>=3;
+-----+
| ReviewerName |
+-----+
| Brittany Harris |
| Chris Jackson |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> SELECT MOVIE.Title,AVG(RATING.Stars)
-> FROM MOVIE,RATING
-> WHERE MOVIE.MovieID=RATING.MovieID
-> GROUP BY MOVIE.Title
-> ORDER BY AVG(RATING.Stars) DESC,MOVIE.Title ASC;
```

Title	AVG(RATING.Stars)
Snow White	4.5000
Avatar	4.0000
Raiders of the Lost Ark	3.3333
Gone with the Wind	3.0000
E.T	2.5000
The Sound of Music	2.5000

6 rows in set (0.00 sec)

```
mysql> DELETE FROM RATING
-> WHERE MovieID IN (
-> SELECT MovieID
-> FROM MOVIE
-> WHERE Year<1970 OR Year>2000);
Query OK, 9 rows affected (0.12 sec)
```

```
mysql> SELECT *
-> FROM RATING;
```

ReviewerID	MovieID	Stars	RatingDate
203	108	4	2011-01-12
203	108	2	2011-01-30
205	104	2	2011-01-22
205	108	4	NULL
208	104	3	2011-01-02

5 rows in set (0.08 sec)

```
mysql> DELETE FROM RATING
-> WHERE RatingDate IS NULL;
Query OK, 1 row affected (0.08 sec)
```

```
mysql> SELECT *
-> FROM RATING;
```

ReviewerID	MovieID	Stars	RatingDate
203	108	4	2011-01-12
203	108	2	2011-01-30
205	104	2	2011-01-22
208	104	3	2011-01-02

4 rows in set (0.03 sec)

```
mysql> INSERT INTO RATING
-> VALUES(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);
Query OK, 8 rows affected (0.23 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT *
-> FROM RATING
-> ;
```

ReviewerID	MovieID	Stars	RatingDate
203	108	4	2011-01-12
203	108	2	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)
```

```
mysql> UPDATE MOVIE
-> SET Year=Year+25
-> WHERE MOVIE.MovieID IN (
-> SELECT MovieID
-> FROM RATING
-> GROUP BY MovieID
-> HAVING AVG(Stars)>=4);
Query OK, 6 rows affected (0.06 sec)
Rows matched: 6  Changed: 6  Warnings: 0
```

```
mysql> SELECT *
-> MOVIE
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual
ght syntax to use near 'MOVIE' at line 2
```

```
mysql> SELECT *
-> FROM MOVIE;
```

MovieID	Title	Year	Director
101	Gone with the Wind	1964	Victor Fleming
102	Star Wars	2002	George Lucas
103	The Sound of Music	1990	Robert Wise
104	E.T	1982	Steven Spielberg
105	Titanic	2022	James Cameron
106	Snow White	1962	NULL
107	Avatar	2034	James Cameron
108	Raiders of the Lost Ark	1981	Steven Spielberg

```
8 rows in set (0.00 sec)
```