

```
/*
Noah Zhou
CNIT 487 Lab 1 9:00-11:20am
*/
```

```
-- Question #1
```

```
SELECT m.Name
FROM Musician m LEFT JOIN Play p
ON m.MNO = p.MNO AND p.instrument = 'Piano'
WHERE p.MNO IS NULL
ORDER BY m.MNO;
```

```
/* Q1 Results
```

```
NAME
```

```
-----
```

```
Guy Berryman
Slash
Roger Waters
Rebecca Black
```

```
*/
```

```
-- Question #2
```

```
SELECT m.Name
FROM Musician m INNER JOIN Perform p
ON m.MNO = p.MNO
GROUP BY m.Name
HAVING COUNT(DISTINCT p.instrument) = 1 AND MAX(p.instrument) IN
('Piano', 'Guitar');
```

```
/* Q2 Results
```

```
NAME
```

```
-----
```

```
Jonny Buckland
Guy Berryman
```

```
*/
```

```
-- Question #3
```

```
SELECT m.Phone
FROM Musician m INNER JOIN Perform p
ON m.MNO = p.MNO
WHERE p.Instrument = 'Guitar'
GROUP BY m.Phone;
```

```
/* Q3 Results
```

```
PHONE
```

```
-----  
123477789  
1234868689  
123456789
```

```
*/
```

```
-- Question #4
```

```
SELECT a.ANO  
FROM Album a INNER JOIN Song s  
ON a.ANO = s.ANO INNER JOIN Perform p  
ON s.SNO = p.SNO  
WHERE p.Instrument = 'Guitar'  
GROUP BY a.ANO;
```

```
/* Q4 Results
```

```
ANO
```

```
-----  
6  
1  
2  
8  
11  
4
```

```
6 rows selected.
```

```
*/
```

```
-- Question #5
```

```
SELECT a.ANO  
FROM Album a INNER JOIN Song s  
ON a.ANO = s.ANO INNER JOIN Perform p  
ON s.SNO = p.SNO  
GROUP BY a.ANO  
HAVING COUNT(DISTINCT p.instrument) = 1 AND MAX(p.instrument) IN  
'Guitar';
```

```
/* Q5 Results
```

```
no rows selected
```

```
*/
```

```
-- Question #6
```

```
SELECT m.MNO  
FROM Musician m INNER JOIN Album a  
ON m.MNO = a.MNO  
GROUP BY m.MNO  
HAVING COUNT(ANO) = (
```

```

        SELECT MAX(AlbumCount)
        FROM (
        SELECT COUNT(ANO) AS AlbumCount
        FROM Album
        GROUP BY MNO)
        );

/* Q6 Results

        MNO
        -----
        10

*/

-- Question #7

SELECT Name
FROM Musician m INNER JOIN Play p
ON m.MNO = p.MNO
GROUP BY Name
HAVING COUNT(DISTINCT Instrument) = (
        SELECT COUNT(Distinct Instrument) FROM Play);

/* Q7 Results

NAME
-----
Justin Timberlake

*/

-- Question #8

SELECT Name
FROM Musician m INNER JOIN Play p
ON m.MNO = p.MNO
GROUP BY Name
HAVING COUNT(DISTINCT Instrument) = 1

/* Q8 Results

NAME
-----
Kurt Cobain
Guy Berryman
Slash

*/

-- Question #9

SELECT Name
FROM Musician m INNER JOIN Perform p

```

```

ON m.MNO = p.MNO
INNER JOIN Song s
ON p.SNO = s.SNO
INNER JOIN Album a
ON s.ANO = a.ANO
WHERE a.MNO = m.MNO
GROUP BY m.MNO, Name
HAVING COUNT(DISTINCT s.SNO) = (
    SELECT COUNT(DISTINCT so.SNO)
    FROM Song so INNER JOIN Album al
    ON so.ANO = al.ANO
    WHERE al.MNO = m.MNO
);

```

/* Q9 Results

NAME

Slash

Roger Waters

David Gilmour

*/

-- Question #10

```

SELECT a.ANO
FROM Album a INNER JOIN Song s
ON a.ANO = s.ANO
INNER JOIN Perform p
ON s.SNO = p.SNO
WHERE p.MNO != a.MNO
GROUP BY a.ANO;

```

/* Q10 Results

ANO

6

1

2

8

4

9

6 rows selected.

*/

-- Question #11

SELECT DISTINCT Name

```

FROM Musician m INNER JOIN Perform p
ON m.MNO = p.MNO
INNER JOIN Song s
ON p.SNO = s.SNO
INNER JOIN Album a
ON s.ANO = a.ANO
WHERE Copyright_Date < '03-SEP-99';

```

/* Q11 Results

NAME

Kurt Cobain
Chris Martin
David Gilmour
Axl Rose
Jonny Buckland
Duff Mckagan
Slash
Roger Waters

8 rows selected.

*/

-- Question #12

```

SELECT Name
FROM Musician m INNER JOIN Album a
ON m.MNO = a.MNO
WHERE Copy_Sold = (
    SELECT MAX(Copy_Sold)
    FROM Album);

```

/* Q12 Results

NAME

Kurt Cobain

*/

-- Question #13

```

SELECT Name
FROM Musician m INNER JOIN Play p
ON m.MNO = p.MNO
GROUP BY m.MNO, Name
HAVING COUNT(DISTINCT Instrument) >= 2;

```

/* Q13 Results

NAME

Roger Waters
Chris Martin
Will Champion
Rebecca Black
David Gilmour
Duff Mckagan
Justin Timberlake
Jonny Buckland
Axl Rose

9 rows selected.

*/

-- Question #14

```
SELECT Name, Phone, NVL(AVG(Copy_Sold), 0) AS AverageCopiesSold
FROM Musician m LEFT JOIN Album a
ON m.MNO = a.MNO
WHERE Name != 'Sid Vicious'
GROUP BY Name, Phone;
```

/* Q14 Results

NAME	PHONE	AVERAGECOPIESSOLD
-----	-----	-----
Chris Martin	123456789	4250
Axl Rose	123456789	173000
Rebecca Black	7686456789	0
Duff Mckagan	123456789	0
Jonny Buckland	123477789	0
Will Champion	123447689	40
Slash	123456789	350000
Roger Waters	123456789	0
Justin Timberlake	545456789	605000
Guy Berryman	123456899	2000000
Kurt Cobain	1234868689	2663333.33

NAME	PHONE	AVERAGECOPIESSOLD
-----	-----	-----
David Gilmour	12346869	10

12 rows selected.

*/