

[illegible]

2. Ans: 27864

0.031 sec

<pre>SELECT COUNT(sid) FROM hw2.sensor;</pre>	
	COUNT(sid)
▶	27864

Action Output			
Time	Action	Message	Duration / Fetch
1 11:10:20	SELECT COUNT(sid) FROM hw2.sensor	1 row(s) returned	0.031 sec / 0.000 sec

Duration / Fetch
0.031 sec / 0.000 sec

3. Ans: 90

0.656 sec

<pre>SELECT COUNT(rid) FROM hw2.send WHERE sid = '74DA38AF48A8'</pre>	
	COUNT(rid)
▶	90

2 11:14:43	SELECT COUNT(rid) FROM hw2.send WHERE sid = '74DA38AF48A8'	1 row(s) returned	0.656 sec / 0.000 sec
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0.656 sec / 0.000 sec

4. Ans:

<https://drive.google.com/file/d/0B2O3myu6Z8reT0hMSHZmYjBXRTA/view?usp=sharing>

1.391 sec

<pre>SELECT rid FROM hw2.records WHERE date = '2017-03-03' AND `pm2.5` = (SELECT MAX(`pm2.5`) FROM hw2.records WHERE date = '2017-03-03')</pre>	
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3 11:17:13	SELECT rid FROM hw2.records WHERE date = '2017-03-03' AND `pm2.5` = (SELECT MAX(`pm2.5`) FROM hw2.records WHERE date = '2017-03-03')	45 row(s) returned	1.391 sec / 0.000 sec
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1.391 sec / 0.000 sec

5. Ans: 1.7873 %

0.062 sec

<pre>SELECT concat((SELECT COUNT(*) FROM hw2.sensor WHERE org = 'airbox')/COUNT(*)*100, '%') FROM hw2.sensor</pre>	
	concat((SELECT COUNT(*)
▶	1.7873%

4 11:22:58	SELECT concat((SELECT COUNT(*) FROM hw2.sensor WHERE org = 'airbox')/COUNT(*)*100, '%') FROM hw2.sensor	1 row(s) returned	0.062 sec / 0.000 sec
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0.062 sec / 0.000 sec

6. Ans:

<https://drive.google.com/file/d/0B2O3myu6Z8reTmhXRihGR01XVEU/view?usp=sharing>

13.094 sec

```
SELECT A.sid, AVG(B.temp)
FROM hw2.send A, hw2.records B
WHERE A.rid = B.rid AND (B.date = '2017-03-04' OR B.date = '2017-03-05')
GROUP BY A.sid
```

11:30:36 SELECT A.sid, AVG(B.temp) FROM hw2.send A, hw2.records B WHERE A.rid = B.rid AND (B.date = 2017-03-04... 599 row(s) returned

13.094 sec / 0.000 sec

Duration / Fetch

13.094 sec / 0.000 sec

7. Ans:

<https://drive.google.com/file/d/0B2O3myu6Z8reM1I0OEhEWUhXejQ/view?usp=sharing>

29.5 sec

```
SELECT DISTINCT S.date, P.sid
FROM hw2.send P, hw2.records S
WHERE P.rid = S.rid AND S.date = '2017-03-02' AND P.sid IN (
  SELECT k.q
  FROM (SELECT DISTINCT G.sid as q
        FROM hw2.send G, hw2.records H
        WHERE G.rid = H.rid AND
              H.date = '2017-03-02'
        ORDER BY H.`pm2.5` DESC
        LIMIT 10 ) as k)
UNION
SELECT DISTINCT B.date, A.sid
FROM hw2.send A, hw2.records B
WHERE A.rid = B.rid AND B.date = '2017-03-03' AND A.sid IN (
  SELECT t.m
  FROM (SELECT DISTINCT C.sid as m
        FROM hw2.send C, hw2.records D
        WHERE C.rid = D.rid AND
              D.date = '2017-03-03'
        ORDER BY D.`pm2.5` DESC
        LIMIT 10 ) as t)
UNION
SELECT DISTINCT W.date, V.sid
FROM hw2.send V, hw2.records W
WHERE V.rid = W.rid AND W.date = '2017-03-04' AND V.sid IN (
  SELECT u.r
  FROM (SELECT DISTINCT I.sid as r
        FROM hw2.send I, hw2.records J
        WHERE I.rid = J.rid AND
              J.date = '2017-03-04'
        ORDER BY J.`pm2.5` DESC
        LIMIT 10 ) as u)
UNION
SELECT DISTINCT L.date, K.sid
FROM hw2.send K, hw2.records L
WHERE K.rid = L.rid AND L.date = '2017-03-05' AND K.sid IN (
  SELECT p.n
  FROM (SELECT DISTINCT E.sid as n
        FROM hw2.send E, hw2.records F
        WHERE E.rid = F.rid AND
              F.date = '2017-03-05'
        ORDER BY F.`pm2.5` DESC
        LIMIT 10 ) as p)
```

10 12:26:00 SELECT DISTINCT S.date, P.sid FROM hw2.send P, hw2.records S WHERE P.rid = S.rid AND S.date = 2017-03-02... 40 row(s) returned

29.500 sec / 0.000 sec

29.500 sec / 0.000 sec

8. Ans: 396.4537 sec

0.687 sec

```
SELECT TIMESTAMPDIFF(second, MIN(B.time), MAX(B.time))/(COUNT(B.ride)-1)
FROM hw2.send A, hw2.records B
WHERE A.ride = B.ride AND
      A.ride = '74DA38A8695C' AND
      B.date = '2017-03-02'
```

	TIMESTAMPDIFF(second, MIN(B.time),
▶	396.4537

2 11:32:27 SELECT TIMESTAMPDIFF(second, MIN(B.time), MAX(B.time))/(COUNT(B.ride)-1) FROM hw2.send A, hw2.records B WHERE A.ride = B.ride AND A.ride = '74DA38A8695C' AND B.date = '2017-03-02' 1 row(s) returned 0.687 sec / 0.000 sec

0.687 sec / 0.000 sec

9. Ans: 42398

2.782 sec

```
SELECT COUNT(B.ride)
FROM hw2.send B, hw2.sensor C
WHERE B.ride = C.ride AND
      C.lat between 24.781466 AND 24.801441 AND
      C.lon between 120.987374 AND 121.004073
```

	COUNT(B.ride)
▶	42398

1 11:36:07 SELECT COUNT(B.ride) FROM hw2.send B, hw2.sensor C WHERE B.ride = C.ride AND C.lat between 24.781466 AND 24.801441 AND C.lon between 120.987374 AND 121.004073 1 row(s) returned 2.782 sec / 0.000 sec

Duration / Fetch

2.782 sec / 0.000 sec

10.