

1

MySQL Workbench interface showing a query execution. The query is:

```
1 select i.INV_NUMBER, i.INV_DATE, c.CUS_FNAME, c.CUS_LNAME from Invoice as i
2 left join customer as c on i.CUS_CODE = c.CUS_CODE;
```

The result grid shows 8 rows of data:

INV_NUMBER	INV_DATE	CUS_FNAME	CUS_LNAME
1001	2018-01-16 00:00:00	Myron	Orlando
1002	2018-01-16 00:00:00	Leona	Dunne
1003	2018-01-16 00:00:00	Kathy	Smith
1004	2018-01-17 00:00:00	Leona	Dunne
1005	2018-01-17 00:00:00	Amy	Parnas
1006	2018-01-17 00:00:00	Myron	Orlando
1007	2018-01-17 00:00:00	Amy	O'Brian
1008	2018-01-17 00:00:00	Leona	Dunne

The Action Output shows the execution details:

#	Time	Action	Message	Duration / Fech
226	18:54:02	INSERT INTO EMPLOYEE VALUES(115, 'Ma...', 'Nemara', 'T', '1972-07-25', '1993-04-23', '8', '615', '324', '4500)	1 row(s) affected	0.000 sec
227	18:54:02	INSERT INTO EMPLOYEE VALUES(116, 'Ma...', 'Zach', 'A', '1965-11-02', '1989-10-10', '14', '515', '390', '2904)	1 row(s) affected	0.000 sec
228	18:54:02	COMMIT	0 row(s) affected	0.000 sec
229	18:55:04	select * from Invoice LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
230	18:56:28	select i.INV_NUMBER, i.INV_DATE, c.CUS_FNAME, c.CUS_LNAME from Invoice as i left join customer as c on i.CUS_CODE = c.CUS_CODE LIMIT ...	8 row(s) returned	0.000 sec / 0.000 sec

2

MySQL Workbench interface showing a query execution. The query is:

```
1 select i.INV_NUMBER, i.INV_DATE, c.CUS_FNAME, c.CUS_LNAME from Invoice as i
2 left join customer as c on i.CUS_CODE = c.CUS_CODE; # Question 1
3
4 select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v join product as p on v.V_CODE = p.V_CODE
5 group by v.V_CODE, v.V_NAME;
```

The result grid shows 6 rows of data:

V_CODE	V_NAME	NUM_PRODOS	AVG_PROD_PRICE
21225	Bryson, Inc.	2	8.470000
21231	DSE Supply	1	8.450000
21344	Gomez Bros.	3	12.490000
23119	Randeth Ltd.	2	41.970000
24086	CRDVA, Inc.	3	155.981333
25595	Rubicon Systems	3	89.630000

The Action Output shows the execution details:

#	Time	Action	Message	Duration / Fech
229	18:55:04	select * from Invoice LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
230	18:56:28	select i.INV_NUMBER, i.INV_DATE, c.CUS_FNAME, c.CUS_LNAME from Invoice as i left join customer as c on i.CUS_CODE = c.CUS_CODE LIMIT ...	8 row(s) returned	0.000 sec / 0.000 sec
231	19:01:18	select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v left join product as ...	Errr Code: 1054. Unknown column 'v.code' in 'on clause'	0.000 sec
232	19:01:52	select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v left join product as ...	11 row(s) returned	0.015 sec / 0.000 sec
233	19:02:14	select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v join product as p o...	6 row(s) returned	0.000 sec / 0.000 sec

3

MySQL Workbench

Local instance MySQL80

Query 1

```
1 #select i.INV_NUMBER, i.INV_DATE, c.CUS_NAME, c.CUS_NAME from Invoice as i
2 #left join customer as c on i.CUS_CODE = c.CUS_CODE; # Question 1
3
4 #select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v join product as p on v.V_CODE = p.V_CODE
5 #group by v.V_CODE, v.V_NAME question 2
6
7 # select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p
8 #left join vendor v on p.V_CODE = v.V_CODE
```

Result Grid

P_CODE	P_DESCRIPTION	V_CODE	V_NAME
11QERJ1	Power painter, 15 gal., 3-nozzle	25955	Rubicon Systems
13-Q2P2	7.25-in. prsr. saw blade	21344	Gomez Bros.
14-Q1L3	9.00-in. prsr. saw blade	21344	Gomez Bros.
15M-QQ2	Rtd. doth, 1/4-in., 2x50	23119	Randets Ltd.
15SR-QH1	Hrd. doth, 1/2-in., 2x50	23119	Randets Ltd.
2232QTY	BND jgsaw, 12-in. blade	24288	ORDIVA, Inc.
2232QVE	BND jgsaw, 8-in. blade	24288	ORDIVA, Inc.
2238QPD	BND cordless d/s, 1/2-in.	25955	Rubicon Systems
23109HB	Claw hammer	21225	Bryson, Inc.
23114AA	Sledge hammer, 12 lb.	21225	Bryson, Inc.
54778-OT	Rat-tail file, 18-in. file	21344	Gomez Bros.
89-WRE-Q	Holt chain saw, 16 in.	24288	ORDIVA, Inc.
PVCZJRT	PVC pipe, 3.5-in., 8-ft	21225	Bryson, Inc.
SW-18277	1.25-in. metal screw, 25	21225	Bryson, Inc.
SW-23116	2.5-in. wd. screw, 50	21225	Bryson, Inc.
WR3/TT3	Steel matting, 4x8x1/8", 5' m...	25955	Rubicon Systems

Result 6 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
233	19:02:14	select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v join product as p on v.V_CODE = p.V_CODE LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
234	04:11:49	select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p left join vendor v on p.V_CODE = v.V_CODE LIMIT 0, 1000	156 row(s) returned	0.015 sec / 0.000 sec
235	04:11:49	select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p left join vendor v on p.V_CODE = v.V_CODE LIMIT 0, 1000	Error Code: 1054. Unknown column 'v.V_CODE' in 'field list'	0.000 sec
236	04:12:54	select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p left join vendor v on p.V_CODE = v.V_CODE	Error Code: 1054. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'v.V_CODE' at position 10	0.000 sec
237	04:13:21	select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p left join vendor v on p.V_CODE = v.V_CODE LIMIT 0, 1000	16 row(s) returned	0.000 sec / 0.000 sec

4

MySQL Workbench

Local instance MySQL80

Query 1

```
1 #select i.INV_NUMBER, i.INV_DATE, c.CUS_NAME, c.CUS_NAME from Invoice as i
2 #left join customer as c on i.CUS_CODE = c.CUS_CODE; # Question 1
3
4 #select v.V_CODE, v.V_NAME, count(p.P_CODE) as "NUM_PRODOS", avg(p.P_PRICE) as "AVG_PROD_PRICE" from vendor as v join product as p on v.V_CODE = p.V_CODE
5 #group by v.V_CODE, v.V_NAME question 2
6
7 #select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p
8 #left join vendor v on p.V_CODE = v.V_CODE # Q3
9
10 # select p.P_CODE, p.P_DESCRIPTION, i.INV_DATE from product p join line l on p.P_CODE = l.P_CODE
11 #join invoice i on i.INV_NUMBER = l.INV_NUMBER where i.INV_NUMBER = 1000
12
```

Result Grid

P_CODE	P_DESCRIPTION	INV_DATE
PVCZJRT	PVC pipe, 3.5-in., 8-ft	2018-01-17 00:00:00
WR3/TT3	Steel matting, 4x8x1/8", 5' mesh	2018-01-17 00:00:00
23109HB	Claw hammer	2018-01-17 00:00:00

Result 10 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
237	04:13:21	select p.P_CODE, p.P_DESCRIPTION, v.V_CODE, v.V_NAME from product p left join vendor v on p.V_CODE = v.V_CODE LIMIT 0, 1000	16 row(s) returned	0.000 sec / 0.000 sec
238	04:16:31	select p.P_CODE, p.P_DESCRIPTION from product p LIMIT 0, 1000	16 row(s) returned	0.000 sec / 0.000 sec
239	04:17:42	select p.P_CODE, p.P_DESCRIPTION from product p join line l on p.P_CODE = l.P_CODE LIMIT 0, 1000	16 row(s) returned	0.016 sec / 0.000 sec
240	04:19:34	select p.P_CODE, p.P_DESCRIPTION from product p join line l on p.P_CODE = l.P_CODE join invoice i on i.INV_NUMBER = l.INV_NUMBER LIMIT 0, 10	16 row(s) returned	0.000 sec / 0.000 sec
241	04:20:31	select p.P_CODE, p.P_DESCRIPTION, i.INV_DATE from product p join line l on p.P_CODE = l.P_CODE join invoice i on i.INV_NUMBER = l.INV_NUMBER	3 row(s) returned	0.000 sec / 0.000 sec

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