

1. SELECT salesman.name AS "Salesman",
 -> customer.cust_name, customer.city
 -> FROM salesman, customer
 -> WHERE salesman.city=customer.city;

```
mysql> SELECT salesman.name AS "Salesman",
-> customer.cust_name, customer.city
-> FROM salesman, customer
-> WHERE salesman.city=customer.city;
```

Salesman	cust_name	city
Pit Alex	Brad Guzan	London
James Hoog	Nick Rimando	New York
Nail Knite	Fabian Johns	Paris
Mc Lyon	Fabian Johns	Paris
James Hoog	Brad Davis	New York
Pit Alex	Julian Green	London

6 rows in set (0.05 sec)

2. SELECT a.ord_no, a.purch_amt,
 -> b.cust_name, b.city
 -> FROM orders a, customer b
 -> WHERE a.customer_id=b.customer_id
 -> AND a.purch_amt BETWEEN 500 AND 2000;

```
mysql> SELECT a.ord_no, a.purch_amt,
-> b.cust_name, b.city
-> FROM orders a, customer b
-> WHERE a.customer_id=b.customer_id
-> AND a.purch_amt BETWEEN 500 AND 2000;
```

ord_no	purch_amt	cust_name	city
70007	948.5	Graham Zusi	California
70010	1983.43	Fabian Johns	Paris

2 rows in set (0.03 sec)

3. SELECT a.cust_name AS "Customer Name",
 -> a.city, b.name AS "Salesman", b.commission
 -> FROM customer a
 -> INNER JOIN salesman b
 -> ON a.salesman_id=b.salesman_id;

```
mysql> SELECT a.cust_name AS "Customer Name",
-> a.city, b.name AS "Salesman", b.commission
-> FROM customer a
-> INNER JOIN salesman b
-> ON a.salesman_id=b.salesman_id;
```

Customer Name	city	Salesman	commission
Nick Rimando	New York	James Hoog	0.15
Brad Davis	New York	James Hoog	0.15
Graham Zusi	California	Nail Knite	0.13
Julian Green	London	Nail Knite	0.13
Geoff Camero	Berlin	Lauson Hen	0.12
Brad Guzan	London	Pit Alex	0.11
Fabian Johns	Paris	Mc Lyon	0.14
Jozy Altidor	Moscow	Paul Adam	0.13

8 rows in set (0.03 sec)

4. SELECT a.cust_name AS "Customer Name",
 - > a.city, b.name AS "Salesman", b.city,b.commission
 - > FROM customer a
 - > INNER JOIN salesman b
 - > ON a.salesman_id=b.salesman_id
 - > WHERE b.commission>.13
 - > AND a.city<>b.city;

```
mysql> SELECT a.cust_name AS "Customer Name",
-> a.city, b.name AS "Salesman", b.city,b.commission
-> FROM customer a
-> INNER JOIN salesman b
-> ON a.salesman_id=b.salesman_id
-> WHERE b.commission>.13
-> AND a.city<>b.city;
Empty set (0.00 sec)
```

5. SELECT *
 - > FROM orders
 - > NATURAL JOIN customer
 - > NATURAL JOIN salesman;

```
mysql> SELECT *
-> FROM orders
-> NATURAL JOIN customer
-> NATURAL JOIN salesman;
```

salesman_id	city	customer_id	ord_no	purch_amt	ord_date	cust_name	grade	name	commission
5001	New York	3002	70002	65.26	2012-10-05	Nick Rimando	100	James Hoog	0.15
5001	New York	3002	70008	5760	2012-09-10	Nick Rimando	100	James Hoog	0.15
5001	New York	3002	70013	3045.6	2012-04-25	Nick Rimando	100	James Hoog	0.15
5001	New York	3007	70005	2400.6	2012-07-27	Brad Davis	200	James Hoog	0.15
5005	London	3001	70009	270.65	2012-09-10	Brad Guzan	NULL	Pit Alex	0.11
5006	Paris	3004	70010	1983.43	2012-10-10	Fabian Johns	300	Mc Lyon	0.14

6 rows in set (0.00 sec)

6. SELECT a.cust_name,a.city,a.grade,
 -> b.name AS "Salesman", b.city
 -> FROM customer a
 -> LEFT OUTER JOIN salesman b
 -> ON a.salesman_id=b.salesman_id
 -> WHERE a.grade<300
 -> ORDER BY a.customer_id;

```
mysql> SELECT a.cust_name,a.city,a.grade,
  -> b.name AS "Salesman", b.city
  -> FROM customer a
  -> LEFT OUTER JOIN salesman b
  -> ON a.salesman_id=b.salesman_id
  -> WHERE a.grade<300
  -> ORDER BY a.customer_id;
```

cust_name	city	grade	Salesman	city
Nick Rimando	New York	100	James Hoog	New York
Jozy Altidor	Moscow	200	Paul Adam	Rome
Graham Zusi	California	200	Nail Knite	Paris
Brad Davis	New York	200	James Hoog	New York
Geoff Camero	Berlin	100	Lauson Hen	

5 rows in set (0.03 sec)

7.

a. SELECT a.cust_name,a.city,a.grade,
 -> b.name AS "Salesman",b.city
 -> FROM customer a
 -> LEFT JOIN salesman b
 -> ON a.salesman_id=b.salesman_id
 -> order by a.customer_id;

```
mysql> SELECT a.cust_name,a.city,a.grade,
-> b.name AS "Salesman",b.city
-> FROM customer a
-> LEFT JOIN salesman b
-> ON a.salesman_id=b.salesman_id
-> order by a.customer_id;
```

cust_name	city	grade	Salesman	city
Brad Guzan	London	NULL	Pit Alex	London
Nick Rimando	New York	100	James Hoog	New York
Jozy Altidor	Moscow	200	Paul Adam	Rome
Fabian Johns	Paris	300	Mc Lyon	Paris
Graham Zusi	California	200	Nail Knite	Paris
Brad Davis	New York	200	James Hoog	New York
Julian Green	London	300	Nail Knite	Paris
Geoff Camero	Berlin	100	Lauson Hen	

8 rows in set (0.00 sec)

b. SELECT a.cust_name,a.city,a.grade,
-> b.name AS "Salesman",b.city
-> FROM customer a
-> LEFT JOIN salesman b
-> ON a.salesman_id=b.salesman_id
-> order by a.customer_id desc;

```
mysql> SELECT a.cust_name,a.city,a.grade,
-> b.name AS "Salesman",b.city
-> FROM customer a
-> LEFT JOIN salesman b
-> ON a.salesman_id=b.salesman_id
-> order by a.customer_id desc;
```

cust_name	city	grade	Salesman	city
Geoff Camero	Berlin	100	Lauson Hen	
Julian Green	London	300	Nail Knite	Paris
Brad Davis	New York	200	James Hoog	New York
Graham Zusi	California	200	Nail Knite	Paris
Fabian Johns	Paris	300	Mc Lyon	Paris
Jozy Altidor	Moscow	200	Paul Adam	Rome
Nick Rimando	New York	100	James Hoog	New York
Brad Guzan	London	NULL	Pit Alex	London

8 rows in set (0.00 sec)

8. SELECT a.cust_name,a.city, b.ord_no,
-> b.ord_date,b.purch_amt AS "Order Amount"
-> FROM customer a
-> LEFT OUTER JOIN orders b
-> ON a.customer_id=b.customer_id

-> order by b.ord_date;

```
mysql> SELECT a.cust_name,a.city, b.ord_no,  
-> b.ord_date,b.purch_amt AS "Order Amount"  
-> FROM customer a  
-> LEFT OUTER JOIN orders b  
-> ON a.customer_id=b.customer_id  
-> order by b.ord_date;
```

cust_name	city	ord_no	ord_date	Order Amount
Nick Rimando	New York	70013	2012-04-25	3045.6
Julian Green	London	70012	2012-06-27	250.45
Brad Davis	New York	70005	2012-07-27	2400.6
Jozy Altidor	Moscow	70011	2012-08-17	75.29
Geoff Camero	Berlin	70004	2012-08-17	110.5
Graham Zusi	California	70007	2012-09-10	948.5
Brad Guzan	London	70009	2012-09-10	270.65
Nick Rimando	New York	70008	2012-09-10	5760
Graham Zusi	California	70001	2012-10-05	150.5
Nick Rimando	New York	70002	2012-10-05	65.26
Fabian Johns	Paris	70010	2012-10-10	1983.43
Geoff Camero	Berlin	70003	2012-10-10	2480.4

12 rows in set (0.07 sec)

```
9. SELECT a.cust_name,a.city,a.grade,  
-> b.name AS "Salesman",  
-> c.ord_no, c.ord_date, c.purch_amt  
-> FROM customer a  
-> RIGHT OUTER JOIN salesman b  
-> ON b.salesman_id=a.salesman_id  
-> RIGHT OUTER JOIN orders c  
-> ON c.customer_id=a.customer_id;
```

```
mysql> SELECT a.cust_name,a.city,a.grade,
-> b.name AS "Salesman",
-> c.ord_no, c.ord_date, c.purch_amt
-> FROM customer a
-> RIGHT OUTER JOIN salesman b
-> ON b.salesman_id=a.salesman_id
-> RIGHT OUTER JOIN orders c
-> ON c.customer_id=a.customer_id;
```

cust_name	city	grade	Salesman	ord_no	ord_date	purch_amt
Graham Zusi	California	200	Nail Knite	70001	2012-10-05	150.5
Nick Rimando	New York	100	James Hoog	70002	2012-10-05	65.26
Geoff Camero	Berlin	100	Lauson Hen	70003	2012-10-10	2480.4
Geoff Camero	Berlin	100	Lauson Hen	70004	2012-08-17	110.5
Brad Davis	New York	200	James Hoog	70005	2012-07-27	2400.6
Graham Zusi	California	200	Nail Knite	70007	2012-09-10	948.5
Nick Rimando	New York	100	James Hoog	70008	2012-09-10	5760
Brad Guzan	London	NULL	Pit Alex	70009	2012-09-10	270.65
Fabian Johns	Paris	300	Mc Lyon	70010	2012-10-10	1983.43
Jozy Altidor	Moscow	200	Paul Adam	70011	2012-08-17	75.29
Julian Green	London	300	Nail Knite	70012	2012-06-27	250.45
Nick Rimando	New York	100	James Hoog	70013	2012-04-25	3045.6

12 rows in set (0.00 sec)

```
10. SELECT a.cust_name,a.city,a.grade,
-> b.name AS "Salesman",
-> c.ord_no, c.ord_date, c.purch_amt
-> FROM customer a
-> RIGHT OUTER JOIN salesman b
-> ON b.salesman_id=a.salesman_id
-> LEFT OUTER JOIN orders c
-> ON c.customer_id=a.customer_id
-> WHERE c.purch_amt>=2000
-> AND a.grade IS NOT NULL;
```

```
mysql> SELECT a.cust_name,a.city,a.grade,
-> b.name AS "Salesman",
-> c.ord_no, c.ord_date, c.purch_amt
-> FROM customer a
-> RIGHT OUTER JOIN salesman b
-> ON b.salesman_id=a.salesman_id
-> LEFT OUTER JOIN orders c
-> ON c.customer_id=a.customer_id
-> WHERE c.purch_amt>=2000
-> AND a.grade IS NOT NULL;
```

cust_name	city	grade	Salesman	ord_no	ord_date	purch_amt
Geoff Camero	Berlin	100	Lauson Hen	70003	2012-10-10	2480.4
Brad Davis	New York	200	James Hoog	70005	2012-07-27	2400.6
Nick Rimando	New York	100	James Hoog	70008	2012-09-10	5760
Nick Rimando	New York	100	James Hoog	70013	2012-04-25	3045.6

4 rows in set (0.00 sec)

11. -

12. SELECT *

-> FROM salesman a
-> CROSS JOIN customer b
-> WHERE a.city IS NOT NULL
-> AND b.grade IS NOT NULL
-> AND a.city<>b.city;

```
mysql> SELECT *
-> FROM salesman a
-> CROSS JOIN customer b
-> WHERE a.city IS NOT NULL
-> AND b.grade IS NOT NULL
-> AND a.city<>b.city;
```

salesman_id	name	city	commission	customer_id	cust_name	city	grade	salesman_id
5001	James Hoog	New York	0.15	3001	Brad Guzan	London		5005
5002	Nail Knite	Paris	0.13	3001	Brad Guzan	London		5005
5003	Lauson Hen	Paris	0.12	3001	Brad Guzan	London		5005
5006	Mc Lyon	Paris	0.14	3001	Brad Guzan	London		5005
5007	Paul Adam	Rome	0.13	3001	Brad Guzan	London		5005
5002	Nail Knite	Paris	0.13	3002	Nick Rimando	New York	100	5001
5003	Lauson Hen	Paris	0.12	3002	Nick Rimando	New York	100	5001
5005	Pit Alex	London	0.11	3002	Nick Rimando	New York	100	5001
5006	Mc Lyon	Paris	0.14	3002	Nick Rimando	New York	100	5001
5007	Paul Adam	Rome	0.13	3002	Nick Rimando	New York	100	5001
5001	James Hoog	New York	0.15	3003	Jozy Altidor	Moscow	200	5007
5002	Nail Knite	Paris	0.13	3003	Jozy Altidor	Moscow	200	5007
5003	Lauson Hen	Paris	0.12	3003	Jozy Altidor	Moscow	200	5007
5005	Pit Alex	London	0.11	3003	Jozy Altidor	Moscow	200	5007
5006	Mc Lyon	Paris	0.14	3003	Jozy Altidor	Moscow	200	5007
5007	Paul Adam	Rome	0.13	3003	Jozy Altidor	Moscow	200	5007
5001	James Hoog	New York	0.15	3004	Fabian Johns	Paris	300	5006
5003	Lauson Hen	Paris	0.12	3004	Fabian Johns	Paris	300	5006
5005	Pit Alex	London	0.11	3004	Fabian Johns	Paris	300	5006
5007	Paul Adam	Rome	0.13	3004	Fabian Johns	Paris	300	5006
5001	James Hoog	New York	0.15	3005	Graham Zusi	California	200	5002
5002	Nail Knite	Paris	0.13	3005	Graham Zusi	California	200	5002
5003	Lauson Hen	Paris	0.12	3003	Jozy Altidor	Moscow	200	5007
5005	Pit Alex	London	0.11	3003	Jozy Altidor	Moscow	200	5007
5006	Mc Lyon	Paris	0.14	3003	Jozy Altidor	Moscow	200	5007
5007	Paul Adam	Rome	0.13	3003	Jozy Altidor	Moscow	200	5007
5001	James Hoog	New York	0.15	3004	Fabian Johns	Paris	300	5006
5003	Lauson Hen	Paris	0.12	3004	Fabian Johns	Paris	300	5006
5005	Pit Alex	London	0.11	3004	Fabian Johns	Paris	300	5006
5007	Paul Adam	Rome	0.13	3004	Fabian Johns	Paris	300	5006
5001	James Hoog	New York	0.15	3005	Graham Zusi	California	200	5002
5002	Nail Knite	Paris	0.13	3005	Graham Zusi	California	200	5002
5003	Lauson Hen	Paris	0.12	3005	Graham Zusi	California	200	5002
5005	Pit Alex	London	0.11	3005	Graham Zusi	California	200	5002
5006	Mc Lyon	Paris	0.14	3005	Graham Zusi	California	200	5002
5007	Paul Adam	Rome	0.13	3005	Graham Zusi	California	200	5002
5002	Nail Knite	Paris	0.13	3007	Brad Davis	New York	200	5001
5003	Lauson Hen	Paris	0.12	3007	Brad Davis	New York	200	5001
5005	Pit Alex	London	0.11	3007	Brad Davis	New York	200	5001
5006	Mc Lyon	Paris	0.14	3007	Brad Davis	New York	200	5001
5007	Paul Adam	Rome	0.13	3007	Brad Davis	New York	200	5001
5001	James Hoog	New York	0.15	3008	Julian Green	London	300	5002
5002	Nail Knite	Paris	0.13	3008	Julian Green	London	300	5002
5003	Lauson Hen	Paris	0.12	3008	Julian Green	London	300	5002
5006	Mc Lyon	Paris	0.14	3008	Julian Green	London	300	5002
5007	Paul Adam	Rome	0.13	3008	Julian Green	London	300	5002
5001	James Hoog	New York	0.15	3009	Geoff Camero	Berlin	100	5003
5002	Nail Knite	Paris	0.13	3009	Geoff Camero	Berlin	100	5003
5003	Lauson Hen	Paris	0.12	3009	Geoff Camero	Berlin	100	5003
5005	Pit Alex	London	0.11	3009	Geoff Camero	Berlin	100	5003
5006	Mc Lyon	Paris	0.14	3009	Geoff Camero	Berlin	100	5003
5007	Paul Adam	Rome	0.13	3009	Geoff Camero	Berlin	100	5003

42 rows in set (0.00 sec)

13. SELECT A.pro_name, A.pro_price, F.com_name

-> FROM item A INNER JOIN company F

-> ON A.com_id = F.com_id

-> AND A.pro_price =

-> (

-> SELECT MAX(A.pro_price)

-> FROM item A

-> WHERE A.com_id = F.com_id

->);

```
mysql> SELECT A.pro_name, A.pro_price, F.com_name
-> FROM item A INNER JOIN company F
-> ON A.com_id = F.com_id
-> AND A.pro_price =
-> (
-> SELECT MAX(A.pro_price)
-> FROM item A
-> WHERE A.com_id = F.com_id
-> );
```

pro_name	pro_price	com_name
Monitor	5000	Samung
DVD drive	900	iBall
Printer	2600	Epsion
Zip drive	250	Zebronics
Mother Board	3200	Asus
Speaker	550	Frontech

6 rows in set (0.03 sec)

14. SELECT AVG(pro_price), company.com_name

-> FROM item INNER JOIN company

-> ON item.com_id= company.com_id

-> GROUP BY company.com_name

-> HAVING AVG(pro_price) >= 350;

```
mysql> SELECT AVG(pro_price), company.com_name
-> FROM item INNER JOIN company
-> ON item.com_id= company.com_id
-> GROUP BY company.com_name
-> HAVING AVG(pro_price) >= 350;
```

AVG(pro_price)	com_name
5000.0000	Samung
650.0000	iBall
1475.0000	Epsion
3200.0000	Asus
500.0000	Frontech

5 rows in set (0.04 sec)

15. SELECT AVG(pro_price), company.com_name

-> FROM item INNER

-> JOIN company

-> ON item.com_id= company.com_id

-> GROUP BY company.com_name;

```
mysql> SELECT AVG(pro_price), company.com_name
-> FROM item INNER
-> JOIN company
-> ON item.com_id= company.com_id
-> GROUP BY company.com_name;
```

AVG(pro_price)	com_name
5000.0000	Samung
650.0000	iBall
1475.0000	Epsion
250.0000	Zebronics
3200.0000	Asus
500.0000	Frontech

6 rows in set (0.00 sec)