

SQL Exercises, Practice, Solution

1. From the following tables, write a SQL query to find all the orders issued by the salesman 'Paul Adam'. Return ord_no, purch_amt, ord_date, customer_id and salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
70005	2400.6	2012-07-27	3007	5001
70008	5760	2012-09-10	3002	5001
70010	1983.43	2012-10-10	3004	5006
70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

1. From the following tables, write a SQL query to find all the orders issued by the salesman 'Paul Adam'. Return ord_no, purch_amt, ord_date, customer_id and salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

```
SELECT *  
FROM orders  
WHERE salesman_id =  
  (SELECT salesman_id  
   FROM salesman  
   WHERE name='Paul Adam');
```

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
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70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

2. From the following tables, write a SQL query to find all the orders, which are generated by those salespeople, who live in the city of London. Return ord_no, purch_amt, ord_date, customer_id, salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table: Orders

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70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
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70010	1983.43	2012-10-10	3004	5006
70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

2. From the following tables, write a SQL query to find all the orders, which are generated by those salespeople, who live in the city of London. Return ord_no, purch_amt, ord_date, customer_id, salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

```
SELECT *  
FROM orders  
WHERE salesman_id IN  
  (SELECT salesman_id  
   FROM salesman  
   WHERE city='London');
```

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
70005	2400.6	2012-07-27	3007	5001
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70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

3. From the following tables, write a SQL query to find the orders generated by the salespeople who works for customers whose id is 3007. Return ord_no, purch_amt, ord_date, customer_id, salesman_id. A customer can works only with a salespeople.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

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Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
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70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

```
SELECT *  
FROM orders  
WHERE salesman_id =  
  (SELECT DISTINCT salesman_id  
   FROM orders  
   WHERE customer_id =3007);
```

4. From the following tables, write a SQL query to find the order values greater than the average order value of 10th October 2012. Return ord_no, purch_amt, ord_date, customer_id, salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
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70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
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Sample table: Salesman

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70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
70005	2400.6	2012-07-27	3007	5001
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70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

```
SELECT *
FROM orders
WHERE purch_amt >
      (SELECT AVG(purch_amt)
       FROM orders
       WHERE ord_date
       ='10/10/2012');
```

5. From the following tables, write a SQL query to find all the orders generated in Paris city. Return ord_no, purch_amt, ord_date, customer_id and salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
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70008	5760	2012-09-10	3002	5001
70010	1983.43	2012-10-10	3004	5006
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70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

5. From the following tables, write a SQL query to find all the orders generated in Paris city. Return ord_no, purch_amt, ord_date, customer_id and salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table: Orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
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70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
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70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

```
SELECT *  
FROM orders  
WHERE salesman_id IN  
  (SELECT salesman_id  
   FROM salesman  
   WHERE city ='Paris');
```

6. From the following tables, write a SQL query to find the commission of the salespeople work in Paris City. Return commission.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Sample table : Customer

customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001
3007	Brad Davis	New York	200	5001
3005	Graham Zusi	California	200	5002
3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007
3001	Brad Guzan	London		5005

6. From the following tables, write a SQL query to find the commission of the salespeople work in Paris City. Return commission.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
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5003	Lauson Hen	San Jose	0.12

Sample table : Customer

customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001
3007	Brad Davis	New York	200	5001
3005	Graham Zusi	California	200	5002
3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007
3001	Brad Guzan	London		5005

```
SELECT commission
FROM salesman
WHERE salesman_id IN
(SELECT salesman_id
FROM Customer
WHERE city = 'Paris');
```

7. From the following tables, write a SQL query to count number of customers with grades above the average grades of New York City. Return grade and count.

Sample table : Customer				
customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001
3007	Brad Davis	New York	200	5001
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3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007
3001	Brad Guzan	London		5005

7. From the following tables, write a SQL query to count number of customers with grades above the average grades of New York City. Return grade and count.

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3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007
3001	Brad Guzan	London		5005

```
SELECT grade, COUNT (*)  
FROM Customer  
GROUP BY grade  
HAVING grade >  
      (SELECT AVG(grade)  
       FROM customer  
       WHERE city = 'New York');
```

8. From the following tables, write a SQL query to find those salespeople who earned the maximum commission. Return ord_no, purch_amt, ord_date, and salesman_id.

Sample table: Salesman

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
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70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

```
SELECT ord_no, purch_amt,
ord_date, salesman_id
FROM orders
WHERE salesman_id IN(
SELECT salesman_id
FROM salesman
WHERE commission = (
SELECT MAX(commission)
FROM salesman));
```