

## Assignment-24

### Views in SQL

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1. From the following table, create a view for those salespersons belong to the city 'New York'.

**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 Output:

**Query:**

```
CREATE VIEW view_newyork_staff
AS SELECT * FROM
salesman WHERE city='New York';
```

```
mysql> SELECT * FROM view_newyork_staff;
+-----+-----+-----+-----+
| salesman_id | name      | city    | commission |
+-----+-----+-----+-----+
| 5001        | James Hoog | New York | 0.15        |
+-----+-----+-----+-----+
1 row in set (0.04 sec)
```

2. From the following table, create a view for all salespersons. Return salesperson ID, name, and city.

**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

output

### Query:

```
CREATE VIEW viewsalesall AS SELECT salesman_id,
name ,city FROM salesman;
```

```
mysql> SELECT * FROM viewsalesall;
```

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

6 rows in set (0.01 sec)

3. From the following table, create a view to find the salespersons of the city 'New York'.

Refer above salesman table

### Query:

```
CREATE VIEW viewSalesmanNewyork
AS SELECT * FROM salesman
WHERE city='New York';
```

```
mysql> SELECT * FROM viewSalesmanNewyork;
```

salesman_id	name	city	commission
5001	James Hoog	New York	0.15

1 row in set (0.03 sec)

4. From the following table, create a view to count the number of customers in each grade.

Customer table

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

**Query:**

```
CREATE VIEW viewGradeCount(grade,number)
AS SELECT grade,COUNT(*)
FROM customer
GROUP BY grade;
```

```
mysql> SELECT * FROM viewGradeCount;
+-----+-----+
| grade | number |
+-----+-----+
| 100   | 2      |
| 200   | 3      |
| 300   | 2      |
| 0     | 1      |
+-----+-----+
4 rows in set (0.03 sec)
```

5. From the following table, create a view to count the number of unique

customer, compute average and total purchase amount of customer orders by each date.

### 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

### Query:

```
CREATE VIEW viewTotalOrderByDate
AS SELECT ord_date,COUNT(DISTINCT customer_id),
AVG(purch_amt),SUM(purch_amt)
FROM orders GROUP BY ord_date;
```

```
mysql> SELECT * FROM viewTotalOrderByDate;
+-----+-----+-----+-----+
| ord_date | COUNT(DISTINCT customer_id) | AVG(purch_amt) | SUM(purch_amt) |
+-----+-----+-----+-----+
| 2012-04-25 | 1 | 3045.6 | 3045.6 |
| 2012-06-27 | 1 | 250.45 | 250.45 |
| 2012-07-27 | 1 | 2400.6 | 2400.6 |
| 2012-08-17 | 2 | 92.89500000000001 | 185.79000000000002 |
| 2012-09-10 | 3 | 2326.383333333333 | 6979.15 |
| 2012-10-05 | 2 | 107.88 | 215.76 |
| 2012-10-10 | 2 | 2231.915 | 4463.83 |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

6. From the following tables, create a view to get the salesperson and customer by name. Return order name, purchase amount, salesperson ID, name, customer name.

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

### Query:

```

CREATE VIEW viewNameOrders
AS SELECT ord_no ,purch_amt,ord.salesman_id,name ,cust_name
FROM orders ord,customer cust,salesman sales
WHERE ord.customer_id=cust.customer_id AND
ord.salesman_id= sales.salesman_id;

```

```
mysql> SELECT * FROM viewNameOrders;
```

ord_no	purch_amt	salesman_id	name	cust_name
7013	3045.6	5001	James Hoog	Nick Rimando
7008	5760	5001	James Hoog	Nick Rimando
7002	65.26	5001	James Hoog	Nick Rimando
7007	948.5	5002	Nail Knite	Graham Zusi
7001	150.5	5002	Nail Knite	Graham Zusi
7012	250.45	5002	Nail Knite	Julian Green
7010	1983.43	5006	Mc Lyon	Fabian Johnson
7003	2480.4	5003	Lauson Hen	Geoff Cameron
7004	110.5	5003	Lauson Hen	Geoff Cameron
7011	75.29	5007	Paul Adam	Jozy Altidor
7009	270.65	5005	Pit Alex	Brad Guzan

```
11 rows in set (0.03 sec)
```

7. From the following table, create a view to find all the customers who have the highest grade. Return all the fields of customer.

Refer customer table

**Query:**

```
/*7
find all the customers who have the highest grade
return all the fields of customer
*/

CREATE VIEW viewHighgrade
AS SELECT * FROM customer
WHERE grade=(SELECT MAX(grade)FROM customer);
```

```
mysql> SELECT * FROM viewHighgrade;
```

customer_id	cust_name	city	grade	salesman_id
3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006

```
2 rows in set (0.01 sec)
```

8. From the following table, create a view to count number of the salesperson in each city. Return city, number of salespersons.

Refer salesman table

**Query:**

```
CREATE VIEW viewCitynum
AS SELECT city,COUNT(DISTINCT salesman_id)
FROM salesman
GROUP BY city;
```

```
mysql> select * from viewCitynum;
+-----+-----+
| city      | COUNT(DISTINCT salesman_id) |
+-----+-----+
| London    | 1 |
| New York  | 1 |
| Paris     | 2 |
| Rome      | 1 |
| San Jose  | 1 |
+-----+-----+
5 rows in set (0.00 sec)
```

9. From the following table, create a view to compute average purchase amount and total purchase amount for each salesperson. Return name, average purchase and total purchase amount. (Assume all names are unique).

Refer salesman and orders table

**Query:**

```
CREATE VIEW viewNoOrders
AS SELECT name,AVG(purch_amt),
SUM(purch_amt)FROM salesman,
orders
WHERE salesman.salesman_id=orders.salesman_id
GROUP BY name;
```

```
mysql> SELECT * FROM viewNoOrders;
+-----+-----+-----+
| name      | AVG(purch_amt) | SUM(purch_amt) |
+-----+-----+-----+
| Nail Knite | 449.81666666666666 | 1349.45 |
| Pit Alex   | 270.65 | 270.65 |
| James Hoog | 2817.8650000000002 | 11271.460000000001 |
| Lauson Hen | 1295.45 | 2590.9 |
| Mc Lyon   | 1983.43 | 1983.43 |
| Paul Adam  | 75.29 | 75.29 |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

10. From the following tables, create a view to find those salespeople who handle more than one customer. Return all the fields of salesperson.

Refer customer and salesman table

**Query:**

```
CREATE VIEW viewMoreCustomer
AS SELECT * FROM salesman sales
> WHERE 1< (SELECT COUNT(*)FROM customer cust
~ WHERE sales.salesman_id=cust.salesman_id);
```

```
mysql> SELECT * FROM viewMoreCustomer;
+-----+-----+-----+-----+
| salesman_id | name       | city    | commission |
+-----+-----+-----+-----+
|          5001 | James Hoog | New York |          0.15 |
|          5002 | Nail Knite | Paris    |          0.13 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```