ASSIGNMENT (View)

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1) A database is being constructed for storing sales information system which store the information of Client. The client have it own unique client number, client name, client addresses, city, address, pin code, state and total balance to be required to paid.

Consider the following schema:

Client (Client ID, Client Name, Address, City, Pin, State, Bal Due)

```
CREATE TABLE client(CID varchar(20),Client_name varchar(30),address varchar(100),city varchar(30),pin int(4),state varchar(30),bal_due int(4));

INSERT INTO `client` (`CID`, `Client_name`, `address`, `city`, `pin`, `state`, `bal_due`) VALUES ('cn01001', 'shishu', 'indrapuri rd no 12', 'patna', '800024', 'bihr', '5000'), ('cn01002', 'rahul', 'punaichak patna 23', 'patna', '800023', 'bihar', '6000'), ('cn01003', 'manoj', 'allahabad up', 'allahabad', '440011', 'up', '5566');
```

Execute the following queries:

a) Create a View called Client_View1 having all data of Client table.

```
CREATE VIEW client view1 as SELECT * from client;
lariaDB [assign81]> select * from client_view1;
Client_Id | Client_name | address
                                                 city
                                                              pin
                                                                        | state | bal due
                          | indrapuri rd no 12 | patna
                                                                800024
cn01001
             shishu
                                                                         bihr
                                                                                      5000
                          | punaichak patna 23 | patna | 800023 | bil
| allahabad up | allahabad | 440011 | up
cn01002
             rahul
                                                                         bihar
                                                                                      6000
cn01003
             manoj
                                                                                      5566
rows in set (0.000 sec)
```

b) Create a view called Client_vw2 having Client_ID, city and Bal_Due attributes of client table. MariaDB [assign81]> create view client_vw2 as select Client_id,city,bal_due from client; Query OK, 0 rows affected (0.003 sec)

c) Create a view called Client_vw3 with renaming Client_ID as CID, Client_Name as cname and Address as Addr of client table.

d) Using Client view1, print client name and Balance of Client whose ID is 'cn01001'.

```
MariaDB [assign81]> select client_name,bal_due from client_view1 where client_id='cn01001';
  Client name | bal due
  shishu
                  5000
1 row in set (0.000 sec)
e) Insert a row into Client vw2 ('cn02003', 'alld', 5000).
   MariaDB [assign81]> insert into client_vw2 values('cn02003', 'alld', 5000);
   Query OK, 1 row affected (0.003 sec)
f) Modify view Client vw2 such that bal due of Client ID CN01004 now become 1000.
   MariaDB [assign81]> select * from client_vw2 where client_id='cn01004';
                            | bal_due
      Client_id | city
      cn01004 | banglore |
                                   3000
   1 row in set (0.000 sec)
   MariaDB [assign81]> update client_vw2 set bal_due=1000 where client_id='cn01004';
    Query OK, 1 row affected (0.002 sec)
   Rows matched: 1 Changed: 1 Warnings: 0
g) Delete row from view client vw2 where Client ID='CN02003'.
   MariaDB [assign81]> delete from client_vw2 where client_id='cn02003';
   Query OK, 1 row affected (0.003 sec)
h) Delete view client vw3 from memory.
    MariaDB [assign81]> drop view client vw3;
    Query OK, 0 rows affected (0.001 sec)
i) Consider another table Client2 (ClientID, Phone). Create a view client vw4 which has
   clientID, Client name, bal due and phone. Use both The tables Client and Client2.
    MariaDB [assign81]> create table client2 (clientId varchar(50),phone varchar(12),constraint fk_client foreign |
    ey(clientid) references client(client_id) on delete cascade on update cascade);
    Query OK, 0 rows affected (0.022 sec)
    lariaDB [assign81]> create view client_vw4 as select client.client_id,client2.phone,client.bal_due from client,
   client2 where client.client_id=client2.clientId;
   Query OK, 0 rows affected (0.003 sec)
   MariaDB [assign81]> select * from client_vw4;
```

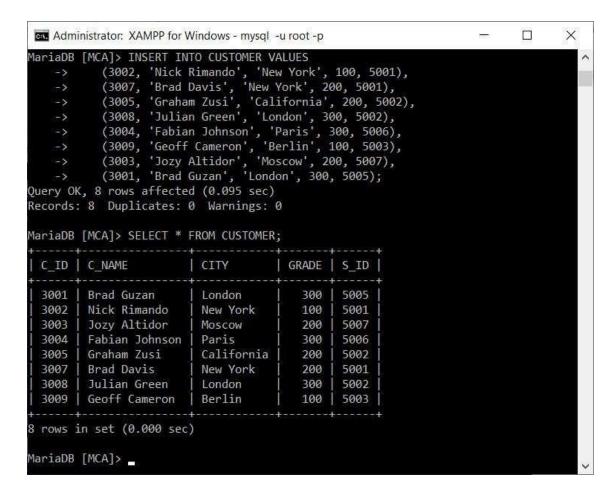
2) A database is being constructed for storing **sales information system**. The customer who buy the item or order the item have it own unique customer id, customer name, customer city, grade and salesman id of those salesman from which they buy the item. Each customer order is to buy item from the salesman. In the order, it has unique sales order number, sales order date, customer id, salesman id and purchase amount to be paid. The elistsalesman have salesman id, name, city and

commission which shows the personal details of all salesman. Consider the following schema: CUSTOMER (c_id, c_name, city, grade, s_id) SALESMAN (s_id, name, city, commission) ORDERS (o_no, purchase_amt, o_date, c_id, s_id) ELITSALESMAN (s_id, name, city, commission) CUSTOMER CREATE TABLE CUSTOMER(C_ID INT(5) PRIMARY KEY, C_NAME VARCHAR(30), CITY VARCHAR(15),

```
X
Administrator: XAMPP for Windows - mysql -u root -p
                                                                          MariaDB [MCA]> CREATE TABLE CUSTOMER(C_ID INT(5) PRIMARY KEY, C_NAME VARCHAR(30),
CITY VARCHAR(15), GRADE INT(3), S_ID INT(5));
Query OK, 0 rows affected (1.835 sec)
MariaDB [MCA]> DESC CUSTOMER;
 Field | Type
                       | Null | Key | Default | Extra
                              PRI | NULL
 C ID
          int(5)
                        NO
 C NAME
           varchar(30)
                        YES
                                      NULL
 CITY
           varchar(15)
                        YES
                                      NULL
 GRADE
          int(3)
                        YES
                                      NULL
 SID
                        YES
                                     NULL
         | int(5)
5 rows in set (0.145 sec)
MariaDB [MCA]>
```

```
INSERT INTO CUSTOMER

(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')
```



SALESMAN

CREATE TABLE SALESMAN(S_ID INT(5) PRIMARY KEY, NAME VARCHAR(30), CITY VARCHAR(15),

```
X
Administrator: XAMPP for Windows - mysql -u root -p
MariaDB [MCA]> CREATE TABLE SALESMAN(S_ID INT(5) PRIMARY KEY, NAME VARCHAR(30), CI 🔨
TY VARCHAR(15), COMMISSION FLOAT(5,2));
Query OK, 0 rows affected (0.771 sec)
MariaDB [MCA]> DESC SALESMAN;
 Field | Type | Null | Key | Default | Extra |
                          l NO
 S ID
              int(5)
                                 | PRI | NULL
              varchar(30) | YES |
varchar(15) | YES |
 NAME
                                         NULL
 CITY
                                         NULL
 COMMISSION | float(5,2) | YES |
                                       NULL
4 rows in set (0.064 sec)
MariaDB [MCA]>
```

```
INSERT INTO SALESMAN VALUES
                                        'New York',
          (5001, 'James Hoog',
                                                      0.15),
             (5002,
                       'Nail Knite',
                                       'Paris
                                                      0.13),
             (5005, 'Pit Alex
                                       'London
                                                      0.11),
             (5006, 'Mc Lyon
                                       'Paris
                                                      0.14),
                                                      0.13),
             (5007,
                      'Paul Adam',
                                       'Rome
             (5003.
                      'Lauson Hen',
                                         'San Jose'.
                                                      0.12):
```

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                                                  X
MariaDB [MCA]> INSERT INTO SALESMAN VALUES
                   (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);
Query OK, 6 rows affected (0.358 sec)
Records: 6 Duplicates: 0 Warnings: 0
MariaDB [MCA]> SELECT * FROM SALESMAN;
  S ID NAME
                           CITY
                                         COMMISSION
  5001
           James Hoog | New York
                                                    0.15
         | Nail Knite | Paris
  5002
                                                    0.13
  5003
         | Lauson Hen | San Jose
                                                    0.12
         | Pit Alex
  5005
                            London
                                                    0.11
         Mc Lyon
  5006
                            Paris
                                                    0.14
  5007 | Paul Adam | Rome
                                                    0.13
  rows in set (0.001 sec)
MariaDB [MCA]>
```

ORDERS

CREATE TABLE ORDERS(O_NO INT(5) PRIMARY KEY, PURCHASE_AMT FLOAT(8,2), OR DATE, C ID

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                          X
MariaDB [MCA]> CREATE TABLE ORDERS(O_NO INT(5) PRIMARY KEY, PURCHASE_AMT FLOAT(8,2 ∧
), ORD_DATE DATE, C_ID INT(5), S_ID INT(5));
Query OK, 0 rows affected (0.569 sec)
MariaDB [MCA]> DESC ORDERS;
 Field
               Type
                            | Null | Key | Default | Extra
 O NO
                 int(5)
                             NO
                                    PRI
                                          NULL
 PURCHASE AMT
                float(8,2)
                             YES
                                           NULL
 ORD DATE
                date
                             YES
                                           NULL
 C_ID
                 int(5)
                             YES
                                           NULL
 S_ID
                             YES
                int(5)
                                          NULL
5 rows in set (0.052 sec)
MariaDB [MCA]> _
```

```
INSERT INTO DERS UF
                                             3005, 5002),
                           '2012-10-05',
               VAL
OR
                       S
      (70001, 150.5,
        (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),
                                             3007, 5001),
        (70005, 2400.6,
                           '2012-07-27',
        (70008, 5760
                           '2012-09-10',
                                             3002, 5001),
                           '2012-10-10',
                                             3004, 5006),
        (70010, 1983.4,
        (70003, 2480.4,
                           '2012-10-10',
                                             3009, 5003),
       (70012, 250.45,
                           '2012-06-27',
                                             3008, 5002),
        (70011, 75.29,
                           '2012-08-17',
                                             3003, 5007),
                                             3002, 5001);
        (70013, 3045.6,
                           '2012-04-25',
```

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                                         X
MariaDB [MCA]> INSERT INTO ORDERS VALUES
            (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, 1983.4, '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 OK, 12 rows affected (0.295 sec)
Records: 12 Duplicates: 0 Warnings: 0
MariaDB [MCA]> SELECT * FROM ORDERS;
 O_NO | PURCHASE_AMT | ORD_DATE
                                           | C_ID | S_ID |
  70001
                   150.50 | 2012-10-05
                                             3005
                                                      5002
                   65.26 | 2012-10-05
  70002
                                             3002
                                                      5001
  70003
                  2480.40 | 2012-10-10
                                             3009
                                                      5003
  70004
                  110.50 | 2012-08-17
                                           3009
                                                      5003
  70005
                  2400.60 | 2012-07-27 | 3007
                                                      5001
  70007
                  948.50 | 2012-09-10 | 3005
                                                      5002
  70008
                 5760.00 | 2012-09-10 | 3002
                                                      5001
                  270.65 | 2012-09-10 | 3001
  70009
                                                      5005
                             2012-10-10 | 3004
                  1983.40
  70010
                                                      5006
  70011
                   75.29
                              2012-08-17
                                             3003
                                                      5007
                   250.45 | 2012-06-27
  70012
                                             3008
                                                      5002
                  3045.60 | 2012-04-25 | 3002 |
                                                     5001
  70013
12 rows in set (0.000 sec)
```

ELITSALESMAN

CREATE TABLE ELITSALESMAN(S_ID INT(5) PRIMARY KEY, NAME VARCHAR(30), CIT VARCHAR(15),

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                          X
MariaDB [MCA]> CREATE TABLE ELITSALESMAN(S_ID INT(5) PRIMARY KEY, NAME VARCHAR(30)
 CITY VARCHAR(15), COMMISSION FLOAT(5,2));
Query OK, 0 rows affected (0.585 sec)
MariaDB [MCA]> DESC ELITSALESMAN;
 Field
             Type
                           | Null | Key | Default | Extra
 S ID
               int(5)
                             NO
                                    PRI
                                          NULL
                             YES
 NAME
               varchar(30)
                                          NULL
  CITY
               varchar(15)
                             YES
                                          NULL
 COMMISSION
              float(5,2)
                            YES
                                          NULL
 rows in set (0.014 sec)
MariaDB [MCA]>
```

```
INSERT INTO ELITSALESMAN VALUES
           (5001, 'James Hoog', 'New York',
                                                        0.15).
                                                     0.13
              (5002,
                        'Nail Knite',
                                        'Paris
              (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);
```

```
X
 Administrator: XAMPP for Windows - mysql -u root -p
                                                                                   MariaDB [MCA]> INSERT INTO ELITSALESMAN VALUES
                 (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);
Query OK, 6 rows affected (0.099 sec)
Records: 6 Duplicates: 0 Warnings: 0
MariaDB [MCA]> SELECT * FROM ELITSALESMAN;
  S ID NAME
                                   COMMISSION
                        CITY
                        New York
  5001
          James Hoog
                                            0.15
         Nail Knite
  5002
                        Paris
                                            0.13
  5003
         Lauson Hen
                        San Jose
                                            0.12
                        London
                                            0.11
  5005
         Pit Alex
  5006
                        Paris
         Mc Lyon
                                            0.14
  5007
        Paul Adam
                        Rome
                                            0.13
  rows in set (0.001 sec)
MariaDB [MCA]>
```

a) Create a view for those salesmen who belong to the city 'New York'.

CREATE VIEW NewYorkStaff AS SELECT * FROM salesman WHERE city = 'New Yor

b) Create a view for all salesmen with columns salesman id, name and city.

CREATE VIEW salesown AS SELECT s_id, name, city FROM salesman;



c) Find the salesmen of the city New York who achieved the commission more than 13%.

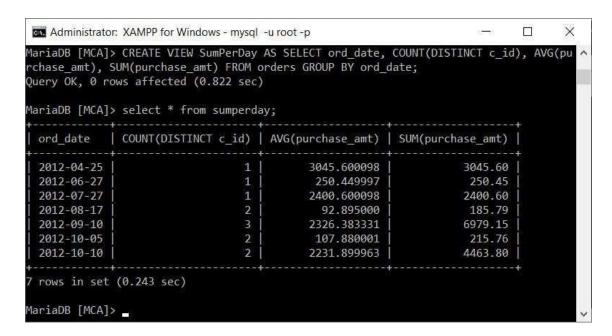
SELECT * FROM SALESMAN WHERE CITY='NEW YORK' AND COMMISSION > 0.13;

d) Create a view to getting a count of how many customers we have at each level of a grade.

CREATE VIEW gradecount (grade, number) AS SELECT grade, COUNT(*) FROM cu GROUP BY grade;

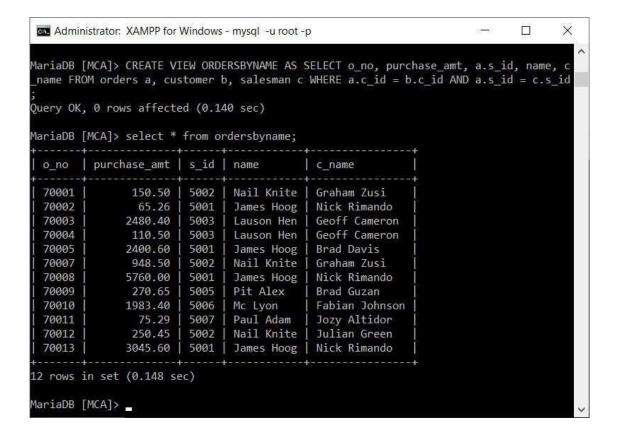
e) Create a view to keeping track the number of customers ordering, number of salesmen attached, average amount of orders and the total amount of orders in a day.

CREATE VIEW SumPerDay AS SELECT ord_date, COUNT(DISTINCT c_id), AVG(purchase_amt), SUM(purchase_amt) FROM orders GROUP BY ord_date;



f) Create a view that shows for each order the salesman and customer by name.

CREATE VIEW ORDERSBYNAME AS SELECT o_no, purchase_amt, a.s_id, name, c_n FROM orders a, customer b, salesman c WHERE a.c_id = b.c_id AND a.s_id = c.s_id;



g) Create a view that finds the salesman who has the customer with the highest order of a day.

CREATE VIEW salesmanofday AS SELECT b.ord_date, a.s_id, a.name FROM sale a, orders b WHERE a.s_id = b.s_id AND b.purchase_amt = (SELECT MAX(purchase_amt) FROM orders c WHERE c.ord_date = b.ord_date);

h) Create a view that finds the salesman who has the customer with the highest order at least 3 times on a day.

CREATE VIEW saleswithmaxorder AS SELECT DISTINCT s_id, name FROM salesma a WHERE 3 <= (SELECT COUNT(*) FROM salesmanofday b WHERE a.s id = b.s id

i) Create a view that shows all of the customers who have the highest grade.

CREATE VIEW highgrade AS SELECT * FROM customer WHERE grade=(SELECT MAX(

FROM customer);

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                            X
MariaDB [MCA]> CREATE VIEW highgrade AS SELECT * FROM customer WHERE grade=(SELECT MA ^
X(grade) FROM customer);
Query OK, 0 rows affected (0.108 sec)
MariaDB [MCA]> select * from highgrade;
 C ID | C NAME
                       CITY
                                GRADE S ID
 3001
      Brad Guzan
                       London
                                    300
                                          5005
      | Fabian Johnson | Paris
 3004
                                    300
                                          5006
      Julian Green
                       London
                                    300
                                          5002
 rows in set (0.052 sec)
MariaDB [MCA]> _
```

i) Create a view that shows the number of the salesman in each city.

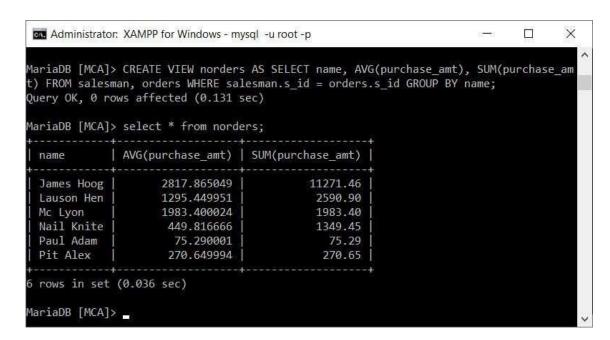
CREATE VIEW NumSalesmanPerCity AS SELECT city, COUNT(DISTINCT s_id) FROM salesman GROUP

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                              MariaDB [MCA]> CREATE VIEW NumSalesmanPerCity AS SELECT city, COUNT(DISTINCT s_id) FR
OM salesman GROUP BY city;
Query OK, 0 rows affected (0.065 sec)
MariaDB [MCA]> select numsalesmanpercity;
ERROR 1054 (42S22): Unknown column 'numsalesmanpercity' in 'field list'
MariaDB [MCA]> select * from numsalesmanpercity;
           COUNT(DISTINCT s_id)
 city
 London
 New York
                                2
 Paris
 Rome
 San Jose
 rows in set (0.044 sec)
MariaDB [MCA]> _
```

k) Create a view that shows the average and total orders for each salesman after his or her name. (Assume all names are unique)

CREATE VIEW norders AS SELECT name, AVG(purchase_amt), SUM(purchase_amt) salesman, orders WHERE salesman.s_id = orders.s_id GROUP BY name;

FRON



l) Create a view that shows each salesman with more than one customers.

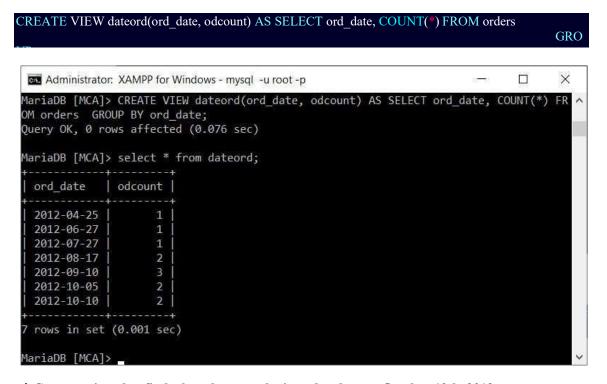
CREATE VIEW morecust AS SELECT * FROM salesman a WHERE 1 < (SELECT COUNT FROM customer

m)Create a view that shows all matches of customers with salesman such that at least one customer in the city of customer served by a salesman in the city of the salesman.

CREATE VIEW citymatch(custcity, salescity) AS SELECT DISTINCT a.city, b. FROM customer a, salesman b WHERE a.s. id = b.s. id;

```
X
Administrator: XAMPP for Windows - mysql -u root -p
MariaDB [MCA]> CREATE VIEW citymatch(custcity, salescity) AS SELECT DISTINCT a.city,
b.city FROM customer a, salesman b WHERE a.s_id = b.s_id;
Query OK, 0 rows affected (0.086 sec)
MariaDB [MCA]> select * from citymatch;
 custcity | salescity |
 London
            London
 New York
            New York
            Rome
 Moscow
            Paris
 Paris
 California | Paris
 London
              Paris
 Berlin
            San Jose
 rows in set (0.001 sec)
MariaDB [MCA]>
```

n) Create a view that shows the number of orders in each day



o) Create a view that finds the salesmen who issued orders on October 10th, 2012.

CREATE VIEW salesmanonoct AS SELECT * FROM salesman WHERE s_id IN (SELECT FROM orders WHERE ord_date = '2012-10-10');

p) Create a view that finds the salesmen who issued orders on either August 17th, 2012 or October 10th, 2012.

CREATE VIEW sorder AS SELECT s_id, o_no, c_id FROM orders WHERE ord_date IN('2012-08-17', '2012-10-10');

```
Administrator: XAMPP for Windows - mysql -u root -p
                                                                              X
MariaDB [MCA]> CREATE VIEW sorder AS SELECT s_id, o_no, c_id FROM orders WHERE ord_da 🛆
te IN('2012-08-17', '2012-10-10');
Query OK, 0 rows affected (0.093 sec)
MariaDB [MCA]> select * from sorder;
 s_id | o_no | c_id |
 5003 | 70003 |
                 3009
 5003 | 70004 |
                3009
 5006
        70010 3004
  5007 | 70011 | 3003 |
4 rows in set (0.001 sec)
MariaDB [MCA]>
```