```
-- create a table--
CREATE TABLE Order_details (
  ord_no number(7) PRIMARY KEY,
  purch_amt number(10,2),
  ord_date date,
  customer_id number(5),
  salesman_id number(5)
);

----   ----
ALTER TABLE Order_details
ADD FOREIGN KEY (customer_id) REFERENCES CUSTOMER_DETAILS(CUSTOMER_ID);

ALTER TABLE ORDER_DETAILS
ADD FOREIGN KEY (SALESMAN_ID) REFERENCES  SALESMAN_DETAILS (SALESMAN_ID);

ALTER TABLE ORDER_DETAILS
ADD FOREIGN KEY (SALESMAN_ID) REFERENCES SALESMAN_DETAILS (SALESMAN_ID);

------------

-- insert some values-------
INSERT INTO Order_details
VALUES (70001, 150.5 , '10-5-2012' , 3005 , 5002);

INSERT INTO Order_details
VALUES (70009, 270.65 , '9-10-2012' , 3001 , 5005);

INSERT INTO Order_details
VALUES (70002, 65.26 , '5-10-2012' , 3002 , 5001);

INSERT INTO Order_details
VALUES (70004, 110.5 , '8-17-2012' , 3009 , 5003);

INSERT INTO Order_details
VALUES (70007, 948.5 , '10-9-2012' , 3005 , 5002);

INSERT INTO Order_details
VALUES (70005, 2400.6 , '7-27-2012' , 3007 , 5001);

INSERT INTO Order_details
VALUES (70008, 5760 , '9-10-2012' , 3002 , 5001);

INSERT INTO Order_details
VALUES (70010, 1983.43 , '10-10-2012' , 3004 , 5006);

INSERT INTO Order_details
VALUES (70003, 2480.4 , '10-10-2012' , 3009 , 5003);

INSERT INTO Order_details
VALUES (70012, 250.45 , '6-27-2012' , 3008 , 5002);

INSERT INTO Order_details
VALUES (70011, 75.29 , '8-17-2012' , 3003 , 5007);
```

```
INSERT INTO Order_details
VALUES (70013, 3045.6 , '4-25-2012' , 3002 , 5001);

select * from Order_details;
```

1. write a SQL query to calculate total purchase amount of all orders. Display total purchase amount.

```
SELECT SUM (purch_amt) FROM Order_details;
----output-----
SUM(PURCH_AMT)
17541.18
```

2. write a SQL query to calculate average purchase amount of all orders. Display average purchase amount.

```
SELECT avg (purch_amt) FROM Order_details;
----output-----
AVG(PURCH_AMT)
1461.765
```

3. write a SQL query to count the number of unique salespeople. Display number of salespeople

```
SELECT COUNT (salesman_id) FROM Order_details;
----output-----
COUNT(SALESMAN_ID)
12
```

4. write a SQL query to find the maximum purchase amount.

```
SELECT max (purch_amt) FROM Order_details;
----output-----
MAX(PURCH_AMT)
5760
```

5. write a SQL query to find the minimum purchase amount.

```
SELECT min (purch_amt) FROM Order_details;
----output-----
MIN(PURCH_AMT)
65.26
```

6. write a SQL query to count all the orders generated on '2012-08-17'. Display number of orders.

```
SELECT COUNT(*) FROM Order_details WHERE ord_date='8-17-2012';
----output-----
COUNT(*)
2
```

```
-- create a table 2--
CREATE TABLE customer_detalis (
 customer_id number(4) PRIMARY KEY,
 cust_name char(50),
```

```
 city char(30),
 grade number(3),
 salesman_id number(4)
);
-----------------------
ALTER TABLE CUSTOMER_DETAILS
ADD FOREIGN KEY (SALESMAN_ID) REFERENCES SALESMAN_DETAILS (SALESMAN_ID);

-----------------------
-- insert some values --
INSERT INTO customer_detalis
VALUES (3002 , 'Nick Rimando' , 'New York' , 100 , 5001);

INSERT INTO customer_detalis
VALUES (3007 , 'Brad Davis' , 'New York' , 200 , 5001);

INSERT INTO customer_detalis
VALUES (3005 , 'Graham Zusi' , 'California' , 200 , 5002);

INSERT INTO customer_detalis
VALUES (3008 , 'Julian Green' , 'London' , 300 , 5002);

INSERT INTO customer_detalis
VALUES (3004 , 'Fabian Johnson' , 'Paris' , 300 , 5006);

INSERT INTO customer_detalis
VALUES (3009 , 'Geoff Cameron' , 'Berlin' , 100 , 5003);

INSERT INTO customer_detalis
VALUES (3003 , 'Jozy Altidor' , 'Moscow' , 200 , 5007);

INSERT INTO customer_detalis
VALUES (3001 , 'Brad Guzan' , 'London' , null , 5005);

SELECT * from customer_details;

1. write a SQL query to find the highest grade of the customers for each
of the city. Display city, maximum grade.
SELECT city,MAX(grade) FROM customer_details GROUP BY city;
----output-----
CITY  MAX(GRADE)
London     300
Berlin     100
New York   200
Moscow     200
California 200
Paris 300

2. write a SQL query to count the number of customers. Display number of
customers
SELECT COUNT(*) FROM customer_details;
----output-----
COUNT(*)
8
```

3. write a SQL query to find the number of customers who got at least a gradation for his/her activity.

```
SELECT COUNT (ALL grade) FROM customer_details;
----output-----
COUNT(ALLGRADE)
7
```

7. write a SQL query to find the highest grade of the customers for each of the city. Display city, maximum grade.

```
SELECT city,MAX(grade) FROM customer_details GROUP BY city;
----output-----
CITY        MAX(GRADE)
London            300
Berlin            100
New York    200
Moscow            200
California  200
Paris       300
```

4. write a SQL query to find the highest purchase amount ordered by each customer. Display customer ID, maximum urchase amount

```
SELECT MAX(purch_amt),customer_id FROM Order_details GROUP BY
customer_id;
----output-----
MAX(PURCH_AMT)    CUSTOMER_ID
1983.43           3004
250.45            3008
5760        3002
270.65            3001
948.5       3005
2480.4            3009
2400.6            3007
75.29       3003
```

```
-- create a table 3--
CREATE TABLE SALESMAN_details (
    salesman_id number(5) primary key,
    name char(50),
    city char(20),
    commission number(10,2)
);

-- insert some values
INSERT INTO SALESMAN_details
VALUES (5001, 'James Hoog', 'New York' , 0.15);

INSERT INTO SALESMAN_details
VALUES (5002, 'Nail Knite', 'Paris' , 0.13);

INSERT INTO SALESMAN_details
```

```
VALUES (5005, 'Pit Alex', 'London' , 0.11);

INSERT INTO SALESMAN_details
VALUES (5006, 'Mc Lyon', 'Paris' , 0.14);

INSERT INTO SALESMAN_details
VALUES (5007, 'Paul Adam', 'Rome' , 0.13);

INSERT INTO SALESMAN_details
VALUES (5003, 'Lauson Hen', 'San Jose' , 0.12);

select * from SALESMAN_details;
----output-----
SALESMAN_ID NAME  CITY   COMMISSION
5002  Nail Knite  Paris  .13
5005  Pit Alex   London       .11
5006  Mc Lyon          Paris  .14
5007  Paul Adam  Rome   .13
5003  Lauson Hen  San Jose .12
5001  James Hoog  New York .15
```

1. write a SQL query to count number of orders by the combination of each order date and salesperson. Display order date, salesperson id

```
SELECT ord_date,salesman_id,COUNT(*) FROM Order_details GROUP BY
ord_date,salesman_id;
----output-----
ORD_DATE    SALESMAN_ID COUNT(*)
10/05/2012  5002  1
08/17/2012  5007  1
09/10/2012  5005  1
04/25/2012  5001  1
10/05/2012  5001  1
10/10/2012  5006  1
09/10/2012  5002  1
10/10/2012  5003  1
06/27/2012  5002  1
09/10/2012  5001  1
```

2. write a SQL query to find the highest purchase amount ordered by each customer on a particular date. Display , order date and highest purchase amount

```
SELECT customer_id,MAX(purch_amt) FROM Order_details WHERE customer_id
BETWEEN 3002 and 3007 GROUP BY customer_id;
----output-----
CUSTOMER_ID MAX(PURCH_AMT)
3004        1983.43
3002        5760
3005        948.5
3007        2400.6
3003        75.29
```

3. write a SQL query to find the highest purchase amount on '2012-08-17' by each salesperson. Display salesperson ID, purchase amount.

```
SELECT customer_id,ord_date,MAX(purch_amt)
```

```
FROM Order_details
GROUP BY customer_id,ord_date;
----output-----
CUSTOMER_ID ORD_DATE    MAX(PURCH_AMT)
3005        09/10/2012  948.5
3009        08/17/2012  110.5
3005        10/05/2012  150.5
3007        07/27/2012  2400.6
3009        10/10/2012  2480.4
3008        06/27/2012  250.45
3002        09/10/2012  5760
3004        10/10/2012  1983.43
3002        04/25/2012  3045.6
3001        09/10/2012  270.65
```

4. write a SQL query to find highest order (purchase) amount by each customer in a particular order date. Filter the result by highest order (purchase) amount above 2000.00. Display customer id, order date and maximum purchase amount.

```
SELECT salesman_id,MAX(purch_amt)
FROM Order_details
WHERE ord_date = '8-17-2012'
GROUP BY salesman_id;
----output-----
SALESMAN_ID MAX(PURCH_AMT)
5007        75.29
5003        110.5
```

5. write a SQL query to find the maximum order (purchase) amount by each customer. The customer ID should be in the range 3002 and 3007(Begin and end values are included.). Display customer id and maximum purchase amount.

```
SELECT customer_id,ord_date,MAX(purch_amt)
FROM Order_details
GROUP BY customer_id,ord_date
HAVING MAX(purch_amt)>2000.00;
 ----output-----
CUSTOMER_ID ORD_DATE    MAX(PURCH_AMT)
3007        07/27/2012  2400.6
3009        10/10/2012  2480.4
3002        09/10/2012  5760
3002        04/25/2012  3045.6
```