SQL Practice 1

One table, Aggregation, Group By

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
5003	Lauson Hen		0.12
5007	Paul Adam	Rome	0.13

Customer

Customer_id	Customer_name	City	Grade	Salesman_id
3002	Nick Rimando	New York	100	5001
3005	Grahm Zusi	California	200	5002
3001	Brad Guzan	London		
3004	Fabian Johns	Paris	300	5006
3007	Brad Davis	New York	200	5001
3009	Geoff Camero	Berlin	100	
3008	Julian Green	London	300	5002
3003	Jozy Altidor	Monaco	200	5007

Order

Order_no	Purch_amt	Order_date	Customer_id	Salesman_id
70001	150.5	2016-10-05	3005	5002
70009	270.65	2016-09-10	3001	
70002	65.26	2016-10-05	3002	5001
70004	110.5	2016-08-17	3009	
70007	948.5	2016-09-10	3005	5002
70005	2400.6	2016-07-27	3007	5001
70008	5760	2016-09-10	3002	5001
70010	1983.43	2016-10-10	3004	5006
70003	2480.4	2016-10-10	3009	
70012	250.45	2016-06-27	3008	5002
70011	75.29	2016-08-17	3003	5007

Q1.) Display name and commission of all the salesmen.

Ans:- SELECT name, commission FROM salesman

Output:-

name	commission
James Hoog	0.15
Nail Knite	0.13
Pit Alex	0.11
Mc Lyon	0.14
Lauson Hen	0.12
Paul Adam	0.13

Q2.) Retrieve salesman id of all salesmen from orders table without any repeats.

Ans:- SELECT DISTINCT salesman_id FROM orders;

Output:-

Salesman_id
5002
5003
5006
5001
5005
5007

Q3.) Display names and city of salesman, who belongs to the city of Paris.

Ans:- SELECT name, city FROM salesman WHERE city='Paris';

Output:-

Name	City
Nail Knite	Paris
Mc Lyon	Paris

Q4.) Display all the information for those customers with a grade of 200.

Ans:- SELECT * FROM customer WHERE grade = 200;

Output:-

Customer_id	Customer_name	City	Grade	Salesman_id
3007	Brad Davis	New York	200	5001
3005	Graham Zusi	California	200	5002
3003	Jozy Altidor	Mosco	200	5007

Q5.) Display the order number, order date and the purchase amount for order(s) which will be delivered by the salesman with ID 5001.

Ans:- SELECT ord_no, ord_date, purch_amt FROM orders WHERE salesman_id = 5001;

Order_no	Order_date	Purch_amt
70002	2016-10-05	65.26
70005	2016-07-27	2400.60
70008	2016-09-10	5760

Q6.) Show the winner of the 1971 prize for Literature.

Ans:- SELECT winner FROM nobel_win WHERE year = 1971 AND subject = 'Literature';

Winner
Pablo Neruda

Q7.) Show all the details of the winners with first name Louis.

Ans:- SELECT* FROM nobel_win WHERE winner LIKE 'Louis%';

Output:-

Year	Subject	Winner	Country	Category
1970	Physics	Louis Neel	France	Scientist

Q8.) Show all the winners in Physics for 1970 together with the winner of Economics for 1971.

Ans:- SELECT * FROM nobel_win WHERE (subject = 'Physics' AND year = 1970) UNION (SELECT * FROM nobel_win WHERE (subject = 'Economics' AND year = 1971));

Output:-

year	subject	winner	country	category
1970	Physics	Hannes Alfven	Sweden	Scientist
1970	Physics	Louis Neel	France	Scientist
1971	Economics	Simon Kuznets	Russia	Economist

Q9.) Show all the winners of Nobel prize in the year 1970 except the subject Physiology and Economics.

Ans:- SELECT *FROM nobel_win WHERE year = 1970 AND subject NOT IN ('Physiology','Economics');

Output:-

year	subject	winner	country	category
1970	**Physics**	Hannes Alfven	Sweden	Scientist
1970	**Physics**	Louis Neel	France	Scientist
1970	**Chemistry**	Luis Federico Leloir	France	Scientist
1970	**Literature**	Aleksandr Solzhenitsyn	Russia	Linguist

Q10.) Find all the details of the Nobel winners for the subject not started with the letter 'P' and arranged the list as the most recent comes first, then by name in order.

Ans:- SELECT * FROM nobel_win WHERE subject NOT LIKE 'P%' ORDER BY year DESC, winner;

Output:-

year	subject	winner	country	category
1994	Literature	Kenzaburo Oe	Japan	Linguist
1994	Economics	Reinhard Selten	Germany	Economist
1987	Chemistry	Donald J. Cram	USA	Scientist
1987	Chemistry	Jean-Marie Lehn	France	Scientist
1987	Literature	Joseph Brodsky	Russia	Linguist
1987	Economics	Robert Solow	USA	Economist
1971	Chemistry	Gerhard Herzberg	Germany	Scientist
1971	Literature	Pablo Neruda	Chile	Linguist
1971	Economics	Simon Kuznets	Russia	Economist
1970	Literature	Aleksandr Solzhenitsyn	Russia	Linguist
1970	Chemistry	Luis Federico Leloir	France	Scientist
1970	Economics	Paul Samuelson	USA	Economist

Q11.) Find those salesmen with all information who gets the commission within a range of 0.12 and 0.14

Ans:- SELECT salesman_id, name, city, commission FROM salesman
WHERE (commission > 0.10 AND commission < 0.12);

Q12.) Find those salesmen with all information whose name containing the 1st character is 'N' and the 4th character is 'l' and rests may be any character.

Ans:- SELECT * FROM salesman WHERE name LIKE ‘N__l%';

Q13.) Find that customer with all information who does not get any grade except NULL.

Ans:- SELECT * FROM customer WHERE grade IS NULL;

Q14.) Find the number of salesman currently listing for all.

Ans:- SELECT COUNT (salesman_id) FROM orders;

Q15.) Find the highest grade for each of the cities of the customers.

Ans:- SELECT city, MAX(grade) FROM customer GROUP BY city;

Q16.) Find the highest purchase amount ordered by the each customer with their ID and highest purchase amount.
Ans:- SELECT customer_id, MAX(purch_amt) FROM orders GROUP BY customer_id;

Q17.) Find the highest purchase amount ordered by the each customer on a particular date with their ID, order date and highest purchase amount.
Ans:- SELECT customer_id, ord_date, MAX(purch_amt) FROM orders GROUP BY costomer_id, order_date.

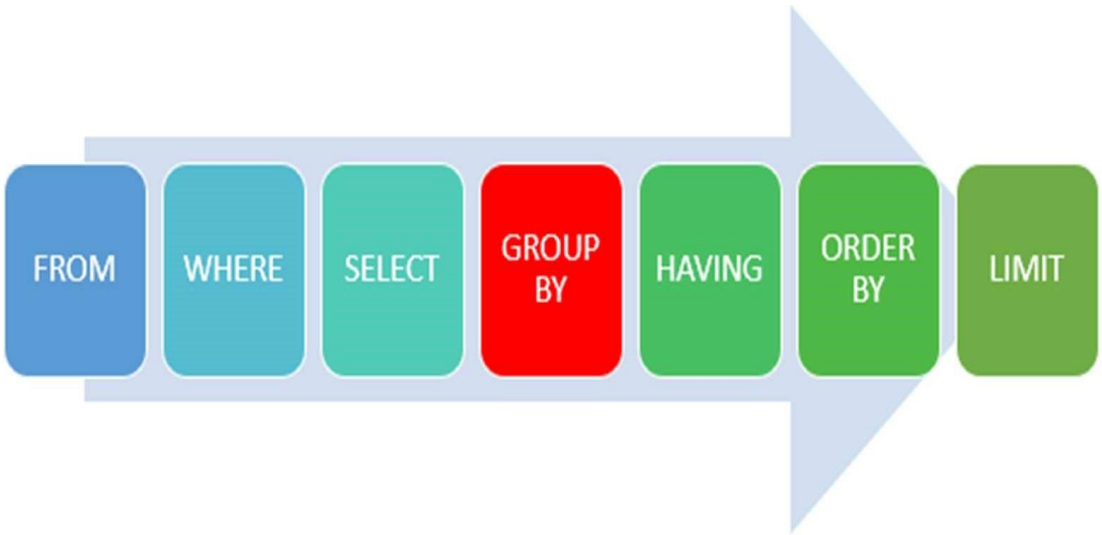
Q18.) Find the highest purchase amount on a date '2016-08-17' for each salesman with their ID.
Ans:- SELECT salesman_id, MAX(purch_amt) FROM orders WHERE ord_date = '2016-08-17' GROUP BY salesman_id;

Q19.) Find the highest purchase amount with their customer ID and order date, for only those customers who have the highest purchase amount in a day is more than 2000.
Ans:- SELECT customer_id, order_date, MAX(purch_amt) FROM orders GROUP BY customer_id, order_date Having MAX(purch_amt)>2000.00;

Q20.) Write a SQL statement that counts all orders for a date August 17th, 2016.
Ans:- SELECT COUNT(*) FROM orders WHERE order_date=’2016-08-17’;

SQL Practice 2

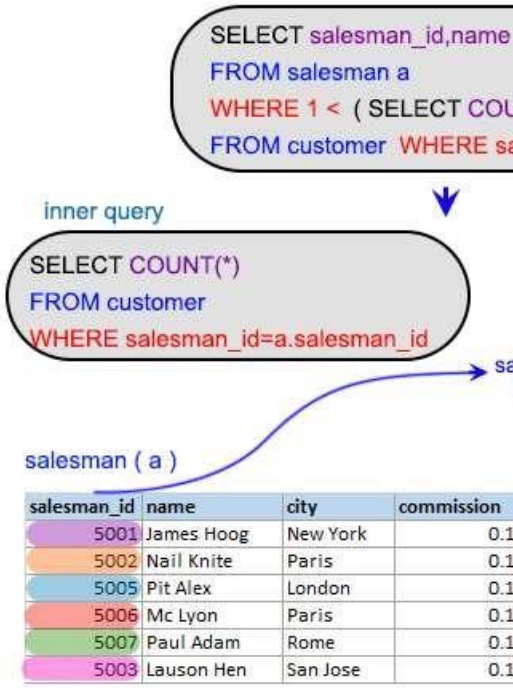
Multiple tables, joins Nested queries



Q21.) Find the name and city of those customers and salesmen who lives in the same city.

Ans:- SELECT C.cust_name S.name S.city FROM salesman AS S customer AS CWHERE S.city = C.city;

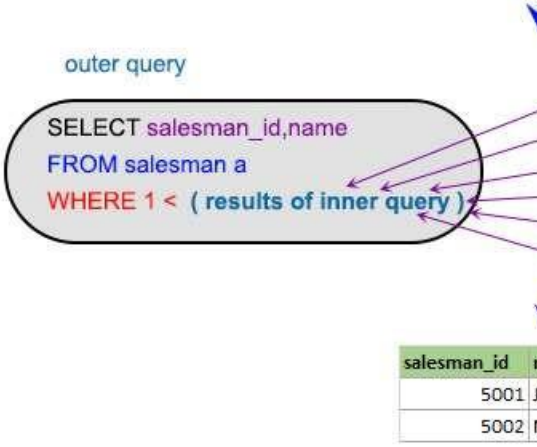
Q22.) Find the names of all customers along with the salesman who works for them.
Ans:- SELECT customer.cust_name salesman.name FROM customer salesman
WHERE salesman.salesman_id = customer.salesman_id;



Q23.) Display all those orders by the customers not located in the same cities where their salesmen live.

Ans:- SELECT ord_no cust_name orders.customer_id orders.salesman_id FROM salesman customer orders
WHERE customer.city <> salesman.city AND
orders.customer_id = customer.customer_id AND
orders.salesman_id = salesman.salesman_id;

Q24.) Display all the orders issued by the salesman 'Paul Adam' from the orders table.
Ans:- SELECT *FROM orders WHERE salesman_id = (SELECT salesman_idFROM salesman WHERE name = 'Paul Adam');



Q25.) Display all the orders which values are greater than the average order value for 10th October 2016.
Ans:- SELECT *FROM orders WHERE purch_amt > (SELECT AVG(purch_amt) FROM orders WHERE ord_date = '2016-10-10');

Q26.) Find all orders attributed to salesmen in Paris.
Ans:- SELECT *FROM orders WHERE salesman_id IN (SELECT salesman_id FROM salesman WHERE city ='Paris');

Q27.) Extract the data from the orders table for the salesman who earned the maximum commission.

Ans:- SELECT ord_no, purch_amt, ord_date, salesman_idFROM orders WHERE salesman_id IN (SELECT salesman_id FROM salesman WHERE commission = (SELECT MAX(commission) FROM salesman));

28.) Find the name and ids of all salesmen who had more than one customer.
Ans:- SELECT salesman_id, name FROM salesman AS a WHERE 1 < (SELECT COUNT(*) FROM customer AS c WHERE c.salesman_id = a.salesman_id);

29.) Write a query to find all the salesmen who worked for only one customer.

Ans:- SELECT * FROM salesman WHERE salesman_id IN (SELECT DISTINCT salesman_idFROM customer a WHERE NOT EXISTS (SELECT * FROM customer b WHERE a.salesman_id = b.salesman_id AND a.cust_name <> b.cust_name));

Q30.) Display only those customers whose grade are, in fact, higher than every customer in New York.
Ans:- SELECT *FROM customer WHERE grade > ALL (SELECT grade FROM customer WHERE city = 'NewYork');

Q31.) Display all the orders that had amounts that were greater than at least one of the orders from September 10th 2016.
Ans:- SELECT * FROM Orders WHERE purch_amt > ANY (SELECT purch_amt FROM orders WHERE order_date = '2016-09-10');