

AMRITA VISHWA VIDYAPEETHAM –CHENNAI CAMPUS
AMRITA SCHOOL OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
22AIE303 - DATABASE MANAGEMENT SYSTEM
ACTIVITY SHEET -01

Consider the following tables:

Table: Salesman

Salesman_id	Name	City	Commisision
5001	James Hoog	Newyork	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

Table: Customer

Customer_id	Customer_name	City	Grade	Salesman_id
3002	Nick Rimando	Newyork	100	5001
3005	Graham Lusi	California	200	5002
3001	Brad Guran	London		
3004	Fabian Johns	Paris	300	5006
3007	Brad Davis	Newyork	200	5001
3009	Geoff Camero	Berlin	100	
3008	Julian Green	London	300	5002
3003	Jory Altidor	Moncow	200	5007

Table: 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

Write the below statements in SQL:

1. Display name and commission of all salesmen.
Query: Select Name, Commission from Salesman;

Output:

	Name	Commission
▶	James Hoog	0.15
	Nail Knite	0.13
	Lauson Hen	0.12
	Pit Alex	0.11
	Mc Lyon	0.14
	Paul Adam	0.13

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

Query:

Select distinct(Salesman_id) from Salesman;

Output:

	Salesman_id
▶	5001
	5002
	5003
	5005
	5006
	5007

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

Query:

Select Name, City from Salesman where City = 'Paris';

Output:

	Name	City
▶	Nail Knite	Paris
	Mc Lyon	Paris

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

Query:

Select * from Customer where Grade = 200;

Output:

	Customer_id	Customer_name	City	Grade	Salesman_id
▶	3003	Jory Altidor	Moncow	200	5007
	3005	Graham Lusi	California	200	5002
	3007	Brad Davis	Newyork	200	5001
✱	NULL	NULL	NULL	NULL	NULL

5. Display the order number, order date and the purchase amount for orders which will be delivered by the salesman with ID 5001.

Query:

Select Order_no, Purch_amt, Order_date from Salesman_Order where Salesman_id = 5001;

Output:

	Order_no	Purch_amt	Order_date
▶	70002	65.26	2016-10-05
	70005	2400.6	2016-07-27
	70008	5760	2016-09-10
✱	NULL	NULL	NULL

6. Show the winner of the 1971 prize for Literature.

Query:

SELECT WINNER FROM noble_win WHERE YEAR = 1971 AND SUBJECT = 'Literature';

Output:

	WINNER
▶	Pablo Neruda

7. Show all the details of the winners with first name Louis.

Query:

SELECT * FROM noble_win WHERE WINNER LIKE 'Louis%';

Output:

	YEAR	SUBJECT	WINNER	COUNTRY	CATEGORY
▶	1970	Physics	Louis Neel	France	Scientist

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

Query:

SELECT * FROM noble_win WHERE (SUBJECT='Physics' AND YEAR = 1970) OR 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

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

Query:

SELECT * FROM noble_win WHERE YEAR = 1970 AND NOT(SUBJECT = 'Physiology' OR SUBJECT = '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

10. 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

Query:

SELECT * FROM noble_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

11. Find the name and price of the cheapest item(s).

Query :

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Output:

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12. Display all the customers, who are either belongs to the city New York or not had a grade above 100.

Query:

Select * from Customer where City = 'Newyork' or not Grade > 100;

Output:

	Customer_id	Customer_name	City	Grade	Salesman_id
▶	3002	Nick Rimando	Newyork	100	5001
	3007	Brad Davis	Newyork	200	5001
	3009	Geoff Camero	Berlin	100	NULL
*	NULL	NULL	NULL	NULL	NULL

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

Query :

Select * from Salesman where Commission > 0.12 and Commission < 0.14;

Output:

	Salesman_id	Name	City	Commission
▶	5002	Nail Knite	Paris	0.13
	5007	Paul Adam	Rome	0.13
*	NULL	NULL	NULL	NULL

14. Find all those customers with all information whose names are ending with the letter 'n'

Query :

Select Customer_name from Customer where Customer_name like '%n';

Output:

	Customer_name
▶	Brad Guran
	Julian Green

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

Query :

SELECT * FROM Salesman WHERE Name LIKE 'N__I%';

Output:

	Salesman_id	Name	City	Commission
▶	5002	Nail Knite	Paris	0.13
*	NULL	NULL	NULL	NULL

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

Query :

Select * from Customer where Grade is NULL;

Output:

	Customer_id	Customer_name	City	Grade	Salesman_id
▶	3001	Brad Guran	London	NULL	NULL
*	NULL	NULL	NULL	NULL	NULL

17. Find the total purchase amount of all orders.

Query :

Select Sum(Purch_amt) from Salesman_Order;

Output:

	Sum(Purch_amt)
▶	14495.580047607422

18. Find the number of salesman currently listing for all of their customers.

Query :

SELECT count(DISTINCT Salesman_id) FROM Customer WHERE Salesman_id IS NOT NULL;

Output:

	count(DISTINCT Salesman_id)
▶	4

19. Find the highest grade for each of the cities of the customers.

Query :

Select City, MAX(Grade) from Customer group by City;

Output:

	City	MAX(Grade)
▶	London	300
	Newyork	200
	Moncow	200
	Paris	300
	California	200
	Berlin	100

20. Find the highest purchase amount ordered by the each customer with their ID and highest purchase amount.

Query :

Select MAX(Purch_amt), Customer_id from Salesman_order group by Customer_id;

Output:

	MAX(Purch_amt)	Customer_id
▶	948.5	3005
	5760	3002
	2480.4	3009
	2400.6	3007
	270.65	3001
	1983.43	3004
	75.29	3003
	250.45	3008

21. Find the highest purchase amount ordered by the each customer on a particular date with their ID, order date and highest purchase amount.

Query:

Select MAX(Purch_amt), Customer_id, Order_date from Salesman_order group by Customer_id, Order_date;

Output:

	MAX(Purch_amt)	Customer_id	Order_date
▶	150.5	3005	2016-10-05
	65.26	3002	2016-10-05
	2480.4	3009	2016-10-10
	110.5	3009	2016-08-17
	2400.6	3007	2016-07-27
	948.5	3005	2016-09-10
	5760	3002	2016-09-10
	270.65	3001	2016-09-10
	1983.43	3004	2016-10-10
	75.29	3003	2016-08-17
	250.45	3008	2016-06-27

22. Find the highest purchase amount on a date '2012-08-17' for each salesman with their ID.

Query:

Select MAX(Purch_amt), Salesman_id from Salesman_order where Order_date = '2012-08-17' group by Salesman_id;

Output:

MAX(Purch_amt)	Salesman_id

23. 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.

Query :

SELECT MAX(Purch_amt) FROM Salesman_Order WHERE Purch_amt>2000 GROUP BY Customer_id;

Output:

	MAX(Purch_amt)
▶	2480.4
	2400.6
	5760

24. Write a SQL statement that counts all orders for a date August 17th, 2012.

Query :

Select Count(Order_no) from Salesman_order where Order_date = '2012-08-17';

Output:

	Count(Order_no)
▶	0

Date:

Marks (10):

Signature of the Course Faculty: