SQL JOIN

A JOIN clause is used to combine rows from two or more tables, based on a related column between them.

-- SQL query to find the salesperson and customer who reside in the same city. Return Salesman, cust_name and city
select s.name as 'salesman',c.cust_name, c.city from Salesman_info s,Customer_Info c
where s.city=c.city;

JamesHoog	NickRimando	NewYork
JamesHoog	BradDavis	NewYork
PitAlex	JulianGreen	London
NailKnite	FabianJohnson	Paris
McLyon	FabianJohnson	Paris
PitAlex	BradGuzan	London

--SQL query to find those orders where the order amount exists between 500 and 2000. Return ord_no, purch_amt, cust_name, city.
select o.ord_no,o.purch_amt,c.cust_name,c.city from Order_Info o,Customer_Info c
where o.customer_id=c.customer_id
and o.purch_amt between 500 and 2000 ;

70007	948.5	GrahamZusi	California
70010	1983.43	FabianJohnson	Paris

--SQL query to find the salesperson(s) and the customer(s) he represents. Return Customer Name, city, Salesman, commission.
SELECT c.cust_name as 'Customer' , c.city, s.name as 'Salesman', s.commission
FROM Salesman_info s,Customer_Info c where s.salesman_id=c.salesman_id
--or
SELECT c.cust_name as 'Customer' , c.city, s.name as 'Salesman', s.commission
FROM Salesman_info s inner join Customer_Info c on s.salesman_id=c.salesman_id;

NickRimando	NewYork	JamesHoog	0.15
BradDavis	NewYork	JamesHoog	0.15
GrahamZusi	California	NailKnite	0.13
JulianGreen	London	NailKnite	0.13
FabianJohnson	Paris	McLyon	0.14
GeoffCameron	Berlin	LausonHen	0.12
JozyAltidor	Moscow	PaulAdam	0.13
BradGuzan	London	PitAlex	0.11

--find salespeople who received commissions of more than 12 percent from the company.Return Cust_Name, cust_city, Salesman, commission.
SELECT c.cust_name , c.city, s.name as 'Salesman', s.commission
FROM Salesman_info s inner join Customer_Info c
on s.salesman_id=c.salesman_id and s.commission>0.12;

NickRimando	NewYork	JamesHoog	0.15
BradDavis	NewYork	JamesHoog	0.15
GrahamZusi	California	NailKnite	0.13
JulianGreen	London	NailKnite	0.13
FabianJohnson	Paris	McLyon	0.14
JozyAltidor	Moscow	PaulAdam	0.13

--SQL query to locate those salespeople who do not live in the same city where their customers live and have received
--a commission of more than 12% from the company.
SELECT c.cust_name as customer, c.city as C_City,s.city as S_City, s.name as 'Salesman', s.commission
FROM Salesman_info s inner join Customer_Info c
on s.salesman_id=c.salesman_id
and s.commission>0.12 and c.city!= s.city;

GrahamZusi	California	Paris	NailKnite	0.13
JulianGreen	London	Paris	NailKnite	0.13
JozyAltidor	Moscow	Rome	PaulAdam	0.13

--SQL query to find the details of an order. Return ord_no, ord_date, purch_amt, Customer Name, grade, Salesman, commission.
SELECT o.ord_no, o.ord_date,o.purch_amt ,c.cust_name as customer, c.grade, s.name as 'Salesman', s.commission
FROM Order_Info o , Customer_Info c, Salesman_info s
where c.customer_id=o.customer_id and o.salesman_id=s.salesman_id;
--or
SELECT a.ord_no,a.ord_date,a.purch_amt,b.cust_name AS "Customer Name", b.grade, c.name AS "Salesman", c.commission
FROM Order_Info a INNER JOIN Customer_Info b ON a.customer_id=b.customer_id
INNER JOIN Salesman_info c ON a.salesman_id=c.salesman_id;

70001	2012-10-05 00:00:00.000	150.5	GrahamZusi	200	NailKnite	0.13
70009	2012-09-10 00:00:00.000	270.65	BradGuzan	NULL	PitAlex	0.11
70002	2012-10-05 00:00:00.000	65.26	NickRimando	100	JamesHoog	0.15
70004	2012-08-17 00:00:00.000	110.5	GeoffCameron	100	LausonHen	0.12
70007	2012-09-10 00:00:00.000	948.5	GrahamZusi	200	NailKnite	0.13
70005	2012-07-27 00:00:00.000	2400.6	BradDavis	200	JamesHoog	0.15
70008	2012-09-10 00:00:00.000	5760	NickRimando	100	JamesHoog	0.15
70010	2012-10-10 00:00:00.000	1983.43	FabianJohnson	300	McLyon	0.14
70003	2012-10-10 00:00:00.000	2480.4	GeoffCameron	100	LausonHen	0.12
70012	2012-06-27 00:00:00.000	250.45	JulianGreen	300	NailKnite	0.13
70011	2012-08-17 00:00:00.000	75.29	JozyAltidor	200	PaulAdam	0.13
70013	2012-04-25 00:00:00.000	3045.6	NickRimando	100	JamesHoog	0.15

--find those customers with a grade less than 300. Return cust_name, customer city, grade, Salesman, salesmancity.
--The result should be ordered by ascending customer_id.
select c.cust_name,c.city,c.grade,s.name,s.city FROM Customer_Info c, Salesman_info s
where c.salesman_id=s.salesman_id and c.grade<300 order by c.customer_id;

NickRimando	NewYork	100	JamesHoog	NewYork
JozyAltidor	Moscow	200	PaulAdam	Rome
GrahamZusi	California	200	NailKnite	Paris
BradDavis	NewYork	200	JamesHoog	NewYork
GeoffCameron	Berlin	100	LausonHen	SanJose

--SQL statement to generate a report with customer name,city,order number,order date,order amount, salesperson name, and commission to determine if any of the existing customers have not placed orders or if they have placed orders through their salesman or by themselves
select c.cust_name,c.city,o.ord_no,o.ord_date,o.purch_amt,s.name as salesman,s.commission
from Customer_Info c,Order_Info o, Salesman_info s
where c.customer_id=o.customer_id and o.salesman_id=s.salesman_id ;
--or
select a.cust_name,a.city, b.ord_no,b.ord_date,b.purch_amt as "Order Amount", c.name,c.commission
from Customer_Info a LEFT OUTER JOIN Order_Info b on a.customer_id=b.customer_id
LEFT OUTER JOIN Salesman_info c on c.salesman_id=b.salesman_id ;

GrahamZusi	California	70001	2012-10-05 00:00:00.000	150.5	NailKnite	0.13
BradGuzan	London	70009	2012-09-10 00:00:00.000	270.65	PitAlex	0.11
NickRimando	NewYork	70002	2012-10-05 00:00:00.000	65.26	JamesHoog	0.15
GeoffCameron	Berlin	70004	2012-08-17 00:00:00.000	110.5	LausonHen	0.12
GrahamZusi	California	70007	2012-09-10 00:00:00.000	948.5	NailKnite	0.13
BradDavis	NewYork	70005	2012-07-27 00:00:00.000	2400.6	JamesHoog	0.15
NickRimando	NewYork	70008	2012-09-10 00:00:00.000	5760	JamesHoog	0.15
FabianJohnson	Paris	70010	2012-10-10 00:00:00.000	1983.43	McLyon	0.14
GeoffCameron	Berlin	70003	2012-10-10 00:00:00.000	2480.4	LausonHen	0.12
JulianGreen	London	70012	2012-06-27 00:00:00.000	250.45	NailKnite	0.13
JozyAltidor	Moscow	70011	2012-08-17 00:00:00.000	75.29	PaulAdam	0.13
NickRimando	NewYork	70013	2012-04-25 00:00:00.000	3045.6	JamesHoog	0.15

--List all salespersons along with customer name, city, grade, order number, date, and amount.Condition for selecting list of salesmen :
--1. Salesmen who works for one or more customer or,
--2. Salesmen who not yet join under any customer, Condition for selecting list of customer :
--3. placed one or more orders, or
--4. no order placed to their salesman.
select c.cust_name,c.city,c.grade,s.name,o.ord_no,o.ord_date,o.purch_amt
FROM Customer_Info c,Order_Info o, Salesman_info s
where c.customer_id=o.customer_id and o.salesman_id=s.salesman_id;
--or
SELECT a.cust_name,a.city,a.grade, b.name AS "Salesman", c.ord_no, c.ord_date, c.purch_amt
FROM Customer_Info a RIGHT OUTER JOIN Salesman_info b ON b.salesman_id=a.salesman_id
RIGHT OUTER JOIN Order_Info c ON c.customer_id=a.customer_id;

GrahamZusi	California	200	NailKnite	70001	2012-10-05 00:00:00.000	150.5
BradGuzan	London	NULL	PitAlex	70009	2012-09-10 00:00:00.000	270.65
NickRimando	NewYork	100	JamesHoog	70002	2012-10-05 00:00:00.000	65.26
GeoffCameron	Berlin	100	LausonHen	70004	2012-08-17 00:00:00.000	110.5
GrahamZusi	California	200	NailKnite	70007	2012-09-10 00:00:00.000	948.5
BradDavis	NewYork	200	JamesHoog	70005	2012-07-27 00:00:00.000	2400.6
NickRimando	NewYork	100	JamesHoog	70008	2012-09-10 00:00:00.000	5760
FabianJohnson	Paris	300	McLyon	70010	2012-10-10 00:00:00.000	1983.43
GeoffCameron	Berlin	100	LausonHen	70003	2012-10-10 00:00:00.000	2480.4
JulianGreen	London	300	NailKnite	70012	2012-06-27 00:00:00.000	250.45
JozyAltidor	Moscow	200	PaulAdam	70011	2012-08-17 00:00:00.000	75.29
NickRimando	NewYork	100	JamesHoog	70013	2012-04-25 00:00:00.000	3045.6