

Outer join

- Left outer join
- Right outer join
- Full outer join

- Outer join gives more flexibility when selecting data from related tables. This type of join can be used in situations to select all rows from the table on the left (or ~~right~~ right or both) regardless of whether other table has values in common (and usually enter null values when data is missing).

SQL> select * from loan left outer join borrower

Branchname	loan_no	amount	cust_name	loan_no
Downtown	L-170	3000	Jones	L-170
Redwood	L-230	4000	Smith	L-230
Perrybridge	L-260	1700	NULL	NULL

dangling tuple

- Stupidous tuple
- Dangling tuple → a special case of stupidous tuple.

- Q1. Find the name of customers and salesperson who belong to the same city.
- Q2. Find names of all customers matched with the salesperson serving them.

select cname, sname from customers, salesperson where
customer.city = salesperson.city

select cname, sname from customers, salesperson where
customer.sname = salesperson.sname

select customer.cname, salesperson.sname from customers,
salesperson where customer.city = salesperson.city

select cname, sname from customers natural
join salesperson on customers.sname = salesperson.sname

as per ans 1 SQL
but no required in
most ptegs

Join based on inequality (Theta join)

Find all combinations of salesperson and customers such the former precedes the later ~~and~~ alphabetically and the later has a rating < 200 .
not in order, join is commutative

SQL> select sname, cname from customers, salesperson where
sname < cname and rating < 200;

Join more than 2 tables

Find customers not located in the same city as their salesperson.

SQL> select snum, cnum, orders.cnum, orders.snum from
salesperson, customer, ~~sales~~ orders where customers.city < >
salesperson.city and orders.cnum = customers.snum and
orders.snum = salesperson.snum;

Write a query that produces all customers serviced by salespersons with a commission above 12%.

Calculate the amount of salesperson's commission on each order by a customer with a rating above 100.

select sname, cname from salesperson, customers
where sales.snum = customers.snum and
sales.comm > 0.12;

select MULTIPLY(comm, amount) from sales, orders,
customer where sales.snum = orders.snum and customer.
rating > 100;