Module-2
DC

22/02/18

Subquery with join

Write a query to produce the name and ratings of all customers who have above average orders.

select distinct cname, rating from customers, orders where amt > (select avg(amt) from orders) and order.cnum = customer.cnum;

Co-related subqueries

Can refer in the inner query to the table in the from clause of the outer query. And the subquery is executed repeatedly once for each row of the main query's table:

Find all customers with orders on Oct-3.

select * from customers outer where '03-Oct-90' in (select odate from orders inner where outer.cnum = inner.cnum);

Steps of executing of correlated query

The value of cnum in the outer query varies, the inner query must be executed separately for each row of the outer query. The row of the outer query for which the inner query is being executed at any instant of time is called the candidate row.

1) Select a row from the table named in the outer query. This will become the current candidate row.
2) Store the values from this candidate row in the alias name in the from clause of the outer query.
3) Perform the subquery wherever the alias given for the outer query is found. Use the value for the current candidate row. The use of a value from the outer query's candidate row in a subquery is called the outer reference.
4) Evaluate the predicate of the outer query on the basis of the results of the subquery performed in step 3. This will determine whether the candidate row is selected for output.
5) Repeat the procedure for the next candidate row of the table & so on; until all rows of the table have been tested.

Find the names and numbers of all salespersons who have more than one customer.

```
select name, snum from salesperson, outer where
    1 < (select count(*) from customers
    inner where outer.snum = inner.snum);
    not needed
```