Correlated Sub queries

The query runs for each row. It references to the outer tables. A common occurrence for self-join.

The inner query had to be attached with outer query by some means. Where Clause can be used to attached the outer query with inner query.

* Show the customer ID and name for all the customers who have ordered both products with IDs 3 and 4 on the same order. Display the same customer information only once.

SELECT DISTINCT C.CustomerID, CustomerName

FROM Customer\_T C, Order\_T O1, OrderLine\_T OL1

WHERE C.CustomerID = O1.CustomerID

AND O1.OrderID = OL1.OrderID

AND OL1.ProductID = 3

AND O1.OrderID IN

(SELECT OrderID FROM OrderLine\_T OL2

WHERE OL2.ProductID = 4);

* Write an SQL query to list the order number and order quantity for all customer orders for which the order quantity is greater than the average order quantity of that product.

SELECT x1.OrderID, x1.OrderedQuantity, x1.ProductID

FROM Product\_T, OrderLine\_T x1

WHERE Product\_T.ProductID = x1.ProductID

AND x1.OrderedQuantity >

(SELECT AVG(OrderedQuantity)   
 FROM OrderLine\_T x2

WHERE x2.ProductID = x1.ProductID);

* Display the employee information for all the employees who were hired before the most recently hired person in that state.

SELECT \*

FROM Employee\_T E1

WHERE EmployeeDateHired <

(SELECT MAX(EmployeeDateHired)

FROM Employee\_T E2

WHERE E1.EmployeeState = E2.EmployeeState);