

Class Note

Midterm: 90 Minutes on ZOOM

True/False Questions: 20

Multiple Choices on Canvas: 12-15

Scenario based SQL Questions: 8-10 (Free form text)

Subqueries

Filtering Subqueries: WHERE clause

WHERE <column_name_a> <Comparison_operators> (Select <column_name_x> From)

* <Comparison_operators>: =, !=, >, <, >=, <=

* If you put subquery under where clause, it will run on **every record** in the outer query.

* Single-column-subquery

Scalar Subqueries: HAVING clause

GROUP BY <column_name_a>, <column_name_b>...etc

HAVING <aggregate function> <Comparison_operators> (Select <column_name_x> From)

*single-column-subquery

List Subqueries: WHERE clause

WHERE <column_name_a> IN/NOT IN (Select <column_name_x> From)

* If you put subquery under where clause, it will run on **every record** in the outer query.

*single-column-subquery

List Subqueries: FROM clause

FROM (Select <column_name_x>, <column_name_y>,... From)

Correlated Subqueries:

SELECT <col_A>, <col_B>...

FROM T1

WHERE <col_C> <Comparison_operators> (Select <column_name_y> From T2

WHERE T1.a = T2.x)

* If you put subquery under where clause, it will run on **every record** in the outer query.

*single-column-subquery

Correlated Subqueries: EXIST clause

SELECT <col_A>, <col_B>...

FROM T1

WHERE EXISTS/NOT EXISTS (Select <column_name_x> From T2 WHERE T1.a = T2.x)

* If you put subquery under where clause, it will run on **every record** in the outer query.

* The EXISTS operator is used to test for the existence of any record in a subquery.

* The EXISTS operator returns true if the subquery returns one or more records.

Virtual Table Subqueries: FROM & JOIN clause

SELECT *

FROM <subquery> t1

JOIN <subquery> t2

ON t1.a = t2.a