IS 441 Overall Feedback before Final Exam

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**From Quiz 2:**

Normalization:

* Does a functional dependency diagram need to have a FD? PD? TD?
* In a functional dependency diagram that contains a composite key, does it have to have a PD?
* What kind of field(s) would appear in two relations after normalization? Between two same relations, how many fields are there that exist in both relations?

SQL:

* What cannot be together in a SELECT-clause?
* Aggregate functions such as COUNT, SUM, AVG, if appear as part of a condition logic, should be found in what clause and not in what clause?
* Difference between GROUP BYT and ORDER BY?
* Can you now all state the sequence of the six clauses in a SELECT statement?
* Do we have to write each of the SELECT-clauses on a separate line?
* In IN and NOT IN, what can you say about the number of the values to the right of IN and NOT IN?

**Preparing for Quiz 3:**

Subquery:

* What would be the relationship of the tables used in the main/outer query and those used in the sub/inner query?
* If we give an alias “TE” for a table in the main/outer query, and if we write the following code, will it run?

SELECT field\_1 FROM TableExample AS **TE** WHERE field\_1 > (SELECT AVG(field\_1) FROM **TE**)

* Will go through one more time the passing of parameters from the main/outer query into the sub/inner query.

JOIN:

* When we join two tables, what caution do we need to take in terms of fields?
* What are the two methods of stating the join condition? What is the caution of using one of the methods?
* When you join N tables, what do you need to watch/take care if the fields are from LESS THAN N tables (i.e., some of those tables do not have fields to be displayed)?

OUTER JOIN:

* When do we need to consider outer join?
* What do we say about outer joining three or more tables?
* In a situation of an outer join, how do we use LEFT JOIN? RIGHT JOIN?

Self Join: [Watch the case I used here]

* What is the situation when we need to consider self join?
* Practice: Machines composes of assemblies, assemblies compose of parts. If we also treat assemblies as parts, then in the part table some parts goes into some other parts (that are assemblies). If we want to do a self join, and when we name the two logical table (from the one physical table) Assembly AS A, Part AS P, and assuming that part number is PartNo, what would be the join condition for this self join?