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Business Requirements: School Management Database

1. An admin shall be able to assign teachers to class sections. (requires an insert into one table with ids from two other tables)
2. A teacher shall be able to view class sections he teaches. (requires 2 joins)
3. A teacher shall be able to create modules in class sections he teaches, including the name and description. (requires 2 joins and an insert)
4. A teacher shall be able to create documents in class sections he teaches, including the name, description, and link. (requires 3 joins and an insert)
5. A teacher shall be able to create assignments in class sections he teaches including the name, description and link. (requires 3 joins and an insert)
6. A teacher shall be able to create quizzes in class sections he teaches including the quiz name, the quiz questions, and the quiz question answers. (requires one query that requires 3 joins and an insert to create the quiz, then several queries that require joins and inserts to create the quiz questions and answers)
7. A student shall be able to view the required classes for his major. (requires 4 joins)
8. A student shall be able to view sections of classes by class and subject. (requires 2 joins and an ORDER BY)
9. A student shall be able to enroll in sections of classes. (requires an insert statement with IDs from two tables)
10. A student shall be able to view a list of class sections he's enrolled in by class. (requires 3 joins and an ORDER BY())
11. A student shall be able to view modules in class sections he's enrolled in that contain documents, assignments, and quizzes. (requires one query that requires three joins, then three separate queries that each require one more join)
12. A student shall be able to view documents in class sections he's enrolled in (requires four joins)
13. A student shall be able to view assignments in class sections he's enrolled in (requires four joins)
14. A student shall be able to submit assignments in class sections he's enrolled in (requires an insert statement with IDs from two tables)
15. A teacher shall be able to view submitted assignments that students have submitted in classes the teacher teaches. (requires 6 joins)
16. A teacher shall be able to grade submitted assignments that students have submitted in classes the teacher teaches. (requires an insert statement into a table that requires 6 joins to access)
17. A student shall be able to view quizzes in class sections he's enrolled in. (requires at least six joins)
18. A student shall be able to submit quizzes in class sections he's enrolled in. (requires insert statements for each quiz answer which each require IDs from two tables)
19. A student shall be able to view his grade on quizzes. (requires two queries that each require a COUNT(), three joins and a GROUP BY)
20. A student shall be able to view how much tuition he owes for a semester based on the number of credit hours he has taken. (requires a SUM(), two joins, and a GROUP BY)

21. A student shall be able to make tuition payments up to the level he owes for the semester and not over. (requires one query that requires a SUM() and a GROUP BY, another query that requires a SUM(), two joins and a GROUP BY, and an insert statement if successful)

22. An admin shall be able to issue teacher payments based on each teacher's teacher groups and credit hours taught. (requires an insert statement and two subqueries, one requiring a SUM(), two joins and a GROUP BY and one requiring a SUM(), two joins and a GROUP BY)

23. An admin shall be able to view how many spots are remaining in each parking lot (requires three sub queries that each include 1 join and a COUNT())