

**Qn.** You are database administrator at Uganda Christian University. You have been assigned a task to create and manage a student results management system database. Assuming the database has two tables (Students, grades), Using your own database name, execute the following tasks.

**Remember to indicate the sql statement corresponding to the task.**

1. Select all columns from the "students" table.
2. Alter the "grades" table to add a column "teacher" of data type varchar(50).
3. Update the "grades" table to set the value of the "teacher" column to "Mr. Smith" for all rows.
4. Delete all rows from the "grades" table where the grade is less than 60.
5. Drop the "grades" table.
6. Insert a new row into the "students" table with values for "name" and "date\_of\_birth".
7. Select all rows from the "students" table where the "name" column contains the string "John".
8. Select all rows from the "students" table where the "date\_of\_birth" column is between '2000-01-01' and '2010-12-31', ordered by the "name" column in descending order.
9. Select all rows from the "grades" table where the "subject" column contains the string "Math".
10. Set the "id" column of the "students" table as the primary key.
11. Set the "student\_id" column of the "grades" table as the foreign key referencing the "id" column of the "students" table.
12. Use a join to select the "name" and "subject" columns from the "students" and "grades" tables respectively, where the "grade" column in the "grades" table is greater than or equal to 80, using an equi join.
13. Use a join to select the "name" and "subject" columns from the "students" and "grades" tables respectively, where the "grade" column in the "grades" table is less than 60, using a left outer join.
14. Use a join to select the "name" and "subject" columns from the "students" and "grades" tables respectively, where the "subject" column in the "grades" table contains the string "Science", using a natural join.

15. Use a join to select the "name" and "subject" columns from the "students" and "grades" tables respectively, where the "grade" column in the "grades" table is greater than or equal to 80, using a cross join.
16. Use a join to select the "name" and "subject" columns from the "students" and "grades" tables respectively, where the "grade" column in the "grades" table is less than 60, using a full outer join.
17. Use all the above features to retrieve the name, subject, and grade of all students who have a grade of 80 or higher in a subject that contains the string "Math", and whose date of birth is between '2000-01-01' and '2010-12-31', ordered by the "name" column in ascending order.