QUALITY THOUGHT

SQL Commands – Practice Assignment [1]

Note: Read and understand the assignment before starting it.

Part A: Tasks:

T1: Create a database named Assignment1.

T2: Create a table Students with the following columns:

student_id (number, primary key)

student_name (varchar)

email (varchar, unique)

course (varchar)

fees (number)

join_date (date)

T3: Add a new column phone_number to the Students table.

T4: Modify the fees column to allow decimal values.

T5: Rename the table Students to Trainees.

T6: Drop the column phone_number.

T7: Truncate the Trainees table.

T8: Drop the Trainees table.

Part B: Tasks

T9: Insert at least 5 records into the students table.

T10: Insert data into specific columns only.

T11: Update the course name to "Automation Testing" for a specific student.

T12: Increase fees by 10% for all students enrolled in "Manual Testing".

T13: Delete a student record using student_id.

T14: Delete all students whose fees are less than 20000.

T15: Display all records from the table.

Part C: Tasks

T16: Insert two new records into the students table.

T17: Use SAVEPOINT after the first insert.

T18: Rollback only the second insert using ROLLBACK TO SAVEPOINT.

T19: Commit the transaction.

Part D: Tasks [Written Explanation]

T20: Demonstrate the difference between ROLLBACK and COMMIT.

T21: What happens if you use TRUNCATE instead of DELETE?

T22: Can ROLLBACK undo a TRUNCATE operation? Explain.

T23: Write a query to copy all records from Students to a backup table.

T24: Identify which commands are auto-commit and which are not.

T25: Explain a real-time use case for each:

DDL DML TCL DCL

T26: Difference between DELETE, TRUNCATE, and DROP.

T27: Difference between WHERE and HAVING.

T28: Write a transaction that fails and demonstrate rollback.

T29: Explain why DCL commands are important in production systems.

General Guidelines:

- ✓ Use Oracle (as instructed by your trainer).
- ✓ Create and work within a database named Assignment1.
- ✓ All commands must be written and executed manually (no GUI-only operations).
- ✓ Execute commands step by step and verify output after each task.
- ✓ Ensure queries run without errors.
- ✓ Create and modify database objects exactly as specified.
- ✓ Insert minimum 10 valid (realistic) records.
- ✓ Write SQL commands + short explanations[Task-D].
- ✓ For difference-based questions, use comparison tables where applicable[Task-D].
- ✓ Use your own words.
- ✓ Avoid copy–paste from online sources.

File & Submission Instructions

SQL Script File

→ File name: assignment.sql

Include:

All SQL commands from T1 to T29

Proper comments for each task [Ex: -- T1: Create Database]

→ Explanation document (.docx or .pdf)

→ Output screenshots (if any) (.png or .jpeg)

Final Submission Format

- Create a folder named:

Assignment1_YourName

Include:

- assignment.sql
- Output screenshots (if any)
- Explanation document (.docx or .pdf)

Compress the folder into a **.zip** file.

Upload as instructed by the trainer into GitHub repo.

GitHub:
https://github.com/krishnasoftwaretrainer/QT_Database_SQL_227_228_Batches.git

Prepared By:

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Database Trainer

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