### Notes: Transaction Control Language (TCL) in SQL

1. **Introduction to TCL**:
   * TCL manages transactions in a database.
   * It controls changes made using Data Manipulation Language (DML) commands (e.g., INSERT, DELETE, UPDATE).
   * Changes made with DML are temporary until explicitly made permanent using TCL commands.
2. **Definition**:
   * TCL (Transaction Control Language) is part of SQL.
   * It is used to manage transactions and group statements into logical units.
3. **TCL Commands**:
   * **Commit**: Saves changes permanently to the database.
   * **Rollback**: Reverts changes to the last committed state, provided the changes were not committed.
   * **Savepoint**: Creates a marker in a transaction to allow partial rollbacks.
4. **Command Details**:
   * **Commit**:
     + Used to apply changes permanently.
     + Changes are saved to the server.
   * **Rollback**:
     + Used to revert uncommitted changes.
     + Cannot be used after a commit.
   * **Savepoint**:
     + Marks specific points in a transaction.
     + Allows rollback to a specific savepoint without affecting earlier changes.
5. **Using TCL Commands in MySQL**:
   * **Auto-commit Behavior**:
     + Enabled by default; all commands are committed automatically.
     + To use TCL commands, disable auto-commit or use START TRANSACTION.
   * **Steps**:
     + Disable auto-commit by running START TRANSACTION.
     + Perform DML operations (INSERT, DELETE, UPDATE).
     + Use COMMIT, ROLLBACK, or SAVEPOINT as required.
6. **Examples**:
   * Commit changes: Saves all changes permanently.
   * Rollback changes: Reverts to the previous committed state.
   * Savepoint:
     + Example: Create savepoints (SAVEPOINT ins, SAVEPOINT upd, etc.).
     + Rollback to a specific savepoint (e.g., ROLLBACK TO upd).
7. **MySQL Specific Notes**:
   * TCL commands require the START TRANSACTION statement.
   * Without disabling auto-commit, TCL commands will not function.
8. **Next Steps**:
   * Upcoming video: Detailed explanation of the SELECT statement.

**Tips**:

* Experiment with different DML and TCL commands to explore various scenarios.
* Remember to disable auto-commit in MySQL before using TCL commands.