SET autocommit=0;

After disabling autocommit mode by setting the autocommit variable to zero, changes to transaction-safe tables (such as those for InnoDB or NDB) are not made permanent immediately. You must use COMMIT to store your changes to disk or ROLLBACK to ignore the changes.

autocommit is a session variable and must be set for each session. To disable autocommit mode for each new connection, see the description of the autocommit system variable at Section 5.1.8, "Server System Variables".

BEGIN and BEGIN WORK are supported as aliases of START TRANSACTION for initiating a transaction. START TRANSACTION is standard SQL syntax, is the recommended way to start an ad-hoc transaction, and permits modifiers that BEGIN does not.

The BEGIN statement differs from the use of the BEGIN keyword that starts a BEGIN ... END compound statement. The latter does not begin a transaction. See Section 13.6.1, "BEGIN ... END Compound Statement".



Note

Within all stored programs (stored procedures and functions, triggers, and events), the parser treats <code>BEGIN [WORK]</code> as the beginning of a <code>BEGIN ... END</code> block. Begin a transaction in this context with <code>START TRANSACTION</code> instead.

The optional WORK keyword is supported for COMMIT and ROLLBACK, as are the CHAIN and RELEASE clauses. CHAIN and RELEASE can be used for additional control over transaction completion. The value of the completion_type system variable determines the default completion behavior. See Section 5.1.8, "Server System Variables".

The AND CHAIN clause causes a new transaction to begin as soon as the current one ends, and the new transaction has the same isolation level as the just-terminated transaction. The new transaction also uses the same access mode (READ WRITE or READ ONLY) as the just-terminated transaction. The RELEASE clause causes the server to disconnect the current client session after terminating the current transaction. Including the NO keyword suppresses CHAIN or RELEASE completion, which can be useful if the completion type system variable is set to cause chaining or release completion by default.

Beginning a transaction causes any pending transaction to be committed. See Section 13.3.3, "Statements That Cause an Implicit Commit", for more information.

Beginning a transaction also causes table locks acquired with LOCK TABLES to be released, as though you had executed UNLOCK TABLES. Beginning a transaction does not release a global read lock acquired with FLUSH TABLES WITH READ LOCK.

For best results, transactions should be performed using only tables managed by a single transaction-safe storage engine. Otherwise, the following problems can occur:

- If you use tables from more than one transaction-safe storage engine (such as InnoDB), and the transaction isolation level is not SERIALIZABLE, it is possible that when one transaction commits, another ongoing transaction that uses the same tables sees only some of the changes made by the first transaction. That is, the atomicity of transactions is not guaranteed with mixed engines and inconsistencies can result. (If mixed-engine transactions are infrequent, you can use SET TRANSACTION ISOLATION LEVEL to set the isolation level to SERIALIZABLE on a per-transaction basis as necessary.)
- If you use tables that are not transaction-safe within a transaction, changes to those tables are stored at once, regardless of the status of autocommit mode.