> **Note**
>
> Use of `||` is deprecated unless the `PIPES_AS_CONCAT` SQL mode is enabled. In that case, `||` signifies the SQL-standard string concatenation operator).

- The `JSON_MERGE()` function is deprecated. Use `JSON_MERGE_PRESERVE()` instead.

- The `SQL_CALC_FOUND_ROWS` query modifier and accompanying `FOUND_ROWS()` function are deprecated. See the `FOUND_ROWS()` description for information about an alternative strategy.

- Support for `TABLESPACE = innodb_file_per_table` and `TABLESPACE = innodb_temporary` clauses with `CREATE TEMPORARY TABLE` is deprecated as of MySQL 8.0.13.

- For `SELECT` statements, use of an `INTO` clause after `FROM` but not at the end of the `SELECT` is deprecated as of MySQL 8.0.20. It is preferred to place the `INTO` at the end of the statement.

  For `UNION` statements, these two variants containing `INTO` are deprecated as of MySQL 8.0.20:

  - In the trailing query block of a query expression, use of `INTO` before `FROM`.

  - In a parenthesized trailing block of a query expression, use of `INTO`, regardless of its position relative to `FROM`.

  See Section 13.2.10.1, "SELECT ... INTO Statement", and Section 13.2.10.3, "UNION Clause".

- `FLUSH HOSTS` is deprecated as of MySQL 8.0.23. Instead, truncate the Performance Schema `host_cache` table:

```
TRUNCATE TABLE performance_schema.host_cache;
```

  The `TRUNCATE TABLE` operation requires the `DROP` privilege for the table.

- The `mysql_upgrade` client is deprecated because its capabilities for upgrading the system tables in the `mysql` system schema and objects in other schemas have been moved into the MySQL server. See Section 2.11.3, "What the MySQL Upgrade Process Upgrades".

- The `--no-dd-upgrade` server option is deprecated. It is superseded by the `--upgrade` option, which provides finer control over data dictionary and server upgrade behavior.

- The `mysql_upgrade_info` file, which is created data directory and used to store the MySQL version number, is deprecated; expect it to be removed in a future version of MySQL.

- The `relay_log_info_file` system variable and `--master-info-file` option are deprecated. Previously, these were used to specify the name of the relay log info log and source info log when `relay_log_info_repository=FILE` and `master_info_repository=FILE` were set, but those settings have been deprecated. The use of files for the relay log info log and source info log has been superseded by crash-safe replica tables, which are the default in MySQL 8.0.

- The `max_length_for_sort_data` system variable is now deprecated due to optimizer changes that make it obsolete and of no effect.

- These legacy parameters for compression of connections to the server are deprecated: The `--compress` client command-line option; the `MYSQL_OPT_COMPRESS` option for the `mysql_options()` C API function; the `slave_compressed_protocol` system variable. For information about parameters to use instead, see Section 4.2.8, "Connection Compression Control".

- Use of the `MYSQL_PWD` environment variable to specify a MySQL password is deprecated.