There are other methods to test SASL authentication with `memcached`, but the method described above is the most straightforward.

15.20.6 Writing Applications for the InnoDB memcached Plugin

Typically, writing an application for the `InnoDB` `memcached` plugin involves some degree of rewriting or adapting existing code that uses MySQL or the `memcached` API.

- With the `daemon_memcached` plugin, instead of many traditional `memcached` servers running on low-powered machines, you have the same number of `memcached` servers as MySQL servers, running on relatively high-powered machines with substantial disk storage and memory. You might reuse some existing code that works with the `memcached` API, but adaptation is likely required due to the different server configuration.
- The data stored through the `daemon_memcached` plugin goes into `VARCHAR`, `TEXT`, or `BLOB` columns, and must be converted to do numeric operations. You can perform the conversion on the application side, or by using the `CAST()` function in queries.
- Coming from a database background, you might be used to general-purpose SQL tables with many columns. The tables accessed by `memcached` code likely have only a few or even a single column holding data values.
- You might adapt parts of your application that perform single-row queries, inserts, updates, or deletes, to improve performance in critical sections of code. Both queries (read) and DML (write) operations can be substantially faster when performed through the `InnoDB` `memcached` interface. The performance improvement for writes is typically greater than the performance improvement for reads, so you might focus on adapting code that performs logging or records interactive choices on a website.

The following sections explore these points in more detail.

15.20.6.1 Adapting an Existing MySQL Schema for the InnoDB memcached Plugin

Consider these aspects of `memcached` applications when adapting an existing MySQL schema or application to use the `daemon_memcached` plugin:

- `memcached` keys cannot contain spaces or newlines, because these characters are used as separators in the ASCII protocol. If you are using lookup values that contain spaces, transform or hash them into values without spaces before using them as keys in calls to `add()`, `set()`, `get()`, and so on. Although theoretically these characters are allowed in keys in programs that use the binary protocol, you should restrict the characters used in keys to ensure compatibility with a broad range of clients.
- If there is a short numeric primary key column in an `InnoDB` table, use it as the unique lookup key for `memcached` by converting the integer to a string value. If the `memcached` server is used for multiple applications, or with more than one `InnoDB` table, consider modifying the name to ensure that it is unique. For example, prepend the table name, or the database name and the table name, before the numeric value.

  Note

  The `daemon_memcached` plugin supports inserts and reads on mapped `InnoDB` tables that have an `INTEGER` defined as the primary key.

- You cannot use a partitioned table for data queried or stored using `memcached`.
- The `memcached` protocol passes numeric values around as strings. To store numeric values in the underlying `InnoDB` table, to implement counters that can be used in SQL functions such as `SUM()` or `AVG()`, for example: