Indexing

The driver provides the ability to create, drop and view indexes ↗ on a collection.

Creating Indexes

Indexes can be created one at a time, or several can be created in a single operation. When creating multiple indexes on MongoDB 3.0 and later, the indexes are created in parallel. On earlier versions they are created in order.

To create a single index, use `create_one`.

```
client = Mongo::Client.new([ '127.0.0.1:27017' ], :database => 'music')
client[:bands].indexes.create_one( { :name => 1 }, unique: true )
```

To create multiple indexes, use `create_many`. Note that when creating many, the index keys must be passed as a `key` value in the provided spec. This is due to the fact that options can be different for each index being created.

```
client = Mongo::Client.new([ '127.0.0.1:27017' ], :database => 'music')
client[:bands].indexes.create_many([
  { :key => { name: 1 }, unique: true },
  { :key => { label: -1 } }
])
```

The following is a full list of the available options that can be added when creating indexes.

Option	Description
:background	Either `true` or `false`. Tells the index to be created in the background.
:expire_after	Number of seconds to expire documents in the collection after.
:name	The name of the index.
:sparse	Whether the index should be sparse or not, either `true` or `false`.
:storage_engine	The name of the storage engine for this particular index.
:version	The index format version to use.
:default_language	The default language of text indexes.
:language_override	The field name to use when overriding the default language.
:text_version	The version format for text index storage.
:weights	A document specifying fields and weights in text search.
:sphere_version	The 2d sphere index version.
:bits	Sets the maximum boundary for latitude and longitude in the 2d index.
:max	Maximum boundary for latitude and longitude in the 2d index.

Option	Description
:min	Minimum boundary for latitude and longitude in the 2d index.
:bucket_size	The number of units within which to group the location values in a geo haystack index.
:partial_filter_expression	A filter for a partial index.

Dropping Indexes

To drop an index, call `dropOne` or `dropAll`.

```ruby
client = Mongo::Client.new([ '127.0.0.1:27017' ], :database => 'music')

client[:bands].indexes.drop_one( 'name_1' ) # Drops the name_1 index.
client[:bands].indexes.drop_all # Drops all indexes in the collection.
```

Listing Indexes

```ruby
client = Mongo::Client.new([ '127.0.0.1:27017' ], :database => 'music')

client[:bands].indexes.each do |index|
  p index
end
```