mongo-memoize Documentation

Release 0.0.4

Ikuya Yamada

November 09, 2014

Contents

A Python decorator library for instantly caching function results in MongoDB.

CHAPTER 1

Basic Usage

```
from mongo_memoize import memoize

@memoize()
def func():
    ...
```

CHAPTER 2

Customization

You can specify custom *serializer* and *key_generator*. *serializer* is used to serialize function results in order to convert them into formats that can be stored in MongoDB. *key_generator* generates a cache key from the function arguments. `PickleSerializer` and `PickleMD5KeyGenerator` are used by default.

```
from mongo_memoize import memoize, NoopSerializer, PickleMD5KeyGenerator

@memoize(serializer=NoopSerializer, key_generator=PickleMD5KeyGenerator)
def func():
    ...
```

CHAPTER 3

Using Capped Collection

Capped collection is a MongoDB feature which allows to limit the maximum size of the collection. By setting *capped=True*, a capped collection is created automatically.

```
from mongo_memoize import memoize

@memoize(capped=True, capped_size=100000000)
def func():
    ...
```

For further information, please refer the *API Reference*.

CHAPTER 4

Contents

4.1 API Reference

mongo_memoize.**memoize**(*db_name='mongo_memoize'*, *host='localhost'*, *port=27017*, *collection_name=None*, *prefix='memoize'*, *capped=False*, *capped_size=100000000*, *capped_max=None*, *connection_options={}*, *key_generator=None*, *serializer=None*)

A decorator that caches results of the function in MongoDB.

Usage:

```
>>> from mongo_memoize import memoize
>>> @memoize()
... def some_function():
...     pass
...
```

Parameters

- **db_name** (*str*) – MongoDB database name.
- **host** (*str*) – MongoDB host name.
- **port** (*int*) – MongoDB port.
- **collection_name** (*str*) – MongoDB collection name. If not specified, the collection name is generated automatically using the prefix, the module name, and the function name.
- **prefix** (*str*) – Prefix of the MongoDB collection name. This argument is only valid when the collection_name argument is not specified.
- **capped** (*bool*) – Whether to use the capped collection.
- **capped_size** (*int*) – The maximum size of the capped collection in bytes.
- **capped_max** (*int*) – The maximum number of items in the capped collection.
- **connection_options** (*dict*) – Additional parameters for establishing MongoDB connection.
- **key_generator** – Key generator instance. `PickleMD5KeyGenerator` is used by default.
- **serializer** – Serializer instance. `PickleSerializer` is used by default.

class mongo_memoize.**NoopSerializer**

Serializer that does nothing.

Note: It is required that the result of the function can be stored directly in MongoDB when you use this serializer.

class mongo_memoize.**PickleSerializer**(*protocol=-1*)
Serializer using Pickle.

Parameters **protocol** (*int*) – Pickle protocol version.

class mongo_memoize.**PickleMD5KeyGenerator**(*protocol=-1*)
Cache key generator using Pickle and MD5.

Parameters **protocol** (*int*) – Pickle protocol version.

CHAPTER 5

Indices and tables

- *genindex*
- *modindex*
- *search*

M

N

P