
aioes Documentation

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aioes is a library for working with an *ElasticSearch* from *asyncio* framework.

CHAPTER 1

Features

- Easy interface to *ElasticSearch* cluster.
- Modelled after *elasticsearch-py*. Not fully compatible due `yield` from nature of *asyncio* but looks very similar.

CHAPTER 2

Basic Example

```
import asyncio
from aioes import Elasticsearch

@asyncio.coroutine
def go():
    es = Elasticsearch(['localhost:9200'])
    ret = yield from es.create(index="my-index",
                               doc_type="test-type",
                               id=42,
                               body={"str": "data",
                                     "int": 1})

    assert (ret == {'_id': '42',
                    '_index': 'my-index',
                    '_type': 'test-type',
                    '_version': 1,
                    'ok': True})

    answer = yield from es.get(index="my-index",
                               doc_type="test-type",
                               id=42)

    assert answer['_source'] == {'str': 'data', 'int': 1}

loop = asyncio.get_event_loop()
loop.run_until_complete(go())
```


CHAPTER 3

Installation

aioes published on *PyPI* and can be installed via `pip` tool:

```
pip3 install aioes
```


CHAPTER 4

Dependencies

- Python 3.3 and `asyncio` or Python 3.4+
- `aiohttp` 1.3+

The `aioes` package is written by Andrew Svetlov. It's BSD licensed and freely available.

Feel free to improve this package and send a pull request to [GitHub](#).

Contents:

aioes reference

Elasticsearch

class `aioes.Elasticsearch`

Class for operating on Elasticsearch cluster.

ping()

A `coroutine` that returns True if the cluster is up, False otherwise.

Returns bool

info()

A `coroutine` that returns basic info from the current cluster.

Returns resulting JSON

index(*index, doc_type, body, id=None, *, consistency=default, op_type=default, parent=default, refresh=default, replication=default, routing=default, timeout=default, timestamp=default, ttl=default, version=default, version_type=default*)

A `coroutine` that adds or updates a typed JSON document in a specific index, making it searchable.

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document
- **body** – The document

- **id** – Document ID
- **consistency** – Explicit write consistency setting for the operation
- **op_type** – Explicit operation type (default: index)
- **parent** – ID of the parent document
- **refresh** – Refresh the index after performing the operation
- **replication** – Specific replication type (default: sync)
- **routing** – Specific routing value
- **timeout** – Explicit operation timeout
- **timestamp** – Explicit timestamp for the document
- **t1** – Expiration time for the document
- **version** – Explicit version number for concurrency control
- **version_type** – Specific version type

Returns resulting JSON

See also:

http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-index_.html

create (*index, doc_type, body, id=None, *, consistency=default, parent=default, percolate=default, refresh=default, replication=default, routing=default, timeout=default, timestamp=default, ttl=default, version=default, version_type=default*)

A `coroutine` that adds a typed JSON document in a specific index, making it searchable. Behind the scenes this method calls `index(..., op_type='create')`

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document
- **id** – Document ID
- **body** – The document
- **consistency** – Explicit write consistency setting for the operation
- **id** – Specific document ID (when the POST method is used)
- **parent** – ID of the parent document
- **percolate** – Percolator queries to execute while indexing the document
- **refresh** – Refresh the index after performing the operation
- **replication** – Specific replication type (default: sync)
- **routing** – Specific routing value
- **timeout** – Explicit operation timeout
- **timestamp** – Explicit timestamp for the document
- **t1** – Expiration time for the document
- **version** – Explicit version number for concurrency control
- **version_type** – Specific version type

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-get.html>

exists (*index, id, doc_type='_all', *, parent=default, preference=default, realtime=default, refresh=default, routing=default*)

A [coroutine](#) that returns a boolean indicating whether or not given document exists in Elasticsearch.

Parameters

- **index** – The name of the index
- **id** – The document ID
- **doc_type** – The type of the document (uses *_all* by default to fetch the first document matching the ID across all types)
- **parent** – The ID of the parent document
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **realtime** – Specify whether to perform the operation in realtime or search mode
- **refresh** – Refresh the shard containing the document before performing the operation
- **routing** – Specific routing value

Returns bool

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-get.html>

get (*index, id, doc_type='_all', *, _source=default, _source_exclude=default, _source_include=default, fields=default, parent=default, preference=default, realtime=default, refresh=default, routing=default, version=default, version_type=default*)

A [coroutine](#) that get a typed JSON document from the index based on its id.

Parameters

- **index** – The name of the index
- **id** – The document ID
- **doc_type** – The type of the document (uses *_all* by default to fetch the first document matching the ID across all types)
- **_source** – True or false to return the *_source* field or not, or a list of fields to return
- **_source_exclude** – A list of fields to exclude from the returned *_source* field
- **_source_include** – A list of fields to extract and return from the *_source* field
- **fields** – A comma-separated list of fields to return in the response
- **parent** – The ID of the parent document
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **realtime** – Specify whether to perform the operation in realtime or search mode
- **refresh** – Refresh the shard containing the document before performing the operation
- **routing** – Specific routing value
- **version** – Explicit version number for concurrency control

- **version_type** – Explicit version number for concurrency control

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-get.html>

mget (*body*, *index=None*, *doc_type=None*, ***, *_source=default*, *_source_exclude=default*, *_source_include=default*, *fields=default*, *parent=default*, *preference=default*, *realtime=default*, *refresh=default*, *routing=default*)

A [coroutine](#) that get multiple documents based on an index, type (optional) and ids.

Parameters

- **body** – Document identifiers; can be either *docs* (containing full document information) or *ids* (when index and type is provided in the URL).
- **index** – The name of the index
- **doc_type** – The type of the document
- **_source** – True or false to return the *_source* field or not, or a list of fields to return
- **_source_exclude** – A list of fields to exclude from the returned *_source* field
- **_source_include** – A list of fields to extract and return from the *_source* field
- **fields** – A comma-separated list of fields to return in the response
- **parent** – The ID of the parent document
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **realtime** – Specify whether to perform the operation in realtime or search mode
- **refresh** – Refresh the shard containing the document before performing the operation
- **routing** – Specific routing value

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-get.html>

get_source (*index*, *id*, *doc_type='_all'*, ***, *_source=default*, *_source_exclude=default*, *_source_include=default*, *parent=default*, *preference=default*, *realtime=default*, *refresh=default*, *routing=default*, *version=default*, *version_type=default*)

A [coroutine](#) that get the source of a document by it's index, type and id.

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document (uses *_all* by default to fetch the first document matching the ID across all types)
- **id** – The document ID
- **_source** – True or false to return the *_source* field or not, or a list of fields to return
- **_source_exclude** – A list of fields to exclude from the returned *_source* field
- **_source_include** – A list of fields to extract and return from the *_source* field
- **parent** – The ID of the parent document

- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **realtime** – Specify whether to perform the operation in realtime or search mode
- **refresh** – Refresh the shard containing the document before performing the operation
- **routing** – Specific routing value
- **version** – Explicit version number for concurrency control
- **version_type** – Explicit version number for concurrency control

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-get.html>

update (*index, doc_type, id, body=None, *, consistency=default, fields=default, lang=default, parent=default, refresh=default, replication=default, retry_on_conflict=default, routing=default, script=default, timeout=default, timestamp=default, ttl=default, version=default, version_type=default*)

A [coroutine](#) that update a document based on a script or partial data provided.

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document
- **id** – Document ID
- **body** – The request definition using either *script* or partial *doc*
- **consistency** – Explicit write consistency setting for the operation
- **fields** – A comma-separated list of fields to return in the response
- **lang** – The script language (default: mvel)
- **parent** – ID of the parent document
- **refresh** – Refresh the index after performing the operation
- **replication** – Specific replication type (default: sync)
- **retry_on_conflict** – Specify how many times should the operation be retried when a conflict occurs (default: 0)
- **routing** – Specific routing value
- **script** – The URL-encoded script definition (instead of using request body)
- **timeout** – Explicit operation timeout
- **timestamp** – Explicit timestamp for the document
- **ttl** – Expiration time for the document
- **version** – Explicit version number for concurrency control
- **version_type** – Explicit version number for concurrency control

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-update.html>

search (*index=None, doc_type=None, body=None, *, _source=default, _source_exclude=default, _source_include=default, analyze_wildcard=default, analyzer=default, default_operator=default, df=default, explain=default, fields=default, indices_boost=default, lenient=default, allow_no_indices=default, expand_wildcards=default, ignore_unavailable=default, lowercase_expanded_terms=default, from_=default, preference=default, q=default, routing=default, scroll=default, search_type=default, size=default, sort=default, source=default, stats=default, suggest_field=default, suggest_mode=default, suggest_size=default, suggest_text=default, timeout=default, version=default*)

A [coroutine](#) that execute a search query and get back search hits that match the query.

Parameters

- **index** – A comma-separated list of index names to search; use *_all* or empty string to perform the operation on all indices
- **doc_type** – A comma-separated list of document types to search; leave empty to perform the operation on all types
- **body** – The search definition using the Query DSL
- **_source** – True or false to return the *_source* field or not, or a list of fields to return
- **_source_exclude** – A list of fields to exclude from the returned *_source* field
- **_source_include** – A list of fields to extract and return from the *_source* field
- **analyze_wildcard** – Specify whether wildcard and prefix queries should be analyzed (default: false)
- **analyzer** – The analyzer to use for the query string
- **default_operator** – The default operator for query string query (AND or OR) (default: OR)
- **df** – The field to use as default where no field prefix is given in the query string
- **explain** – Specify whether to return detailed information about score computation as part of a hit
- **fields** – A comma-separated list of fields to return as part of a hit
- **indices_boost** – Comma-separated list of index boosts
- **lenient** – Specify whether format-based query failures (such as providing text to a numeric field) should be ignored
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default 'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **lowercase_expanded_terms** – Specify whether query terms should be lowercased
- **from_** – Starting offset (default: 0)
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **q** – Query in the Lucene query string syntax
- **routing** – A comma-separated list of specific routing values

- **scroll** – Specify how long a consistent view of the index should be maintained for scrolled search
- **search_type** – Search operation type
- **size** – Number of hits to return (default: 10)
- **sort** – A comma-separated list of <field>:<direction> pairs
- **source** – The URL-encoded request definition using the Query DSL (instead of using request body)
- **stats** – Specific ‘tag’ of the request for logging and statistical purposes
- **suggest_field** – Specify which field to use for suggestions
- **suggest_mode** – Specify suggest mode (default: missing)
- **suggest_size** – How many suggestions to return in response
- **suggest_text** – The source text for which the suggestions should be returned
- **timeout** – Explicit operation timeout
- **version** – Specify whether to return document version as part of a hit

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-search.html>

search_shards (*index=None, doc_type=None, *, allow_no_indices=default, expand_wildcards=default, ignore_unavailable=default, local=default, preference=default, routing=default*)

A *coroutine* that returns the indices and shards that a search request would be executed against. This can give useful feedback for working out issues or planning optimizations with routing and shard preferences execute a search query and get back search hits that match the query.

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both. (default: “open”)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **routing** – Specific routing value

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-shards.html>

search_template (*index=None, doc_type=None, body=None, *, allow_no_indices=default, expand_wildcards=default, ignore_unavailable=default, preference=default, routing=default, scroll=default, search_type=default*)

A `coroutine` that accepts a body with a query template and a map of key/value pairs to fill in template parameters.

Parameters

- **index** – A comma-separated list of index names to search; use `_all` or empty string to perform the operation on all indices
- **doc_type** – A comma-separated list of document types to search; leave empty to perform the operation on all types
- **body** – The search definition template and its params
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes `_all` string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default ‘open’
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **routing** – A comma-separated list of specific routing values
- **scroll** – Specify how long a consistent view of the index should be maintained for scrolled search
- **search_type** – Search operation type

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/query-dsl-template-query.html>

explain (*index, doc_type, id, body=None, *, _source=default, _source_exclude=default, _source_include=default, analyze_wildcard=default, analyzer=default, default_operator=default, df=default, fields=default, lenient=default, lowercase_expanded_terms=default, parent=default, preference=default, q=default, routing=default, source=default*)

A `coroutine` that computes a score explanation for a query and a specific document. This can give useful feedback whether a document matches or didn’t match a specific query.

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document
- **id** – The document ID
- **body** – The query definition using the Query DSL
- **_source** – True or false to return the `_source` field or not, or a list of fields to return
- **_source_exclude** – A list of fields to exclude from the returned `_source` field
- **_source_include** – A list of fields to extract and return from the `_source` field

- **analyze_wildcard** – Specify whether wildcards and prefix queries in the query string query should be analyzed (default: false)
- **analyzer** – The analyzer for the query string query
- **default_operator** – The default operator for query string query (AND or OR), (default: OR)
- **df** – The default field for query string query (default: `_all`)
- **fields** – A comma-separated list of fields to return in the response
- **lenient** – Specify whether format-based query failures (such as providing text to a numeric field) should be ignored
- **lowercase_expanded_terms** – Specify whether query terms should be lowercased
- **parent** – The ID of the parent document
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **q** – Query in the Lucene query string syntax
- **routing** – Specific routing value
- **source** – The URL-encoded query definition (instead of using the request body)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-explain.html>

scroll (*scroll_id*, *, *scroll=default*)

A [coroutine](#) that scroll a search request created by specifying the scroll parameter

Parameters

- **scroll_id** – The scroll ID
- **scroll** – Specify how long a consistent view of the index should be maintained for scrolled search

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-request-scroll.html>

clear_scroll (*scroll_id=None*, *body=None*)

A [coroutine](#) that clear the scroll request created by specifying the scroll parameter to search.

Parameters

- **scroll_id** – The scroll ID or a list of scroll IDs
- **body** – A comma-separated list of scroll IDs to clear if none was specified via the `scroll_id` parameter

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-request-scroll.html>

delete (*index*, *doc_type*, *id*, *, *consistency=default*, *parent=default*, *refresh=default*, *replication=default*, *routing=default*, *timeout=default*, *version=default*, *version_type=default*)

A [coroutine](#) that delete a typed JSON document from a specific index based on its id.

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document
- **id** – The document ID
- **consistency** – Specific write consistency setting for the operation
- **parent** – ID of parent document
- **refresh** – Refresh the index after performing the operation
- **replication** – Specific replication type (default: sync)
- **routing** – Specific routing value
- **timeout** – Explicit operation timeout
- **version** – Explicit version number for concurrency control
- **version_type** – Specific version type

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-delete.html>

count (*index=None, doc_type=None, body=None, *, allow_no_indices=default, expand_wildcards=default, ignore_unavailable=default, min_score=default, preference=default, q=default, routing=default, source=default*)

A [coroutine](#) that execute a query and get the number of matches for that query.

Parameters

- **index** – A comma-separated list of indices to restrict the results
- **doc_type** – A comma-separated list of types to restrict the results
- **body** – A query to restrict the results (optional)
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default 'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **min_score** – Include only documents with a specific *_score* value in the result
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **q** – Query in the Lucene query string syntax
- **routing** – Specific routing value
- **source** – The URL-encoded query definition (instead of using the request body)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-count.html>

bulk (*body*, *index=None*, *doc_type=None*, *, *consistency=default*, *refresh=default*, *routing=default*, *replication=default*, *timeout=default*)

A [coroutine](#) that perform many index/delete operations in a single API call.

Parameters

- **body** – The operation definition and data (action-data pairs), as either a newline separated string, or a sequence of dicts to serialize (one per row).
- **index** – Default index for items which don't provide one
- **doc_type** – Default document type for items which don't provide one
- **consistency** – Explicit write consistency setting for the operation
- **refresh** – Refresh the index after performing the operation
- **routing** – Specific routing value
- **replication** – Explicitly set the replication type (default: sync)
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-bulk.html>

msearch (*body*, *index=None*, *doc_type=None*, *, *search_type=default*)

A [coroutine](#) that executes several search requests within the same API.

Parameters

- **body** – The request definitions (metadata-search request definition pairs), as either a newline separated string, or a sequence of dicts to serialize (one per row).
- **index** – A comma-separated list of index names to use as default
- **doc_type** – A comma-separated list of document types to use as default
- **search_type** – Search operation type

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-multi-search.html>

delete_by_query (*index*, *doc_type=None*, *body=None*, *, *allow_no_indices=default*, *analyzer=default*, *consistency=default*, *default_operator=default*, *df=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *q=default*, *replication=default*, *routing=default*, *source=default*, *timeout=default*)

A [coroutine](#) that delete documents from one or more indices and one or more types based on a query.

Parameters

- **index** – A comma-separated list of indices to restrict the operation; use *_all* to perform the operation on all indices
- **doc_type** – A comma-separated list of types to restrict the operation
- **body** – A query to restrict the operation specified with the Query DSL
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **analyzer** – The analyzer to use for the query string

- **consistency** – Specific write consistency setting for the operation
- **default_operator** – The default operator for query string query (AND or OR), default u'OR'
- **df** – The field to use as default where no field prefix is given in the query string
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default u'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **q** – Query in the Lucene query string syntax
- **replication** – Specific replication type, default u'sync'
- **routing** – Specific routing value
- **source** – The URL-encoded query definition (instead of using the request body)
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-delete-by-query.html>

suggest (*index*, *body*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *preference=default*, *routing=default*, *source=default*)

A [coroutine](#) that suggests similar looking terms based on a provided text by using a suggester.

Parameters

- **index** – A comma-separated list of index names to restrict the operation; use *_all* or empty string to perform the operation on all indices
- **body** – The request definition
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default 'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **routing** – Specific routing value
- **source** – The URL-encoded request definition (instead of using request body)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-search.html>

percolate (*index*, *doc_type*, *id=None*, *body=None*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *percolate_format=default*, *percolate_index=default*, *percolate_type=default*, *preference=default*, *routing=default*, *version=default*, *version_type=default*)

A [coroutine](#) that allows to register queries against an index, and then send percolate requests which include

a doc, and getting back the queries that match on that doc out of the set of registered queries.

Parameters

- **index** – The index of the document being percolated.
- **doc_type** – The type of the document being percolated.
- **id** – Substitute the document in the request body with a document that is known by the specified id. On top of the id, the index and type parameter will be used to retrieve the document from within the cluster.
- **body** – The percolator request definition using the percolate DSL
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default ‘open’
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **percolate_format** – Return an array of matching query IDs instead of objects
- **percolate_index** – The index to percolate the document into. Defaults to index.
- **percolate_type** – The type to percolate document into. Defaults to type.
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **routing** – A comma-separated list of specific routing values
- **version** – Explicit version number for concurrency control
- **version_type** – Specific version type

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-percolate.html>

mpercolate (*body*, *index=None*, *doc_type=None*, ***, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*)

A *coroutine* that allows to register queries against an index, and then send percolate requests which include a doc, and getting back the queries that match on that doc out of the set of registered queries.

Parameters

- **index** – The index of the document being count percolated to use as default
- **doc_type** – The type of the document being percolated to use as default.
- **body** – The percolate request definitions (header & body pair), separated by newlines
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default ‘open’
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-percolate.html>

count_percolate (*index, doc_type, id=None, body=None, *, allow_no_indices=default, expand_wildcards=default, ignore_unavailable=default, percolate_index=default, percolate_type=default, preference=default, routing=default, version=default, version_type=default*)

A `coroutine` that allows to register queries against an index, and then send percolate requests which include a doc, and getting back the queries that match on that doc out of the set of registered queries.

Parameters

- **index** – The index of the document being count percolated.
- **doc_type** – The type of the document being count percolated.
- **id** – Substitute the document in the request body with a document that is known by the specified id. On top of the id, the index and type parameter will be used to retrieve the document from within the cluster.
- **body** – The count percolator request definition using the percolate DSL
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes `_all` string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default ‘open’
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **percolate_index** – The index to count percolate the document into. Defaults to index.
- **percolate_type** – The type to count percolate document into. Defaults to type.
- **preference** – Specify the node or shard the operation should be performed on (default: random)
- **routing** – A comma-separated list of specific routing values
- **version** – Explicit version number for concurrency control
- **version_type** – Specific version type

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-percolate.html>

mlt (*index, doc_type, id, body=None, *, boost_terms=default, include=default, max_doc_freq=default, max_query_terms=default, max_word_length=default, min_doc_freq=default, min_term_freq=default, min_word_length=default, mlt_fields=default, percent_terms_to_match=default, routing=default, search_from=default, search_indices=default, search_query_hint=default, search_scroll=default, search_size=default, search_source=default, search_type=default, search_types=default, stop_words=default*)

A `coroutine` which get documents that are “like” a specified document

Parameters

- **index** – The name of the index
- **doc_type** – The type of the document (use `_all` to fetch the first document matching the ID across all types)

- **id** – The document ID
- **body** – A specific search request definition
- **boost_terms** – The boost factor
- **include** – Whether to include the queried document from the response
- **max_doc_freq** – The word occurrence frequency as count: words with higher occurrence in the corpus will be ignored
- **max_query_terms** – The maximum query terms to be included in the generated query
- **max_word_length** – The minimum length of the word: longer words will be ignored
- **min_doc_freq** – The word occurrence frequency as count: words with lower occurrence in the corpus will be ignored
- **min_term_freq** – The term frequency as percent: terms with lower occurrence in the source document will be ignored
- **min_word_length** – The minimum length of the word: shorter words will be ignored
- **mlt_fields** – Specific fields to perform the query against
- **percent_terms_to_match** – How many terms have to match in order to consider the document a match (default: 0.3)
- **routing** – Specific routing value
- **search_from** – The offset from which to return results
- **search_indices** – A comma-separated list of indices to perform the query against (default: the index containing the document)
- **search_query_hint** – The search query hint
- **search_scroll** – A scroll search request definition
- **search_size** – The number of documents to return (default: 10)
- **search_source** – A specific search request definition (instead of using the request body)
- **search_type** – Specific search type (eg. *dfs_then_fetch*, *count*, etc)
- **search_types** – A comma-separated list of types to perform the query against (default: the same type as the document)
- **stop_words** – A list of stop words to be ignored

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-more-like-this.html>

termvector (*index*, *doc_type*, *id*, *body=None*, ***, *field_statistics=default*, *fields=default*, *offsets=default*, *parent=default*, *payloads=default*, *positions=default*, *preference=default*, *routing=default*, *term_statistics=default*)

A *coroutine* that returns information and statistics on terms in the fields of a particular document as stored in the index.

Parameters

- **index** – The index in which the document resides.
- **doc_type** – The type of the document.

- **id** – The id of the document.
- **body** – Define parameters. See documentation.
- **field_statistics** – Specifies if document count, sum of document frequencies and sum of total term frequencies should be returned. (default True)
- **fields** – A comma-separated list of fields to return.
- **offsets** – Specifies if term offsets should be returned. (default True)
- **parent** – Parent id of documents.
- **payloads** – Specifies if term payloads should be returned. (default True)
- **positions** – Specifies if term positions should be returned. (default True)
- **preference** – Specify the node or shard the operation should be performed on (default: random).
- **routing** – Specific routing value.
- **term_statistics** – Specifies if total term frequency and document frequency should be returned., default False

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-termvectors.html>

termvectors (*index=None, doc_type=None, body=None, *, field_statistics=default, fields=default, ids=default, offsets=default, parent=default, payloads=default, positions=default, preference=default, routing=default, term_statistics=default*)

A [coroutine](#) allows to get multiple termvectors based on an index, type and id.

Parameters

- **index** – The index in which the document resides.
- **doc_type** – The type of the document.
- **body** – Define ids, parameters or a list of parameters per document here. You must at least provide a list of document ids. See documentation.
- **field_statistics** – Specifies if document count, sum of document frequencies and sum of total term frequencies should be returned. Applies to all returned documents unless otherwise specified in body “params” or “docs”. (default True)
- **fields** – A comma-separated list of fields to return. Applies to all returned documents unless otherwise specified in body “params” or “docs”.
- **ids** – A comma-separated list of documents ids. You must define ids as parameter or set “ids” or “docs” in the request body
- **offsets** – Specifies if term offsets should be returned. Applies to all returned documents unless otherwise specified in body “params” or “docs”. (default True)
- **parent** – Parent id of documents. Applies to all returned documents unless otherwise specified in body “params” or “docs”.
- **payloads** – Specifies if term payloads should be returned. Applies to all returned documents unless otherwise specified in body “params” or “docs”. (default True)
- **positions** – Specifies if term positions should be returned. Applies to all returned documents unless otherwise specified in body “params” or “docs”. (default True)

- **preference** – Specify the node or shard the operation should be performed on (default: random) .Applies to all returned documents unless otherwise specified in body “params” or “docs”.
- **routing** – Specific routing value. Applies to all returned documents unless otherwise specified in body “params” or “docs”.
- **term_statistics** – Specifies if total term frequency and document frequency should be returned. Applies to all returned documents unless otherwise specified in body “params” or “docs”. (default False)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/docs-multi-termvectors.html>

benchmark (*index=None, doc_type=None, body=None, *, verbose=default*)

A [coroutine](#) that provides a standard mechanism for submitting queries and measuring their performance relative to one another.

arg index A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices

arg doc_type The name of the document type

arg body The search definition using the Query DSL

arg verbose Specify whether to return verbose statistics about each iteration (default: false)

returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-benchmark.html>

put_script (*lang, id, body*)

A [coroutine](#) that creates a script in given language with specified ID.

Parameters

- **lang** – Script language
- **id** – Script ID
- **body** – The document

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/modules-scripting.html>

get_script (*lang, id*)

A [coroutine](#) that retrieves a script from the API.

Parameters

- **lang** – Script language
- **id** – Script ID

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/modules-scripting.html>

delete_script (*lang, id*)

A [coroutine](#) that removes a script from the API.

Parameters

- **lang** – Script language

- **id** – Script ID

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/modules-scripting.html>

put_template (*id*, *body*)

A *coroutine* that creates a search template with specified ID.

Parameters

- **id** – Template ID
- **body** – The document

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-template.html>

get_template (*id*)

A *coroutine* that retrieves a search template with specified ID.

Parameters **id** – Template ID

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-template.html>

delete_template (*id*)

A *coroutine* that removes a search template with specified ID.

Parameters **id** – Template ID

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-template.html>

IndicesClient

class `aioes.client.IndicesClient`

Class for operating on Elasticsearch indices.

analyze (*index=None*, *body=None*, *, *analyzer=default*, *char_filters=default*, *field=default*, *filters=default*, *prefer_local=default*, *text=default*, *tokenizer=default*)

A *coroutine* that make analysis process on a text and return the tokens breakdown of the text.

Parameters

- **index** – The name of the index
- **body** – The text on which the analysis should be performed
- **analyzer** – The name of the analyzer to use
- **char_filters** – A comma-separated list of character filters to use for the analysis
- **field** – Use the analyzer configured for this field (instead of passing the analyzer name)
- **filters** – A comma-separated list of filters to use for the analysis
- **prefer_local** – With *true*, specify that a local shard should be used if available, with *false*, use a random shard (default: *true*)
- **text** – The text on which the analysis should be performed (when request body is not used)
- **tokenizer** – The name of the tokenizer to use for the analysis

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-analyze.html>

create (*index*, *body=None*, *, *timeout=default*, *master_timeout=default*)

A *coroutine* that creates an index in Elasticsearch

Parameters

- **index** – The name of the index
- **body** – The configuration for the index (*settings* and *mappings*)
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-create-index.html>

open (*index*, *, *timeout=default*, *master_timeout=default*, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*)

A *coroutine* that open a closed index to make it available for search.

Parameters

- **index** – The name of the index
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-open-close.html>

close (*index*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *master_timeout=default*, *timeout=default*)

A *coroutine* that close an index to remove it's overhead from the cluster. Closed index is blocked for read/write operations.

Parameters

- **index** – The name of the index
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)

- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default u'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-open-close.html>

delete (*index*, *, *master_timeout=default*, *timeout=default*)

A *coroutine* that deletes an index.

Parameters

- **index** – A comma-separated list of indices to delete; use '_all' or '*' to delete all indices
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-delete-index.html>

refresh (*index=None*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_no_indices=default*, *ignore_unavailable=default*, *force=default*)

A *coroutine* that refresh one or more index, making all operations performed.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones, default u'none'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **force** – Force a refresh even if not required

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-refresh.html>

flush (*index=None*, *, *force=default*, *full=default*, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_indices=default*, *ignore_unavailable=default*)

A *coroutine* that flush one or more indices.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices

- **force** – Whether a flush should be forced even if it is not necessarily needed ie. if no changes will be committed to the index.
- **full** – If set to true a new index writer is created and settings that have been changed related to the index writer will be refreshed.
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones (default: none)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-flush.html>

exists (*index*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *local=default*)

A [coroutine](#) that return a boolean indicating whether given index exists.

Parameters

- **index** – A list of indices to check
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default u'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting bool

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-indices-exists.html>

exists_type (*index*, *doc_type*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_indices=default*, *ignore_unavailable=default*, *local=default*)

A [coroutine](#) that check if a type/types exists in an index/indices.

Parameters

- **index** – A comma-separated list of index names; use *_all* to check the types across all indices
- **doc_type** – A comma-separated list of document types to check
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.

- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones (default: none)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting bool

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-types-exists.html>

get_settings (*index=None, name=None, *, expand_wildcards=default, ignore_indices=default, ignore_unavailable=default, flat_settings=default, local=default*)

A *coroutine* that retrieve settings for one or more (or all) indices.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **name** – The name of the settings that should be included
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones, default u'none'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **flat_settings** – Return settings in flat format (default: false)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-get-settings.html>

put_settings (*body, index=None, *, allow_no_indices=default, expand_wildcards=default, flat_settings=default, ignore_unavailable=default, master_timeout=default*)

A *coroutine* that change specific index level settings in real time.

Parameters

- **body** – The index settings to be updated
- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default u'open'
- **flat_settings** – Return settings in flat format (default: false)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)

- **master_timeout** – Specify timeout for connection to master

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-update-settings.html>

status (*index=None, *, allow_no_indices=default, expand_wildcards=default, ignore_indices=default, ignore_unavailable=default, operation_threading=default, recovery=default, snapshot=default, human=default*)

A [coroutine](#) that get a comprehensive status information of one or more indices.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones, default u'none'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **operation_threading** – TODO: ?
- **recovery** – Return information about shard recovery
- **snapshot** – For snapshot status set it to true
- **human** – Whether to return time and byte values in human-readable format.

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-status.html>

stats (*index=None, *, metric=default, completion_fields=default, docs=default, field_data_fields=default, fields=default, groups=default, allow_no_indices=default, expand_wildcards=default, ignore_indices=default, ignore_unavailable=default, human=default, level=default, types=default*)

A [coroutine](#) that retrieve statistics on different operations happening on an index.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **metric** – A comma-separated list of metrics to display. Possible values: “_all”, “completion”, “docs”, “fielddata”, “filter_cache”, “flush”, “get”, “id_cache”, “indexing”, “merge”, “percolate”, “refresh”, “search”, “segments”, “store”, “warmer”
- **completion_fields** – A comma-separated list of fields for *completion* metric (supports wildcards)
- **docs** – the number of docs / deleted docs (docs not yet merged out). Note, affected by refreshing the index

- **fielddata_fields** – A comma-separated list of fields for *fielddata* metric (supports wildcards)
- **fields** – A comma-separated list of fields for *fielddata* and *completion* metric (supports wildcards)
- **groups** – A comma-separated list of search groups for *search* statistics
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones (default: none)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **human** – Whether to return time and byte values in human-readable format.
- **level** – Return stats aggregated at cluster, index or shard level. (“cluster”, “indices” or “shards”, default: “indices”)
- **types** – A comma-separated list of document types for the *indexing* index metric

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-stats.html>

segments (*index=None*, ***, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_indices=default*, *ignore_unavailable=default*, *human=default*)

A *coroutine* that provide low level segments information that a Lucene index (shard level) is built with.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones, default u’none’
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **human** – Whether to return time and byte values in human-readable format (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-segments.html>

optimize (*index=None, *, flush=default, allow_no_indices=default, expand_wildcards=default, ignore_indices=default, ignore_unavailable=default, max_num_segments=default, only_expunge_deletes=default, operation_threading=default, wait_for_merge=default, force=default*)

A [coroutine](#) that explicitly optimize one or more indices through an API.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **flush** – Specify whether the index should be flushed after performing the operation (default: true)
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones, default u'none'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **max_num_segments** – The number of segments the index should be merged into (default: dynamic)
- **only_expunge_deletes** – Specify whether the operation should only expunge deleted documents
- **operation_threading** – TODO: ?
- **wait_for_merge** – Specify whether the request should block until the merge process is finished (default: true)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-optimize.html>

recovery (*index=None, *, active_only=default, detailed=default, human=default*)

A [coroutine](#) that provides insight into on-going shard recoveries. Recovery status may be reported for specific indices, or cluster-wide..

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **active_only** – Display only those recoveries that are currently on-going (default: 'false')
- **detailed** – Whether to display detailed information about shard recovery (default: 'false')
- **human** – Whether to return time and byte values in human-readable format. (default: 'false')

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/indices-recovery.html>

clear_cache (*index=None, *, field_data=default, fielddata=default, fields=default, filter=default, filter_cache=default, filter_keys=default, id=default, id_cache=default, allow_no_indices=default, expand_wildcards=default, ignore_indices=default, ignore_unavailable=default, recycler=default*)

A `coroutine` that clear either all caches or specific cached associated with one or more indices.

Parameters

- **index** – A comma-separated list of index name to limit the operation
- **field_data** – Clear field data
- **fielddata** – Clear field data
- **fields** – A comma-separated list of fields to clear when using the *field_data* parameter (default: all)
- **filter** – Clear filter caches
- **filter_cache** – Clear filter caches
- **filter_keys** – A comma-separated list of keys to clear when using the *filter_cache* parameter (default: all)
- **id** – Clear ID caches for parent/child
- **id_cache** – Clear ID caches for parent/child
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones (default: none)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **index** – A comma-separated list of index name to limit the operation
- **recycler** – Clear the recycler cache

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-clearcache.html>

validate_query (*index=None, doc_type=None, body=None, *, explain=default, allow_no_indices=default, expand_wildcards=default, ignore_indices=default, ignore_unavailable=default, operation_threading=default, q=default, source=default*)

A `coroutine` that validate a potentially expensive query without executing it.

Parameters

- **index** – A comma-separated list of index names to restrict the operation; use *_all* or empty string to perform the operation on all indices
- **doc_type** – A comma-separated list of document types to restrict the operation; leave empty to perform the operation on all types
- **body** – The query definition
- **explain** – Return detailed information about the error

- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones (default: none)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **operation_threading** – TODO: ?
- **q** – Query in the Lucene query string syntax
- **source** – The URL-encoded query definition (instead of using the request body)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-validate.html>

put_mapping (*index, doc_type, body, *, allow_no_indices=default, expand_wildcards=default, ignore_conflicts=default, ignore_unavailable=default, master_timeout=default, timeout=default*)

A [coroutine](#) that registers specific mapping definition for a specific type.

Parameters

- **index** – A comma-separated list of index names the alias should point to (supports wildcards); use *_all* or omit to perform the operation on all indices.
- **doc_type** – The name of the document type
- **body** – The mapping definition
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both., default u'open'
- **ignore_conflicts** – Specify whether to ignore conflicts while updating the mapping (default: false)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-put-mapping.html>

get_mapping (*index, doc_type=None, *, ignore_unavailable=default, allow_no_indices=default, expand_wildcards=default, local=default*)

A [coroutine](#) that retrieves mapping definition of index or index/type.

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string for all indices

- **doc_type** – A comma-separated list of document types
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-get-mapping.html>

delete_mapping (*index, doc_type, *, master_timeout=default*)

A *coroutine* that deletes a mapping (type) along with its data

Parameters

- **index** – A comma-separated list of index names (supports wildcard); use *_all* for all indices
- **doc_type** – A comma-separated list of document types to delete (supports wildcards); use *_all* to delete all document types in the specified indices.
- **master_timeout** – Specify timeout for connection to master

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-delete-mapping.html>

get_field_mapping (*field, index=None, doc_type=None, *, include_defaults=default, ignore_unavailable=default, allow_no_indices=default, expand_wildcards=default, local=default*)

A *coroutine* that retrieves mapping definition of a specific field

Parameters

- **index** – A comma-separated list of index names; use *_all* or empty string for all indices
- **doc_type** – A comma-separated list of document types
- **field** – A comma-separated list of fields to retrieve the mapping for
- **include_defaults** – A boolean indicating whether to return default values
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-get-field-mapping.html>

put_alias (*name*, *index=None*, *body=None*, *, *timeout=default*, *master_timeout=default*)

A [coroutine](#) that creates an alias for a specific index/indices

Parameters

- **index** – A comma-separated list of index names the alias should point to (supports wild-cards); use *_all* or omit to perform the operation on all indices.
- **name** – The name of the alias to be created or updated
- **body** – The settings for the alias, such as *routing* or *filter*
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit timestamp for the document

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-aliases.html>

exists_alias (*name*, *index=None*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_indices=default*, *ignore_unavailable=default*, *local=default*)

A [coroutine](#) that returns a boolean indicating whether given alias exists

Parameters

- **name** – A comma-separated list of alias names to return
- **index** – A comma-separated list of index names to filter aliases
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones (default: none)
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting boolean

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-aliases.html>

get_alias (*index=None*, *name=None*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_indices=default*, *ignore_unavailable=default*, *local=default*)

A [coroutine](#) that retrieves a specified alias.

Parameters

- **name** – A comma-separated list of alias names to return
- **index** – A comma-separated list of index names to filter aliases

- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both.
- **ignore_indices** – When performed on multiple indices, allows to ignore *missing* ones, default u'none'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-aliases.html>

get_aliases (*index=None, name=None, *, local=default, timeout=default*)

A *coroutine* that retrieves a specified aliases.

Parameters

- **index** – A comma-separated list of index names to filter aliases
- **name** – A comma-separated list of alias names to filter
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-aliases.html>

update_aliases (*body, *, timeout=default, master_timeout=default*)

A *coroutine* that updates a specified aliases.

Parameters

- **body** – The definition of *actions* to perform
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Request timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-aliases.html>

delete_alias (*index, name, *, timeout=default, master_timeout=default*)

A *coroutine* that deletes a specified aliases.

Parameters

- **index** – A comma-separated list of index names (supports wildcards); use *_all* for all indices
- **name** – A comma-separated list of aliases to delete (supports wildcards); use *_all* to delete all aliases for the specified indices.

- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit timestamp for the document

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-aliases.html>

put_template (*name*, *body*, *, *create=default*, *order=default*, *timeout=default*, *master_timeout=default*, *flat_settings=default*)

A [coroutine](#) that creates an index template that will be automatically applied to new indices created.

Parameters

- **name** – The name of the template
- **body** – The template definition
- **create** – Whether the index template should only be added if new or can also replace an existing one
- **order** – The order for this template when merging multiple matching ones (higher numbers are merged later, overriding the lower numbers)
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout
- **flat_settings** – Return settings in flat format (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-templates.html>

exists_template (*name*, *, *local=default*)

A [coroutine](#) that returns a boolean indicating whether given template exists.

Parameters

- **name** – The name of the template
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-templates.html>

get_template (*name=None*, *, *flat_settings=default*, *local=default*)

A [coroutine](#) that retrieves an index template by its name.

Parameters

- **name** – The name of the template
- **flat_settings** – Return settings in flat format (default: false)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-templates.html>

delete_template (*name*, *, *timeout=default*, *master_timeout=default*)

A `coroutine` that deletes an index template by its name.

Parameters

- **name** – The name of the template
- **master_timeout** – Specify timeout for connection to master
- **timeout** – Explicit operation timeout

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-templates.html>

put_warmer (*name*, *body*, *index=None*, *doc_type=None*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *master_timeout=default*)

A `coroutine` that create an index warmer to run registered search requests to warm up the index before it is available for search.

Parameters

- **name** – The name of the warmer
- **body** – The search request definition for the warmer (query, filters, facets, sorting, etc)
- **index** – A comma-separated list of index names to register the warmer for; use *_all* or *omit* to perform the operation on all indices
- **doc_type** – A comma-separated list of document types to register the warmer for; leave empty to perform the operation on all types
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices in the search request to warm. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both, in the search request to warm., default u'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed) in the search request to warm
- **master_timeout** – Specify timeout for connection to master

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-warmers.html>

get_warmer (*index=None*, *doc_type=None*, *name=None*, *, *allow_no_indices=default*, *expand_wildcards=default*, *ignore_unavailable=default*, *local=default*)

A `coroutine` that retrieves an index warmer.

Parameters

- **index** – A comma-separated list of index names to restrict the operation; use *_all* to perform the operation on all indices
- **doc_type** – A comma-separated list of document types to restrict the operation; leave empty to perform the operation on all types

- **name** – The name of the warmer (supports wildcards); leave empty to get all warmers
- **allow_no_indices** – Whether to ignore if a wildcard indices expression resolves into no concrete indices. (This includes *_all* string or when no indices have been specified)
- **expand_wildcards** – Whether to expand wildcard expression to concrete indices that are open, closed or both. default u'open'
- **ignore_unavailable** – Whether specified concrete indices should be ignored when unavailable (missing or closed)
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-warmers.html>

delete_warmer (*index, name, *, master_timeout=default*)

A *coroutine* that deletes an index warmer.

Parameters

- **index** – A comma-separated list of index names to delete warmers from (supports wildcards); use *_all* to perform the operation on all indices.
- **name** – A comma-separated list of warmer names to delete (supports wildcards); use *_all* to delete all warmers in the specified indices.
- **master_timeout** – Specify timeout for connection to master

Returns resulting JSON

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/indices-warmers.html>

CatClient

class aioes.client.CatClient

Class for retrieving elasticsearch information in human-readable way.

aliases (**, name=default, h=default, help=default, local=default, master_timeout=default, v=default*)

A *coroutine* that returns an info about aliases.

Parameters

- **name** – A comma-separated list of alias names to return
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for connection to master node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cat-alias.html>

allocation (*node_id=None, *, h=default, help=default, local=default, master_timeout=default, v=default*)

A [coroutine](#) that returns a snapshot of how shards have located around the cluster and the state of disk usage.

Parameters

- **node_id** – A comma-separated list of node IDs or names to limit the returned information
- **bytes** – The unit in which to display byte values
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default `False`
- **local** – Return local information, do not retrieve the state from master node (default: `False`)
- **master_timeout** – Explicit operation timeout for connection to master node
- **v** – Verbose mode. Display column headers, default `False`

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cat-allocation.html>

count (*index=None, *, h=default, help=default, local=default, master_timeout=default, v=default*)

A [coroutine](#) that returns an info about aliases.

Parameters

- **index** – A comma-separated list of index names to limit the returned information
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default `False`
- **local** – Return local information, do not retrieve the state from master node (default: `false`)
- **master_timeout** – Explicit operation timeout for connection to master node
- **v** – Verbose mode. Display column headers, default `False`

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cat-count.html>

health (**, h=default, help=default, local=default, master_timeout=default, ts=default, v=default*)

A [coroutine](#) that returns a health, which is a terse, one-line representation of the same information from `health()` API

Parameters

- **h** – Comma-separated list of column names to display
- **help** – Return help information, default `False`
- **local** – Return local information, do not retrieve the state from master node (default: `false`)

- **master_timeout** – Explicit operation timeout for connection to master node
- **ts** – Set to false to disable timestamping, default True
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-health.html>

help (*, *help=default*)

A *coroutine* that returns help banner.

Parameters **help** – Return help information, default `False`.

Returns help text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cat.html>

indices (*self*, *index=None*, *, *bytes=default*, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *pri=default*, *v=default*)

A *coroutine* that returns a cross-section of each index

Parameters

- **index** – A comma-separated list of index names to limit the returned information
- **bytes** – The unit in which to display byte values
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default `False`
- **local** – Return local information, do not retrieve the state from master node (default: `false`)
- **master_timeout** – Explicit operation timeout for connection to master node
- **pri** – Set to true to return stats only for primary shards, default `False`
- **v** – Verbose mode. Display column headers, default `False`

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-indices.html>

master (*, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *v=default*)

A *coroutine* that displays the master's node ID, bound IP address, and node name

Parameters

- **h** – Comma-separated list of column names to display
- **help** – Return help information, default `False`
- **local** – Return local information, do not retrieve the state from master node (default: `false`)
- **master_timeout** – Explicit operation timeout for connection to master node
- **v** – Verbose mode. Display column headers, default `False`

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-master.html>

nodes (*, *h=default, help=default, local=default, master_timeout=default, v=default*)

A [coroutine](#) that shows the cluster topology.

Parameters

- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-nodes.html>

recovery (*index=None, *, bytes=default, h=default, help=default, local=default, master_timeout=default, v=default*)

A [coroutine](#) that shows the view of shard replication.

Parameters

- **index** – A comma-separated list of index names to limit the returned information
- **bytes** – The unit in which to display byte values
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-recovery.html>

shards (*index=None, *, h=default, help=default, local=default, master_timeout=default, v=default*)

A [coroutine](#) that shows the detailed view of what nodes contain which shards.

Parameters

- **index** – A comma-separated list of index names to limit the returned information
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-shards.html>

segments (*index=None*, *, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *v=default*)

A [coroutine](#) that shows the detailed view of Lucene segments per index

Parameters

- **index** – A comma-separated list of index names to limit the returned information
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-segments.html>

pending_tasks (*, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *v=default*)

A [coroutine](#) that provides the same information as the `pending_tasks()` API in a convenient tabular format.

Parameters

- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-pending-tasks.html>

thread_pool (*, *full_id=default*, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *v=default*)

A [coroutine](#) that provides information about thread pools.

Parameters

- **full_id** – Enables displaying the complete node ids (default:false)
- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)

- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-thread-pool.html>

fielddata (*, *fields=default*, *bytes=default*, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *v=default*)

A [coroutine](#) that provides information about currently loaded fielddata on a per-node basis

Parameters

- **fields** – A comma-separated list of fields to return the fielddata size
- **bytes** – The unit in which to display byte values
- **h** – Comma-separated list of column names to display
- **help** – Return help information (default: ‘false’)
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers (default: ‘false’)

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-fielddata.html>

plugins (*, *h=default*, *help=default*, *local=default*, *master_timeout=default*, *v=default*)

A [coroutine](#) that provides information about plugins.

Parameters

- **h** – Comma-separated list of column names to display
- **help** – Return help information, default False
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for master connection node
- **v** – Verbose mode. Display column headers, default False

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/cat-plugins.html>

ClusterClient

class `aioes.client.ClusterClient`

Class for retrieving elasticsearch information in human-readable way.

health (*index=None*, *, *level=default*, *local=default*, *master_timeout=default*, *timeout=default*, *wait_for_active_shards=default*, *wait_for_nodes=default*, *wait_for_relocating_shards=default*, *wait_for_status=default*)

A `coroutine` that returns a very simple status on the health of the cluster.

Parameters

- **index** – Limit the information returned to a specific index
- **level** – Specify the level of detail for returned information, default u'cluster'
- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Explicit operation timeout for connection to master node
- **timeout** – Explicit operation timeout
- **wait_for_active_shards** – Wait until the specified number of shards is active
- **wait_for_nodes** – Wait until the specified number of nodes is available
- **wait_for_relocating_shards** – Wait until the specified number of relocating shards is finished
- **wait_for_status** – Wait until cluster is in a specific state, default None

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-health.html>

pending_tasks (*, *local=default*, *master_timeout=default*)

A `coroutine` that returns a list of any cluster-level changes (e.g. create index, update mapping, allocate or fail shard) which have not yet been executed.

Parameters

- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Specify timeout for connection to master

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-pending.html>

state (*metric=None*, *index=None*, *, *index_templates=default*, *local=default*, *master_timeout=default*, *flat_settings=default*)

A `coroutine` that returns a comprehensive state information of the whole cluster.

Parameters

- **metric** – Limit the information returned to the specified metrics. Possible values: “_all”, “blocks”, “index_templates”, “metadata”, “nodes”, “routing_table”, “master_node”, “version”
- **index** – A comma-separated list of index names; use *_all* or empty string to perform the operation on all indices
- **index_templates** – A comma separated list to return specific index templates when returning metadata.

- **local** – Return local information, do not retrieve the state from master node (default: false)
- **master_timeout** – Specify timeout for connection to master
- **flat_settings** – Return settings in flat format (default: false)

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-state.html>

stats (*node_id=None, *, flat_settings=default, human=default*)

A [coroutine](#) that returns statistics from a cluster wide perspective. The API returns basic index metrics and information about the current nodes that form the cluster.

Parameters

- **node_id** – A comma-separated list of node IDs or names to limit the returned information; use *_local* to return information from the node you’re connecting to, leave empty to get information from all nodes
- **flat_settings** – Return settings in flat format (default: false)
- **human** – Whether to return time and byte values in human-readable format.

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-stats.html>

reroute (*body=None, *, dry_run=default, explain=default, filter_metadata=default, master_timeout=default, timeout=default*)

A [coroutine](#) that executes a cluster reroute allocation command including specific commands.

Parameters

- **body** – The definition of *commands* to perform (*move, cancel, allocate*)
- **dry_run** – Simulate the operation only and return the resulting state
- **explain** – Return an explanation of why the commands can or cannot be executed
- **filter_metadata** – Don’t return cluster state metadata (default: false)
- **master_timeout** – Explicit operation timeout for connection to master node
- **timeout** – Explicit operation timeout

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-reroute.html>

get_settings (**, flat_settings=default, master_timeout=default, timeout=default*)

A [coroutine](#) that returns cluster settings.

Parameters

- **flat_settings** – Return settings in flat format (default: false)
- **master_timeout** – Explicit operation timeout for connection to master node
- **timeout** – Explicit operation timeout

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-update-settings.html>

put_settings (*body*, *, *flat_settings=default*)

A *coroutine* that updates cluster settings.

Parameters

- **body** – The settings to be updated. Can be either *transient* or *persistent* (survives cluster restart).
- **flat_settings** – Return settings in flat format (default: false)

Returns resulting text

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-update-settings.html>

NodesClient

class aioes.client.**NodesClient**

Class for getting information about elasticsearch nodes.

info (*node_id=None*, *metric=None*, *, *flat_settings=default*, *human=default*)

A *coroutine* that retrieves one or more (or all) of the cluster nodes information.

Parameters

- **node_id** – A comma-separated list of node IDs or names to limit the returned information; use `"_local"` to return information from the node you're connecting to, leave empty to get information from all nodes
- **metric** – A comma-separated list of metrics you wish returned. Leave empty to return all. Choices are `"settings"`, `"os"`, `"process"`, `"jvm"`, `"thread_pool"`, `"network"`, `"transport"`, `"http"`, `"plugin"`
- **flat_settings** – Return settings in flat format (default: False)
- **human** – Whether to return time and byte values in human-readable format, default False

Returns resulting info

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-nodes-info.html>

shutdown (*node_id=None*, *, *delay=default*, *exit=default*)

A *coroutine* that shutdowns one or more (or all) nodes in the cluster.

Parameters

- **node_id** – A comma-separated list of node IDs or names to perform the operation on; use `_local` to perform the operation on the node you're connected to, leave empty to perform the operation on all nodes
- **delay** – Set the delay for the operation (default: 1s)
- **exit** – Exit the JVM as well (default: true)

Returns resulting info

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-nodes-shutdown.html>

stats (*node_id=None, metric=None, index_metric=None, *, completion_fields=default, field_data_fields=default, fields=default, groups=default, human=default, level=default, types=default*)

A [coroutine](#) that allows to retrieve one or more (or all) of the cluster nodes statistics.

Parameters

- **node_id** – A comma-separated list of node IDs or names to limit the returned information; use *_local* to return information from the node you’re connecting to, leave empty to get information from all nodes
- **metric** – Limit the information returned to the specified metrics. Possible options are: “_all”, “breaker”, “fs”, “http”, “indices”, “jvm”, “network”, “os”, “process”, “thread_pool”, “transport”
- **index_metric** – Limit the information returned for *indices* metric to the specific index metrics. Isn’t used if *indices* (or *all*) metric isn’t specified. Possible options are: “_all”, “completion”, “docs”, “fielddata”, “filter_cache”, “flush”, “get”, “id_cache”, “indexing”, “merge”, “percolate”, “refresh”, “search”, “segments”, “store”, “warmer”
- **completion_fields** – A comma-separated list of fields for *fielddata* and *suggest* index metric (supports wildcards)
- **fielddata_fields** – A comma-separated list of fields for *fielddata* index metric (supports wildcards)
- **fields** – A comma-separated list of fields for *fielddata* and *completion* index metric (supports wildcards)
- **groups** – A comma-separated list of search groups for *search* index metric
- **human** – Whether to return time and byte values in human-readable format., default False
- **level** – Return indices stats aggregated at node, index or shard level, default ‘node’
- **types** – A comma-separated list of document types for the *indexing* index metric

Returns resulting info

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-nodes-stats.html>

hot_threads (*node_id=None, *, type_=default, interval=default, snapshots=default, threads=default*)

A [coroutine](#) that allows to get the current hot threads on each node in the cluster.

Parameters

- **node_id** – A comma-separated list of node IDs or names to limit the returned information; use *_local* to return information from the node you’re connecting to, leave empty to get information from all nodes
- **type** – The type to sample (default: cpu)
- **interval** – The interval for the second sampling of threads
- **snapshots** – Number of samples of thread stacktrace (default: 10)
- **threads** – Specify the number of threads to provide information for (default: 3)

Returns resulting info

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/cluster-nodes-hot-threads.html>

SnapshotClient

class `aioes.client.SnapshotClient`

Class for manipulating elasticsearch snapshots.

create (*repository, snapshot, body=None, *, master_timeout=default, wait_for_completion=default*)

A `coroutine` that creates a snapshot in repository

Parameters

- **repository** – A repository name
- **snapshot** – A snapshot name
- **body** – The snapshot definition
- **master_timeout** – Explicit operation timeout for connection to master node
- **wait_for_completion** – Should this request wait until the operation has completed before returning, default False

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

delete (*repository, snapshot, *, master_timeout=default*)

A `coroutine` that deletes a snapshot in repository

Parameters

- **repository** – A repository name
- **snapshot** – A snapshot name
- **master_timeout** – Explicit operation timeout for connection to master node

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

get (*repository, snapshot, *, master_timeout=default*)

A `coroutine` that retrieves information about a snapshot.

Parameters

- **repository** – A comma-separated list of repository names
- **snapshot** – A comma-separated list of snapshot names
- **master_timeout** – Explicit operation timeout for connection to master node

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

delete_repository (*repository, *, master_timeout=default, timeout=default*)

A `coroutine` that removes a shared file system repository.

Parameters

- **repository** – A comma-separated list of repository names
- **snapshot** – A comma-separated list of snapshot names
- **master_timeout** – Explicit operation timeout for connection to master node

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

get_repository (*repository=None, *, local=default, master_timeout=default*)

A *coroutine* that returns information about registered repositories.

Parameters

- **repository** – A comma-separated list of repository names
- **master_timeout** – Explicit operation timeout for connection to master node
- **local** – Return local information, do not retrieve the state from master node (default: false)

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

create_repository (*repository, body, *, master_timeout=default, timeout=default*)

A *coroutine* that registers a shared file system repository.

Parameters

- **repository** – A repository name
- **body** – The repository definition
- **master_timeout** – Explicit operation timeout for connection to master node
- **timeout** – Explicit operation timeout

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

restore (*repository, snapshot, body=None, *, master_timeout=default, wait_for_completion=default*)

A *coroutine* that restores a snapshot.

Parameters

- **repository** – A repository name
- **snapshot** – A snapshot name
- **body** – Details of what to restore
- **master_timeout** – Explicit operation timeout for connection to master node
- **wait_for_completion** – Should this request wait until the operation has completed before returning, default False

Returns resulting info.

See also:

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html>

status (*repository=None, snapshot=None, *, master_timeout=default*)

A coroutine that returns snapshot status info.

Parameters

- **repository** – A repository name
- **snapshot** – A comma-separated list of snapshot names
- **master_timeout** – Explicit operation timeout for connection to master node

Returns resulting snapshot info.

See also:

http://www.elasticsearch.org/guide/en/elasticsearch/reference/master/modules-snapshots.html#_snapshot_status

Glossary

aiohttp *asyncio* compatible library for working with HTTP protocol.

asyncio Reference implementation of **PEP 3156** — Asynchronous IO Support Rebooted.

ElasticSearch A search server based on Lucene. It provides a distributed, multitenant-capable full-text search engine with a RESTful web interface and schema-free JSON documents.

<http://www.elasticsearch.org>

elasticsearch-py Official python client for *ElasticSearch*

ipdb ipdb exports functions to access the IPython debugger, which features tab completion, syntax highlighting, better tracebacks, better introspection with the same interface as the pdb module.

pep8 Python style guide checker

pep8 is a tool to check your Python code against some of the style conventions in **PEP 8** – Style Guide for Python Code.

pyflakes passive checker of Python programs

A simple program which checks Python source files for errors.

Pyflakes analyzes programs and detects various errors. It works by parsing the source file, not importing it, so it is safe to use on modules with side effects. It’s also much faster.

<https://pypi.python.org/pypi/pyflakes>

venv standard python module for creating lightweight “virtual environments” with their own site directories, optionally isolated from system site directories. Each virtual environment has its own Python binary (allowing creation of environments with various Python versions) and can have its own independent set of installed Python packages in its site directories.

<https://docs.python.org/dev/library/venv.html>

virtualenv The tool to create isolated Python environments. It’s not included into python stdlib’s but it is very popular instrument.

venv and *virtualenv* does almost the same, *venv* has been developed after the *virtualenv*.

<http://virtualenv.readthedocs.org/en/latest/>

virtualenvwrapper virtualenvwrapper is a set of extensions to Ian Bicking's *virtualenv* tool. The extensions include wrappers for creating and deleting virtual environments and otherwise managing your development workflow, making it easier to work on more than one project at a time without introducing conflicts in their dependencies.

virtualenvwrapper is my choice, highly recommend the tool to everyone.

<http://virtualenvwrapper.readthedocs.org/en/latest/>

CHAPTER 6

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