Django Inelastic Models Documentation

Release 7.1.0

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Jun 08, 2022

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CHAPTER 1

Introduction

This package provides a small library for declaratively specifying indexes for Django models using an Elasticsearch backend.

It requires Django, elasticsearch-dsl and an available Elasticsearch instance.

1.1 Usage

1. Add `inelastic_models` to `INSTALLED_APPS`.
2. Mixin the type `inelastic_models.indexes.SearchMixin` to your models.
3. Implement a type `inelastic_models.indexes.Search` and bind it to models:

```
from .models import Foo

class FooIndex(Search):
    attribute_fields = ('foo', 'baz')

FooIndex.bind_to_model(Foo)
```

You must define `ELASTICSEARCH_CONNECTIONS`. Pass index and connection parameters to the generated indices and the underlying `Elasticsearch` instance via the `INDEX_OPTIONS` and `CONNECTION_OPTIONS` mappings, respectively:

```
ELASTICSEARCH_CONNECTIONS = {
    'default': {
        'HOSTS': ['http://localhost:9200'],
        'INDEX_NAME': 'inelastic_models',
        'INDEX_OPTIONS': {
            'number_of_replicas': 3
        },
        'CONNECTION_OPTIONS': {
            'timeout': 42,
```

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```
            'retry_on_timeout': True
        }
    }
},
```

1.2 Tests

Run tests using the `make` rule:

```
make test [venv=<path>] [python=<python executable name, e.g., 'python3.5'>]
```

It is assumed that you have and Elasticsearch index available at `elasticsearch:9200` and that `virtualenv` available on your path.

CHAPTER 2

Changelog

2.1 7.1

2022-06-08

This release requires the use of the Django 3.2 LTS.

2.2 7.0

2021-11-23

This release adds support for, and requires, the use of ES 7.x.

This release marks a departure from the previous release strategy. To reduce confusion and to provide better support for a variety of Elasticsearch installations, releases will follow the major ES release versions as is done with the 'elasticsearch-py' and the 'elasticsearch-dsl-py' packages.

- Uses analyzer, tokenizer constructions compatible with ES >= 5.0
- Replaces the use of the 'string' type field with 'text' [ES>=5.0].
- Removes use of 'flush' API [ES>=6].
- Removes support for Python 2 and related compatibility shims.
- Replaces deprecated ngram type names [ES>=8.0].
- Revises index construction to support mapping type removal [ES>=8.0].
- Adds new field 'KitchenSinkField' to replace the functionality of the historical '_all' index field [ES>=6.0].

2.3 1.5

2020-02-27

- Fixes exception handling during chunked indexing.
- Improves performance of 'bulk_prune' operation.
- Fixes erroneous dict modification during iteration.
- Adds missing assertions, guards for empty index requests.
- Adds support for WDT PYPI instance.

2.4 1.4

- Adds explicit support for translated fields.
- Replaces uses of print function.
- Uses memory-efficient record iteration for bulk operations.

2.5 1.3

- Adds support for connection parameter configuration via 'ELASTICSEARCH_CONNECTIONS'.

2.6 1.2

- Enforces a one-to-one relation between Elasticsearch indices and mappings in order to simplify implementation and behavior.
- Retargets to the Elasticsearch 2.x release series.
- Revises incorrect test case specifications.
- Adds new index API 'Search.check_mapping'.
- Adds new management command 'migrate_index'.

2.7 1.1

Adds explicit index-binding.

2.8 1.0

The initial pre-release which serves to replicate ‘oro.search’ as an external package.