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# **anysearch Documentation**

***Release 0.1***

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**Jul 25, 2022**



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**AnySearch** is a **Elasticsearch** and **OpenSearch** compatibility library. It provides utility functions for smoothing over the differences between the Python libraries with the goal of writing Python code that is compatible on both (including the `*search`, `*search-dsl` and `django-*search-dsl` integration packages).

See the documentation for more information on what is provided.



## DOCUMENTATION

Documentation is available on [Read the Docs](#).





## PREREQUISITES

- Python 3.6, 3.7, 3.8, 3.9 and 3.10.



## INSTALLATION

Install latest stable version from PyPI:

```
pip install anysearch
```

or latest stable version from GitHub:

```
pip install https://github.com/barseghyanartur/anysearch/archive/main.tar.gz
```



## CONFIGURATION

AnySearch automatically detects whether you use Elasticsearch or OpenSearch by looking at which packages are installed. However, if you have both packages installed, you can instruct AnySearch which one do you actually want to use. The way to do that is to set the `ANYSEARCH_PREFERRED_BACKEND` environment variable to either `Elasticsearch` or `OpenSearch`.

For Elasticsearch:

```
import os
os.environ.setdefault("ANYSEARCH_PREFERRED_BACKEND", "Elasticsearch")
```

For OpenSearch:

```
import os
os.environ.setdefault("ANYSEARCH_PREFERRED_BACKEND", "OpenSearch")
```



## 5.1 elasticsearch/opensearch

### 5.1.1 How-to

With elasticsearch you would do:

```
from elasticsearch import Connection, Elasticsearch
```

With opensearch you would do:

```
from opensearch_py import Connection, OpenSearch
```

With anysearch you would change that to:

```
from anysearch.search import Connection, AnySearch
```

## 5.2 elasticsearch-dsl/opensearch-dsl

### 5.2.1 How-to

With elasticsearch-dsl you would do:

```
from elasticsearch_dsl import AggsProxy, connections, Keyword
from elasticsearch_dsl.document import Document
```

With opensearch-dsl you would do:

```
from opensearch_dsl import AggsProxy, connections, Keyword
from opensearch_dsl.document import Document
```

With anysearch you would change that to:

```
from anysearch.search_dsl import AggsProxy, connections, Keyword
from anysearch.search_dsl.document import Document
```

## 5.3 django-elasticsearch-dsl/django-opensearch-dsl

### 5.3.1 How-to

With django-elasticsearch-dsl you would do:

```
from django_elasticsearch_dsl import fields, registry
from django_elasticsearch_dsl.documents import Document
from django_elasticsearch_dsl.fields import TextField
```

With opensearch-dsl you would do:

```
from django_opensearch_dsl import fields, registry
from django_opensearch_dsl.documents import Document
from django_opensearch_dsl.fields import TextField
```

With anysearch you would change that to:

```
from anysearch.django_search_dsl import fields, registry
from anysearch.django_search_dsl.documents import Document
from anysearch.django_search_dsl.fields import TextField
```

### 5.3.2 Configuration

#### 5.3.2.1 INSTALLED\_APPS

Both django-elasticsearch-dsl and django-opensearch-dsl will need to be added to your INSTALLED\_APPS list.

With django-elasticsearch-dsl you would do:

```
INSTALLED_APPS = (
    ...
    "django_elasticsearch_dsl",
    ...
)
```

With django-opensearch-dsl you would do:

```
INSTALLED_APPS = (
    ...
    "django_opensearch_dsl",
    ...
)
```

With anysearch you would change that to:

```
INSTALLED_APPS = (
    ...
    "anysearch.django_search_dsl.DjangoAnySearchConfig",
    ...
)
```



### 5.3.2.2 Tuning

If you intent to support both Elasticsearch and OpenSearch, you could specify your settings as follows:

```
# Elasticsearch configuration
ELASTICSEARCH_DSL = {
    'default': {
        'hosts': 'localhost:9200',
        'timeout': 30,
    },
}
OPENSEARCH_DSL = ELASTICSEARCH_DSL

ELASTICSEARCH_DSL_SIGNAL_PROCESSOR = "anysearch.django_search_dsl.RealTimeSignalProcessor"
↪
OPENSEARCH_DSL_SIGNAL_PROCESSOR = ELASTICSEARCH_DSL_SIGNAL_PROCESSOR
```



## TESTING

Project is covered with tests.

To test with all supported Python versions type:

```
tox
```

To test against specific environment, type:

```
tox -e py39
```

To test just your working environment type:

```
pytest
```

To run a single test in your working environment type:

```
pytest test_anysearch.py
```

To run a single test class in a given test module in your working environment type:

```
pytest test_anysearch.py::DjangoSearchDSLTestCase
```

It's assumed that you have either `elasticsearch-dsl` or `opensearch-dsl` installed. If not, install the requirements first.



## WRITING DOCUMENTATION

Keep the following hierarchy.

```
====  
title  
====  
  
header  
=====  
  
sub-header  
-----  
  
sub-sub-header  
~~~~~  
  
sub-sub-sub-header  
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sub-sub-sub-sub-header  
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sub-sub-sub-sub-sub-header  
*****
```



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CHAPTER  
EIGHT

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LICENSE

MIT





**SUPPORT**

For any security issues contact me at the e-mail given in the *Author* section. For overall issues, go to [GitHub](#).



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CHAPTER  
TEN

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AUTHOR

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## DOCUMENTATION

Contents:

### 11.1 Release history and notes

Sequence based identifiers are used for versioning (schema follows below):

<code>major.minor[.revision]</code>
-------------------------------------

- It's always safe to upgrade within the same minor version (for example, from 0.3 to 0.3.4).
- Minor version changes might be backwards incompatible. Read the release notes carefully before upgrading (for example, when upgrading from 0.3.4 to 0.4).
- All backwards incompatible changes are mentioned in this document.

#### 11.1.1 0.1.6

2022-07-25

- Documentation fixes.
- More tests.

#### 11.1.2 0.1.5

2022-07-24

Loosen Python requirements to allow Python 3.6 installations. Note, that although package is not “officially” tested with Python 3.6, it has been tested locally.

### 11.1.3 0.1.4

2022-07-24

- Improved Django support.

### 11.1.4 0.1.3

2022-07-22

- Better support of elasticsearch/opensearch.

### 11.1.5 0.1.2

2022-07-21

- Minor Python 3.7 and 3.8 fixes.

### 11.1.6 0.1.1

2022-07-21

- Minor improvements.
- Add docs.

### 11.1.7 0.1

2022-07-21

- Initial beta release.

## INDICES AND TABLES

- `genindex`
- `modindex`
- `search`