AnyBlok Multi Engines Documentation

Release 1.1.0

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CHAPTER 1

Front Matter

Information about the AnyBlok Multi Engines project.

1.1 Project Homepage

AnyBlok is hosted on github - the main project page is at https://github.com/AnyBlok/AnyBlok_Multi_Engines. Source code is tracked here using GIT.

Releases and project status are available on Pypi at http://pypi.python.org/pypi/anyblok_multi_engines.

The most recent published version of this documentation should be at http://doc.anyblok-multi-engines.anyblok.org.

1.2 Project Status

AnyBlok multi engines is currently in beta status and is expected to be fairly stable. Users should take care to report bugs and missing features on an as-needed basis. It should be expected that the development version may be required for proper implementation of recently repaired issues in between releases;

1.3 Installation

Install released versions of AnyBlok from the Python package index with pip or a similar tool:

```
pip install anyblok_multi_engines
```

Installation via source distribution is via the `setup.py` script:

```
python setup.py install
```

1.4 Unit Test

Run the test with `nose`:

```
pip install nose
nosetests anyblok_multi_engines/tests
```

1.5 Dependencies

AnyBlok works with **Python 3.3** and later. The install process will ensure that AnyBlok, in addition to other dependencies. The latest version of them is strongly recommended.

1.6 Author

Jean-Sébastien Suzanne

1.7 Contributors

Anybox team:

- Jean-Sébastien Suzanne

1.8 Bugs

Bugs and feature enhancements to AnyBlok should be reported on the Issue tracker.

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- *AnyBlok Multi Engines framework*
  - `Registry` *plugin*
    - *Session*
    - *Mixin of the registry*
    - *Plugin class*
  - `get_url` *plugin*

CHAPTER 2

AnyBlok Multi Engines framework

2.1 `Registry` plugin

2.1.1 Session

class `anyblok_multi_engines.registry.`**`MixinSession`**

Bases: `object`

Mixin for the SQLAlchemy session the goal is to allow the connection with more than one engine: masters / slaves engines

`get_bind`(*mapper=None*, *clause=None*)

Overload the `Session.get_bind` method of SQLAlchemy

the rule are:

- if unittest_transaction: durring unittest, they are no slaves / masters
- if flushing: write on the database then we use the master
- read the database then use a slave

2.1.2 Mixin of the registry

class `anyblok_multi_engines.registry.`**`MultiEngines`**

Bases: `object`

Mixin class which overload the AnyBlok Registry class

the goal is to implement in the the Registry the masters / slaves behaviour

`bind`

Return the bind in function of engine

`close`()

Overwrite close to cloe all the engines

create_session_factory()
Overwrite the creation of Session factory to Use the multi binding

engine
Return the engine

get_engine_for(*ro=True*)
Return one engine among the engines

Parameters **ro** – if True the engine will be read only else write only

Return type engine

Exception RegistryException

init_bind()
Initialise the bind for unittest

init_engine(*db_name=None*)
Overload the initiation of engine to create more than one engine

use the Configuration option to create engines:

- db_url: read and write engine
- db_ro_urls: read only engines (list)
- db_wo_url: write only engines

> **Warning:** All the engines use the same database name not at the same location

Parameters **db_name** – name of the database for the engines

2.1.3 Plugin class

class anyblok_multi_engines.registry.**RegistryMultiEngines**(*db_name*, *loadwithoutmigration=False*, *unittest=False*, ***kwargs*)

Bases: anyblok_multi_engines.registry.MultiEngines, anyblok.registry.Registry

Pluging class

2.2 get_url plugin

anyblok_multi_engines.config.**get_url**(*db_name=None*, *url=None*)
Return an sqlalchemy URL for database

Parameters

- **db_name** – Name of the database
- **url** – base of the url

Return type SqlAlchemy URL

Exception ConfigurationException

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- *ROADMAP*

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ROADMAP

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CHAPTER 4

CHANGELOG

4.1 1.1.0 (2017-12-23)

- [REF] add session event from AnyBlok 0.12.0

4.2 1.0.1 (2017-10-08)

- [FIX] doc
- [FIX] use a better way to install blok wich inherit Query or Session

4.3 1.0.0 (2016-07-13)

- [IMP] PLugin Registry and get_url for master(s) / slave(s) engines
- [ADD] doc
- [IMP] unittest

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