repoze.tm Documentation

Release 1.4

Repoze Developers

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`repoze.retry` implements a WSGI middleware filter which intercepts "retryable" exceptions and retries the WSGI request a configurable number of times. Such exceptions are normally raised when a conflict is detected in an optimistic concurrency scheme [1] is configured for a database such Postgres [2] or ZODB [3] (in ZODB, optimistic concurrency is always enabled).

If the request cannot be satisfied via retries, the filter re-raises the exception.

Note: If your WSGI pipeline includes the transaction filter provided by `repoze.tm` or `repoze.tm2`, the retry filter should come before it (to the "left"), so that retried requests are first aborted and then restarted in a new transaction

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[1] http://en.wikipedia.org/wiki/Optimistic_concurrency_control
[2] http://www.zodb.org/en/latest/documentation/guide/transactions.html
[3] http://www.zodb.org/en/latest/documentation/articles/ZODB2.html#resolving-conflicts

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Installation

Install using setuptools, e.g. (within a virtualenv):

```
$ easy_install repoze.retry
```

Configuration via Python

Wire up the middleware in your application:

```python
from repoze.retry import Retry
mw = Retry(app, tries=3, retryable=(ValueError, IndexError))
```

By default, the retryable exception is `repoze.retry.ConflictError`.

- If `Zope2` is installed, the default is replaced by `ZPublisher.Publish.Retry`.

- If ZODB is installed, the default is extended to include includes `ZODB.POSException.ConflictError`.

`tries` is an integer count, defaulting to 3 times.

Configuration via Paste

To use the default configuration, you can just include the filter in your application's pipeline.

```
[pipeline:main]
pipeline =
    egg:Paste#cgitb
    egg:Paste#httpexceptions
    egg:repoze.retry#retry
    egg:repoze.tm#tm
    egg:repoze.vhm#vhm_xheaders
    zope2
```

If you want to override the defaults, e.g. to change the number of retries, or the exceptions which will be retried, configure the filter in a separate section:

```
[filter:retry]
use = egg:repoze.retry
tries = 2
retryable = mypackage.exceptions:SomeRetryableException
```

and then use it in your pipeline:

```
[pipeline:main]
pipeline =
    egg:Paste#cgitb
    egg:Paste#httpexceptions
    retry
    myapp
```

Reporting Bugs / Development Versions

The repoze developers hang out in the repoze IRC channel.

Email discussion of the filter's development takes place on the repoze-dev mailing list.

Visit https://github.com/repoze/repoze.retry/issues to report bugs.

Visit http://github.com/repoze/repoze.retry/ to check out development or tagged versions.

References