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# **yourls Documentation**

***Release 1.2.3***

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Contents:



## 1.1 Installation

```
$ pip install yourls
```

## 1.2 Overview

yourls is a Python client for your **YOURLS** server. The API is fairly simple, and API errors are turned into Python exceptions.

The main functionality is shown here:

```
>>> from yourls import YOURLSClient

>>> yourls = YOURLSClient('http://example.com/yourls-api.php', signature=
↳ '6f344c2a8p')
>>> shorturl = yourls.shorten('http://google.com')
>>> shorturl
ShortenedURL(
  shorturl='http://example.com/abcde',
  url='http://google.com',
  title='Google',
  date=datetime.datetime(2015, 10, 31, 14, 31, 4),
  ip='203.0.113.0',
  clicks=0,
  keyword='abcde')

>>> yourls.expand('abcde')
'http://google.com'
>>> yourls.expand('http://example.com/abcde')
'http://google.com'

>>> yourls.url_stats('abcde')
ShortenedURL(
  shorturl='http://example.com/abcde',
  url='http://google.com',
  title='Google',
```

```
date=datetime.datetime(2015, 10, 31, 14, 31, 4),
ip='203.0.113.0',
clicks=0,
keyword='abcde')

>>> links, stats = yourls.stats(filter='random', limit=2)
>>> links
[ShortenedURL(
  shorturl='http://example.com/abcde',
  url='http://google.com',
  title='Google',
  date=datetime.datetime(2015, 10, 31, 14, 31, 4),
  ip='203.0.113.0',
  clicks=2,
  keyword='abcde'),
ShortenedURL(
  shorturl='http://example.com/gd65t',
  url='http://www.youtube.com',
  title='YouTube',
  date=datetime.datetime(2015, 10, 31, 11, 34, 5),
  ip='203.0.113.0',
  clicks=567,
  keyword='gd65t')]
>>> stats
DBStats(total_clicks=1234, total_links=5678)

>>> yourls.db_stats()
DBStats(total_clicks=1234, total_links=5678)
```

## 1.3 Exception Handling

The `YOURLSClient` methods can raise several exceptions. With the exception of `YOURLSURLExistsError` and `YOURLSKeywordExistsError`, they all inherit from `requests.HTTPError`, so it's not necessary to catch all the exceptions individually if you just want to display the error to the user:

```
try:
    shorturl = yourls.shorten(url, keyword=keyword)
except YOURLSURLExistsError as exc:
    shorturl = exc.url
except YOURLSKeywordExistsError as exc:
    print("Keyword '{}' already exists.".format(exc.keyword))
except requests.HTTPError as exc:
    print(exc.args[0])
```

### See also:

Requests itself can raise more exceptions, so you might want to catch `requests.exceptions.RequestException`.

**Errors and Exceptions:** In the event of a network problem (e.g. DNS failure, refused connection, etc), Requests will raise a `ConnectionError` exception.

In the rare event of an invalid HTTP response, Requests will raise an `HTTPError` exception.

If a request times out, a `Timeout` exception is raised.

If a request exceeds the configured number of maximum redirections, a `TooManyRedirects` exception is raised.

All exceptions that Requests explicitly raises inherit from `requests.exceptions.RequestException`.

## 1.4 Logging

Logging is disabled by default. Let's enable the logger and set up a logbook handler.

```
from logbook import StderrHandler
from yourls import YOURLSCient, logger

logger.disabled = False

yourls = YOURLSCient('http://example.com/yourls-api.php', signature='6f344c2a8p')

with StderrHandler():
    yourls.shorten('http://www.google.com')
```

Here, *logger* is an instance of `logbook.Logger`. By default, the level is set to `logbook.NOTSET` (i.e. everything is logged).

In our example, we would see the following output:

```
[2015-11-01 17:15:57.899368] DEBUG: yourls: Received <Response [200]> with JSON {
↪ 'message': 'http://www.google.com added to database', 'url': {'keyword': 'abcde',
↪ 'title': 'Google', 'date': '2015-11-01 17:15:57', 'url': 'http://www.google.com
↪ ', 'ip': '203.0.113.0'}, 'status': 'success', 'shorturl': 'http://example.com/
↪ abcde', 'title': 'Google', 'statusCode': 200}
```

## 1.5 API Plugins

If you want to support YOURLS plugins that add API methods (e.g. [API Delete](#)), the following is the recommended way to do so.

```
from yourls import YOURLSCientBase, YOURLSAPIMixin

class YOURLSDeleteMixin(object):
    def delete(short):
        data = dict(action='delete', shorturl=short)
        self._api_request(params=data)

class YOURLSCient(YOURLSDeleteMixin, YOURLSAPIMixin, YOURLSCientBase):
    """YOURLS client with API delete support."""
```



---

### Command Line Interface

---

You can invoke `yourls` or `python -m yourls` on the command line.

```
$ yourls
Usage: yourls [OPTIONS] COMMAND [ARGS]...

Command line interface for YOURLS.

Configuration parameters can be passed as switches or stored in .yourls or
~/.yourls.

Please provide one of the following:
• apiurl and signature
• apiurl, username, and password

Configuration file format:

[yourls]
apiurl = http://example.com/yourls-api.php
signature = abcdefghij

Options:
  --apiurl TEXT
  --signature TEXT
  --username TEXT
  --password TEXT
  --help          Show this message and exit.

Commands:
  db-stats
  expand
  shorten
  stats
  url-stats
```

You can see help for individual commands: `yourls shorten --help` etc.



### 3.1 Core

---

**Note:** The contents of this module are placed here for organisational reasons. They should be imported from `yourls`.

---

**class** `yourls.core.YOURLSAPIMixin`

Bases: `object`

Mixin to provide default YOURLS API methods.

**db\_stats**()

Get database statistics.

**Returns** Total clicks and links statistics.

**Return type** `DBStats`

**Raises** `requests.exceptions.HTTPError` – Generic HTTP Error

**expand**(*short*)

Expand short URL or keyword to long URL.

**Parameters** **short** – Short URL (`http://example.com/abc`) or keyword (`abc`).

**Returns** Expanded/long URL, e.g. `https://www.youtube.com/watch?v=dQw4w9WgXcQ`

**Raises**

- `YOURLSHTTPError` – HTTP error with response from YOURLS API.
- `requests.exceptions.HTTPError` – Generic HTTP error.

**shorten**(*url*, *keyword=None*, *title=None*)

Shorten URL with optional keyword and title.

**Parameters**

- **url** – URL to shorten.
- **keyword** – Optionally choose keyword for short URL, otherwise automatic.

- **title** – Optionally choose title, otherwise taken from web page.

**Returns** Shortened URL and associated data.

**Return type** *ShortenedURL*

**Raises**

- *YOURLSKeywordExistsError* – The passed keyword already exists.

---

**Note:** This exception has a `keyword` attribute.

---

- *YOURLSURLExistsError* – The URL has already been shortened.

---

**Note:** This exception has a `url` attribute, which is an instance of *ShortenedURL* for the existing short URL.

---

- *YOURLSNoURLError* – URL missing.
- *YOURLSNoLoopError* – Cannot shorten a shortened URL.
- *YOURLSAPIError* – Unhandled API error.
- *YOURLSHTTPError* – HTTP error with response from YOURLS API.
- `requests.exceptions.HTTPError` – Generic HTTP error.

**stats** (*filter*, *limit*, *start=None*)

Get stats about links.

**Parameters**

- **filter** – ‘top’, ‘bottom’, ‘rand’, or ‘last’.
- **limit** – Number of links to return from filter.
- **start** – Optional start number.

**Returns** Tuple containing list of *ShortenedURL*s and *DBStats*.

## Example

```
links, stats = yourls.stats(filter='top', limit=10)
```

**Raises**

- *ValueError* – Incorrect value for filter parameter.
- `requests.exceptions.HTTPError` – Generic HTTP Error

**url\_stats** (*short*)

Get stats for short URL or keyword.

**Parameters** **short** – Short URL (<http://example.com/abc>) or keyword (abc).

**Returns** Shortened URL and associated data.

**Return type** *ShortenedURL*

**Raises**

- *YOURLSHTTPError* – HTTP error with response from YOURLS API.
- `requests.exceptions.HTTPError` – Generic HTTP error.

```
class yourls.core.YOURLSClient (apiurl, username=None, password=None, signature=None)
```

Bases: `yourls.core.YOURLSAPIMixin`, `yourls.core.YOURLSClientBase`

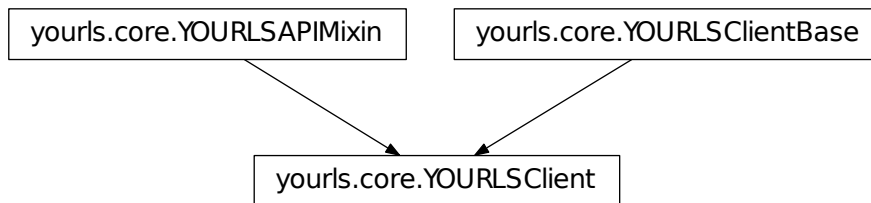
YOURLS client.

```
class yourls.core.YOURLSClientBase (apiurl, username=None, password=None, signature=None)
```

Bases: `object`

Base class for YOURLS client that provides initialiser and api request method.

### 3.1.1 Inheritance diagram



## 3.2 Data

---

**Note:** The contents of this module are placed here for organisational reasons. They should be imported from `yourls`.

---

```
class yourls.data.DBStats (total_clicks, total_links)
```

Represent database statistics as returned by the YOURLS API.

**total\_clicks**

Total number of clicks across all links in the database.

**total\_links**

Total number of links in the database.

```
class yourls.data.ShortenedURL (shorturl, url, title, date, ip, clicks, keyword=None)
```

Represent shortened URL data as returned by the YOURLS API.

**keyword**

Short URL keyword, e.g. `abcdef` for `http://example.com/abcdef`.

**url**

Long URL that was shortened.

**title**

URL page title.

**date**

`datetime` of timestamp the URL was shortened.

**ip**

IP address that originally shortened the URL.

**clicks**

Number of clicks the shortened URL has received.

## 3.3 Exceptions

---

**Note:** The contents of this module are placed here for organisational reasons. They should be imported from `yourls`.

---

**exception** `yourls.exceptions.YOURLSAPIError (*args, **kwargs)`

Bases: `Exception`

Base exception.

**exception** `yourls.exceptions.YOURLSHTTPError (*args, **kwargs)`

Bases: `yourls.exceptions.YOURLSAPIError`, `requests.exceptions.HTTPError`

Raised when YOURLS API returns HTTP error with response.

**exception** `yourls.exceptions.YOURLSKeywordExistsError (*args, **kwargs)`

Bases: `yourls.exceptions.YOURLSAPIError`

Raised when a chosen keyword already exists.

**keyword**

Existing keyword.

**exception** `yourls.exceptions.YOURLSNoLoopError (*args, **kwargs)`

Bases: `yourls.exceptions.YOURLSHTTPError`

Raised when trying to shorten a shortened URL.

**exception** `yourls.exceptions.YOURLSNoURLError (*args, **kwargs)`

Bases: `yourls.exceptions.YOURLSHTTPError`

Raised when trying to shorten an empty URL.

**exception** `yourls.exceptions.YOURLSURLExistsError (*args, **kwargs)`

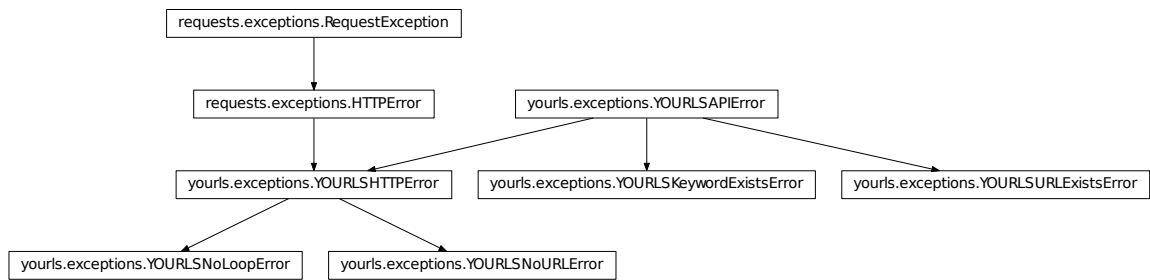
Bases: `yourls.exceptions.YOURLSAPIError`

Raised when a URL has already been shortened.

**url**

Instance of `ShortenedURL` for existing URL.

### 3.3.1 Inheritance diagram





#### 4.1 Unreleased

N/A

#### 4.2 1.2.3

##### 4.2.1 Fixed

- `yourls` can be installed with `setuptools` v38.0+, which requires `install_requires` in `setup.py` to be ordered.

#### 4.3 1.2.2 - 2016-01-29

##### 4.3.1 Fixed

- Exceptions used incorrect `super()` calls.
- Conditional dependencies now work with wheel format.

#### 4.4 1.2.1 - 2015-11-24

##### 4.4.1 Fixed

- Unicode handling on Python 2 in CLI.

## 4.5 1.2.0 - 2015-11-16

### 4.5.1 Changed

- Nicer CLI output for `ShortenedURL` and `DBStats` objects.

### 4.5.2 Fixed

- `NoSectionError` with blank configuration file (#2)
- Short option for `--start` when calling `yourls stats` changed to `-b` to prevent conflict with `-s` for `--simple` (#1).

## 4.6 1.1.1 - 2015-11-15

### 4.6.1 Fixed

- Fixed CLI on Python 2 due to incorrect use of `ConfigParser`.
- Incorrect `ConfigParser` import.

## 4.7 1.1.0 - 2015-11-15

### 4.7.1 Added

- [Command line interface](#).
- Documentation section on exception handling.

### 4.7.2 Changed

- Rename `yourls.api` sub-module to `yourls.data`.
- Rename `yourls.exc` sub-module to `yourls.exceptions`. Users should be importing directly from `yourls` anyway.

## 4.8 1.0.1 - 2015-11-01

### 4.8.1 Added

- Added usage page to documentation.

### 4.8.2 Changed

- Split `YOURLSClient` class into `YOURLSClientBase` and `YOURLSAPIMixin` to make it easier to re-use.
- Refactored the code for clarity.

## 4.9 1.0.0 - 2015-11-01

First release.



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