
younit Documentation

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youunit is a collection of helpers for the `unittest` module.

CHAPTER 1

Helpers

I want to	Helpers to Use
Test coroutines	<code>@asyncio_test</code>
Mock out coroutines	<code>AsyncMock()</code> , <code>@asyncio_test</code>
Print the name of a test before running it	<code>@test_name</code>
Fail a test if it hangs	<code>@set_test_hang_alarm</code> , <code>@clear_test_hang_alarm</code> , or <code>@test_hang_alarm</code>
Close all threads associated with a test	<code>@close_all_threads</code>

CHAPTER 2

Get It Now

```
$ pip install younit
```


CHAPTER 3

Examples

Testing and mocking coroutines:

```
class MyTestCase(unittest.TestCase):
    async def async_setup(self):
        pass

    async def async_tearDown(self):
        pass

    @asyncio_test
    async def test_this(self):
        x = AsyncMock()
        await x()
        x.mock.assert_called_once()
```

Setting up test hang alarms:

```
class MyTestCase(unittest.TestCase):
    @set_test_hang_alarm
    def setUp(self):
        pass

    @clear_test_hang_alarm
    def tearDown(self):
        pass
```

Check out the individual [helpers](#) for more examples.

API

younit is a collection of helpers for the `unittest` module.

`younit.test_name(func)`

A decorator that prints the test name before starting a test.

Convenient if you want to separate the output of different tests.

Usage:

```
class MyTestCase(unittest.TestCase):
    @test_name
    def test_this(self):
        print("im testing this")

    @test_name
    def test_that(self):
        print("im testing that")
```

`younit.set_test_hang_alarm(func)`

A decorator that sets an alarm of 1 second before starting any test.

If a test takes longer than 1 second, a `TestHang` exception is raised.

Should be used during set up and in conjunction with `clear_test_hang_alarm()` during tear down.

Usage:

```
class MyTestCase(unittest.TestCase):
    @set_test_hang_alarm
    def setUp(self):
        pass

    @clear_test_hang_alarm
```

```
def tearDown(self):  
    pass
```

`younit.clear_test_hang_alarm(func)`

A decorator that resets an alarm set by `set_test_hang_alarm()`

Should be used during tear down and in conjunction with `set_test_hang_alarm()` during set up.

Usage:

```
class MyTestCase(unittest.TestCase):  
    @set_test_hang_alarm  
    def setUp(self):  
        pass  
  
    @clear_test_hang_alarm  
    def tearDown(self):  
        pass
```

`younit.test_hang_alarm(func)`

A decorator that sets an alarm of 1 second before starting any test.

If a test takes longer than 1 second, a `TestHang` exception is raised.

If a test takes less than 1 second, the alarm is cancelled.

Usage:

```
class MyTestCase(unittest.TestCase):  
  
    @test_hang_alarm  
    def test_this(self):  
        time.sleep(3)
```

`younit.close_all_threads(func)`

A decorator that closes any threads that are created as part of running a test.

To use, ensure your threads are able to be closed by invoking a `close()` method on an object related to the thread. Then add the object to the `self.threads_to_close` list.

Usage:

```
class MyTestCase(unittest.TestCase):  
    def setUp(self):  
        self.threads_to_close = []  
        x = start_a_new_thread()  
        #x is an object with a close() method  
        #that closes the thread  
        self.threads_to_close.append(x)  
  
    @close_all_threads  
    def test_this(self):  
        y = start_a_new_thread()  
        self.threads_to_close.append(y)
```

`younit.asyncio_test(func)`

A decorator that runs a test as a coroutine including any set up and tear down coroutines.

Usage:

```
class MyTestCase(unittest.TestCase):
    async def async_setup(self):
        pass

    async def async_tearDown(self):
        pass

    @asyncio_test
    async def test_this(self):
        pass
```

`younit.AsyncMock(*args, **kwargs)`

A function that can be used to mock a coroutine.

Returns a coroutine function with a mock attribute. The mock attribute is a `unittest.mock.MagicMock` object that records usage.

Usage:

```
class MyTestCase(unittest.TestCase):
    async def async_setup(self):
        pass

    async def async_tearDown(self):
        pass

    @asyncio_test
    async def test_this(self):
        x = AsyncMock()
        await x()
        x.mock.assert_called_once()
```

exception `younit.TestHang`

Changelog

0.1.0 (2017-07-21)

- Initial release

License

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Authors

Leads

- Jeremy Arr [@jeremyarr](#)

Contributors

Kudos

- Blog posts [here](#) and [here](#) on some simple ways to unit test asyncio code

Contributing

Source code for *younit* can be found [here](#) . New issues, feature requests and pull requests are all welcome.

CHAPTER 5

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