

Python Testing 101 with pytest

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What Is a Test?

A test is code that runs
*to check the validity
of other code*



Why Would I Test?

- Prove that the code works like I think it should
- Give examples to others of how code is used
- Get a safety net for future changes

Pop Quiz!

42 == 42

True

$$4 \neq 2$$

True

$$7 > 9000$$

False

$$7 < 9000$$

True

10 >= 10

True

$$20 \leq 10$$

False

'Hello' in 'Hello World!'

True

'security' in 'IoT'

False

The Quiz

`42 == 42`

`4 != 2`

`7 > 9000`

`7 < 9000`

`10 >= 10`

`20 <= 10`

`'Hello' in 'Hello World!'`

`'security' in 'IoT'`

pytest API

```
assert 42 == 42
```

```
assert 4 != 2
```

```
assert 7 > 9000
```

```
assert 7 < 9000
```

```
assert 10 >= 10
```

```
assert 20 <= 10
```

```
assert 'Hello' in 'Hello World!'
```

```
assert 'security' in 'IoT'
```

Congratulations!

You now know the bulk of the
pytest API.



Hold on, what's pytest?

- The most popular Python package for testing
- The basis for a rich ecosystem of testing plugins and extensions
- Not `unittest`

Why not unittest?

- assert
- assertEquals
- assertNotEqual
- assertTrue
- assertFalse
- assertIs
- assertIsNot
- ... + at least 6 more

SO YOU ARE TELLING ME...

**THAT I HAVE TO WRITE
CODE TO CHECK IF THE CODE
I WROTE EARLIER WAS RIGHT**

**Let's
Code!**

Thanks!

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