



Best practices: Unit Testing

Michael Eyler
<https://github.com/eyler94/presentation>

Presentation Path

- Why use it?
- #Define Unit_Testing
- Python examples
- C++ example
- Discussion

Why should I unit test?

- Test driven development
 - Simplest code possible
 - Self-documenting
 - Easier to debug

#Define Unit_testing

- #ifndef
 - Unit testing involves testing small “units” of code to ensure they function properly.
- #endif

#Define Unit_testing

- #ifndef
 - Unit testing involves testing small “units” of code to ensure they function properly.
- #endif
- Dice example.



Python unit testing

- unittest
 - <https://docs.python.org/3/library/unittest.html#unittest.TestCase>
- walk-through

Python unit testing

- unittest

- <https://docs.python.org/3/library/unittest.html#unittest.TestCase>

- walk-through

- Pros:

- It's in the standard lib
- Faster than Pytest

- Cons:

- Not as much information

Python unit testing

- pytest
 - <https://docs.pytest.org/en/latest/>
 - Walk through

Python unit testing

- pytest
 - <https://docs.pytest.org/en/latest/>
 - Walk through
- Pros:
 - Simpler test statements
 - More information given than unittest
- Cons:
 - Not included in the standard library
 - Documentation is not as easy to navigate

C++ unit testing

- Gtest
 - <https://github.com/google/googletest/tree/master/googletest>
 - <https://www.eriksmistad.no/getting-started-with-google-test-on-ubuntu/>
 - Walk through

C++ unit testing

- Gtest
 - <https://github.com/google/googletest/tree/master/googletest>
 - <https://www.eriksmistad.no/getting-started-with-google-test-on-ubuntu/>
 - Walk through
- Pros:
 - It's Google.
- Cons:
 - It's Google.

Wrapping up

Write tests. Save Lives.



Brenan Keller
@brenankeller



A QA engineer walks into a bar. Orders a beer. Orders 0 beers. Orders 999999999999 beers. Orders a lizard. Orders -1 beers. Orders a ueicbksjdhd.

First real customer walks in and asks where the bathroom is. The bar bursts into flames, killing everyone.

2:21 PM · Nov 30, 2018 · [Twitter for iPhone](#)



Discussion