

WE NEED A BETTER TESTING FRAMEWORK

NOAM TENNE

HACKING AROUND FOR THE PAST ~15 YEARS



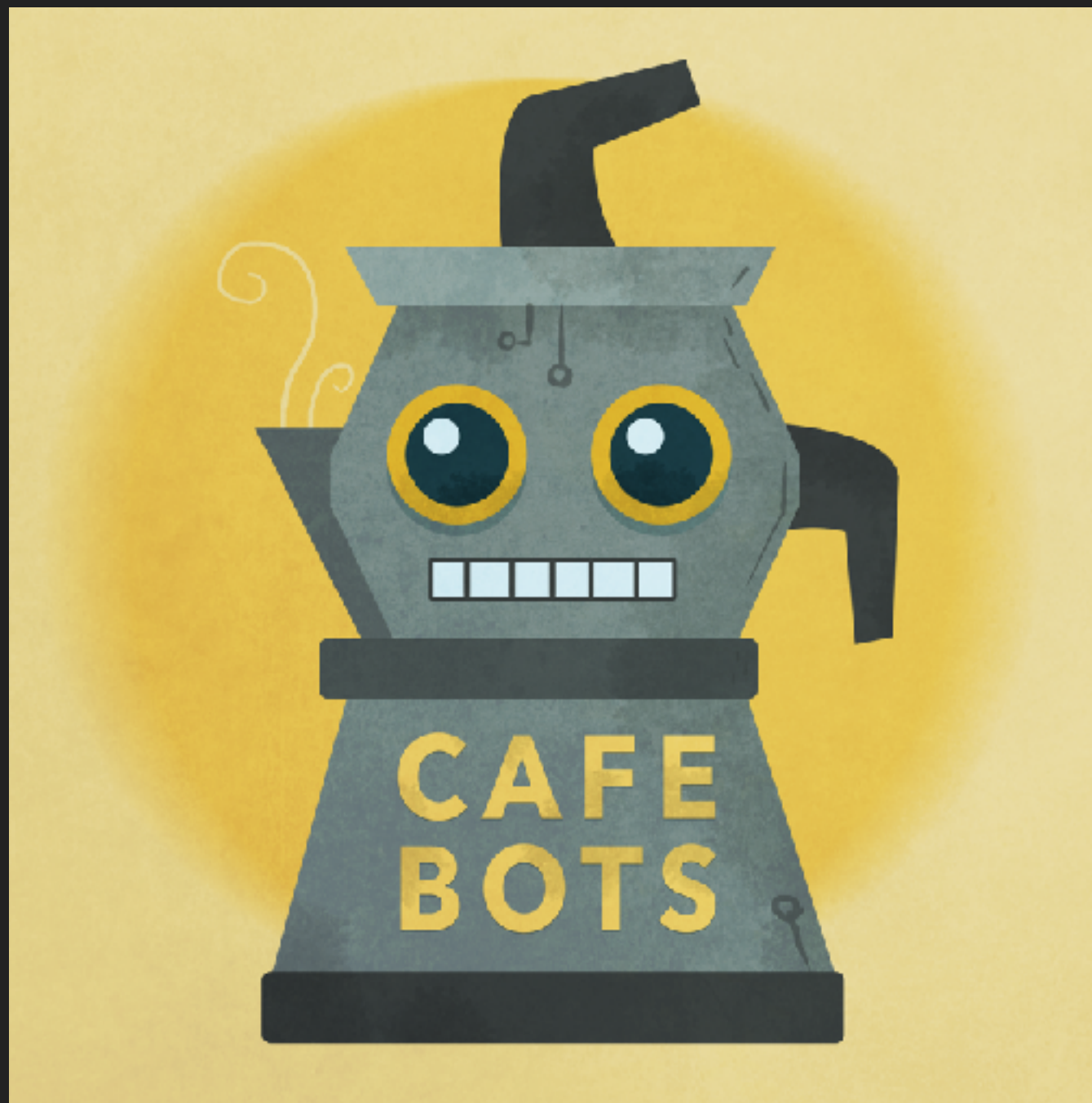
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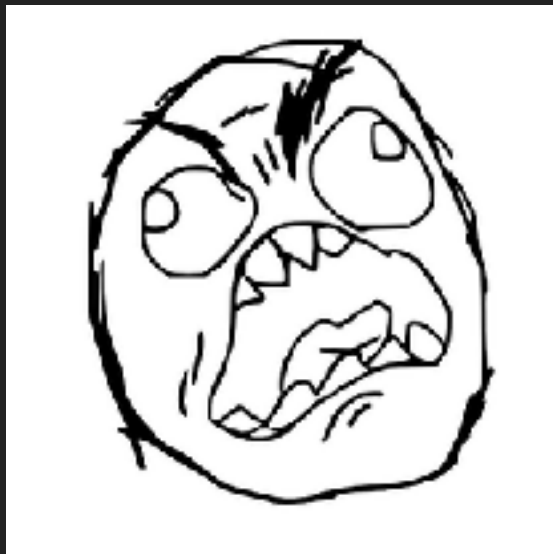
PODCASTING "CAFE BOTS"

WITH YOAV LUFT AND TOM KAMINSKI

NIMOY

CONSTRUCTIVE FEEDBACK

CONSTRUCTIVE FEEDBACK



I DON'T HATE PYTHON

CONSTRUCTIVE FEEDBACK

I DON'T HATE PYTHON

SINCERE

DO YOU TDD?

DO YOU BDD?

SCENARIO: DESCRIPTION

GIVEN: A STATE

WHEN: AN ACTION IS PERFORMED

EXPECT: AN OUTCOME

```
1  Feature: This is behave
2
3  Scenario: Run something
4      Given we use behave
5      When we write specs
6      Then behave runs them
```

```
$ VIM STEPS/BEHAVE_STEPS.PY
```

```
1  from behave import given, when, then, step
2
3  @given('we use behave')
4  def step_impl(context):
5      pass
6
7  @when('we write specs')
8  def step_impl(context):
9      assert True != False
10
11 @then('behave runs them')
12 def step_impl(context):
13     assert context.failed is False
```

\$ VIM NIMOY_SPEC.PY ← End with _spec.py

```
1  from nimoy.specification import Specification
2
3  class Example(Specification):
4
5      def example_feature(self):
6          with given:
7              pass
8          with expect:
9              pass
```

Extend
Specification

Contain steps

using "with"

\$ VIM NIMOY_SPEC.PY

```
1  from nimoy.specification import Specification
2
3  class Example(Specification):
4
5      def example_feature(self):
6          with setup:
7              pass
8          with expect:
9              pass
```

\$ VIM NIMOY_SAR_SPEC.PY

```
1  from nimoy.specification import Specification
2
3  class Example(Specification):
4
5      def example_feature(self):
6          with setup:
7              pass
8          with when:
9              pass
10         with then:
11             pass
```

\$ VIM NIMOY_SAR_SPEC.PY

```
1  from nimoy.specification import Specification
2
3  class Example(Specification):
4
5      def example_feature(self):
6          with setup:
7              a = 5
8              with when:
9                  a = a + 1
10             with then:
11                 a == 6
```



Look, mom! No asserts!

DO YOU DDT?

SCENARIO: DESCRIPTION

GIVEN: A STATE

WHEN: AN ACTION IS PERFORMED

EXPECT: AN OUTCOME

WHERE: VARIABLES EQUAL VALUES

\$ VIM TEST_PYTEST_PARAMS.PY

```
1  import pytest
2
3  @pytest.mark.parametrize("script,result", [
4      ("2 * 21", 42),
5      ("int(0.1337 * 10000)", 1337),
6  ])
7  def test_eval(script, result):
8      assert eval(script) == result
```

\$ VIM NIMOY_MATRIX_SPEC.PY

```
1  from nimoy.specification import Specification
2
3  class Example(Specification):
4      def example_feature(self):
5          with given:
6              a = value_of_a
7              b = value_of_b
8          with expect:
9              (a * b % 2) == 0
10         with where:
11             value_of_a | value_of_b
12             2          | 5
13             2          | 21
```

Inject anywhere

Declare variables

\$ VIM NIMOY_LIST_SPEC.PY

```
1  from nimoy.specification import Specification
2
3  class Example(Specification):
4      def example_feature(self):
5          with given:
6              a = value_of_a
7              b = value_of_b
8          with expect:
9              (a * b % 2) == 0
10         with where:
11             value_of_a = [2, 2]
12             value_of_b = [5, 21]
```

DO YOU
MOCK?

\$ VIM PYTEST MOCKS.PY

```
1  from unittest import mock
2  from mock import Mock
3
4  def test_mock():
5      teh_mock = Mock()
6
7      teh_mock.do_it(1)
8      teh_mock.do_it(2)
9      teh_mock.do_it(3)
10
11     assert teh_mock.do_it.call_count == 3
```

\$ VIM NIMOY MOCK_SPEC.PY

```
1  from nimoy.specification import Specification
2  from unittest.mock import Mock
3
4  class Example(Specification):
5      def example_feature(self):
6          with given:
7              a = Mock()
8              with when:
9                  a.method_call('argument')
10             with then:
11 No. of invocations → 1 * a.method_call('argument')
```

↑
Target mock

↑
Expected arguments

\$ VIM NIMOY MOCK_SPEC.PY

```
1  from nimoy.specification import Specification
2  from unittest.mock import Mock
3
4  class Example(Specification):
5      def example_feature(self):
6          with given:
7              a = Mock()
8              with when:
9                  a.method_call('argument')
10             with then:
11                 _ * a.method_call('argument')
```

Any no. of invocations



\$ VIM NIMOY MOCK_SPEC.PY

```
1  from nimoy.specification import Specification
2  from unittest.mock import Mock
3
4  class Example(Specification):
5      def example_feature(self):
6          with given:
7              a = Mock()
8          with when:
9              a.method_call('argument')
10         with then:
11             _ * a.method_call(_)
```



Any arg value

PYTHON 3

UNITTEST

AST

\$ DEMO?



github.com/browncoat-ninjas/nimoy

Version: 0.0.1b4

Search Medium for “Building Nimoy”

QUESTIONS?

THANKS!