

The Container Protocol



Robert Smallshire

COFOUNDER - SIXTY NORTH

@robsmallshire



Austin Bingham

COFOUNDER - SIXTY NORTH

@austin_bingham

The Container Protocol

Membership testing using `in` and `not in`

Special **method** : `__contains__`

Fallback to the **iterable** protocol

sorted-set

sorted_frozen_set.py

test_sorted_frozen_set.py

26

self.s = SortedFrozenSet([6, 7, 3, 9])

27

28

def test_positive_contained(self):

29

self.assertTrue(6 in self.s)

30

31

def test_negative_contained(self):

32

self.assertFalse(2 in self.s)

33

34

def test_positive_not_contained(self):

35

self.assertTrue(5 not in self.s)

36

37

def test_negative_not_contained(self):

38

self.assertFalse(9 not in self.s)

39

40

sorted_frozen_set.py

1

class SortedFrozenSet:

2

3

def __init__(self, items=None):

4

self._items = (

5

list(items) if (items is not None)

6

else list()

7

)

8

9

def __contains__(self, item):

10

return item in self._items

11

TestContainerProtocol > test_negative_contained()

Run: Unittests in test_sorted_frozen_set.py

✓

⊗

↕

↕

≡

÷

↑

↓

🔍

🔗

⚙️

✓ Tests passed: 8 of 8 tests – 2 ms

✓ Test Results

2 ms

Testing started at 18:43 ...
/Users/sixty-north/.virtualenvs/sorted-set/bin/python /Applications/PyCharm
.app/Contents/helpers/pycharm/_jb_unittest_runner.py --path
test_sorted_frozen_set.py
Launching unittests with arguments python -m unittest test_sorted_frozen_set.py
in /var/folders/0k/58g36_tx22xcxqd9mwqzg_h00000gp/T/tmptf8406cy/build/sorted-set

Tests passed: 8 (a minute ago)

11:9 LF UTF-8 4 spaces Python 3.8 (sorted-set)