

SRP and OCP for Super FizzBuzz

GitHub Link: https://github.com/Por-045/-FizzBuzz_With_SRP_and_OCP

Code Under Test

```

fizzbuzz.py X
src > fizzbuzz.py > ...
1  def fizzbuzz(number):
2      mylist = []
3      if number > 0 and number <= 10000:
4          if number % 3 == 0:
5              mylist.append('Fizz')
6              if number % 9 == 0: # must above mod 5 condition if then it will conflict with mod 9 and 25 condition
7                  mylist.append('Fizz')
8                  if number % 25 == 0:
9                      mylist.append('BuzzBuzz')
10             elif number % 5 == 0:
11                 mylist.append('Buzz')
12             elif number % 5 == 0:
13                 mylist.append('Buzz')
14                 if number % 25 == 0:
15                     mylist.append('Buzz')
16             else:
17                 mylist.append('NoFizzBuzz')
18         else:
19             mylist.append('NotFrom0And10000')
20
21     return ''.join(mylist)
22

```

Test Case

```

test_fizzbuzz.py X
tests > test_fizzbuzz.py > FizzBuzzNotFrom0And10000Test
1  from src.fizzbuzz import fizzbuzz
2  import unittest
3
4  class FizzBuzzModulusBy3Test(unittest.TestCase):
5      def test_give_3_should_fizz(self):
6          number = 3
7          expected_result = 'Fizz'
8
9          result = fizzbuzz(number)
10
11         self.assertEqual(result, expected_result)
12
13         def test_give_1596_should_fizz(self):
14             number = 1596
15             expected_result = 'Fizz'
16
17             result = fizzbuzz(number)
18
19             self.assertEqual(result, expected_result)
20
21         def test_give_6918_should_fizz(self):
22             number = 6918
23             expected_result = 'Fizz'
24
25             result = fizzbuzz(number)
26
27             self.assertEqual(result, expected_result)
28

```

```

29  class FizzBuzzModulusBy5Test(unittest.TestCase):
30      def test_give_5_should_buzz(self):
31          number = 5
32          expected_result = 'Buzz'
33
34          result = fizzbuzz(number)
35
36          self.assertEqual(result, expected_result)
37
38      def test_give_9985_should_buzz(self):
39          number = 9985
40          expected_result = 'Buzz'
41
42          result = fizzbuzz(number)
43
44          self.assertEqual(result, expected_result)
45
46      def test_give_6785_should_buzz(self):
47          number = 6785
48          expected_result = 'Buzz'
49
50          result = fizzbuzz(number)
51
52          self.assertEqual(result, expected_result)
53

```

```

54 class FizzBuzzModulusBy3and5Test(unittest.TestCase):
55     def test_give_15_should_fizzbuzz(self):
56         number = 15
57         expected_result = 'FizzBuzz'
58
59         result = fizzbuzz(number)
60
61         self.assertEqual(result, expected_result)
62
63     def test_give_6015_should_fizzbuzz(self):
64         number = 6015
65         expected_result = 'FizzBuzz'
66
67         result = fizzbuzz(number)
68
69         self.assertEqual(result, expected_result)
70
71     def test_give_9975_should_fizzbuzz(self):
72         number = 9975
73         expected_result = 'FizzBuzz'
74
75         result = fizzbuzz(number)
76
77         self.assertEqual(result, expected_result)
78

```

```

79 class FizzBuzzModulusBy9Test(unittest.TestCase):
80     def test_give_9_should_fizzfizz(self):
81         number = 9
82         expected_result = 'FizzFizz'
83
84         result = fizzbuzz(number)
85
86         self.assertEqual(result, expected_result)
87
88     def test_give_4572_should_fizzfizz(self):
89         number = 4572
90         expected_result = 'FizzFizz'
91
92         result = fizzbuzz(number)
93
94         self.assertEqual(result, expected_result)
95
96     def test_give_8181_should_fizzfizz(self):
97         number = 8181
98         expected_result = 'FizzFizz'
99
100        result = fizzbuzz(number)
101
102        self.assertEqual(result, expected_result)
103

```

```

104 class FizzBuzzModulusBy25Test(unittest.TestCase):
105     def test_give_25_should_buzzbuzz(self):
106         number = 25
107         expected_result = 'BuzzBuzz'
108
109         result = fizzbuzz(number)
110
111         self.assertEqual(result, expected_result)
112
113     def test_give_5075_should_buzzbuzz(self):
114         number = 5075
115         expected_result = 'BuzzBuzz'
116
117         result = fizzbuzz(number)
118
119         self.assertEqual(result, expected_result)
120
121     def test_give_9725_should_buzzbuzz(self):
122         number = 9725
123         expected_result = 'BuzzBuzz'
124
125         result = fizzbuzz(number)
126
127         self.assertEqual(result, expected_result)
128

```

```

129 class FizzBuzzModulusBy9and25Test(unittest.TestCase):
130     def test_give_225_should_fizzfizzbuzzbuzz(self):
131         number = 225
132         expected_result = 'FizzFizzBuzzBuzz'
133
134         result = fizzbuzz(number)
135
136         self.assertEqual(result, expected_result)
137
138     def test_give_6750_should_fizzfizzbuzzbuzz(self):
139         number = 6750
140         expected_result = 'FizzFizzBuzzBuzz'
141
142         result = fizzbuzz(number)
143
144         self.assertEqual(result, expected_result)
145
146     def test_give_9450_should_fizzfizzbuzzbuzz(self):
147         number = 9450
148         expected_result = 'FizzFizzBuzzBuzz'
149
150         result = fizzbuzz(number)
151
152         self.assertEqual(result, expected_result)
153

```

```
154 class FizzBuzzNotMetConditionTest(unittest.TestCase):
155     def test_give_1_should_nofizzbuzz(self):
156         number = 1
157         excepted_result = 'NoFizzBuzz'
158
159         result = fizzbuzz(number)
160
161         self.assertEqual(result, excepted_result)
162
163     def test_give_4444_should_nofizzbuzz(self):
164         number = 4444
165         excepted_result = 'NoFizzBuzz'
166
167         result = fizzbuzz(number)
168
169         self.assertEqual(result, excepted_result)
170
171     def test_give_9998_should_nofizzbuzz(self):
172         number = 9998
173         excepted_result = 'NoFizzBuzz'
174
175         result = fizzbuzz(number)
176
177         self.assertEqual(result, excepted_result)
178
```

```
179 class FizzBuzzNotFrom0And10000Test(unittest.TestCase):
180     def test_give_n1_should_notfrom0and10000(self):
181         number = -1
182         excepted_result = 'NotFrom0And10000'
183
184         result = fizzbuzz(number)
185
186         self.assertEqual(result, excepted_result)
187
188     def test_give_10001_should_notfrom0and10000(self):
189         number = 10001
190         excepted_result = 'NotFrom0And10000'
191
192         result = fizzbuzz(number)
193
194         self.assertEqual(result, excepted_result)
195
196     def test_give_n15_should_notfrom0and10000(self):
197         number = -15
198         excepted_result = 'NotFrom0And10000'
199
200         result = fizzbuzz(number)
201
202         self.assertEqual(result, excepted_result)
203
204     def test_give_30000_should_notfrom0and10000(self):
205         number = 30000
206         excepted_result = 'NotFrom0And10000'
207
208         result = fizzbuzz(number)
209
210         self.assertEqual(result, excepted_result)
211
```


ผล Coverage

```

PS C:\Users\Acer\Desktop\fizzbuzz> python -m nose2 -v --with-coverage
test_give_25_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_5075_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_9725_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_1596_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_3_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_6918_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_15_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_6015_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_9975_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_5_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_6785_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_9985_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_4572_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_8181_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_9_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_225_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_6750_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_9450_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_10001_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_30000_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_815_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_n1_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_1_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok
test_give_4444_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok
test_give_9998_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok

```

Ran 25 tests in 0.008s

OK			
Name	Stmts	Miss	Cover
src\fizzbuzz.py	18	0	100%
tests\test_fizzbuzz.py	135	0	100%
TOTAL	153	0	100%

PS C:\Users\Acer\Desktop\fizzbuzz> █

```
PS C:\Users\Acer\Desktop\fizzbuzz> python -m nose2 -v --with-coverage --coverage-report html
test_give_25_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_5075_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_9725_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_1596_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_3_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_6918_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_15_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_6015_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_9975_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_5_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_6785_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_9985_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_4572_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_8181_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_9_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_225_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_6750_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_9450_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_10001_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_30000_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_n15_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_n1_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_1_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok
test_give_4444_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok
test_give_9998_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok

-----
Ran 25 tests in 0.015s

OK

PS C:\Users\Acer\Desktop\fizzbuzz> 
```



```

PS C:\Users\Acer\Desktop\fizzbuzz> python -m nose2 -v --with-coverage --coverage src
test_give_25_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_5075_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_9725_should_buzzbuzz (test_fizzbuzz.FizzBuzzModulusBy25Test) ... ok
test_give_1596_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_3_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_6918_should_fizz (test_fizzbuzz.FizzBuzzModulusBy3Test) ... ok
test_give_15_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_6015_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_9975_should_fizzbuzz (test_fizzbuzz.FizzBuzzModulusBy3and5Test) ... ok
test_give_5_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_6785_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_9985_should_buzz (test_fizzbuzz.FizzBuzzModulusBy5Test) ... ok
test_give_4572_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_8181_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_9_should_fizzfizz (test_fizzbuzz.FizzBuzzModulusBy9Test) ... ok
test_give_225_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_6750_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_9450_should_fizzfizzbuzzbuzz (test_fizzbuzz.FizzBuzzModulusBy9and25Test) ... ok
test_give_10001_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_30000_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_n15_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_n1_should_notfrom0and10000 (test_fizzbuzz.FizzBuzzNotFrom0And10000Test) ... ok
test_give_1_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok
test_give_4444_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok
test_give_9998_should_nofizzbuzz (test_fizzbuzz.FizzBuzzNotMetConditionTest) ... ok

```

```

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Ran 25 tests in 0.011s

```

```

OK
Name                Stmt%  Miss  Cover
-----
src\fizzbuzz.py      18      0  100%
-----
TOTAL                18      0  100%

```

```

PS C:\Users\Acer\Desktop\fizzbuzz>

```