



Linked Lists in Python

90% ChatGPT, 5% Benchmarking, 5% Other

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The Requirements

Since the requirements were pretty much everything that was in our Java “Array List” assignment, there was not a whole lot new. Namely the functions shown.

```
class LinkedList:
    def __init__(self):...

    70 usages
    def append(self, data):...

    2 usages
    def clear(self):...

    2 usages
    def index(self, item):...

    2 usages
    def insert(self, index, data):...

    2 usages
    def pop(self, index=None):...

    2 usages
    def remove(self, item):...

    def __getitem__(self, index):...

    def __setitem__(self, index, data):...

    def __str__(self):...

    def __len__(self):...

    def __contains__(self, item):...
```

The Other Requirements

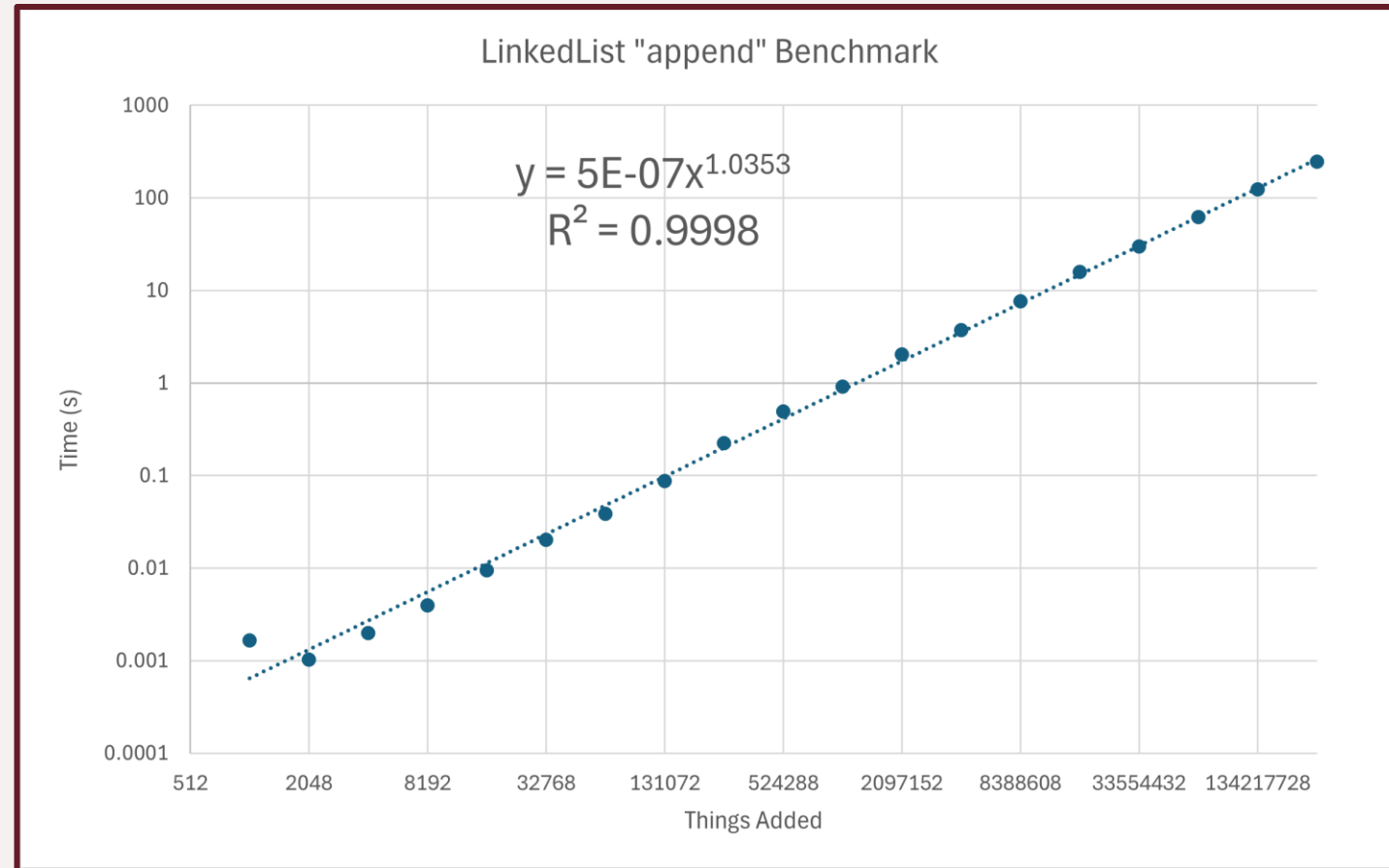
- Also part of the “Array List” assignment was writing testing functions for each implemented feature.

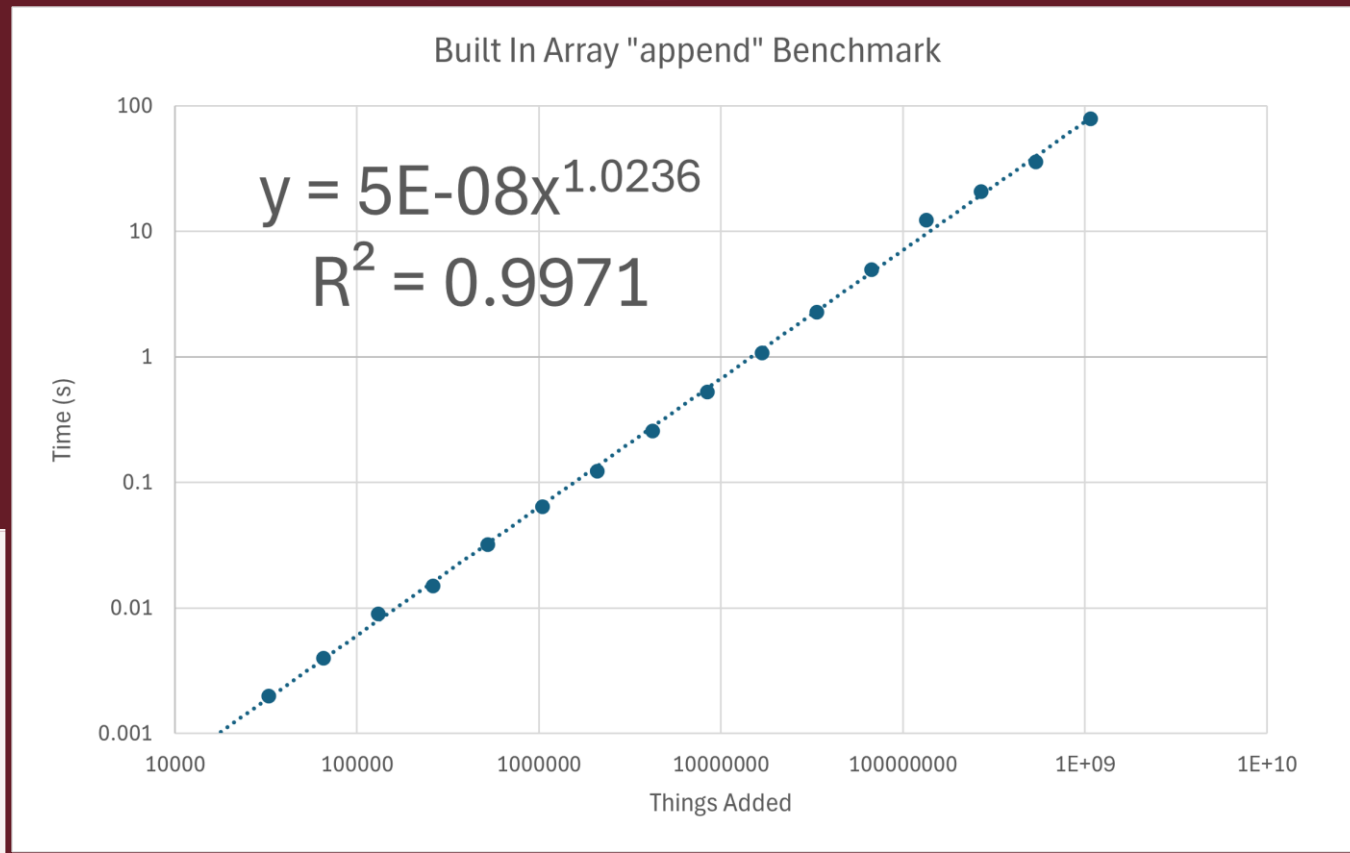
```
2 > def test_append():...
10
    1 usage
11 > def test_clear():...
17
    1 usage
18 > def test_index():...
26
    1 usage
27 > def test_insert():...
34
    1 usage
35 > def test_pop():...
42
    1 usage
43 > def test_remove():...
50
    1 usage
51 > def test_getitem():...
57
    1 usage
58 > def test_setitem():...
65
    1 usage
66 > def test_len():...
72
    1 usage
73 > def test_contains():...
```

```
80 > def test_append_2():...
88
    1 usage
89 > def test_clear_2():...
95
    1 usage
96 > def test_index_2():...
104
    1 usage
105 > def test_insert_2():...
112
    1 usage
113 > def test_pop_2():...
120
    1 usage
121 > def test_remove_2():...
128
    1 usage
129 > def test_getitem_2():...
135
    1 usage
136 > def test_setitem_2():...
143
    1 usage
144 > def test_len_2():...
151
    1 usage
152 > def test_contains_2():...
```

Graph Time, bby.

- Look at this cool graph! It's the results from the custom "append" function.
- Look how nice and straight the line is...



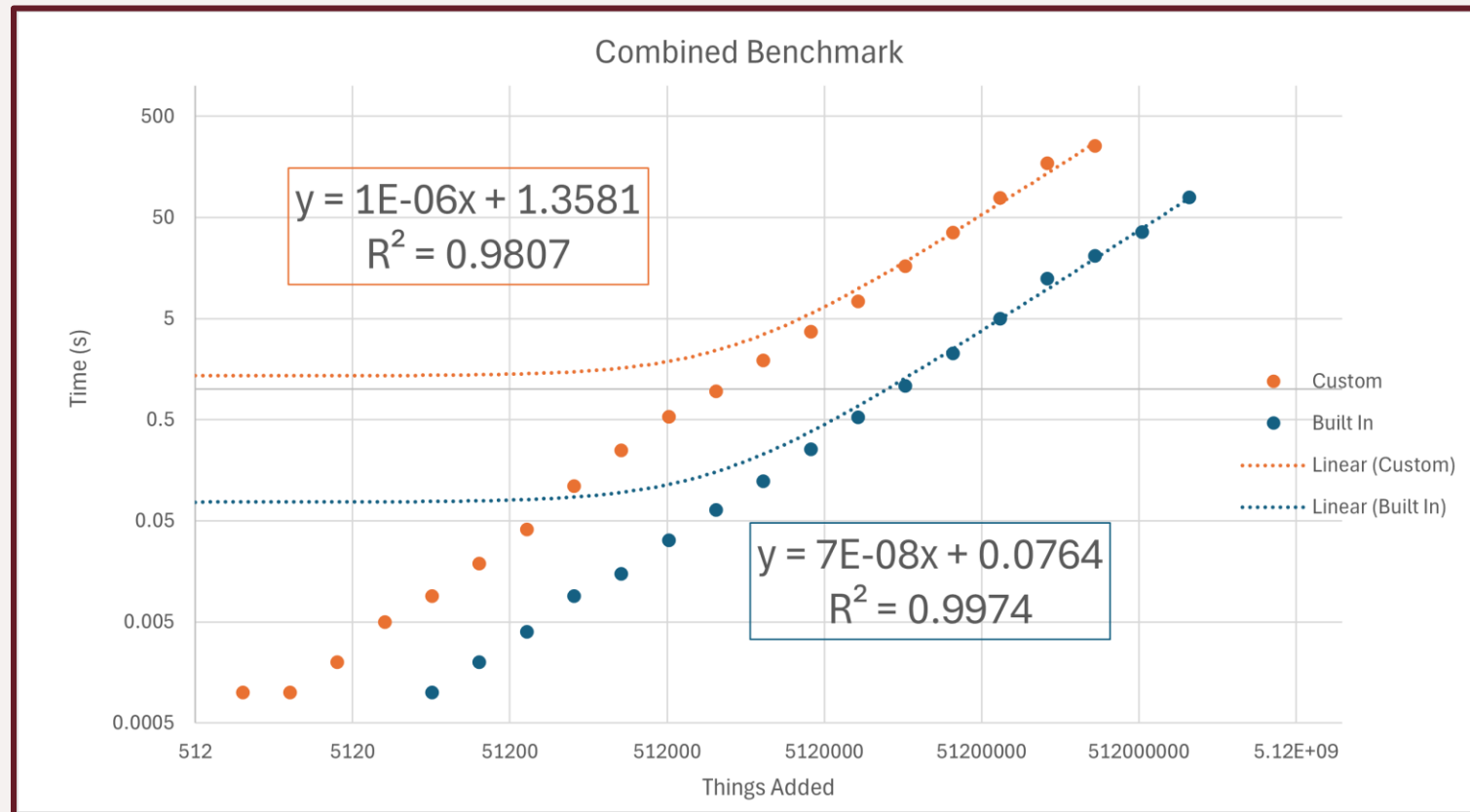


Another one.

This is the graph from Python's stupid built in function.

Here they are together

- I don't know why mine is slightly slower.
- When Seward did it, it was faster, but on my laptop it's slower for some reason.
- Fun.



Also it wouldn't let me use the power fit RIP.

In conclusion, I forgot what else this presentation needed.

- I probably could just look at my old one, but I don't really feel like it.
- I really just want to work on the sorting algorithm assignment because that sounds about 24.7x funner than whatever this was.
- I'm gonna go play with the MicroBit I got legally from the MakerSpace now.