

lesson_3

August 23, 2022

1 Lesson 3

1.1 Collections

```
[1]: l = [42, "test", 3.14]
```

```
[2]: t = (42, "test", 3.14)
```

```
[3]: s = {42, "test", 3.14}
```

```
[4]: d = {"num": 42, "text": "test"}
```

```
[5]: id(l)
```

```
[5]: 4394796480
```

```
[6]: id(l[0])
```

```
[6]: 4347588176
```

List -> Dynamic Array

```
[7]: l.append("new")
```

```
[8]: l
```

```
[8]: [42, 'test', 3.14, 'new']
```

```
[10]: id(l)
```

```
[10]: 4394796480
```

```
[11]: a = 42
```

```
[12]: id(a)
```

```
[12]: 4347588176
```

```
[13]: id(l[0])
```

```
[13]: 4347588176
```

```
[14]: l
```

```
[14]: [42, 'test', 3.14, 'new']
```

```
[15]: l[2]
```

```
[15]: 3.14
```

```
[16]: "new" in l
```

```
[16]: True
```

```
[17]: "no" in l
```

```
[17]: False
```

```
[18]: len(l)
```

```
[18]: 4
```

```
[20]: a = (1, 2)  
      b = ("new", 24)
```

```
[21]: id(a)
```

```
[21]: 4388608896
```

```
[30]: c = a + b
```

```
[33]: id(c)
```

```
[33]: 4393733312
```

```
[31]: id(c[2])
```

```
[31]: 4348657328
```

```
[32]: id(b[0])
```

```
[32]: 4348657328
```

```
[34]: l_a = [1, 2]
```

```
[35]: l_b = ["new", 24]
```

```
[36]: id(l_a)
```

```
[36]: 4394765888
```

```
[37]: l_c = l_a + l_b
```

```
[38]: l_c
```

```
[38]: [1, 2, 'new', 24]
```

```
[40]: id(l_c)
```

```
[40]: 4394487488
```

```
[42]: id(l_b[0])
```

```
[42]: 4348657328
```

```
[43]: id(l_c[2])
```

```
[43]: 4348657328
```

```
[44]: l_c[2] = "brand new"
```

```
[45]: l_c
```

```
[45]: [1, 2, 'brand new', 24]
```

```
[46]: l_b
```

```
[46]: ['new', 24]
```

```
[47]: l_c.append("new")
```

```
[48]: id(l_c[-1])
```

```
[48]: 4348657328
```

```
[49]: a = ([1, 2], 42)
```

```
[50]: id(a)
```

```
[50]: 4425770624
```

```
[51]: id(a[0])
```

[51]: 4417707968

[52]: `a[0].append(24)`

[53]: `a`

[53]: ([1, 2, 24], 42)

[54]: `id(a)`

[54]: 4425770624

[55]: `id(a[0])`

[55]: 4417707968

[56]: `s`

[56]: {3.14, 42, 'test'}

[57]: `s[0]`

```
-----  
TypeError                                Traceback (most recent call last)  
Input In [57], in <cell line: 1>()  
----> 1 s[0]  
  
TypeError: 'set' object is not subscriptable
```

[58]: `for item in s:
 print(item)`

42
3.14
test

[59]: `s.add(42)`

[60]: `s`

[60]: {3.14, 42, 'test'}

[61]: `d`

[61]: {'num': 42, 'text': 'test'}

[]: