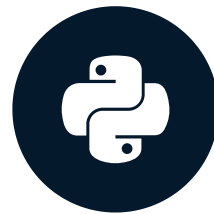


Dictionaries, Part 1

INTERMEDIATE PYTHON



Hugo Bowne-Anderson
Data Scientist at DataCamp

List

```
pop = [30.55, 2.77, 39.21]
countries = ["afghanistan", "albania", "algeria"]
ind_alb = countries.index("albania")
ind_alb
```

1

```
pop[ind_alb]
```

2.77

- Not convenient
- Not intuitive

Dictionary

```
pop = [30.55, 2.77, 39.21]  
countries = ["afghanistan", "albania", "algeria"]
```

```
...
```

```
{
```

```
}
```

Dictionary

```
pop = [30.55, 2.77, 39.21]
countries = ["afghanistan", "albania", "algeria"]

...

{"afghanistan":30.55,
```

Dictionary

```
pop = [30.55, 2.77, 39.21]
countries = ["afghanistan", "albania", "algeria"]

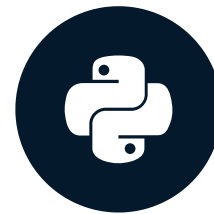
...

world = {"afghanistan":30.55, "albania":2.77, "algeria":39.21}
world["albania"]
```

2.77

Dictionaries, Part 2

INTERMEDIATE PYTHON



Hugo Bowne-Anderson
Data Scientist at DataCamp

Recap

```
world = {"afghanistan":30.55, "albania":2.77, "algeria":39.21}  
world["albania"]
```

```
2.77
```

```
world = {"afghanistan":30.55, "albania":2.77,  
         "algeria":39.21, "albania":2.81}  
world
```

```
{'afghanistan': 30.55, 'albania': 2.81, 'algeria': 39.21}
```

Recap

- Keys have to be "immutable" objects

```
{0:"hello", True:"dear", "two":"world"}
```

```
{0: 'hello', True: 'dear', 'two': 'world'}
```

```
{"just", "to", "test": "value"}
```

```
TypeError: unhashable type: 'list'
```


Principality of Sealand



¹ Source: Wikipedia

Dictionary

```
world["sealand"] = 0.000027
```

```
world
```

```
{'afghanistan': 30.55, 'albania': 2.81,  
  'algeria': 39.21, 'sealand': 2.7e-05}
```

```
"sealand" in world
```

```
True
```

Dictionary

```
world["sealand"] = 0.000028
```

```
world
```

```
{'afghanistan': 30.55, 'albania': 2.81,  
  'algeria': 39.21, 'sealand': 2.8e-05}
```

```
del(world["sealand"])
```

```
world
```

```
{'afghanistan': 30.55, 'albania': 2.81, 'algeria': 39.21}
```

List vs Dictionary



List

List vs Dictionary



List vs Dictionary

| List | Dictionary |
|--------------------------------|--------------------------------|
| Select, update and remove: [] | Select, update and remove: [] |

List vs Dictionary

| List | Dictionary |
|--------------------------------|--------------------------------|
| Select, update and remove: [] | Select, update and remove: [] |

List vs Dictionary

| List | Dictionary |
|--------------------------------|--------------------------------|
| Select, update and remove: [] | Select, update and remove: [] |
| Indexed by range of numbers | |

List vs Dictionary

| List | Dictionary |
|--------------------------------|--------------------------------|
| Select, update and remove: [] | Select, update and remove: [] |
| Indexed by range of numbers | Indexed by unique keys |

List vs Dictionary

| List | Dictionary |
|--|--------------------------------|
| Select, update and remove: [] | Select, update and remove: [] |
| Indexed by range of numbers | Indexed by unique keys |
| Collection of values order matters select entire subsets | |

List vs Dictionary

| List | Dictionary |
|--|--------------------------------|
| Select, update and remove: [] | Select, update and remove: [] |
| Indexed by range of numbers | Indexed by unique keys |
| Collection of values order matters select entire subsets | Lookup table with unique keys |