DICTIONARIES

- Consists of keys and key values separated by a colon.
- Dictionaries, called **dict**, can contain:
  - Strings and numbers
  - tuples
  - lists
  - sets
  - series
  - dataframes
  - nested dictionaries

In [103]:

```
d1 = {}
type(d1)
d1["A"] = 10
d1["B"] = 20
d1["C"] = 50
d1
```

Out[103]:

```
{'A': 10, 'B': 20, 'C': 50}
```

In [107]:

```
d1["C"] = 1000
d1
```

Out[107]:

```
{'A': 10, 'B': 20, 'C': 1000}
```

In [111]:

```
toys = {"robot": 40, "car": 50}
toys.update(d1)
toys
```

Out[111]:

```
{'A': 10, 'B': 20, 'C': 1000, 'car': 50, 'robot': 40}
```

In [117]:

```
list(toys.values())
```

Out[117]:

```
[40, 50, 10, 20, 1000]
```

In [118]:

```
toys.keys()
```

Out[118]:

```
dict_keys(['robot', 'car', 'A', 'B', 'C'])
```

In [119]:

```
toys.pop("A")
toys
```

Out[119]:

```
{'B': 20, 'C': 1000, 'car': 50, 'robot': 40}
```

In [120]:

```
maze = {"k1": list(range(4)), "k2": tuple(range(4,8)),
        "k3": (1,2, 3, {"k4": [1,2,3, "found you!", 4, 5]})}
maze
```

Out[120]:

```
{'k1': [0, 1, 2, 3],
 'k2': (4, 5, 6, 7),
 'k3': (1, 2, 3, {'k4': [1, 2, 3, 'found you!', 4, 5]})}
```

In [124]:

```
maze["k3"][3]["k4"][3]
```

Out[124]:

```
'found you!'
```