CUCaTS Python Cheatsheet

Datatype	Example
Integers	`5`
Floats	`9.6`
Booleans	`True` and `False`
Strings	`"Hello world!"`
Lists	`[4, 8, 15, 16, 23, 42]`
	`["first", "second"]`
	`[[], "some text", 99]`
Dictionaries	`{"Alice": 42, "Bob": 40}`

Operations

`+`, `-`, `*`, `/`, `%`	(on integers or floats)
`+`	(to join strings or lists)
`==`, `!=`	(comparing any values)
`>`, `>=`, `<`, `<=`	(comparing integers or floats)
`and`, `or`, `not`	(on booleans)

Variables

Labels onto values. Names must consist only of letters, digits and underscores. Cannot start with a digit or have spaces. They are case sensitive.

Control flow

```
for ___ in ___:

if ___:
elif ___:
else:
```

Functions

```
def ___(___):
    return ___
```

Lists and Strings

Element access	`___[index]`
Slicing	`___[start:end]`
Comprehensions	`[___ for ___ in ___]`
Length	`len(___)`

Common methods

```
list.append(item)
list.reverse()
list.remove(item)

string.split(separator)
string.capitalize()
string.upper()
string.lower()
string.find(substring)
```

Dictionaries

An example:

```
ages = {"Alice": 42, "Bob": 40}
```

Indexing:

```
>>> ages["Bob"]
40
```

Keys:

```
>>> ages.keys()
dict_keys(['Alice', 'Bob'])
```

Adding or changing items:

```
>>> ages.update({"Charlie": 1})
```