

Built-in Data Types

Lecturer: Terry



Data types in Python

- Numeric Types
- Sequences Types
- Sets Types
- Mappings Types
- ...

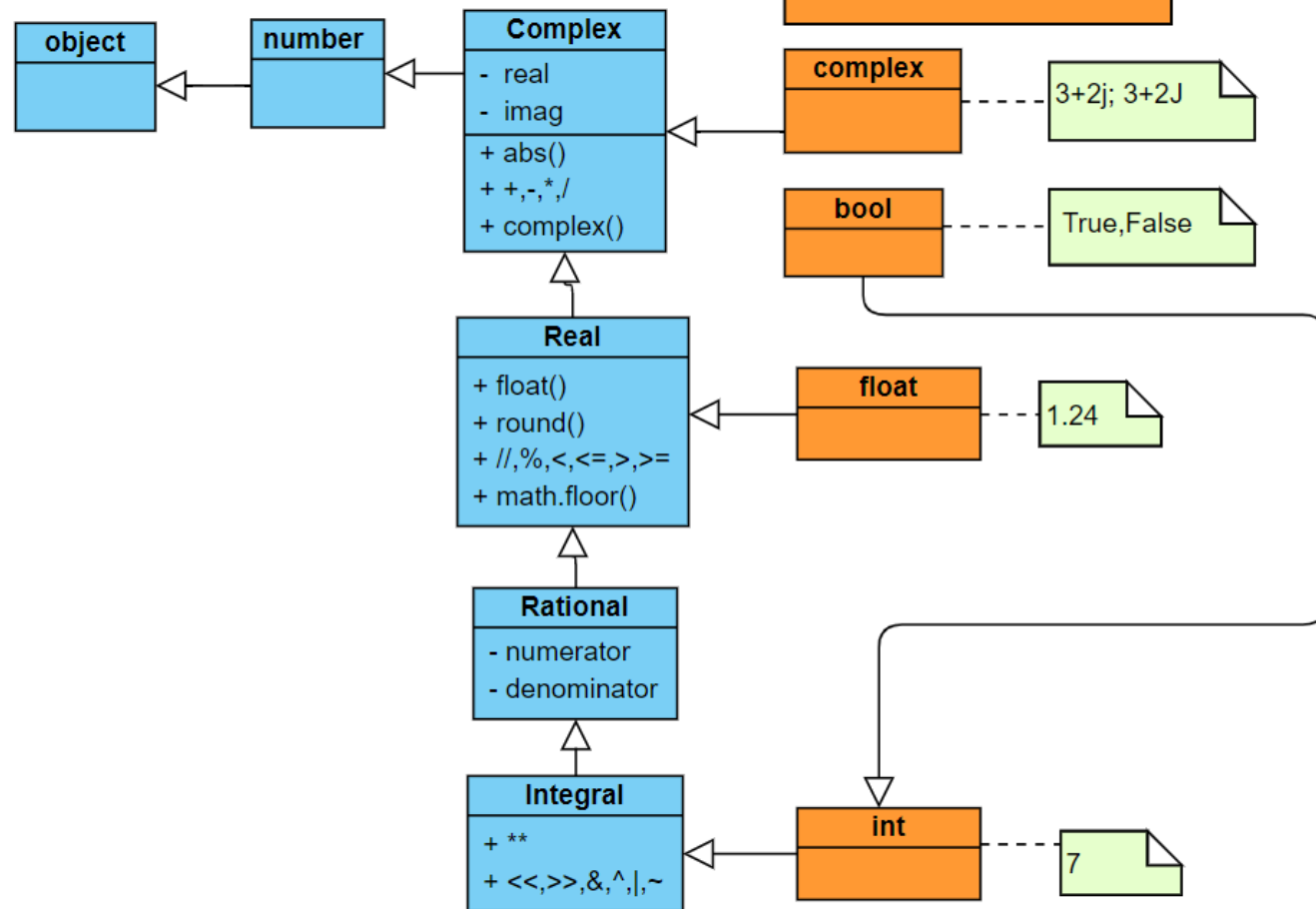
**Built-in Data
Types in
Python**

An abstract base class (ABC)

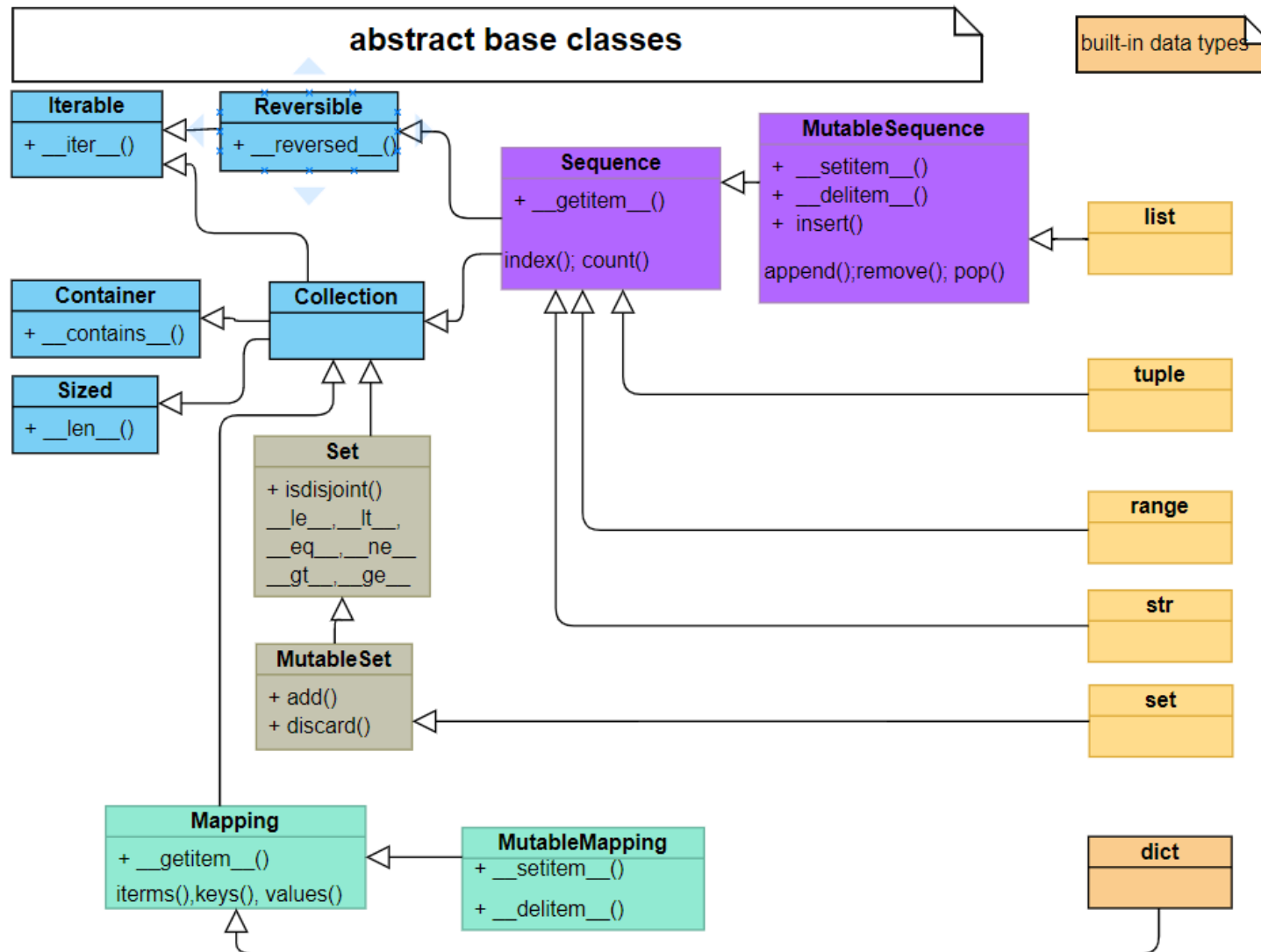
- a **blueprint** for other classes.

**Built-in Data
Types in
Python**

Numeric abstract base classes



Built-in Data Types in Python



Built-in Data Types in Python

Sequences

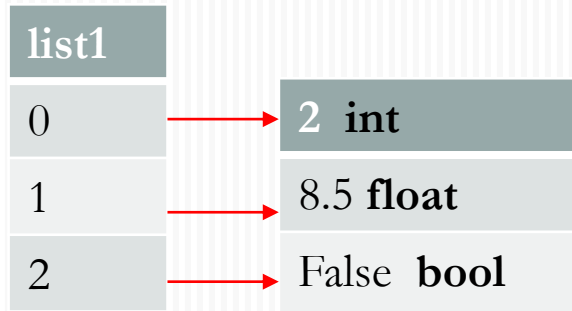
- There are three **basic sequence types**:
 - Lists;
 - Tuples;
 - Range objects.
- Text Sequence Type — **str**.

Sequences

- **Lists**

a collection which is **ordered and mutable**.

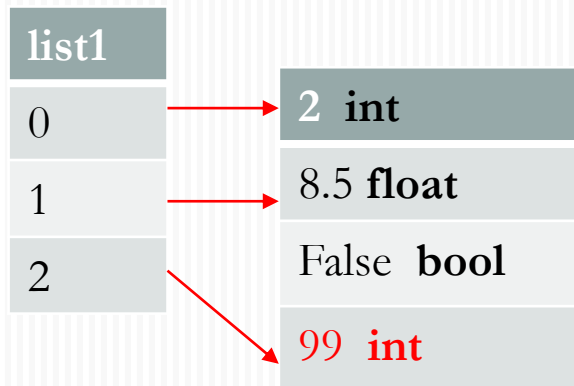
```
list1 = [2, 8.5, False]
```



Sequences

A list object is mutable.

```
list1[2] = 99  
list1  
[2, 8.5, 99]
```



Sequences

- **Tuple**

a collection which is **ordered and immutable**.

```
tuple1 = (2,8.5,False)
```

tuple1	
0	2 int
1	8.5 float
2	False bool



Sequences

- **Ranges**

represents an **immutable** sequence of **numbers**.

Sequences



- **Strings**

a special type of sequence that can only store characters.



Sequences

- **A set**
contains an **unordered** collection of **unique** and **immutable** objects.



Set types

- A mapping object

- There is currently only one standard mapping type, the *dictionary*.



**Mapping
types**