Complete-Python-3-Bootcamp / 00-Python Object and Data Structure Basics / **07-Sets and Booleans.ipynb**

Pierian-Data fixed possible issues with files

1 contributor

311 lines (311 sloc) | 5.84 KB

Set and Booleans

There are two other object types in Python that we should quickly cover: Sets and Booleans.

Sets

Sets are an unordered collection of *unique* elements. We can construct them by using the set() function. Let's go ahead and make a set to see how it works

In [1]:

```
x = set()
```

In [2]:

```
# We add to sets with the add() method
x.add(1)
```

In [3]:

```
#Show
x
```

Out[3]:

```
{1}
```

Note the curly brackets. This does not indicate a dictionary! Although you can draw analogies as a set being a dictionary with only keys.

We know that a set has only unique entries. So what happens when we try to add something that is already in a set?

In [4]:

```
# Add a different element
x.add(2)
```

In [5]:

```
#Show
x
```

Out[5]:

```
{1, 2}
```

In [6]:

```
# Try to add the same element
x.add(1)
```

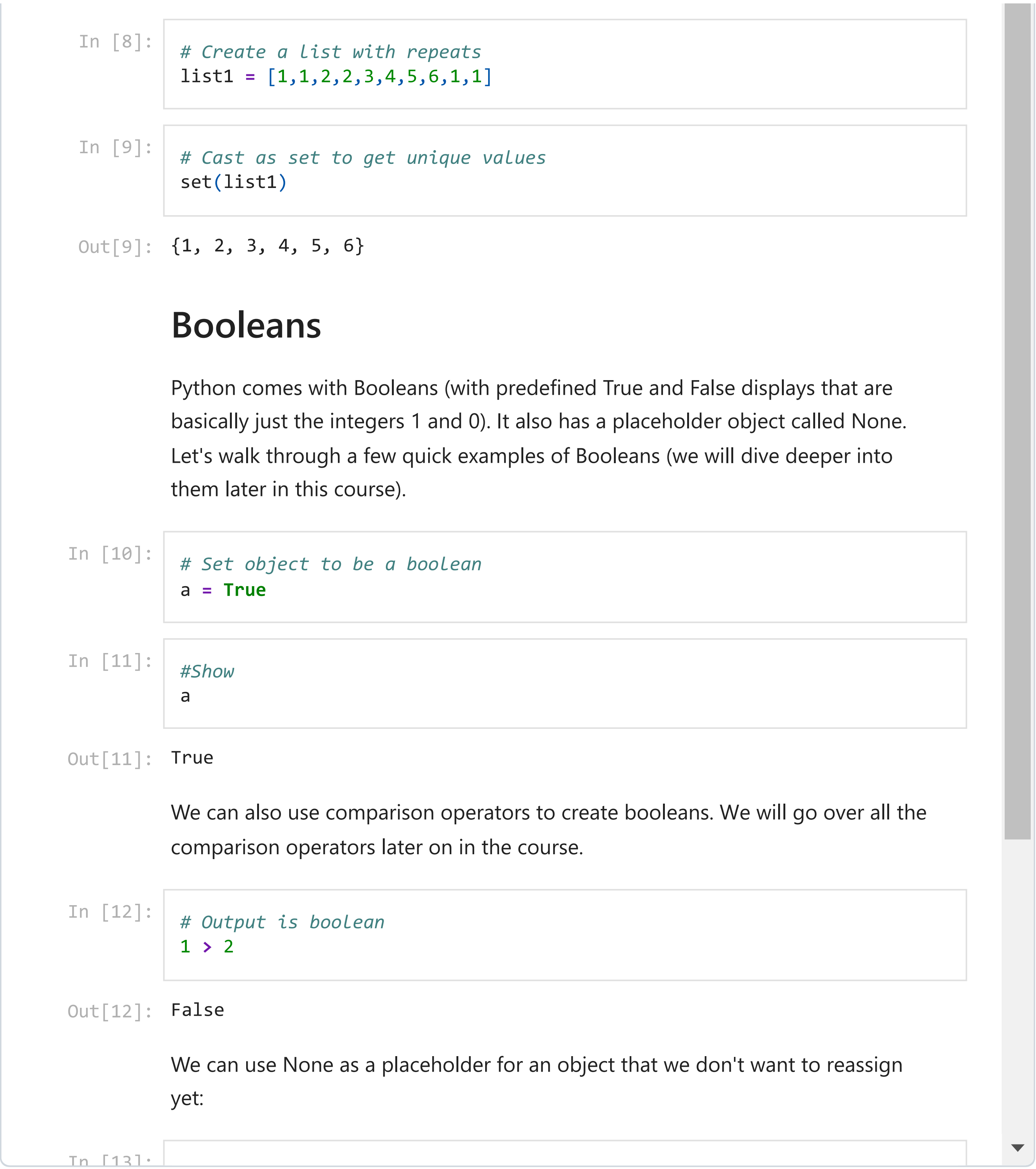
In [7]:

```
#Show
x
```

Out[7]:

```
{1, 2}
```

Notice how it won't place another 1 there. That's because a set is only concerned with unique elements! We can cast a list with multiple repeat elements to a set to get the unique elements. For example:



In [8]:

```
# Create a list with repeats
list1 = [1,1,2,2,3,4,5,6,1,1]
```

In [9]:

```
# Cast as set to get unique values
set(list1)
```

Out[9]:

```
{1, 2, 3, 4, 5, 6}
```

Booleans

Python comes with Booleans (with predefined True and False displays that are basically just the integers 1 and 0). It also has a placeholder object called None. Let's walk through a few quick examples of Booleans (we will dive deeper into them later in this course).

In [10]:

```
# Set object to be a boolean
a = True
```

In [11]:

```
#Show
a
```

Out[11]:

```
True
```

We can also use comparison operators to create booleans. We will go over all the comparison operators later on in the course.

In [12]:

```
# Output is boolean
1 > 2
```

Out[12]:

```
False
```

We can use None as a placeholder for an object that we don't want to reassign yet:

In [13]: