Python course materials

# 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

x = set()

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

#Show  
x

{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?

# Add a different element  
x.add(2)

#Show  
x

{1, 2}

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

#Show  
x

{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:

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

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

{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).

# Set object to be a boolean  
a = True

#Show  
a

True

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

# Output is boolean  
1 > 2

False

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

# None placeholder  
b = None

# Show  
print(b)

None

Thats it! You should now have a basic understanding of Python objects and data structure types. Next, go ahead and do the assessment test!