Python Iterable Extraction Methods

Elizabeth Wickes | February 10, 2020

Is [] directly after something? —No→ This is not an extraction syntax, and is likely just an empty list.

↓ Yes

What is the data type of that something?

—List→

—Dictionary→ Is it before an = assignment operator?

—String→

List branch:

Is there a : anywhere within the []?

No → This was a list index extraction. It will return just the element you asked for in that index position, NOT inside a list. The returned data type will be whatever that element is.

Yes → This was a list slice extraction. It will return a list data type with the elements you sliced out.

String branch:

Is there a : anywhere within the []?

No → This was a string index extraction. It will return just the single character string you asked for in that index position.

Yes → This was a string slice extraction. It will return a string with the substring/characters you sliced out.

Dictionary branch:

Is it before an = assignment operator?

No → The content/data type of the associated value will be returned. (presuming that key exists)

Yes → Does the content (either literal or what is stored in the variable provided) exist as a key in the dictionary?

Yes → The value to the right of the = will overwrite the current value of that key.

No → The key will be created in the dictionary with the value to the right of the =.

I don't know → Stop, comment out the assignment, and try print(key in dict) or print the key lookup to check.