Simple List Comprehensions

30 November 2024

16:23

If we needed to divide data in a list by 10, and output in a new list, we could do this:

A screen shot of a computer program

Description automatically generated

Or with list comprehensions we could do this instead:

A screenshot of a computer

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This was we don’t need to do a for loop, we have an inside for loop

List Comprehension with If Conditional

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The below is a similar example, but excluding unnecessary data using if conditional

A screenshot of a computer program

Description automatically generated

List Comprehension with If Else

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We cannot just add else at the end of the statement when adding "else" as this is invalid syntax:

A screen shot of a computer

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We instead need to move the "for temp in temps" to the end

A computer screen shot of numbers

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**Cheatsheet: List Comprehensions**

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17:08

In this section, you learned that:

* A list comprehension is an expression that creates a list by iterating over another container.

* A **basic**list comprehension:

1. [i\*2 for i in [1, 5, 10]]  
   Output: [2, 10, 20]

* List comprehension with **if** condition:

1. [i\*2 for i in [1, -2, 10] if i>0]  
   Output: [2, 20]

* List comprehension with an **if** **and** **else** condition:

1. [i\*2 if i>0 else 0 for i in [1, -2, 10]]  
   Output: [2, 0, 20]