

CS 61A Lecture 12

Monday, September 29

Announcements

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- Homework 3 due Wednesday 10/1 @ 11:59pm

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 - Homework Party on Monday 9/29, time and place TBD

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Box-and-Pointer Notation

The Closure Property of Data Types

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Lists can contain lists as elements

Box-and-Pointer Notation in Environment Diagrams

Interactive Diagram

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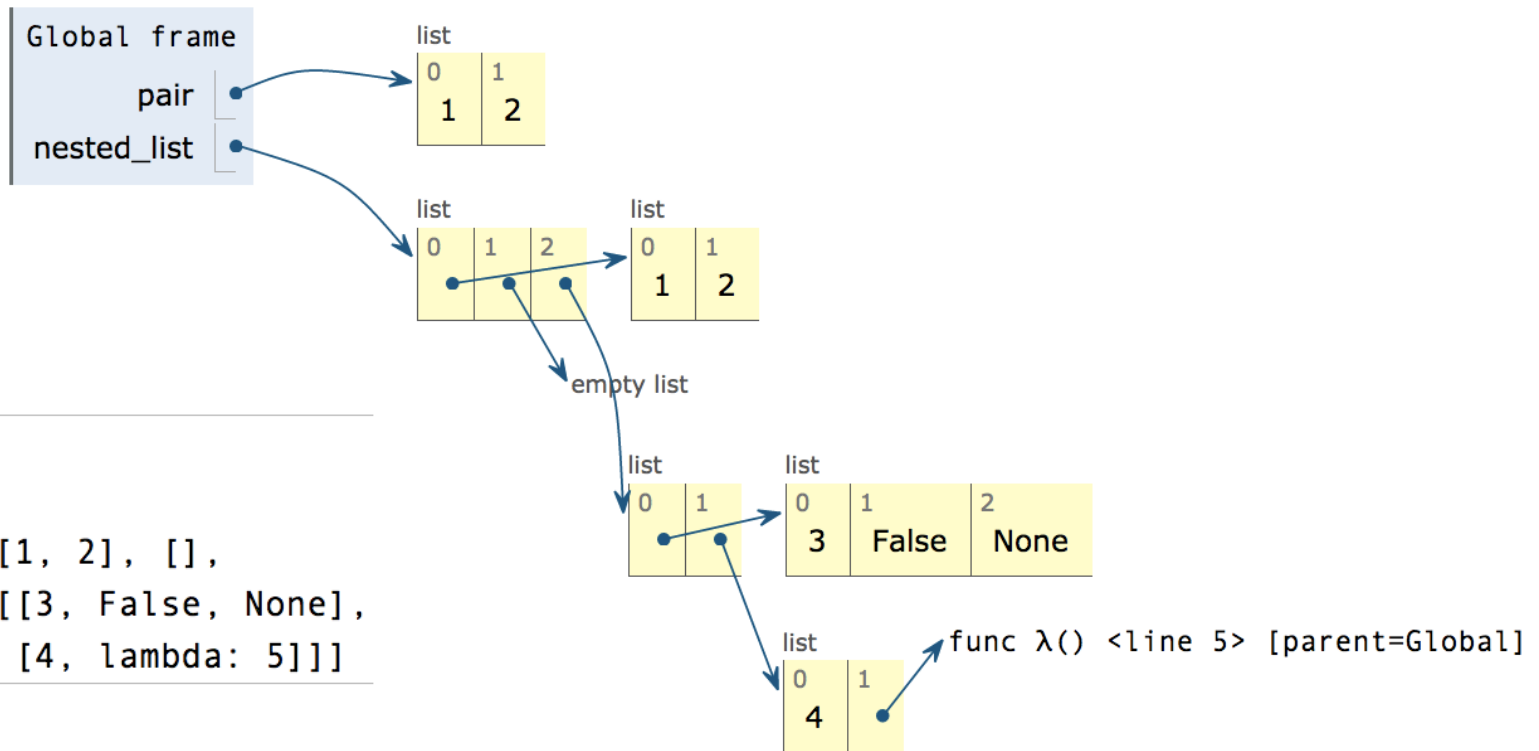
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```
1 pair = [1, 2]
2
3 nested_list = [[1, 2], [],
4                 [[3, False, None],
5                 [4, lambda: 5]]]
```

[Interactive Diagram](#)

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Interactive Diagram

Trees

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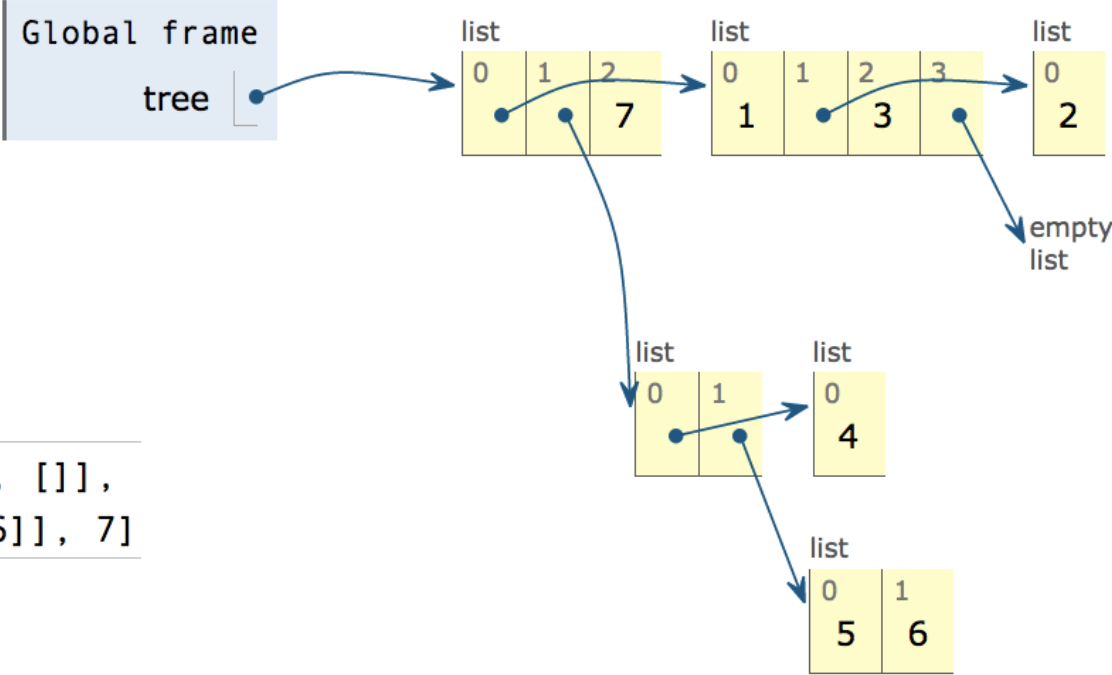
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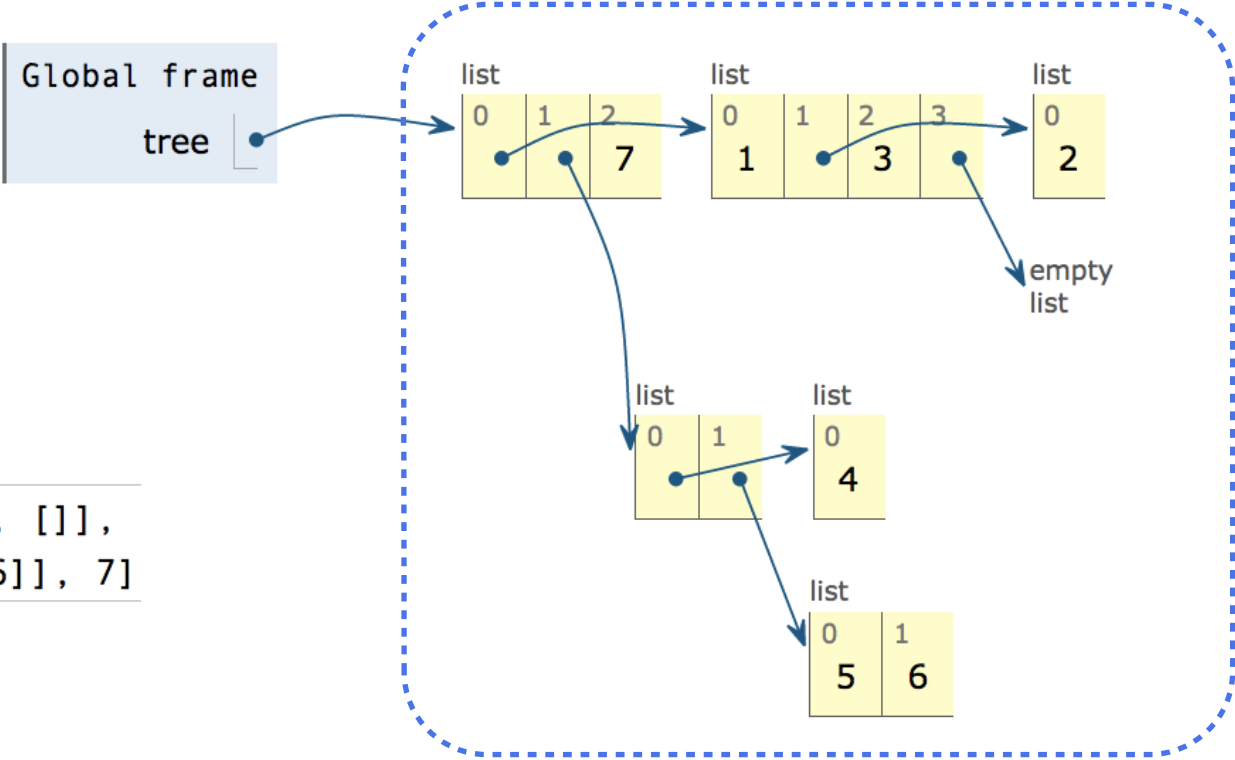
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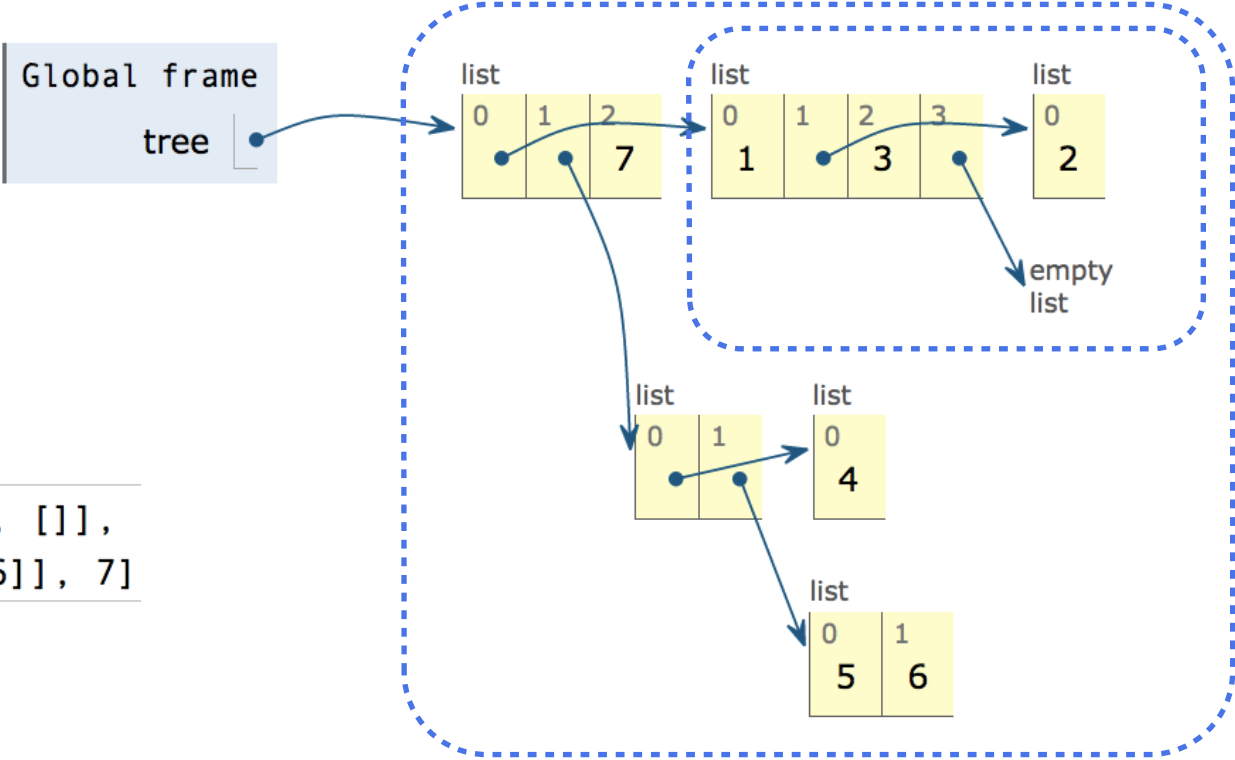
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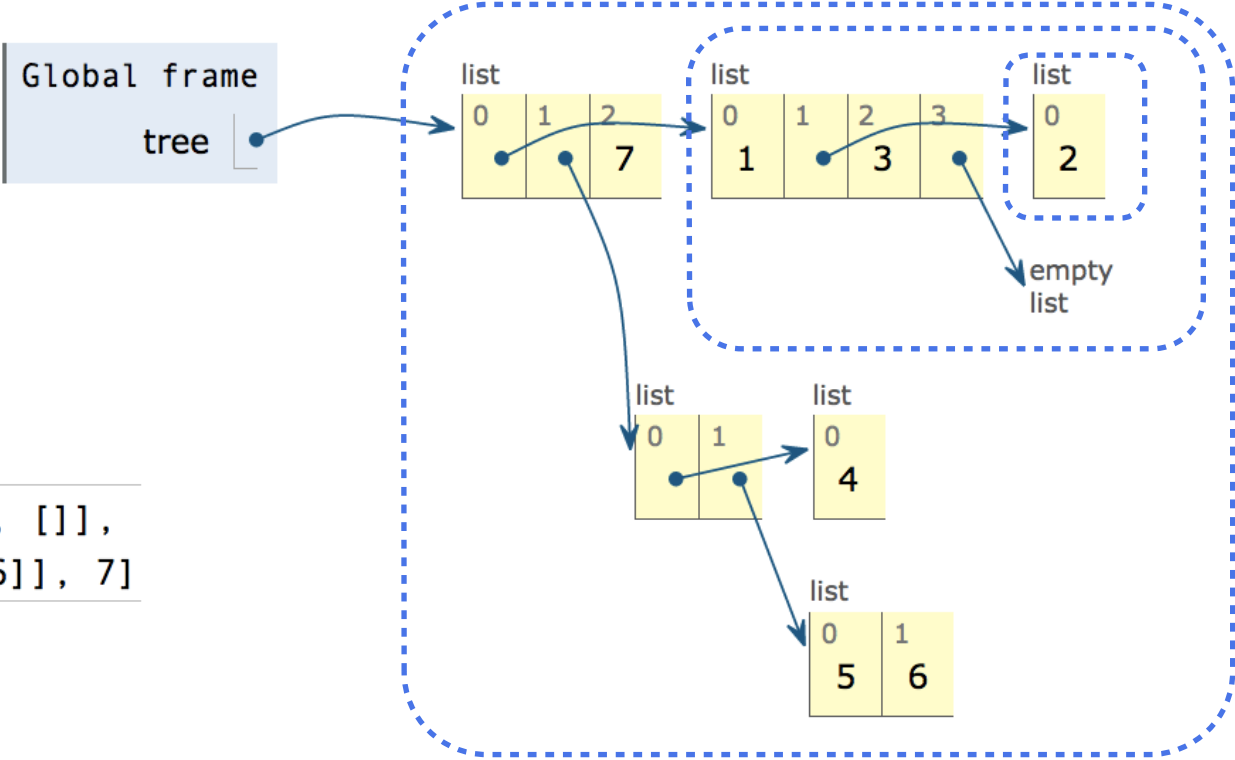
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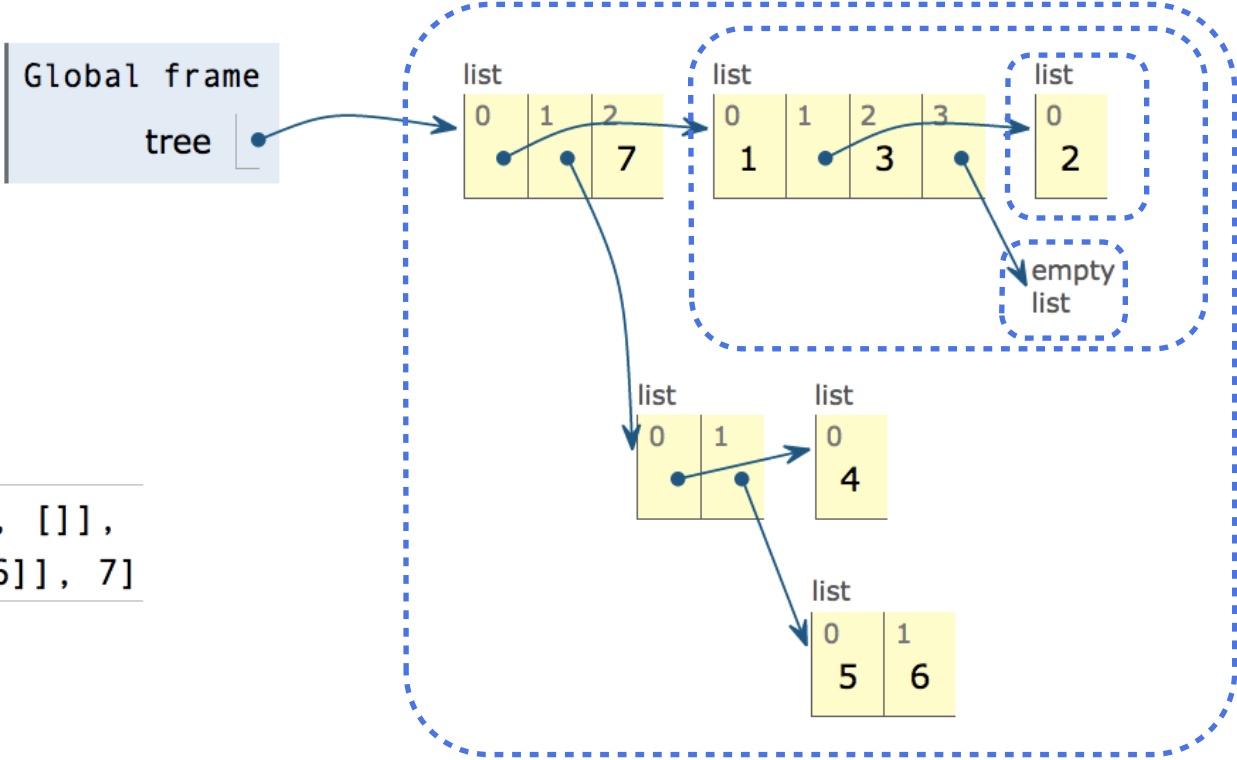
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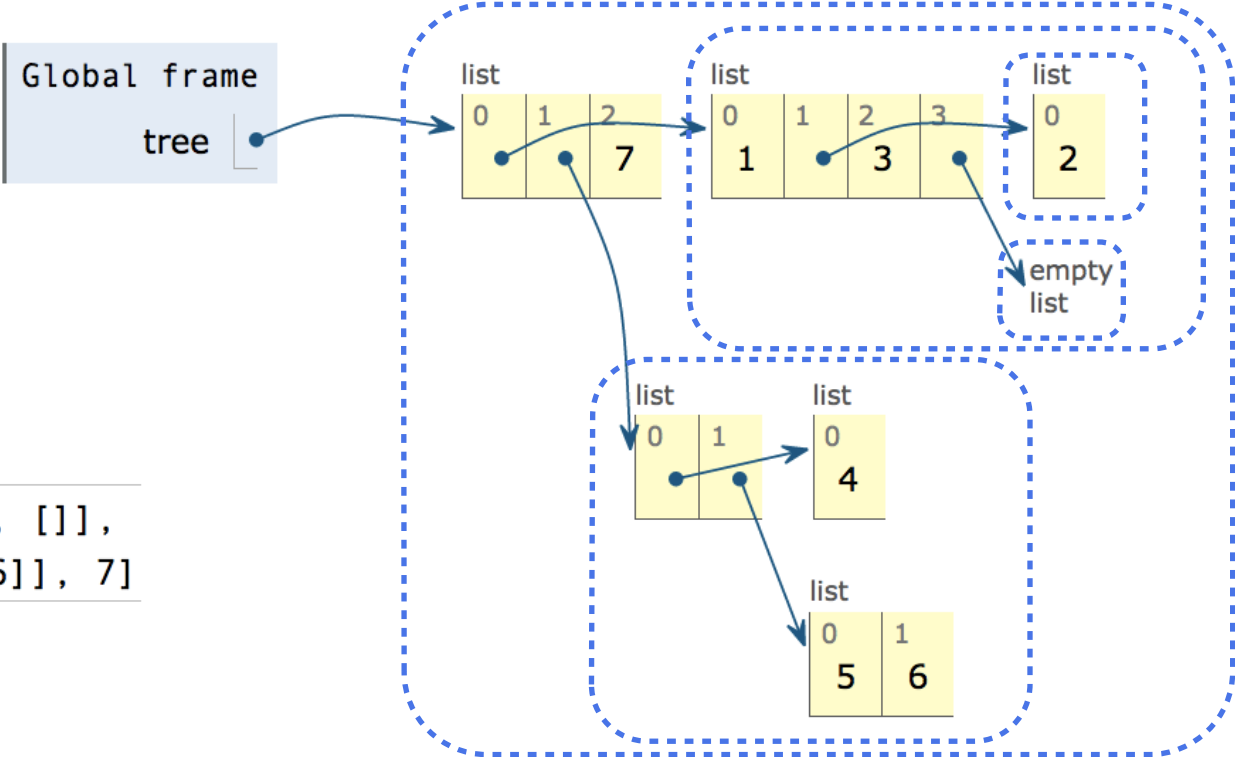
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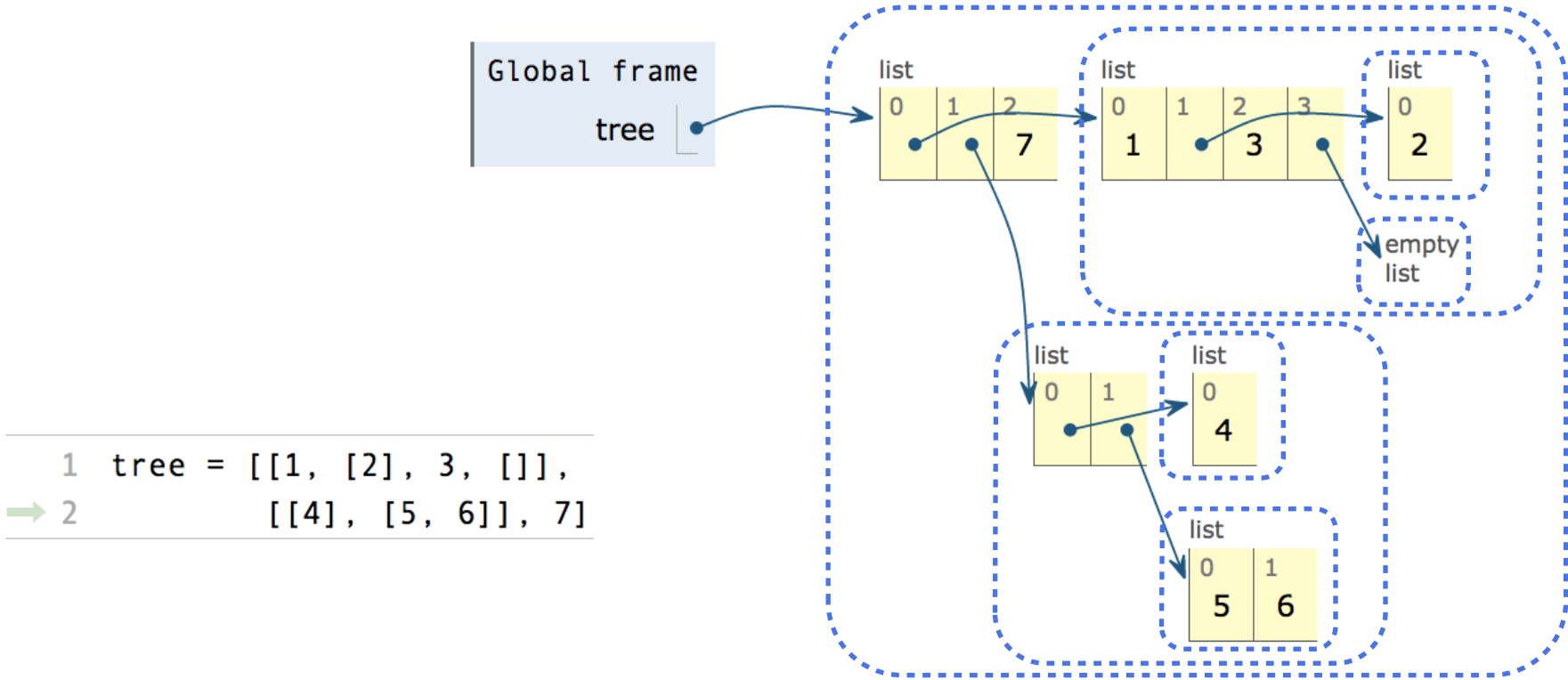
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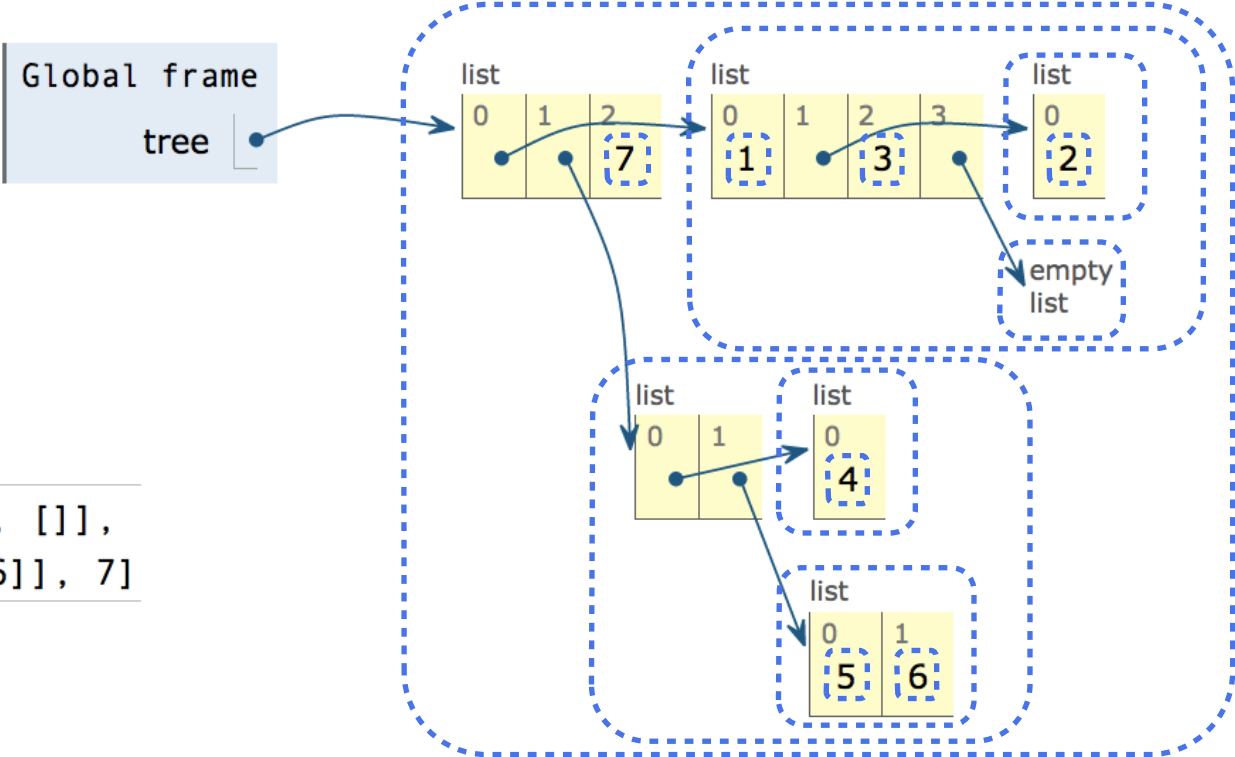
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Sequence Operations

Membership & Slicing

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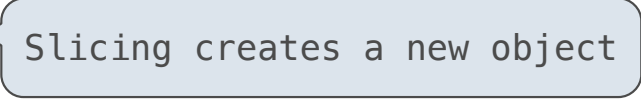
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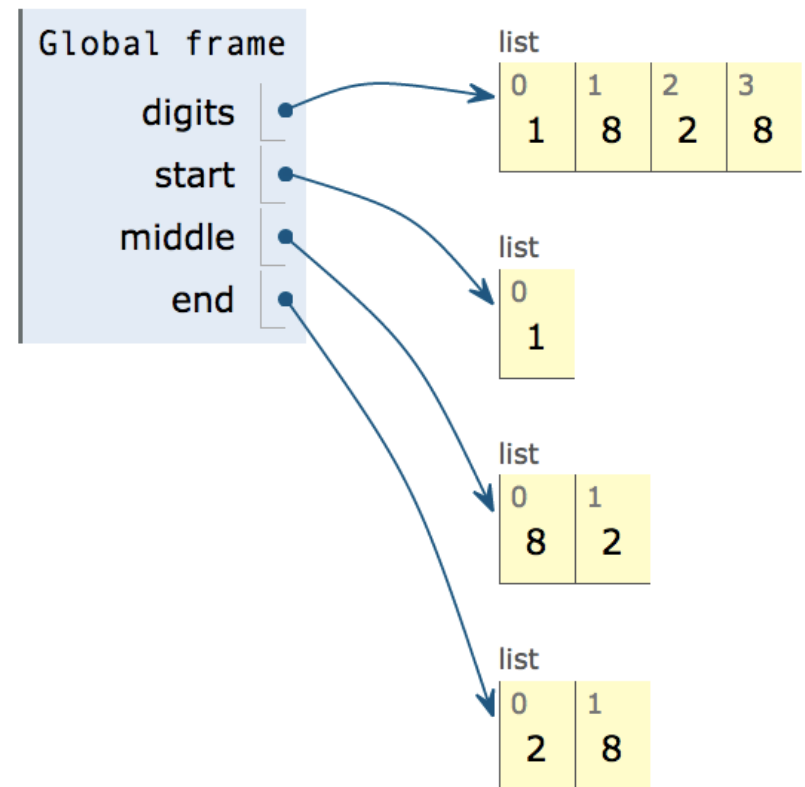
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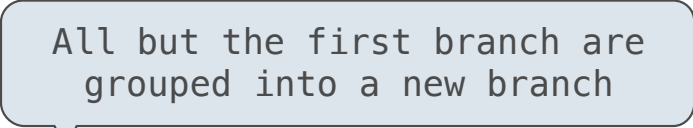
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(Demo)

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```

A backslash "escapes" the following character

"Line feed" character represents a new line

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When working with strings, we usually care about whole words more than letters

Dictionaries

```
{'Dem': 0}
```


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If you want to associate multiple values with a key, store them all in a sequence value