Functional Abstraction

Announcements

Lambda Function Environments

Environment Diagrams with Lambda

A lambda function's parent is the current frame in which the lambda expression is evaluated

https://pythontutor.com/composingprograms.html#code=a%20%3D%201%0Adef%20f%28g%29%3A%0A%20%20%20%20a%20%3D%202%0A%20%20%20%20return%20lambda%20y%3A%20a%20*%20g%28y%29%0Af%28lambda%20y%3A%20a%20%2B%20y%29%28a%29&cumulative=true&curInstr=0&mode=display&origin=composingprograms.js&py=3&rawInputLstJSON=%5B%5D

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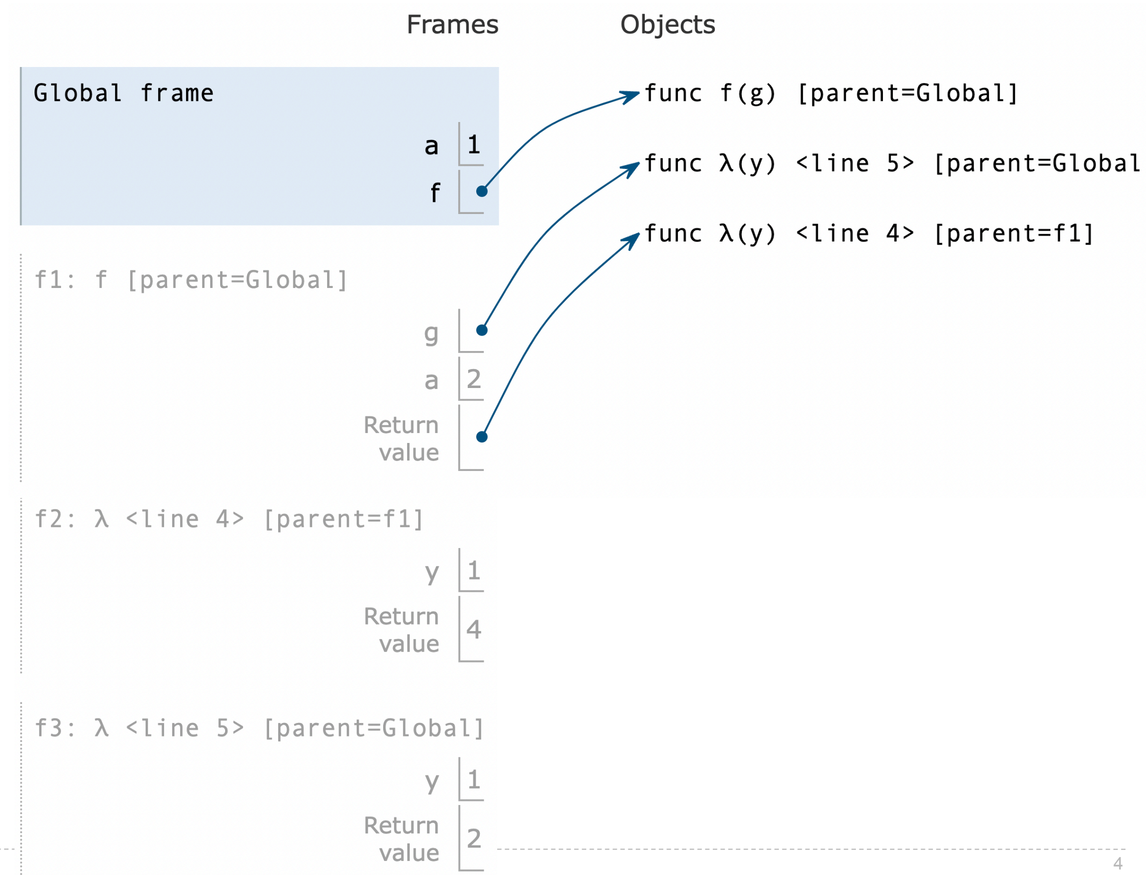

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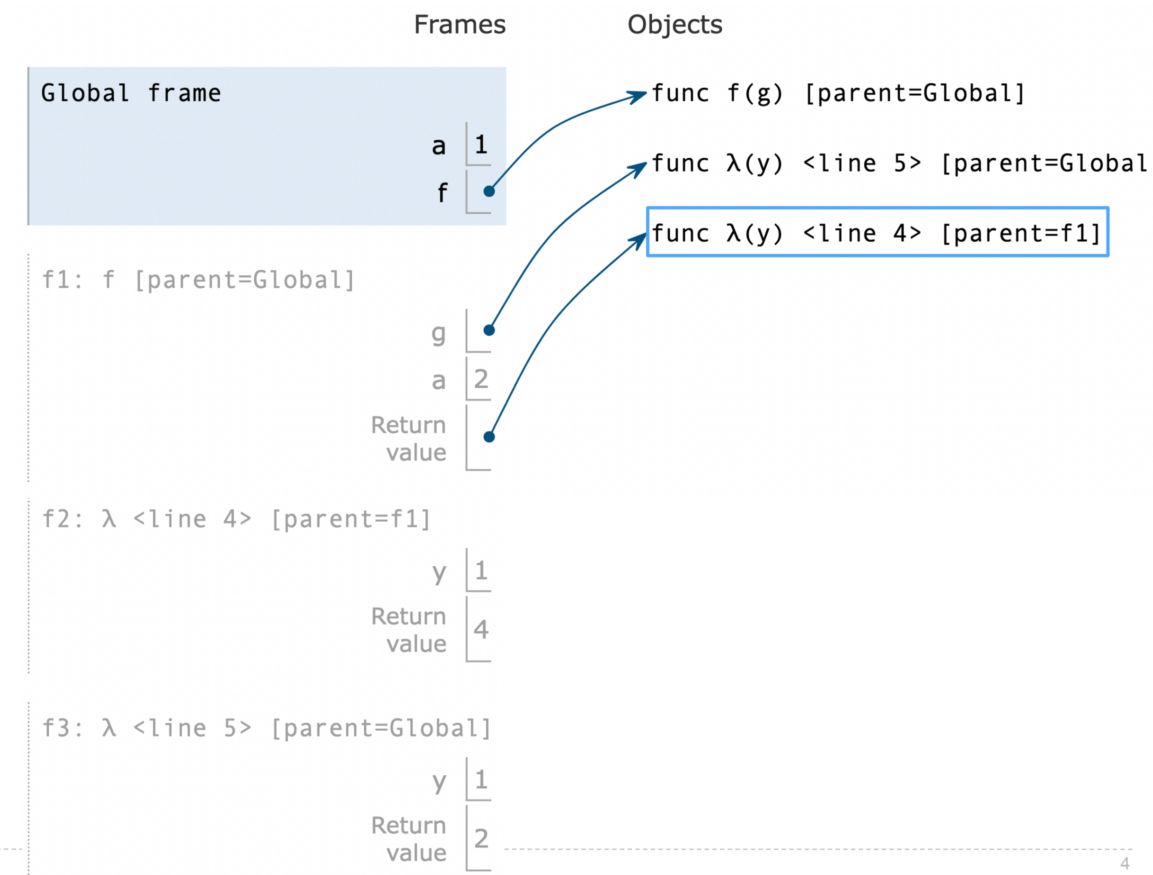

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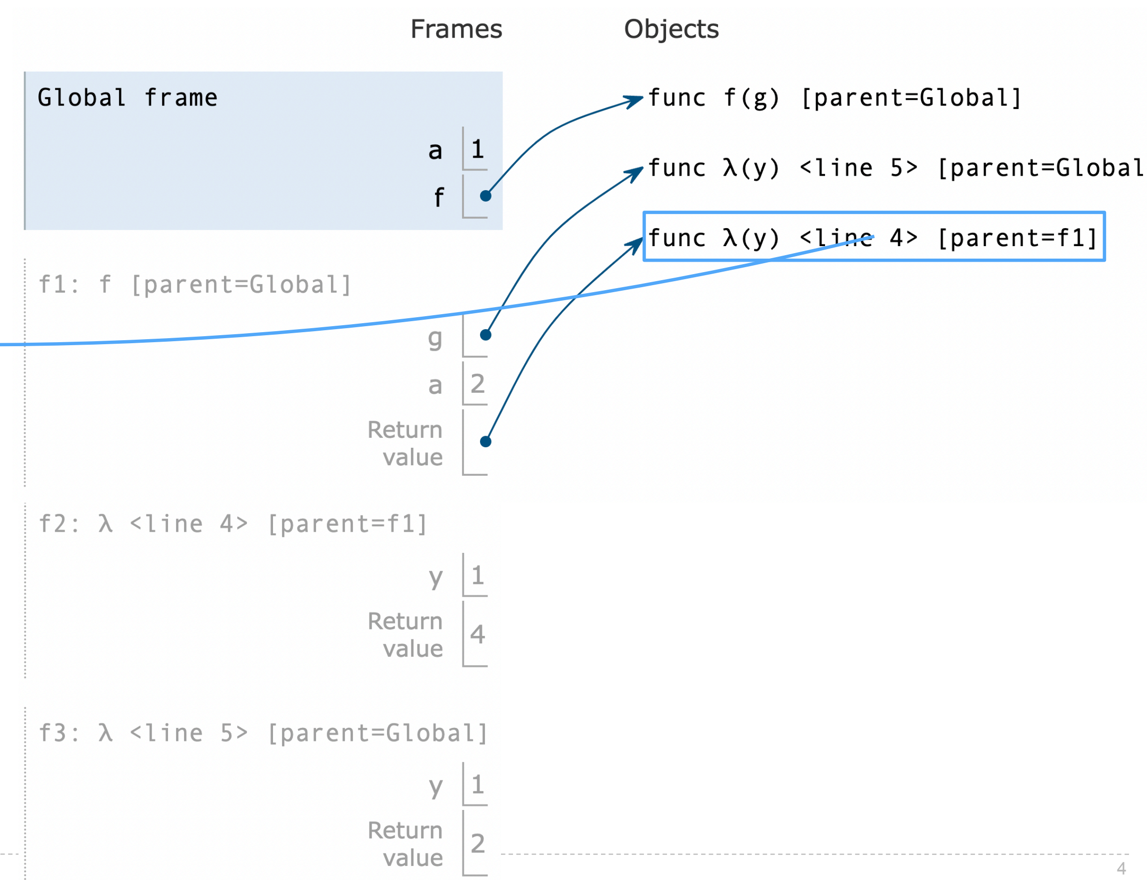

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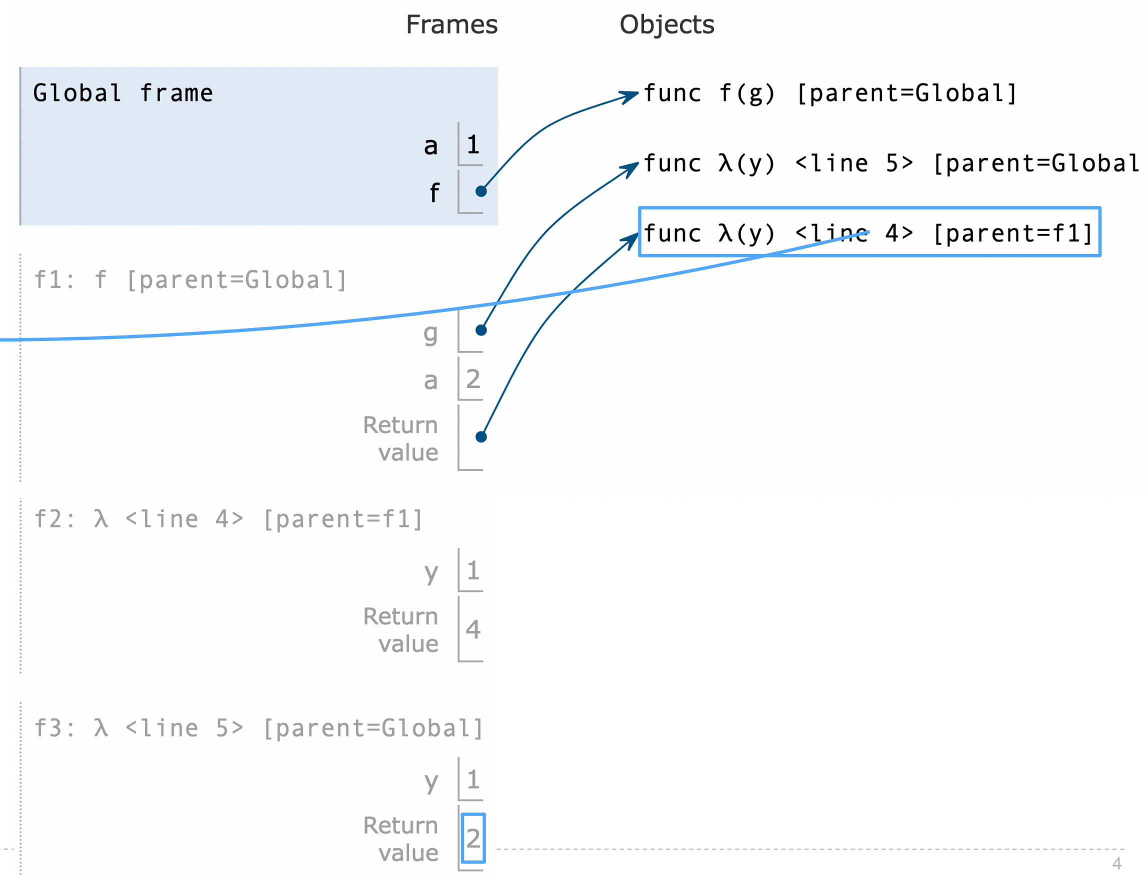

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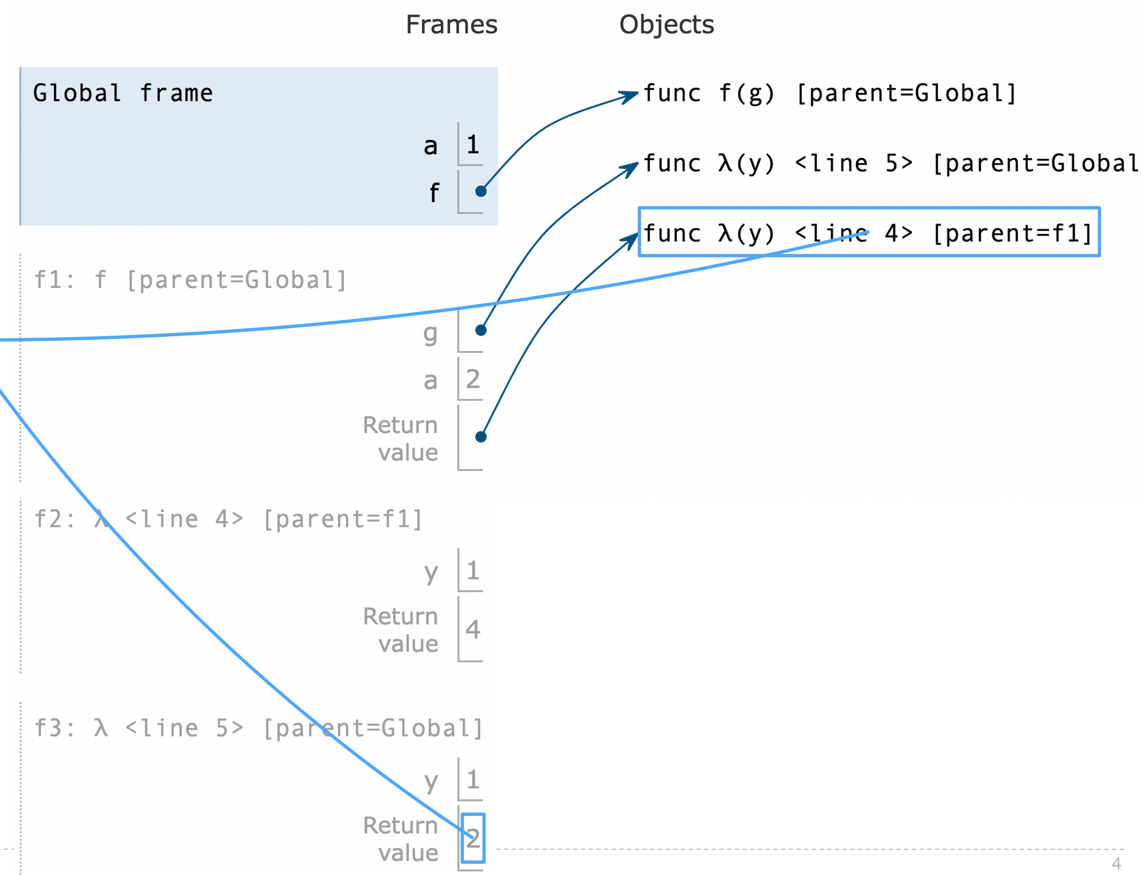

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        last, n = n % 10, n // 10
        print(last)
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(Demo)

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"if" clause

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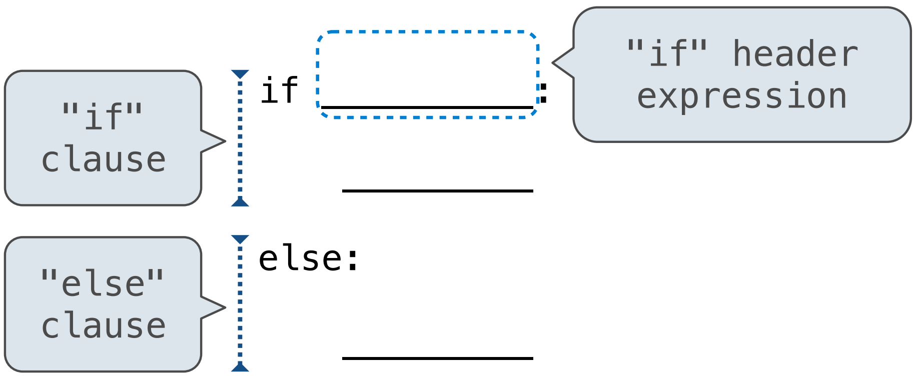

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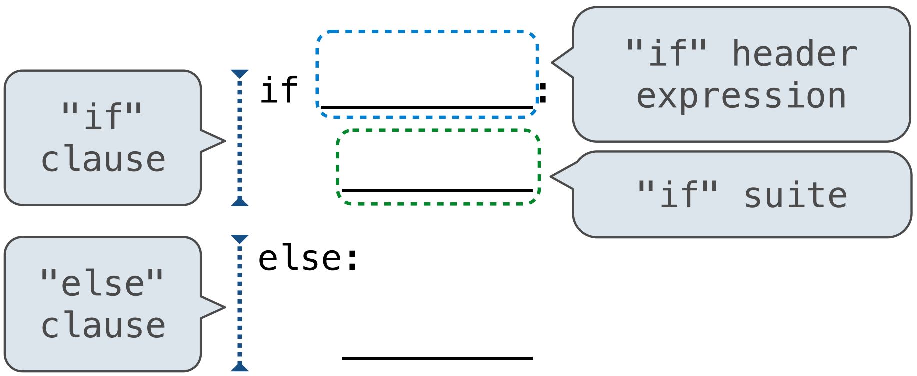

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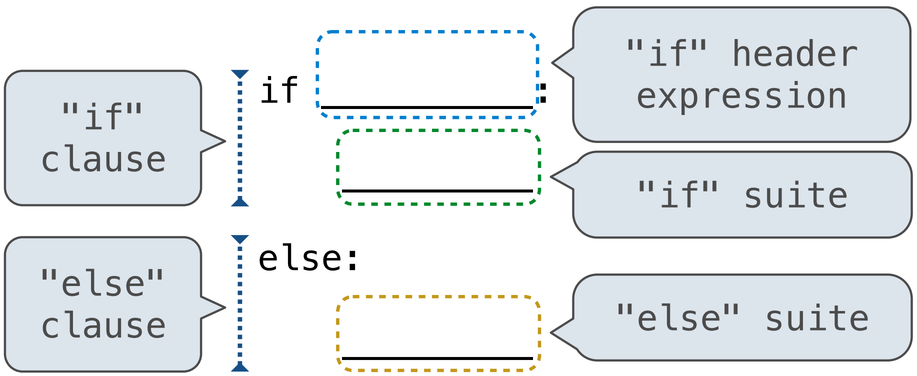

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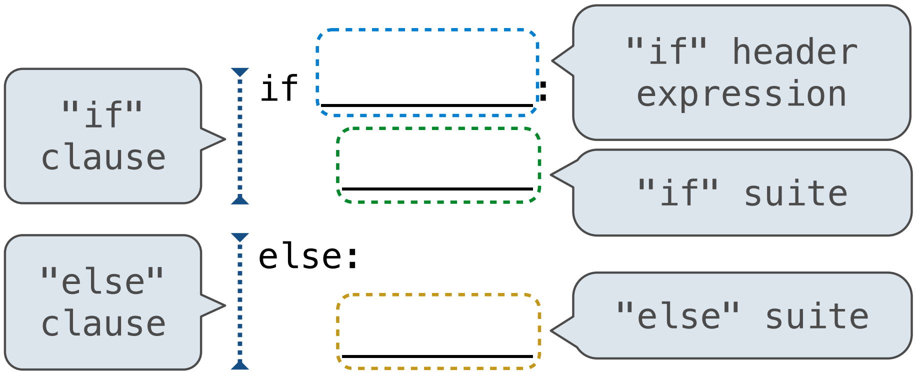

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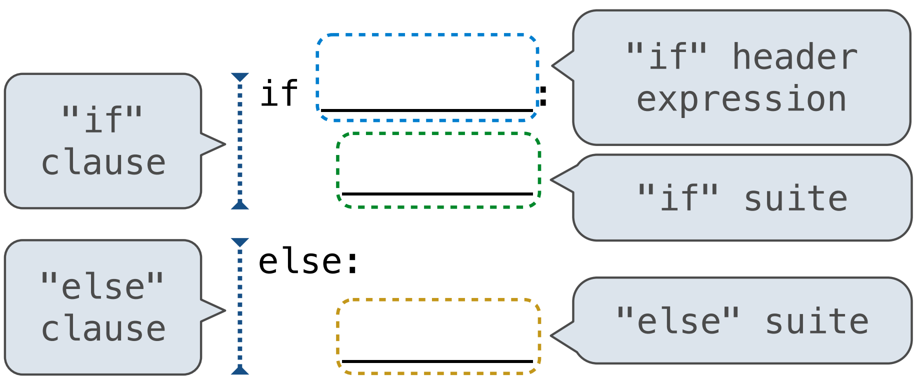

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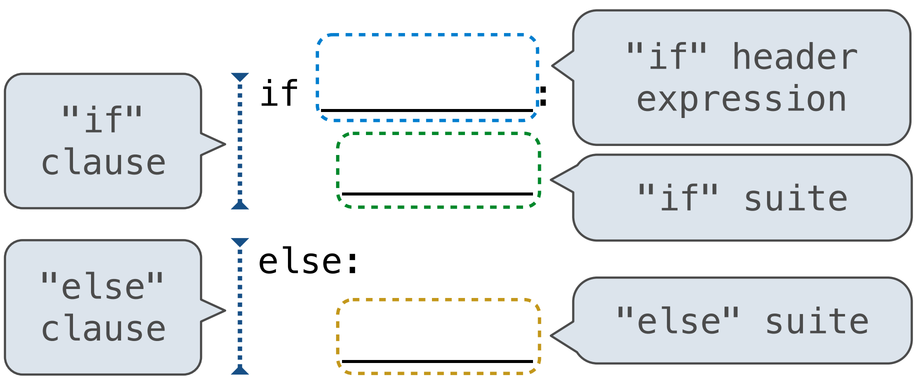

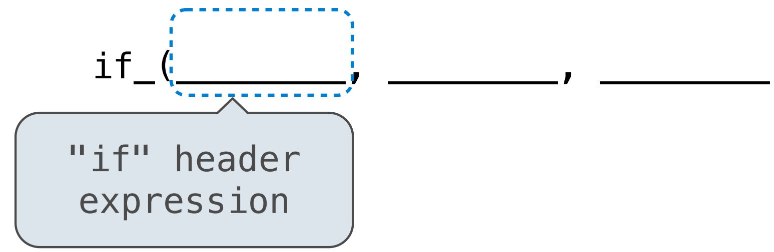

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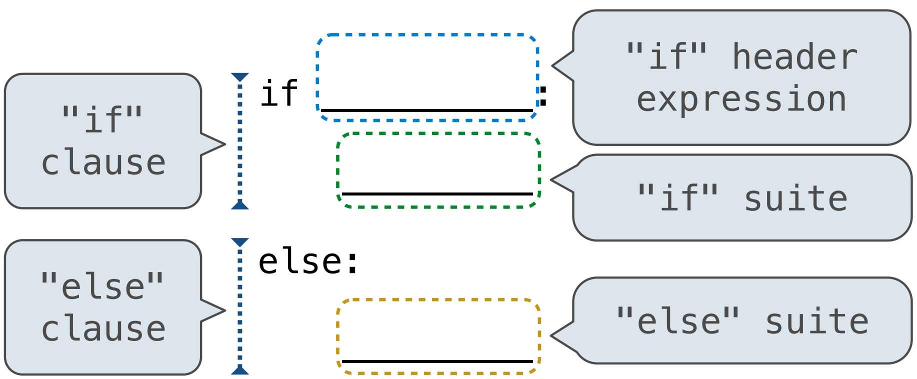

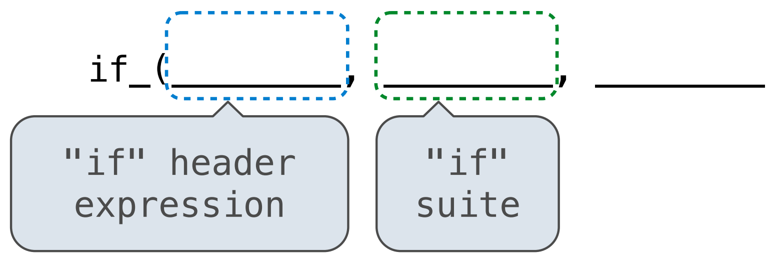

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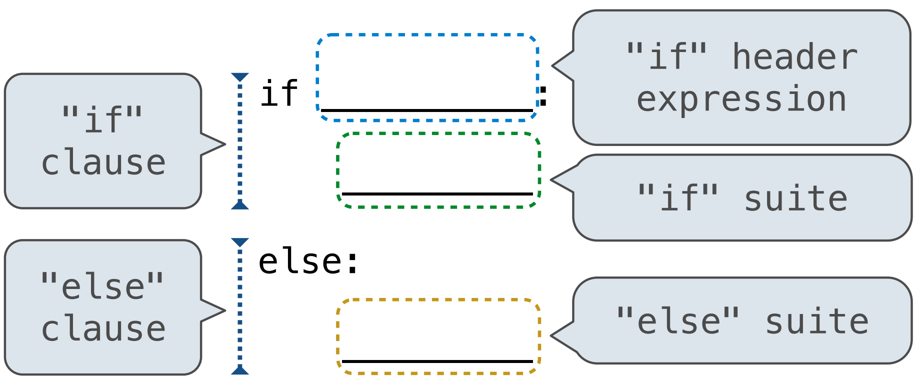

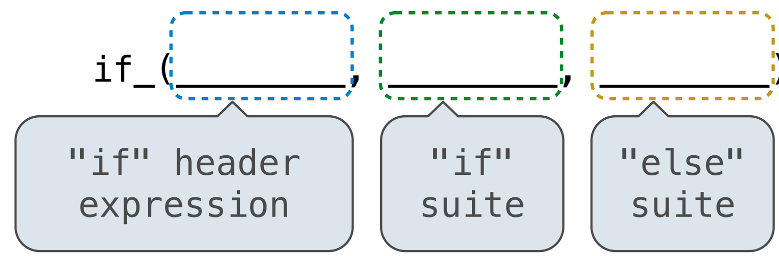

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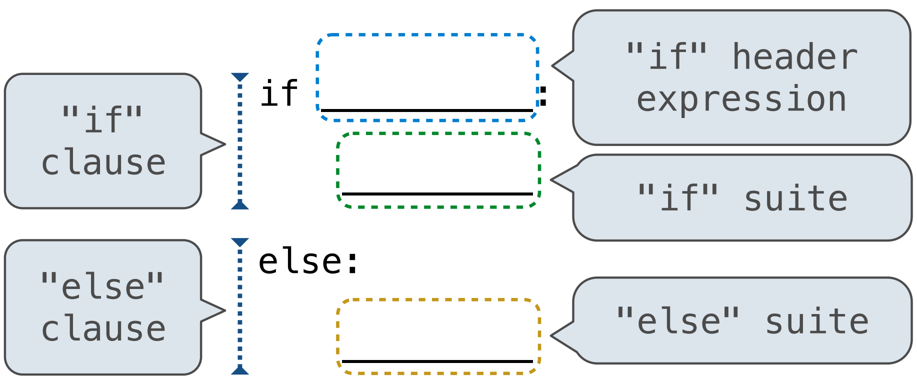

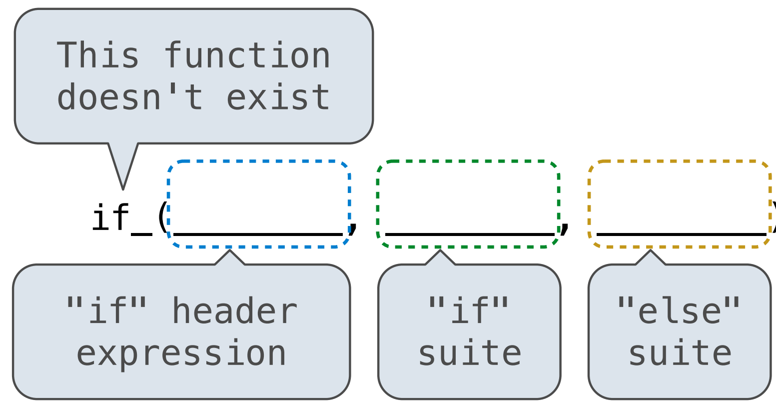

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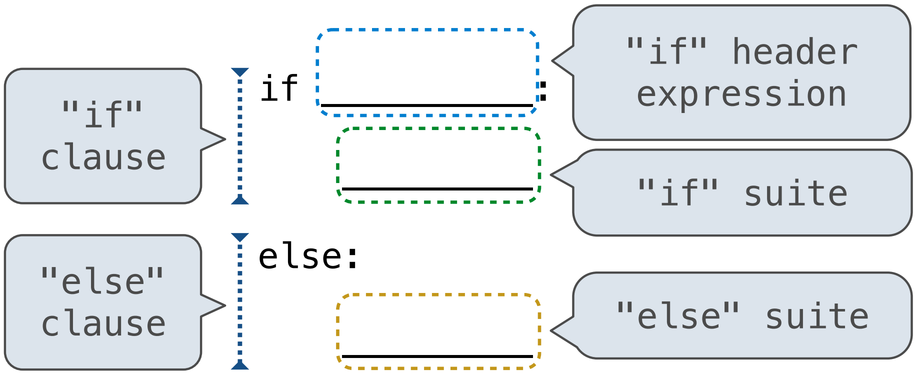

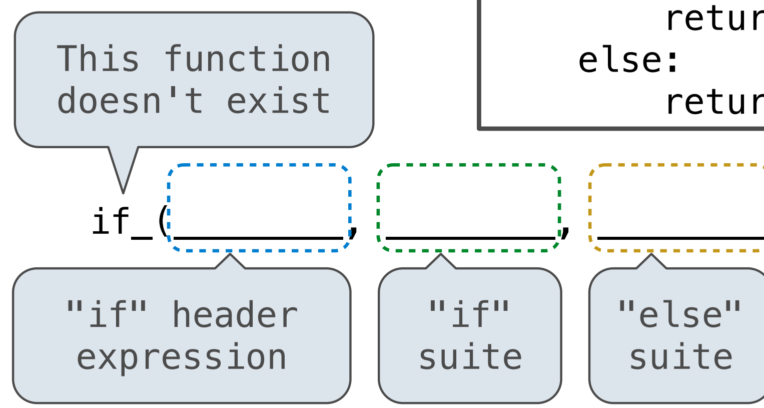

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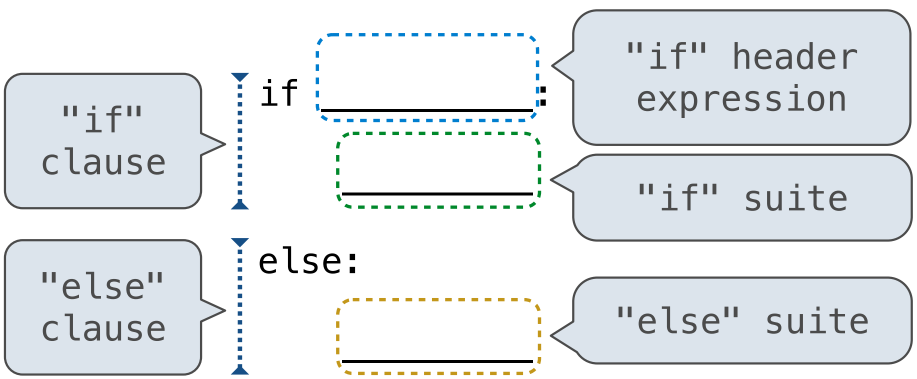

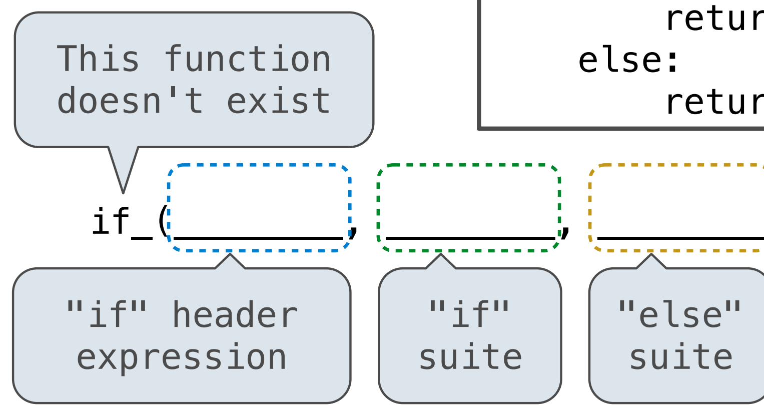

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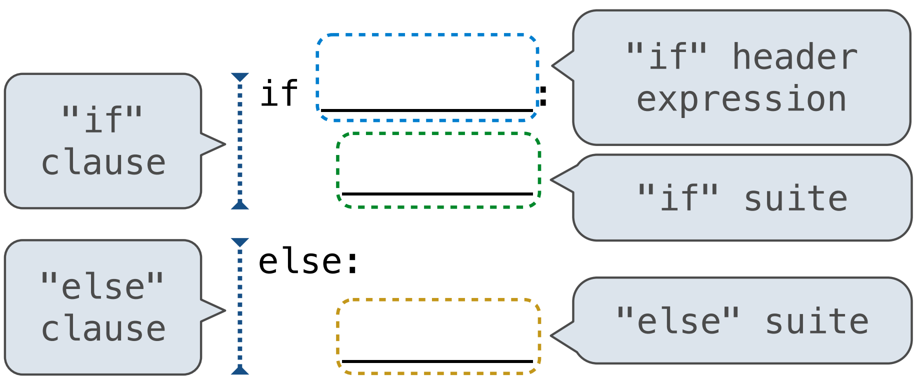

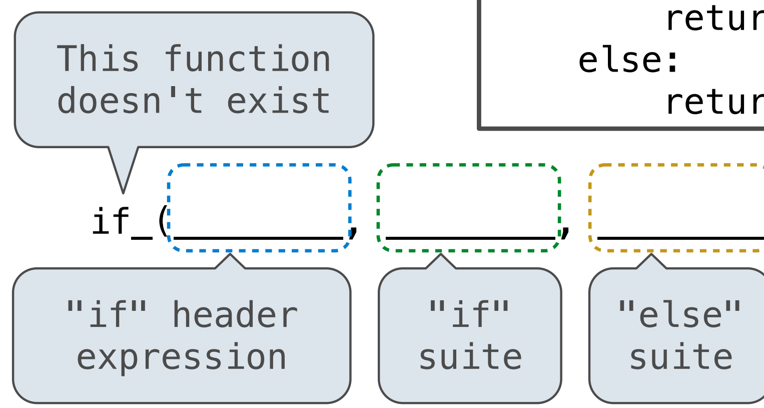

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1. Evaluate the operator and then the operand subexpressions

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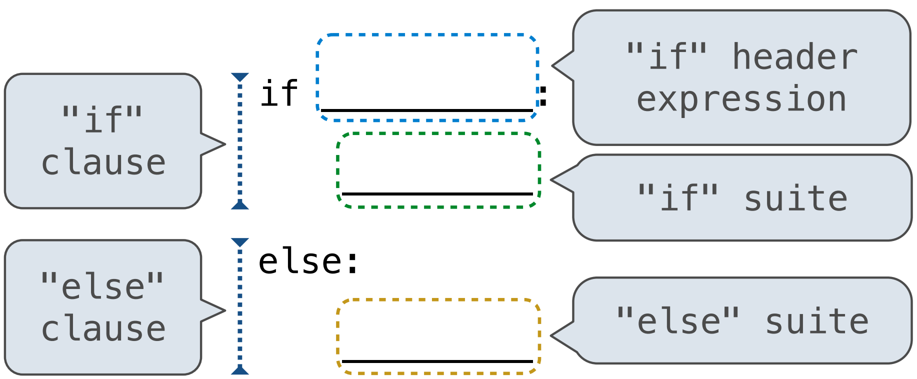

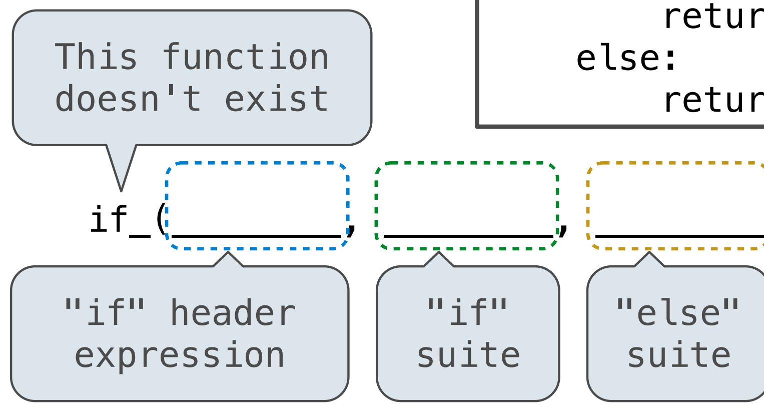

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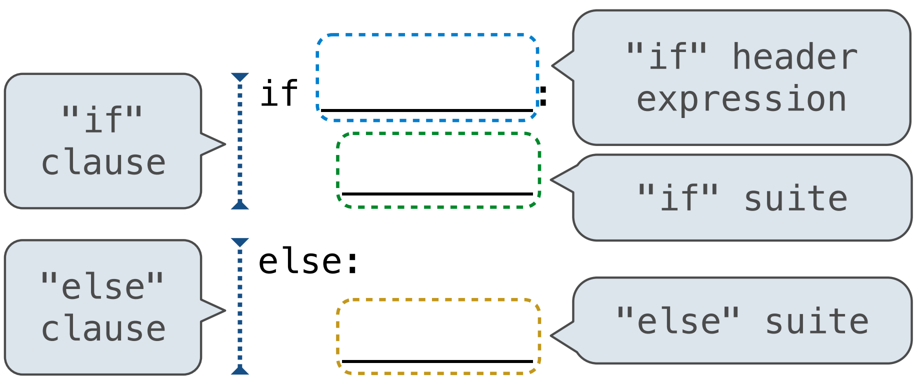

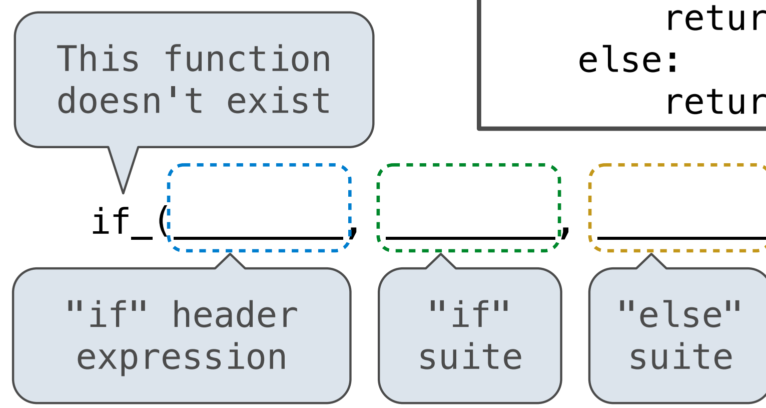

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(Demo)

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Control Expressions

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(Demo)

Abstraction

Functional Abstractions

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If the name "square" were bound to a built-in function, sum_squares would still work identically.

Choosing Names

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PRACTICAL GUIDELINES

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Errors & Tracebacks

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