Variables and Assignment in Python Python Programming

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- Example:

x~ = ~ 10 #~x refers to an object holding the value 10

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Variables Are Not Storage Containers

• In Python, variables are like labels attached to objects in memory.

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a = [1, 2, 3] # a points to a list object
b = a # b refers to the same list, not a copy

< <p>Image: A matrix

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Python Code

b.append(4) # Modifies the list print(a) # Output: [1, 2, 3, 4]

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- Example:

Python Code a, b, c = 5, 10, 15 name = "Alice"

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a = b = c = 100 # Assigning the same value to multiple variables

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• Swapping values using multiple assignment:

Python Code

a, b = b, a # Swap values of a and b

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- Example:

x = 5 # Integer x = "Hello" # Now a string • Use meaningful variable names.

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- Example of valid names:

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Examples student_name = "John" total_marks = 95

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- The assignment operator = creates a reference.
- Python supports multiple assignments.
- Python supports dynamic typing.

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- Variables in Python are references, not storage containers.
- The assignment operator = creates a reference.
- Python supports multiple assignments.
- Python supports dynamic typing.
- Follow best practices for variable naming.

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Thank You!

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