Welcome to JS!

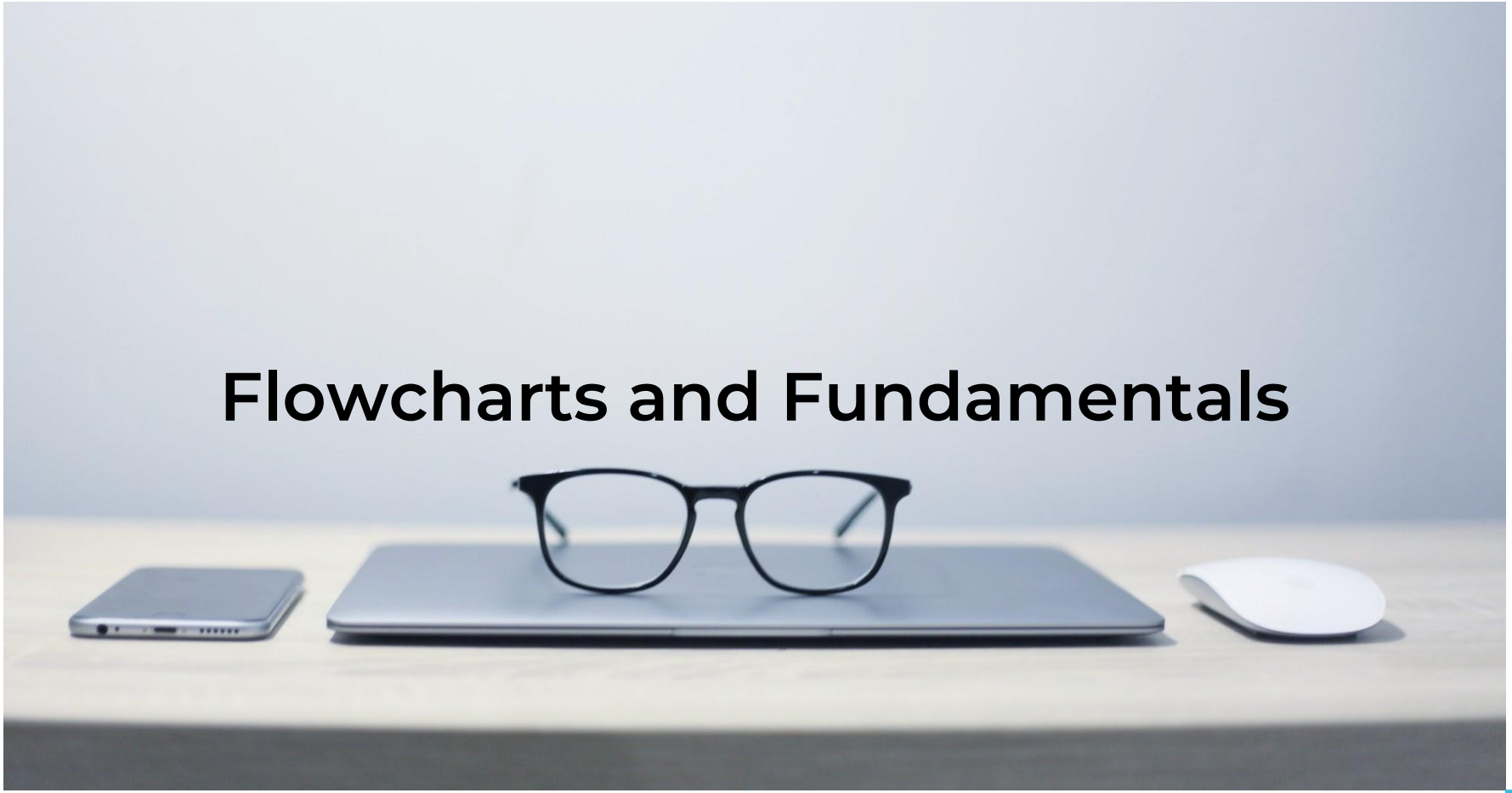
Full-Stack Web Development

OBJECTIVES

By the end of this class, you will be able to:

- [ ] Understand primitive types and arithmetic operators and be able to use flowcharts to design basic programs.
- [ ] Know the basic syntax of JavaScript and be able to write basic programs.
- [ ] Store data in variables.
- [ ] Get user input through the use of prompts and display data using alerts.
- [ ] Familiar with arrays and be able to flowchart using loops to iterate through them.

Flowcharts and Fundamentals



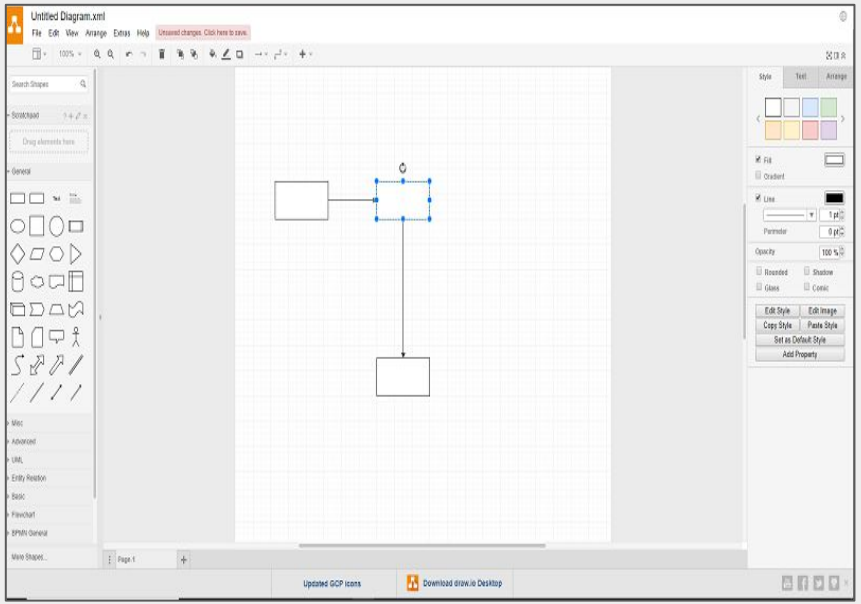
What is “Flowcharting”?

Flowcharting is a way to visually represent the logic of a program.

Why should we Flowchart?

- Helps us to visualize the flow of the program.
- Useful for breaking down a program’s logic into smaller, consumable chunks.
- Makes debugging easier!
- Allows for easier team collaboration.

draw.io


Untitled Diagram.xml
File Edit View Arrange Extras Help
Unsaved changes. Click here to save.
Search Shapes
Scratchpad
Drag elements here
General
Misc
Advanced
UML
Entity Relation
Basic
Flowchart
BPMN General
More Shapes...
Style
Text
Arrange
Fill
Gradient
Line
Perimeter
Opacity
Rounded
Shadow
Glass
Comic
Edit Style
Edit Image
Copy Style
Paste Style
Set as Default Style
Add Property
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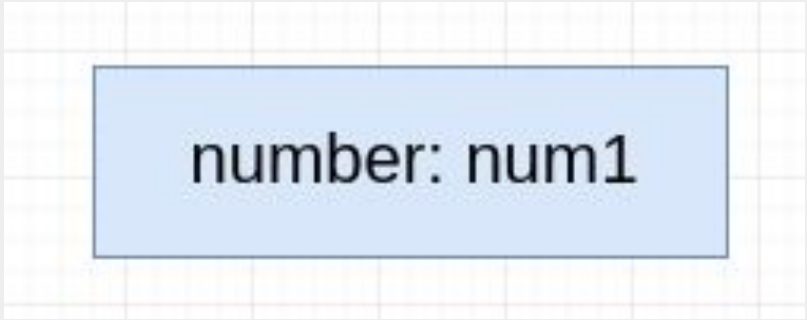
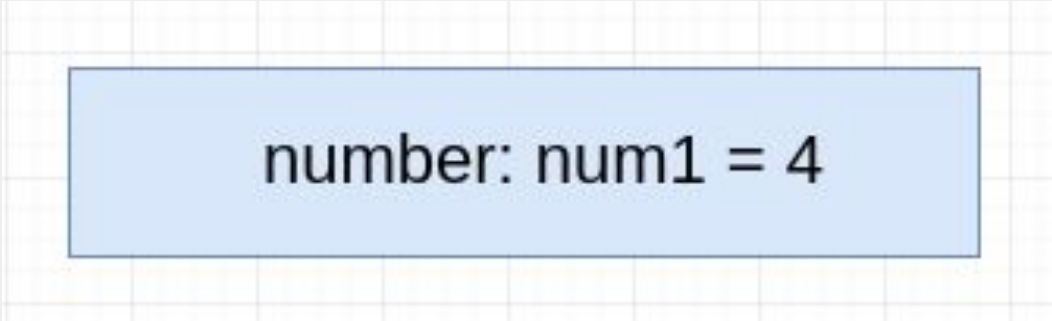
Variable Declaration

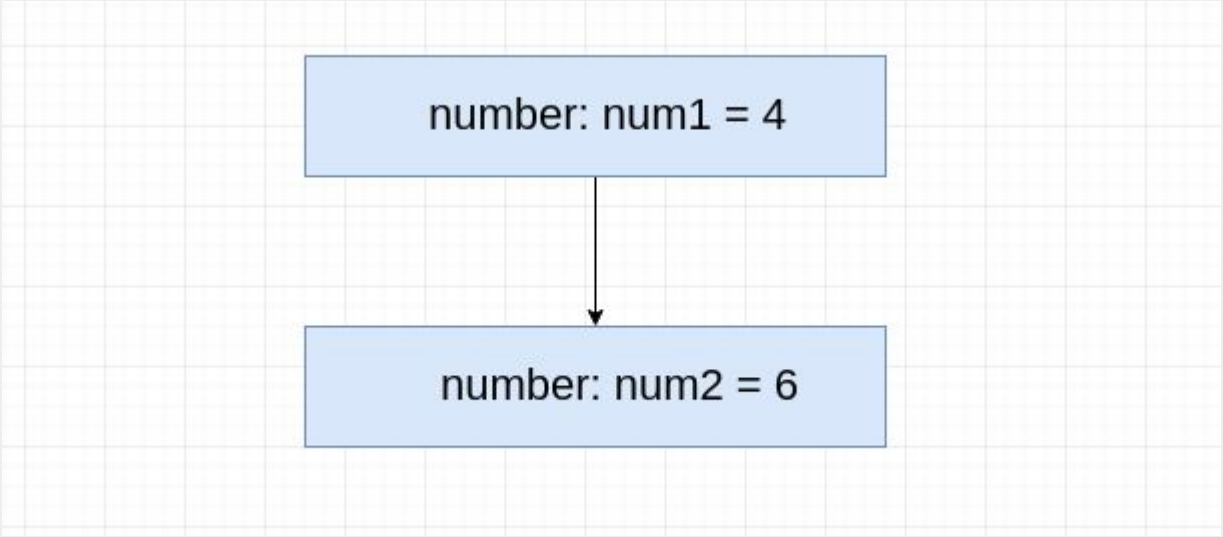


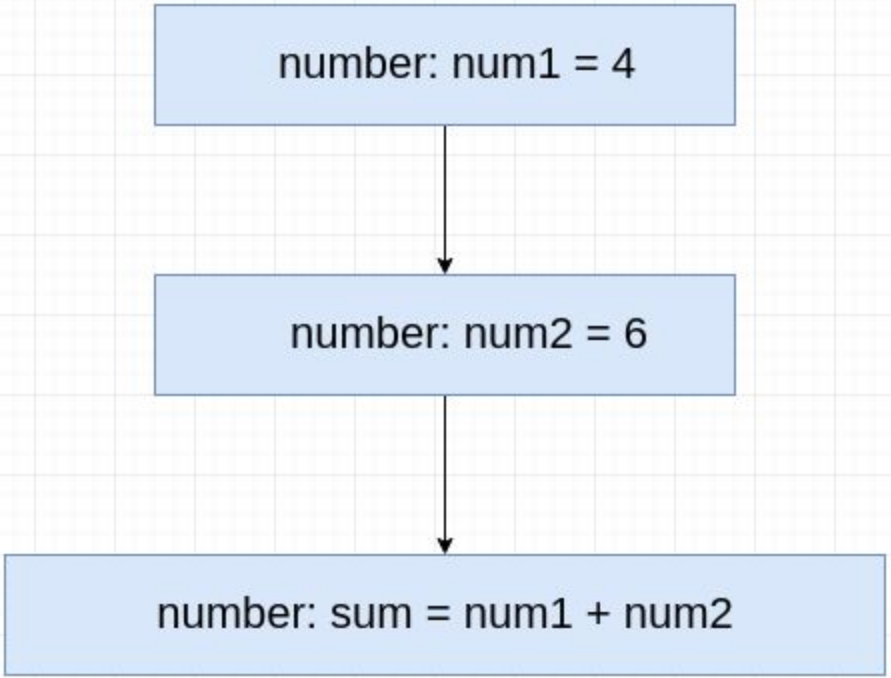
Basic Arithmetic Operators

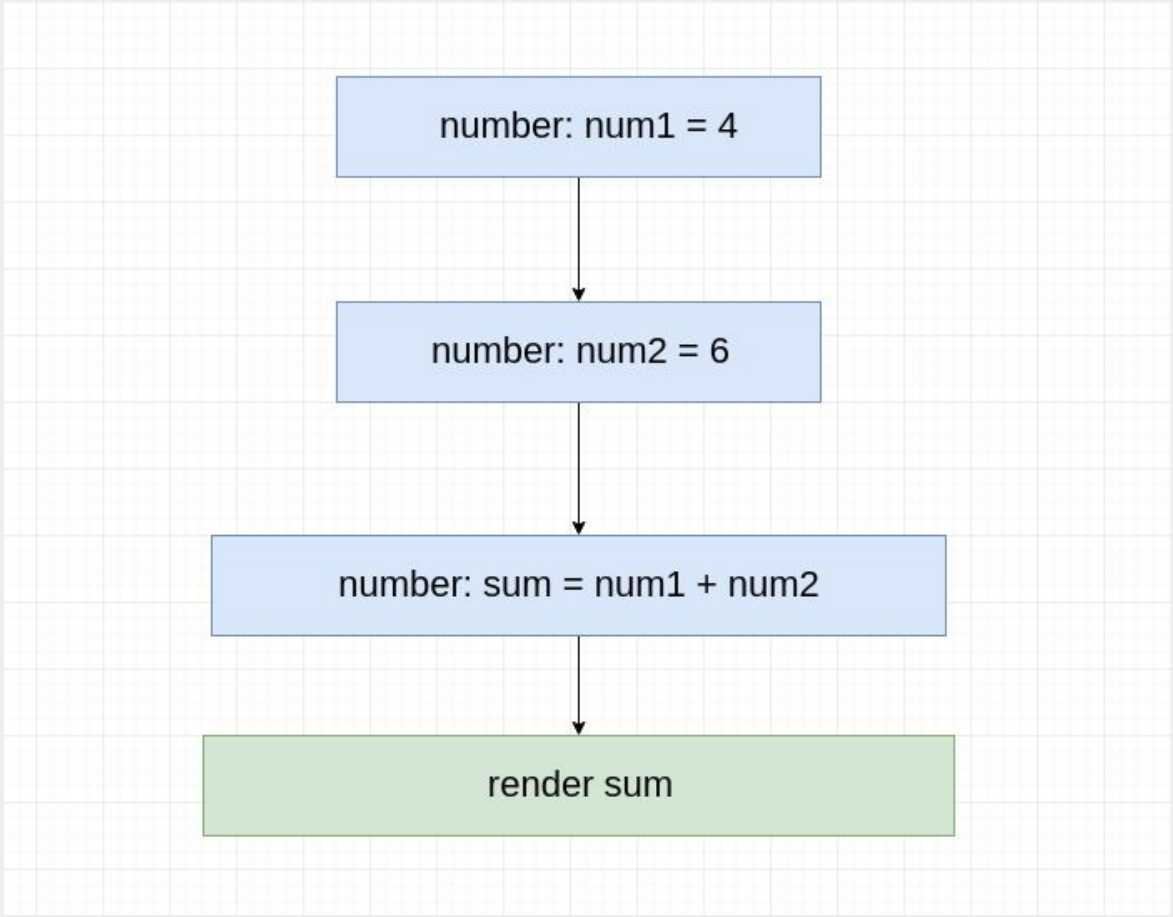
- + Addition
- - Subtraction
- * Multiplication
- / Division

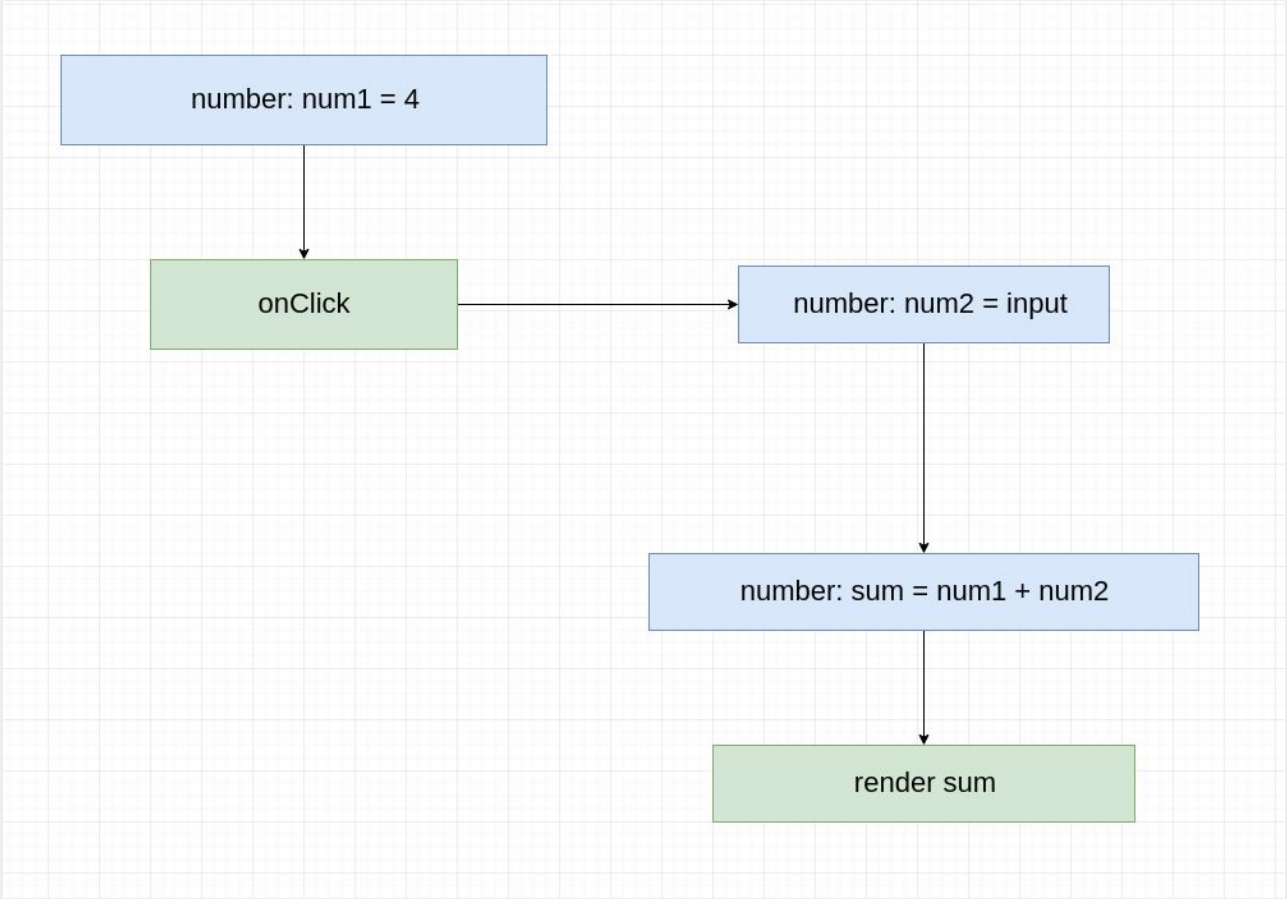
- = Assignment


number: num1 = 4


number: num1 = 4
number: num2 = 6

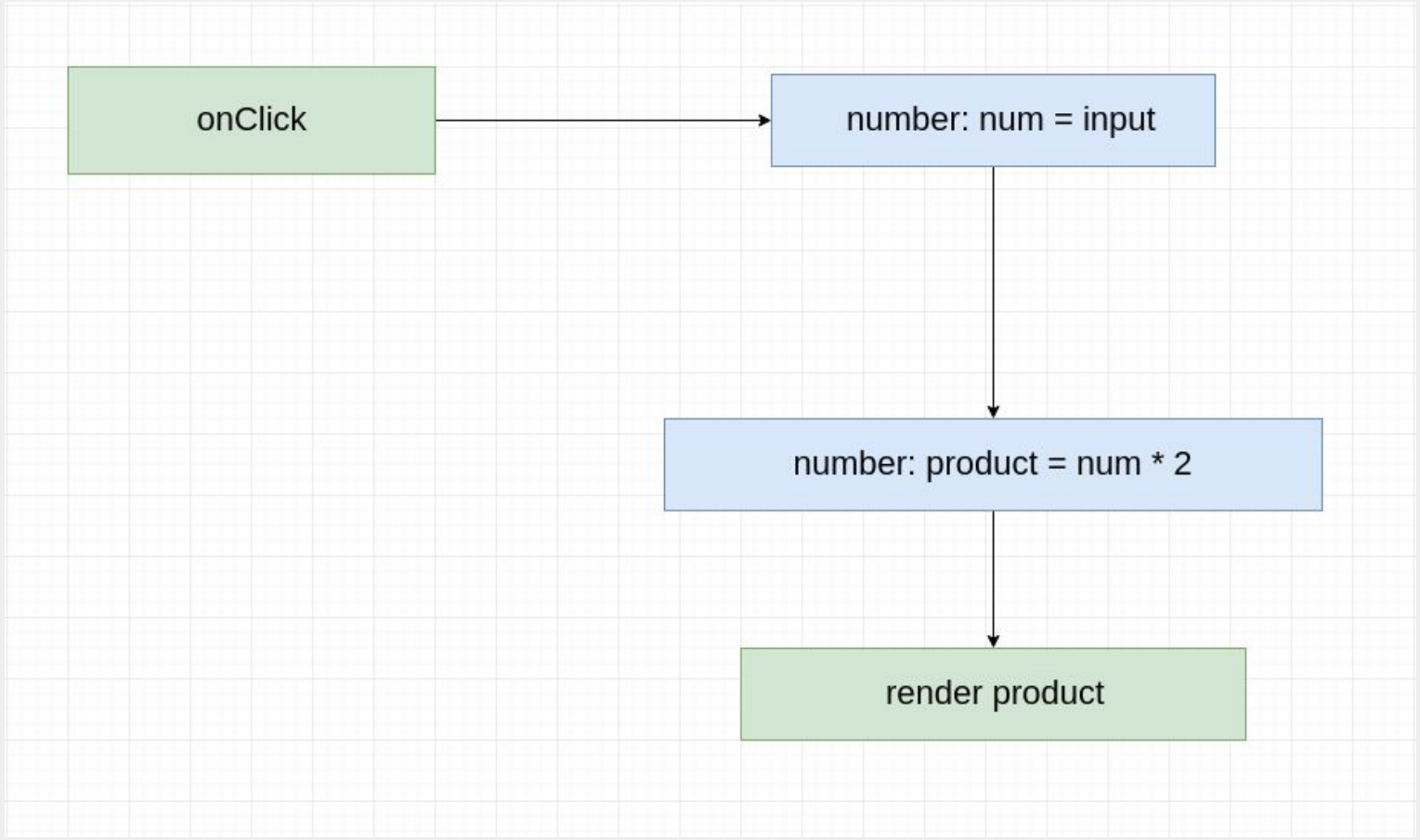

number: num1 = 4
number: num2 = 6
number: sum = num1 + num2

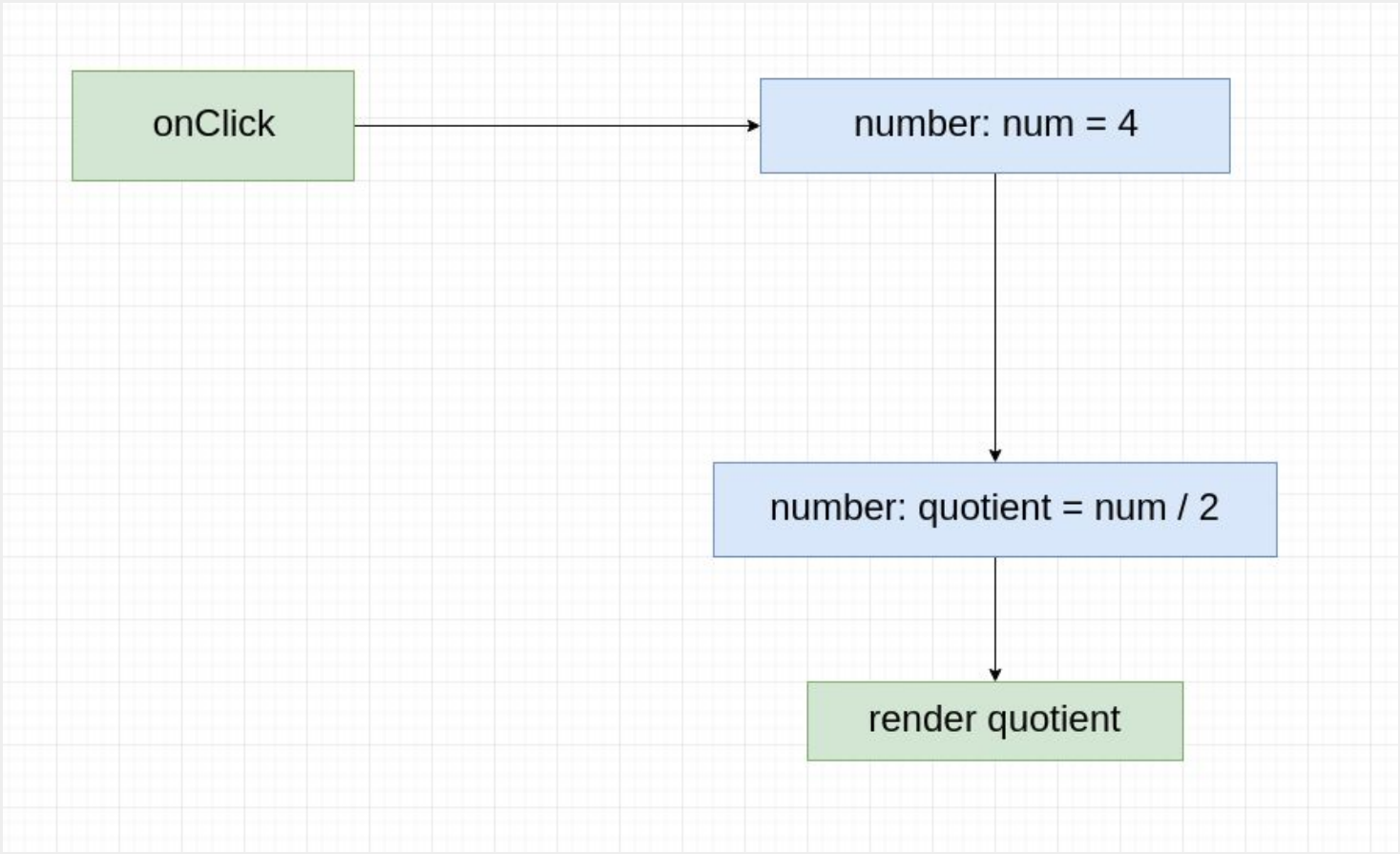

number: num1 = 4
number: num2 = 6
number: sum = num1 + num2
render sum

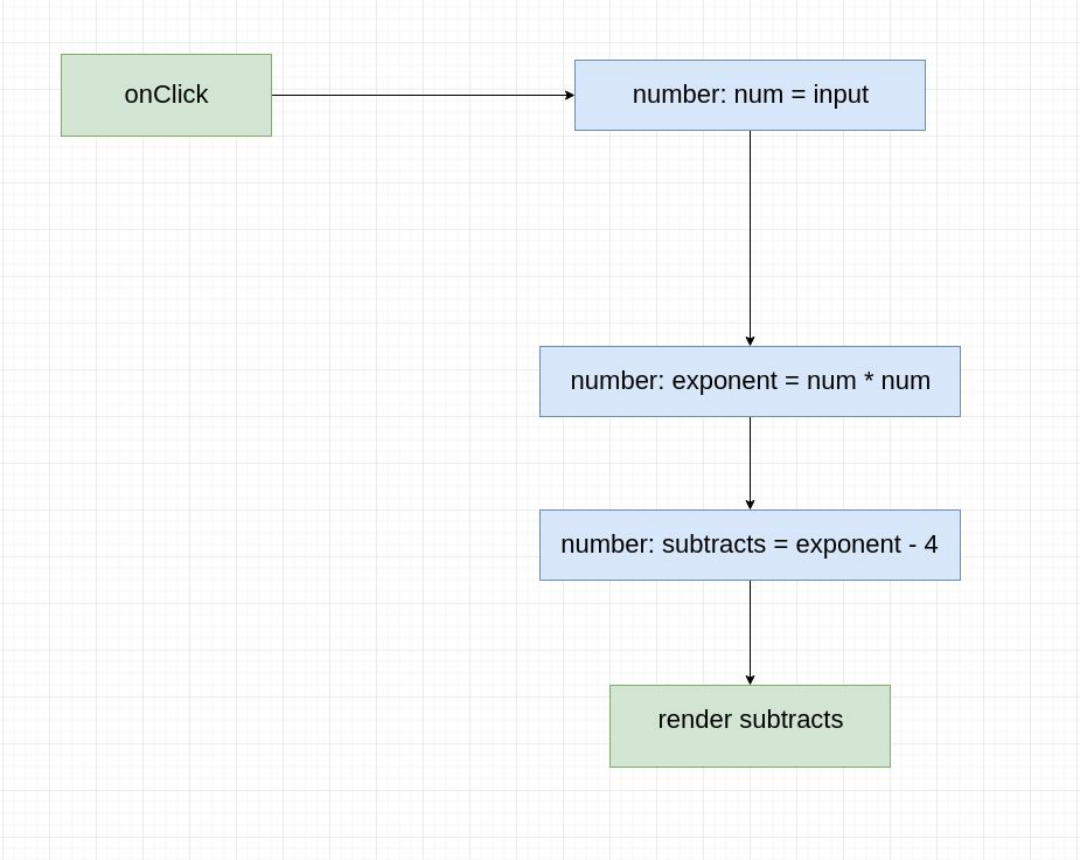

number: num1 = 4
onClick
number: num2 = input
number: sum = num1 + num2
render sum

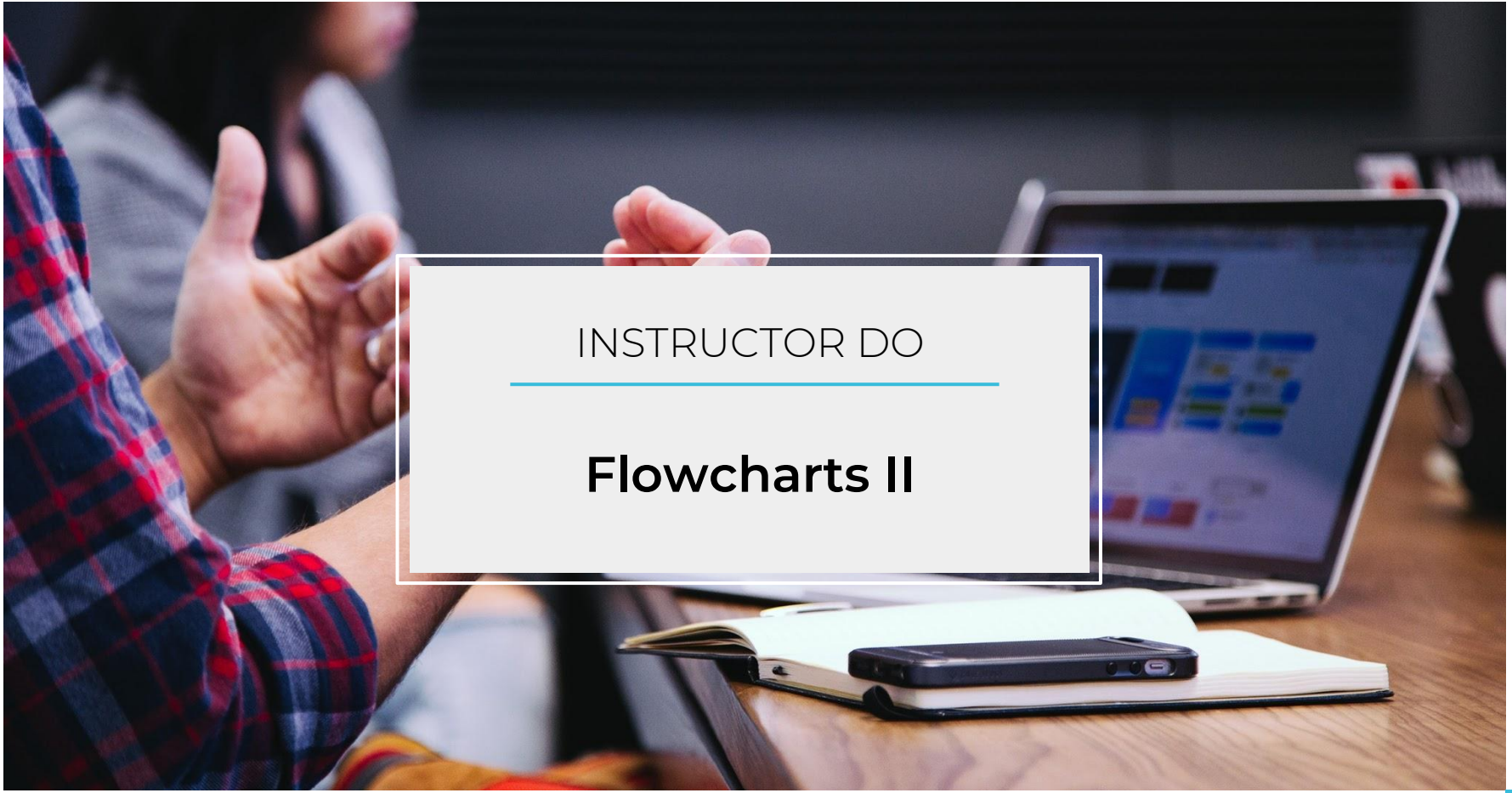
PARTNER DO

Flowcharts and Fundamentals


onClick
number: num = input
number: product = num * 2
render product

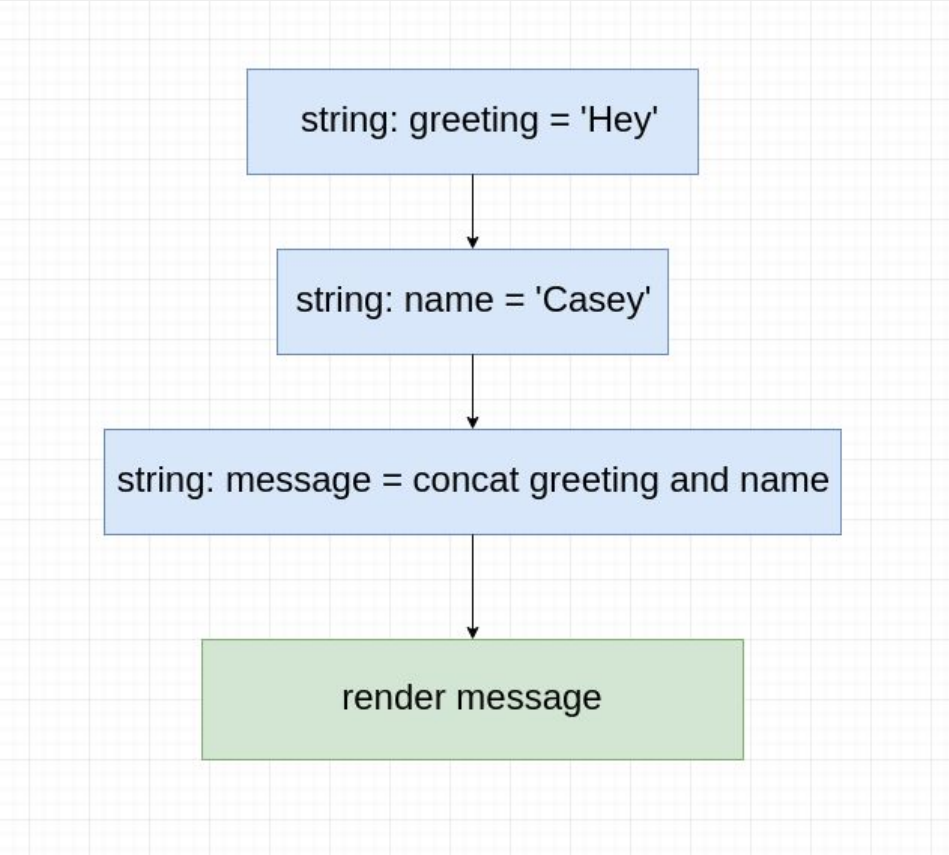

onClick
number: num = 4
number: quotient = num / 2
render quotient


onClick
number: num = input
number: exponent = num * num
number: subtracts = exponent - 4
render subtracts



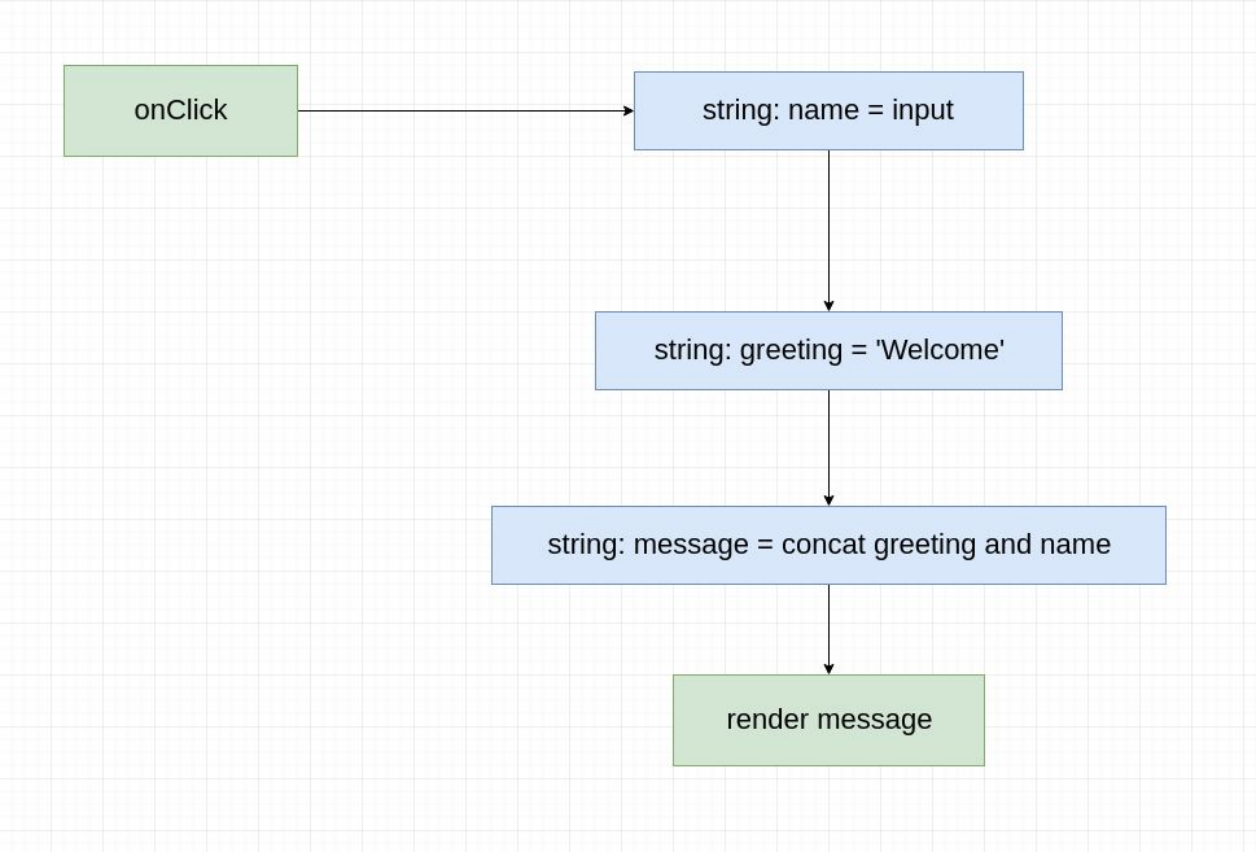
INSTRUCTOR DO

Flowcharts II


string: greeting = 'Hey'
string: name = 'Casey'
string: message = concat greeting and name
render message

PARTNER DO

Flowcharts and Fundamentals II


onClick
string: name = input
string: greeting = 'Welcome'
string: message = concat greeting and name
render message

OBJECTIVES

By the end of this class, you will be able to:

- [x] Understand primitive types and arithmetic operators and be able to use flowcharts to design basic programs.
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BREAK TIME

Intro to JavaScript

PARTNER DO
Intro the JS

WE DO

Intro to JS II

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Questions?

BREAK TIME

Variables and Prompt/Alert

INSTRUCTOR DO

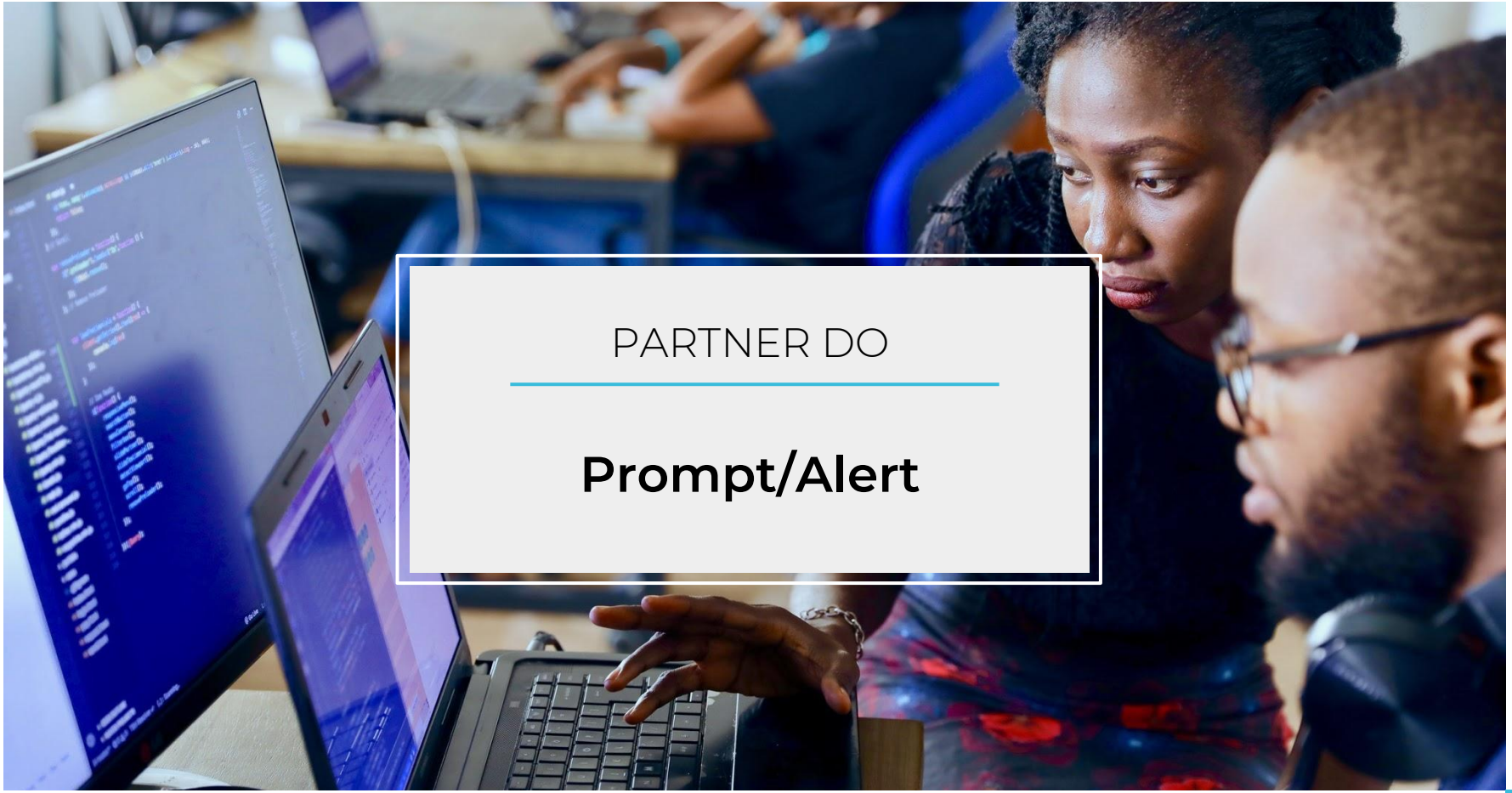
Variables

WE DO

Variables

INSTRUCTOR DO

Prompt/Alert


PARTNER DO
Prompt/Alert

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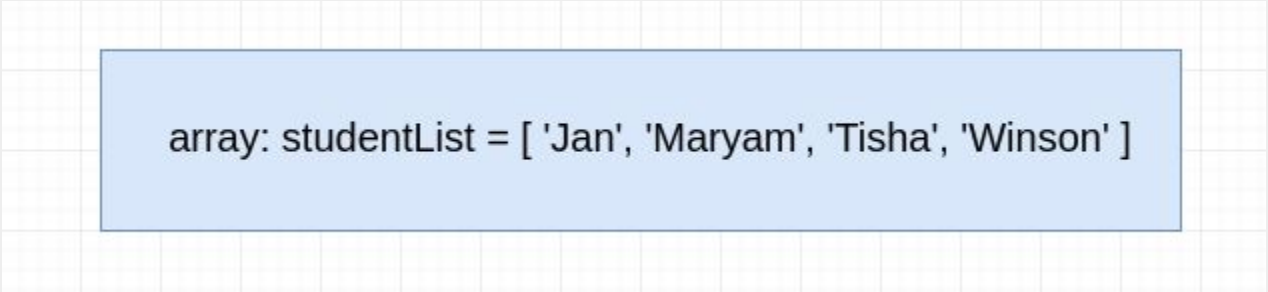
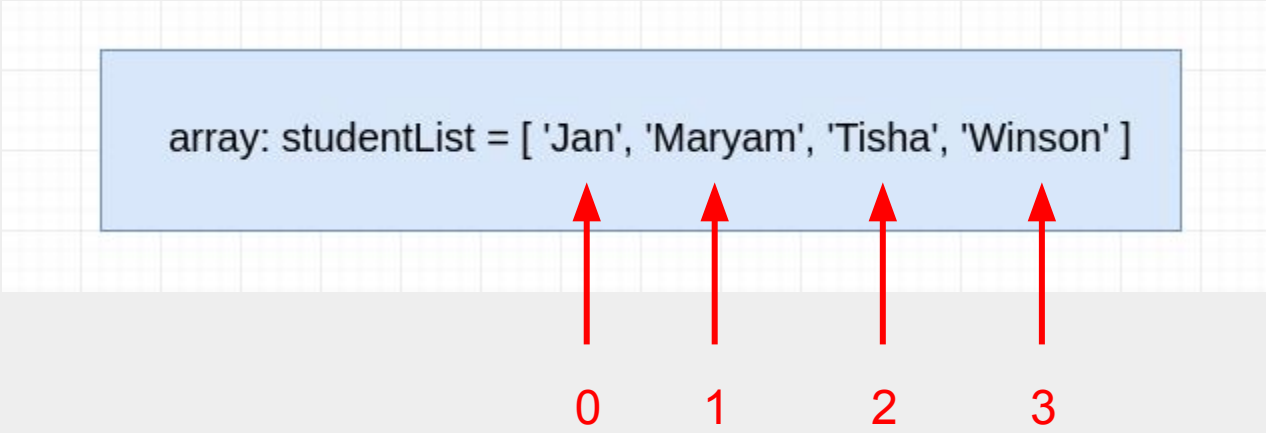
BREAK TIME

Lists and Loops



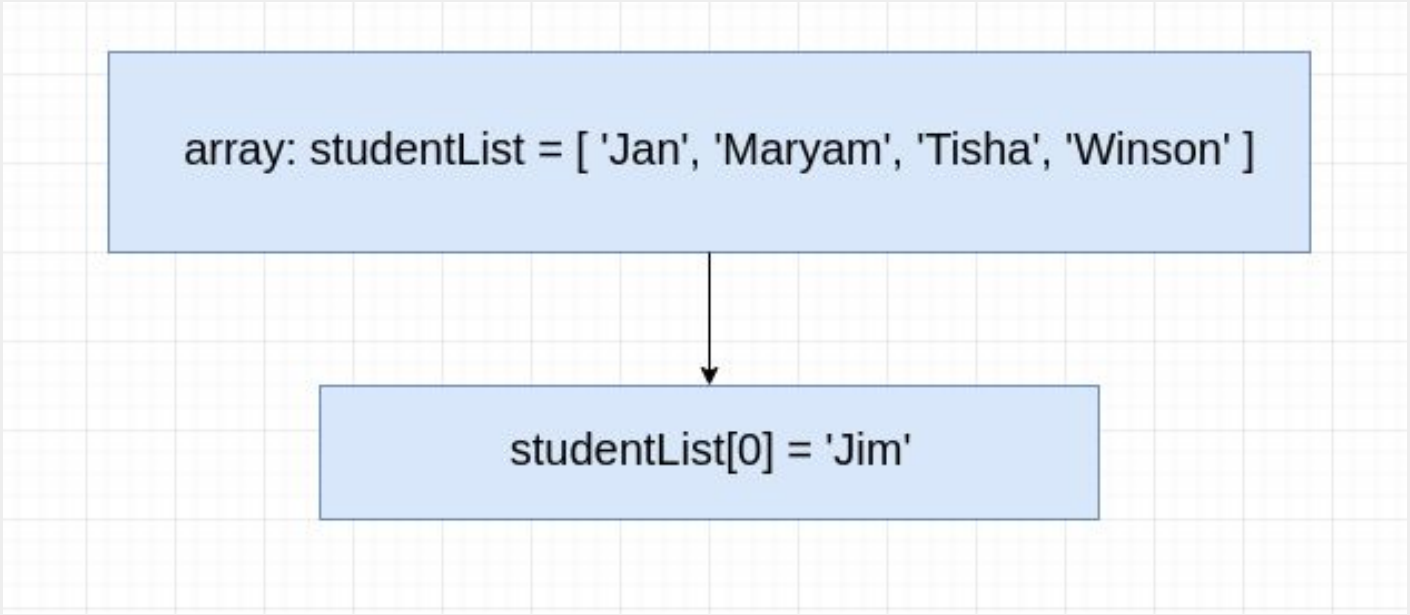
Arrays

- Complex variable
- Contains a list of items



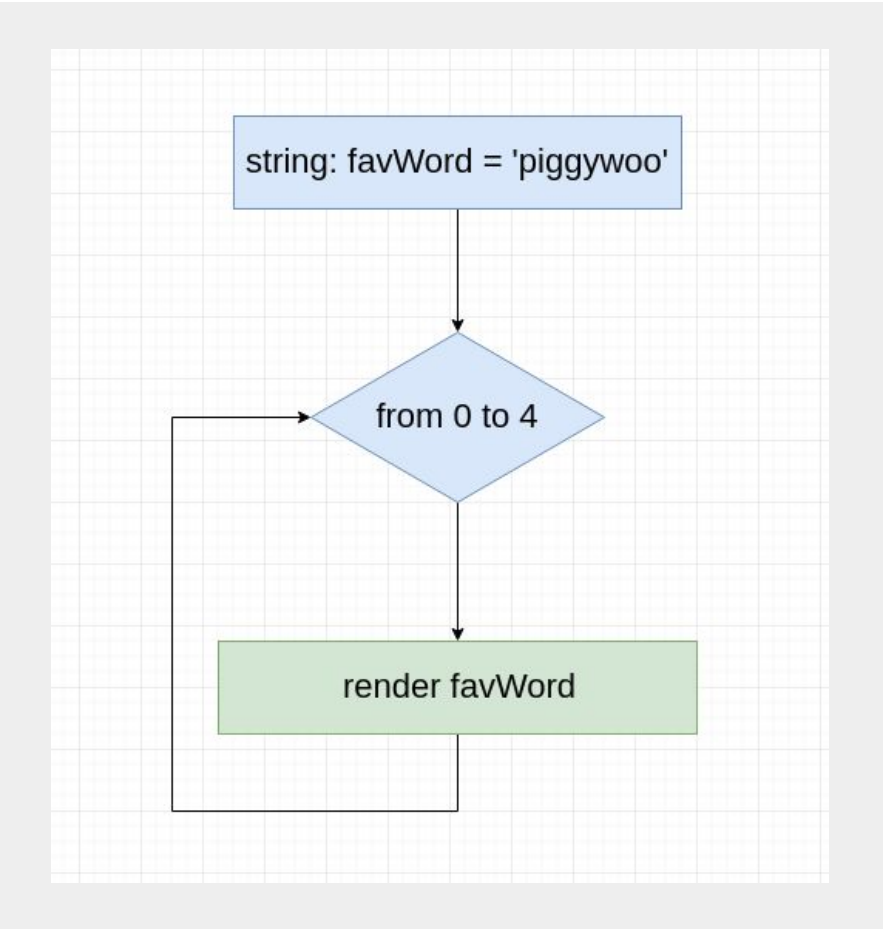
Array Index

- Starts at 0
- Access using [ ]


array: studentList = ['Jan', 'Maryam', 'Tisha', 'Winson']
studentList[0] = 'Jim'

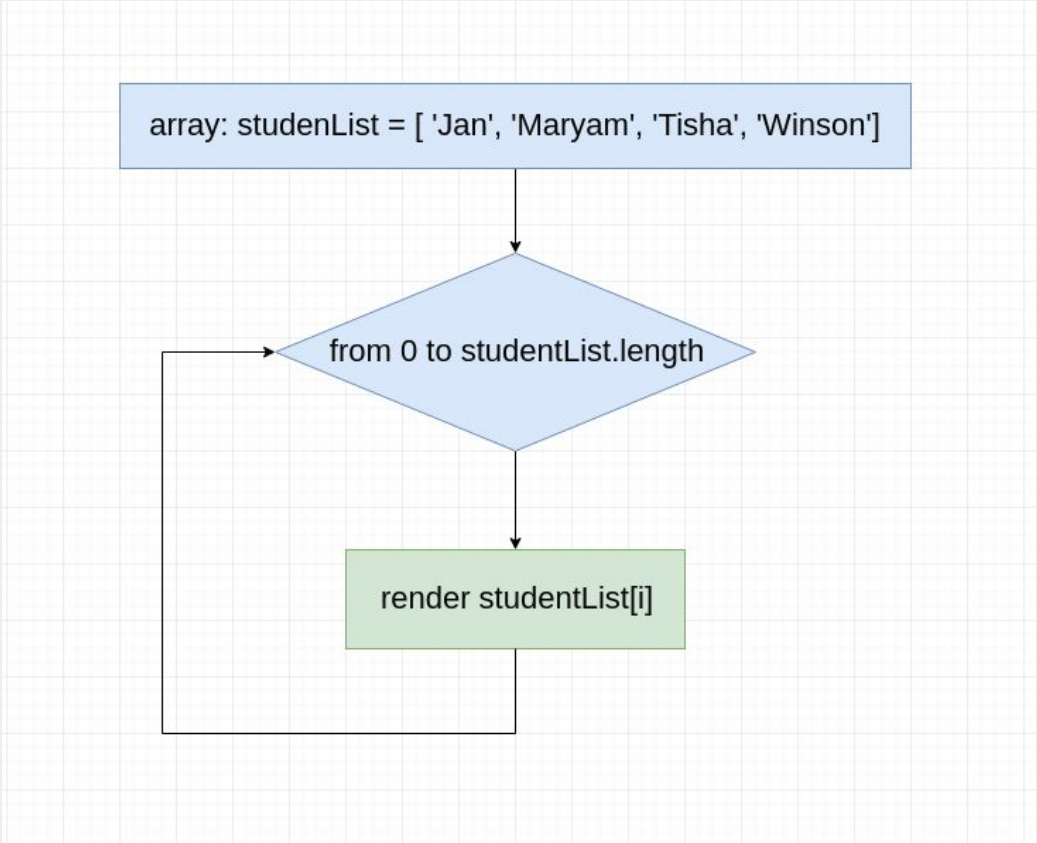
Loops

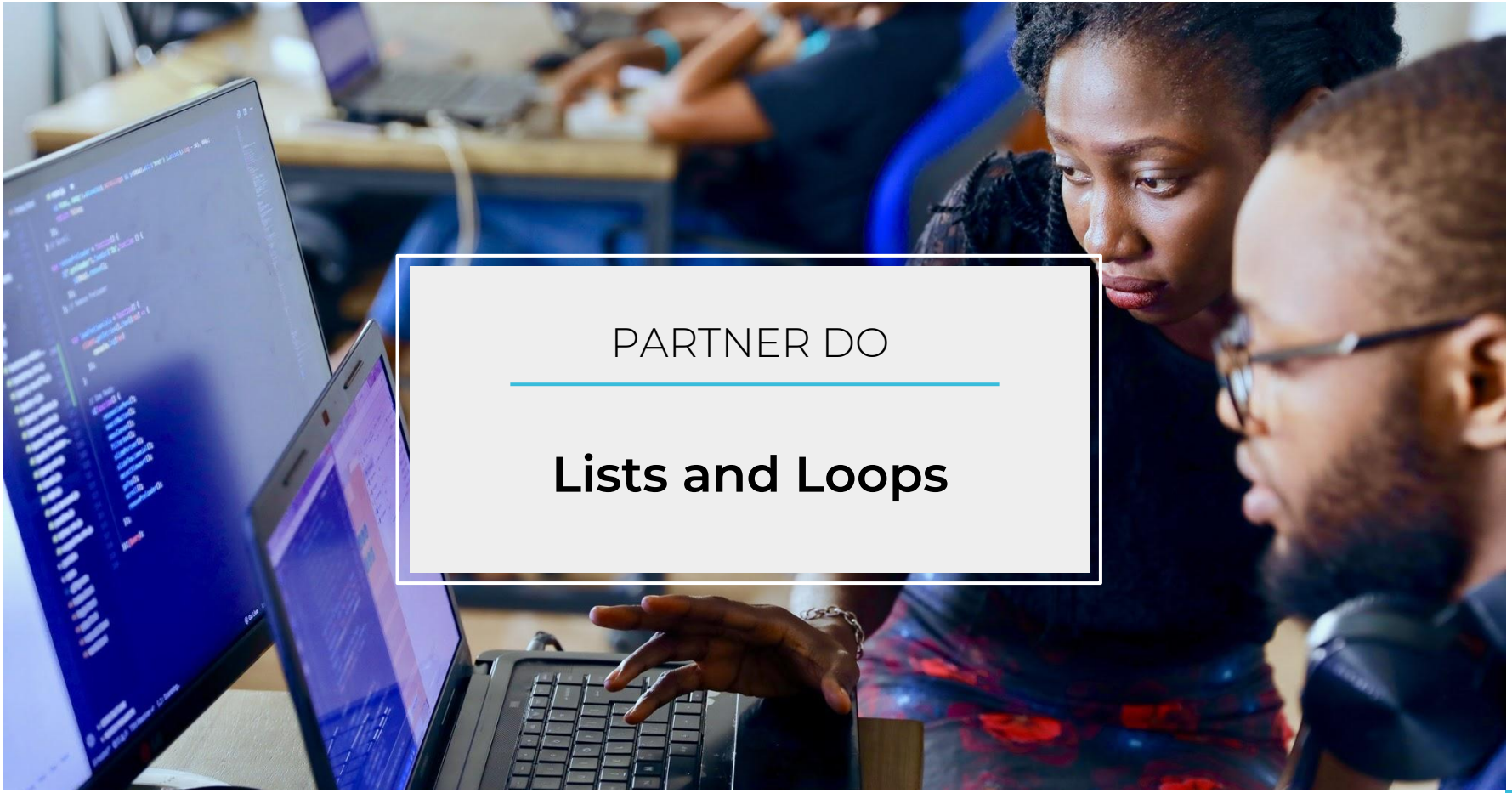
- Performs same action multiple times
- Often used with arrays



WE DO

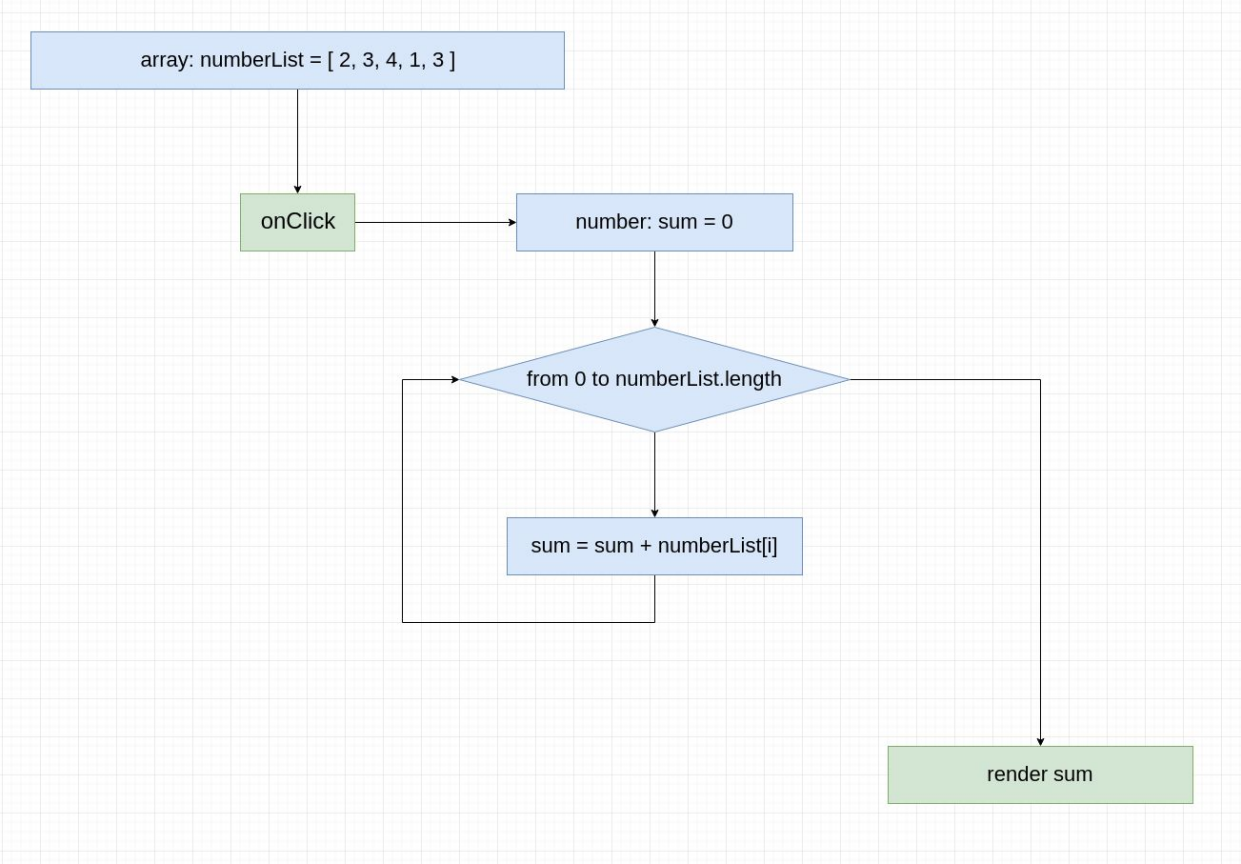
Lists and Loops


array: studenList = ['Jan', 'Maryam', 'Tisha', 'Winson']
from 0 to studentList.length
render studentList[i]



PARTNER DO

Lists and Loops


array: numberList = [2, 3, 4, 1, 3]
onClick
number: sum = 0
from 0 to numberList.length
sum = sum + numberList[i]
render sum

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