



# **Library vs Framework**

A diagram illustrating a library-based architecture. It features a green rounded rectangle at the top labeled "Library". Below it, two green vertical lines connect to two light green circles. These circles are positioned on top of a larger, light orange rounded rectangle labeled "Your Code".

Library

**What is a Library and  
a Framework?**

A diagram illustrating a framework-based architecture. It features a large yellow rounded rectangle at the top labeled "Your Code". Below it, three yellow vertical lines connect to three yellow circles. These circles are positioned on top of a larger, dark red rounded rectangle labeled "Framework".

Your Code

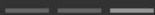
Framework

# What is a Library and a Framework?

Third slide

Third slide label

Some representative placeholder content for the third slide.



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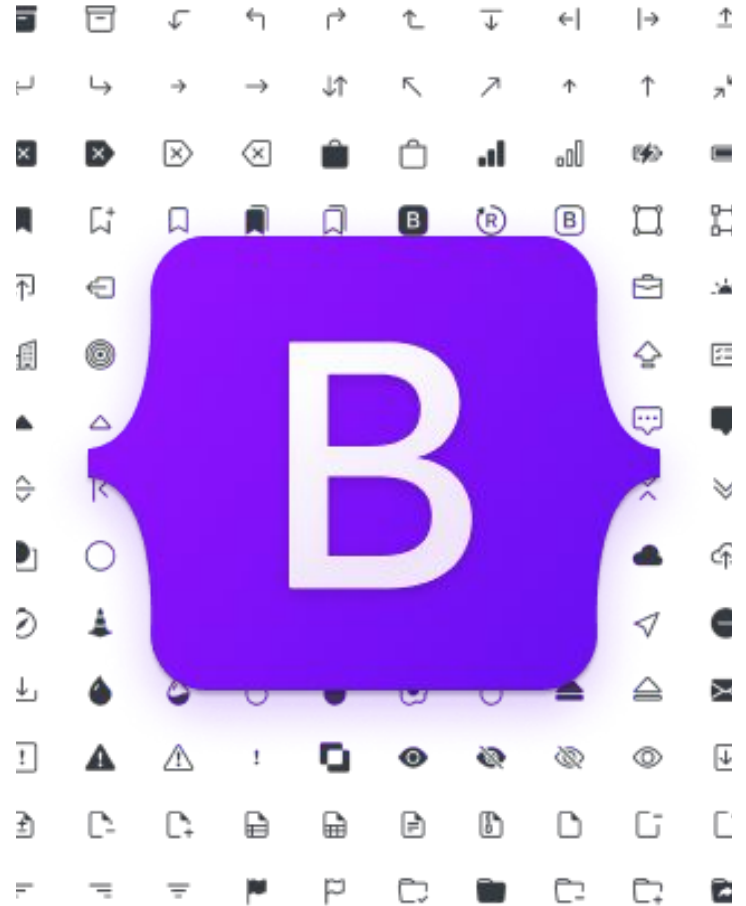
- Both libraries and frameworks are reusable code.
- Their purpose is to help you solve common problems in simpler ways.
- Bootstrap for example is an easier way to style your page instead of writing everything out in CSS.

# What is a Library?

- Reusable code that has been written by previous developers.
- Some libraries and mathematics allow the developer to call a function without having to redo the implementation of how the algorithm works.
- Libraries can be easily replaced by other libraries.
- As developers we are in FULL control of how we use libraries.
- Example: JQUERY

# What is a Framework?

- The framework is in charge of the flow. It controls the structure of your application.
- Frameworks can be style guides that allow us to follow best practices when it comes to designing our applications.
- Example: Bootstrap



# Bootstrap

- Created by Twitter in the in mid 2010
- Bootstrap is a free open source CSS framework.
- Mobile first approach
- Pre-built CSS styles and classes
- Responsive when using grid, flex box and break points
  - Grid: Mobile first flex grid (12 column grid system)
  - Flexbox: alignment and layout navigation and components
  - Break Points: five predefined classes for building responsive layouts
- Reboot.. Instead of using the precise color name (#14acf2) you can use the word 'primary'
  - CSS can be used for customizations that Bootstrap can't handle



**Which ones are  
Libraries and  
which ones are  
Frameworks?**

**React**

**Redux**

**Javascript**

Lets code!

