GENERAL ASSEMBLY

JAVASCRIPT DEVELOPMENT

Sasha Vodnik, Instructor

HELLO!

1. Pull changes from the `svodnik/jsd5` repo to your computer
2. Navigate to the `starter-code` folder

INTRODUCTION TO REACT

LEARNING OBJECTIVES

At the end of this class, you will be able to

- Understand the roles of model, view, and controller
- Describe the difference between frameworks and libraries
- Recognize the primary uses of React
- Create a component hierarchy
- Build a React component

AGENDA

- Model View Controller (MVC)
- Frameworks and libraries
- React overview
- Creating React components
- React lab

Checkin and questions

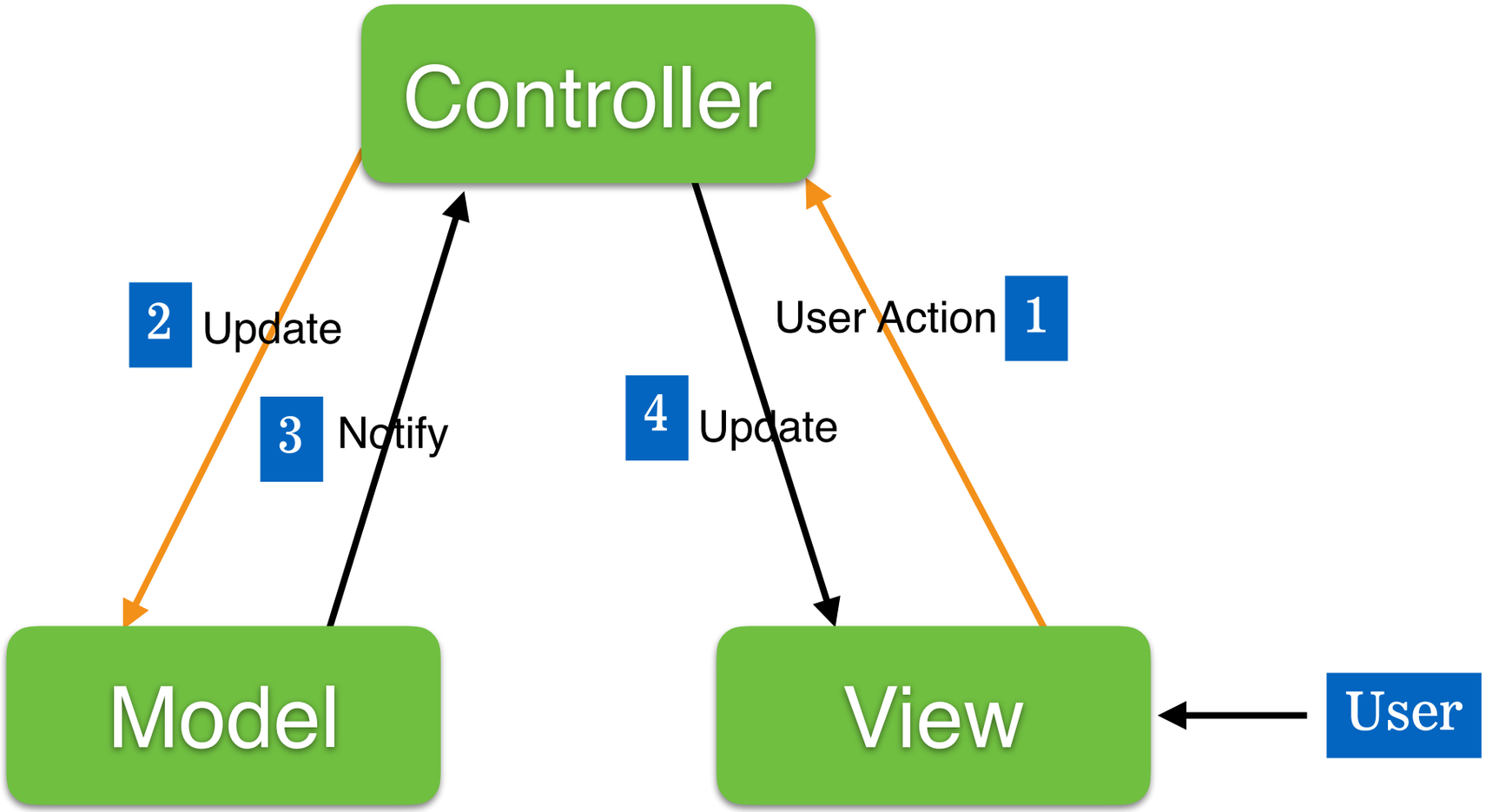
- The **most significant thing I learned** about deploying an app is _____.
- My **biggest outstanding question** about deploying an app is _____.

Final Project Checkin

MODEL-VIEW-CONTROLLER (MVC)

- **Model**: handles data and business logic
- **View**: presents data to user in any supported format and layout
- **Controller**: receives user inputs and calls appropriate resources to carry them out

MODEL-VIEW-CONTROLLER (MVC)



LIBRARIES VS FRAMEWORKS

- Your code calls a **library**
- A **framework** calls your code

WHY USE FRAMEWORKS?

- Standard / well known
  - Dictates a method that cannot be (easily) ignored
- Common problems already solved
  - Cross Browser
  - Accessibility
  - Complexity of state
  - etc

LIBRARIES

- Target a single problem
- Are usable in any project
- Often consist of a set of independent functions
- Are lightweight

REACT

- somewhere between a framework and a library
  - “a framework that feels like a library”
- It only cares about your views (V from MVC)
- BUT you must do your views the React way

REACT COMPONENTS

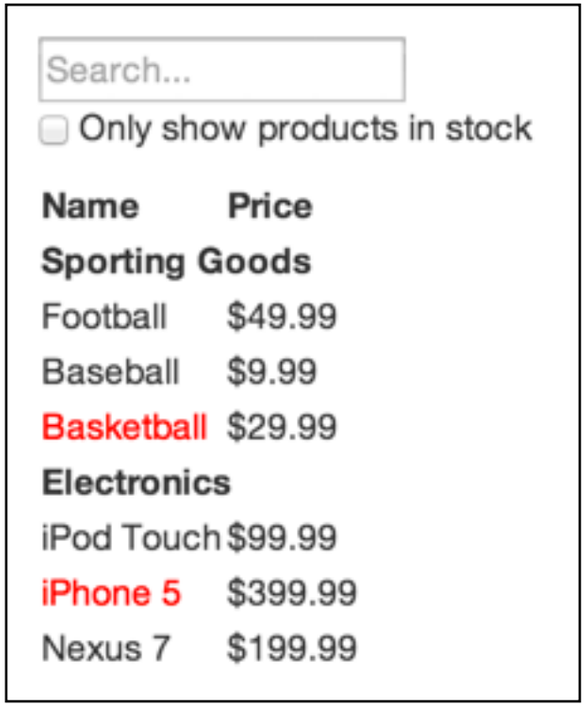
- Define a small view template
- Use some values passed in to display data
- Are declarative
- Small, reusable, and independent

THINKING IN REACT

Data returned from a JSON API

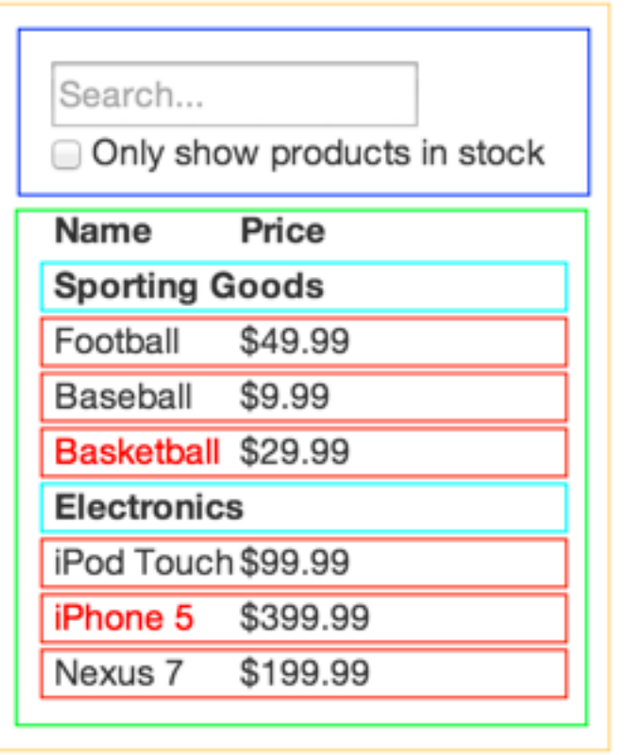
```
[
  {category: "Sporting Goods", price: "$49.99", stocked: true, name: "Football"},
  {category: "Sporting Goods", price: "$9.99", stocked: true, name: "Baseball"},
  {category: "Sporting Goods", price: "$29.99", stocked: false, name: "Basketball"},
  {category: "Electronics", price: "$99.99", stocked: true, name: "iPod Touch"},
  {category: "Electronics", price: "$399.99", stocked: false, name: "iPhone 5"},
  {category: "Electronics", price: "$199.99", stocked: true, name: "Nexus 7"}
];
```

Mock from designer



THINKING IN REACT

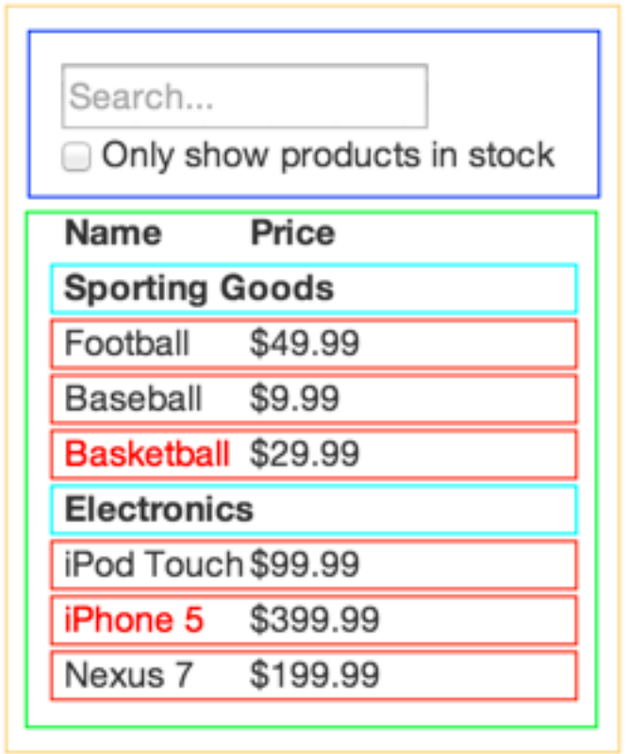
DRAW SOME BOXES



THINKING IN REACT

NAME THE BOXES (SEMANTICALLY!)

- FilterableProductTable
- SearchBar
- ProductTable
- ProductCategoryRow
- ProductRow

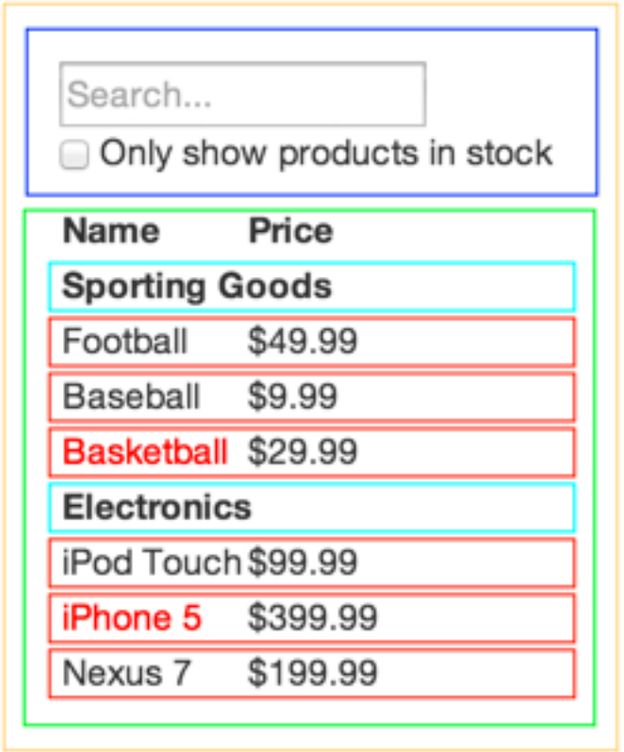


THINKING IN REACT

MAKE A HIERARCHY

components!

- FilterableProductTable
  - SearchBar
  - ProductTable
    - » ProductCategoryRow
    - » ProductRow



EXERCISE

- Partner up:
  - Choose a section of your favorite website
  - Write down the component hierarchy
    - Use semantic names!

1. Mock
2. Boxes
3. Name
4. Hierarchy

REACT WORKSHOP EXERCISE

- Created by Jess Telford, a GA JSD instructor in Australia

github.com/jesstelford/react-workshop

LEARNING OBJECTIVES - REVIEW

- Understand the roles of model, view, and controller
- Describe the difference between frameworks and libraries
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NEXT CLASS PREVIEW

Final project lab

- All of Thursday's class will be lab time for you to work on your final projects
- Nicole and I will be available during class if you want to think through challenges together. (Your classmates will, too!)

Exit Tickets!

Q&A