

# Section 3: React Basics and Working With Components

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October 14, 2021

## Contents

<b>1</b>	<b>Module Introduction</b>	<b>1</b>
<b>2</b>	<b>1. What Are Components? And Why is React All About them?</b>	<b>1</b>
<b>3</b>	<b>2. React Code is Written in a “Declarative Way”</b>	<b>2</b>
3.1	How exactly is a component built? . . . . .	2
3.2	The Declarative Approach . . . . .	3

## 1 Module Introduction

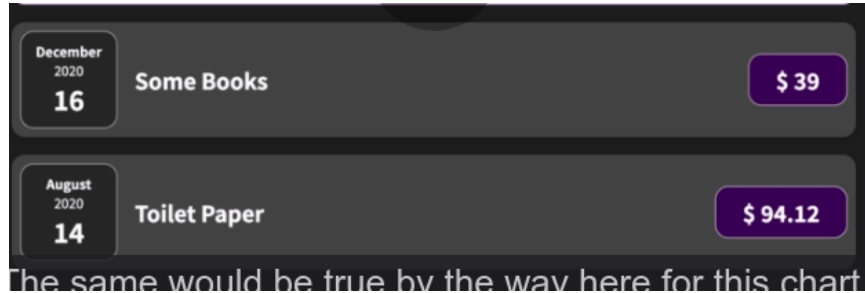
We will learn how to use everything that makes up React

- React Core Syntax & JSX
- Work with components
- Work with data

## 2 1. What Are Components? And Why is React All About them?

- React is a JavaScript library for building user interfaces
- HTML/CSS/JS are about building user interfaces as well
- We use libraries like React to simplify building user interfaces

- This is through the use of **components**
- All user interfaces in the end are made up of components



- in this picture, these components are the same; they are just reused twice
- **components** are reusable building blocks in your user interface
  - though you don't have to reuse components
- components are made up of HTML for text, CSS for styling, and possibly JS for logic
- React embraces the concept of components because of
  1. Resusablility - not repeating yourself
  2. Separation of concerns - keeping code base small and manageable.  
Don't do too many things in one and the same place

## 3 2. React Code is Written in a “Declarative Way”

### 3.1 How exactly is a component built?

- in the end, components are built with HTML, CSS, and JS, then we combine the components to build a user interface
- mostly, they're about HTML and JS; CSS could be a factor but it's not too important

### 3.2 The Declarative Approach

- React allows you to create **reusable and reactive components** consisting of **HTML and JavaScript** (and CSS)
- React is built using the **declarative approach**, which means that you should not tell React that a certain HTML element should be created and inserted in a specific place on the UI
  - instead, you will always define the desired target state(s) and let React figure out the actual JavaScript DOM instructions
- in the end, we are essentially building our own custom HTML elements