

REACT

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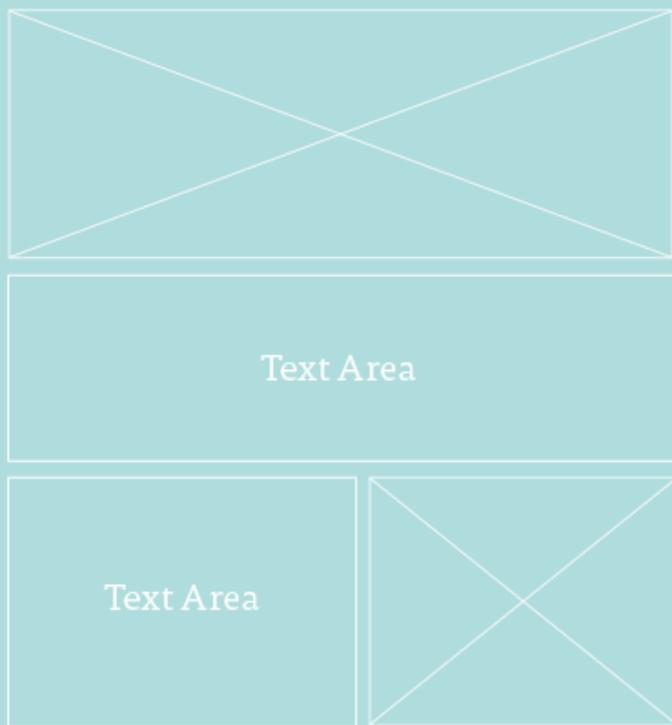
# COMPONENTS

## COMPONENTS

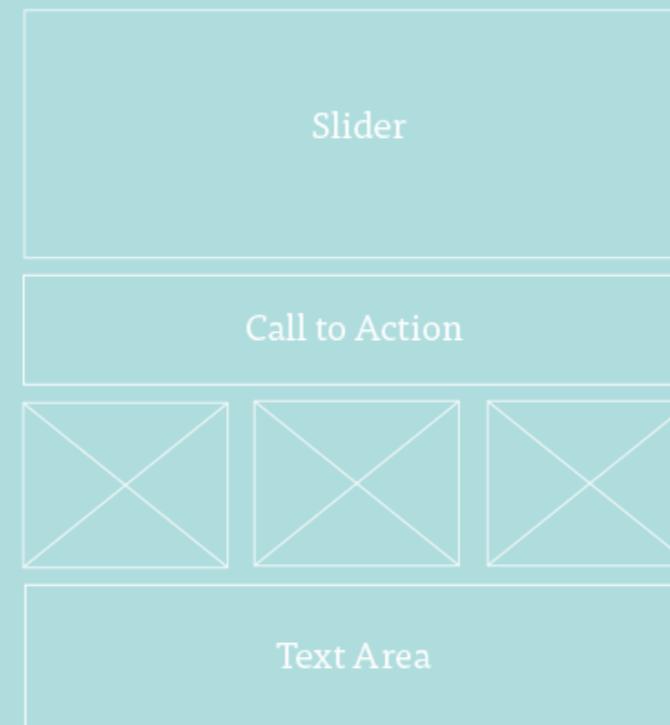
- ▶ Pieces of our application that we can define once and reuse all over the place.
- ▶ A way to modularize or compartmentalize features of our applications.

# TEMPLATES

## About Template



## Homepage

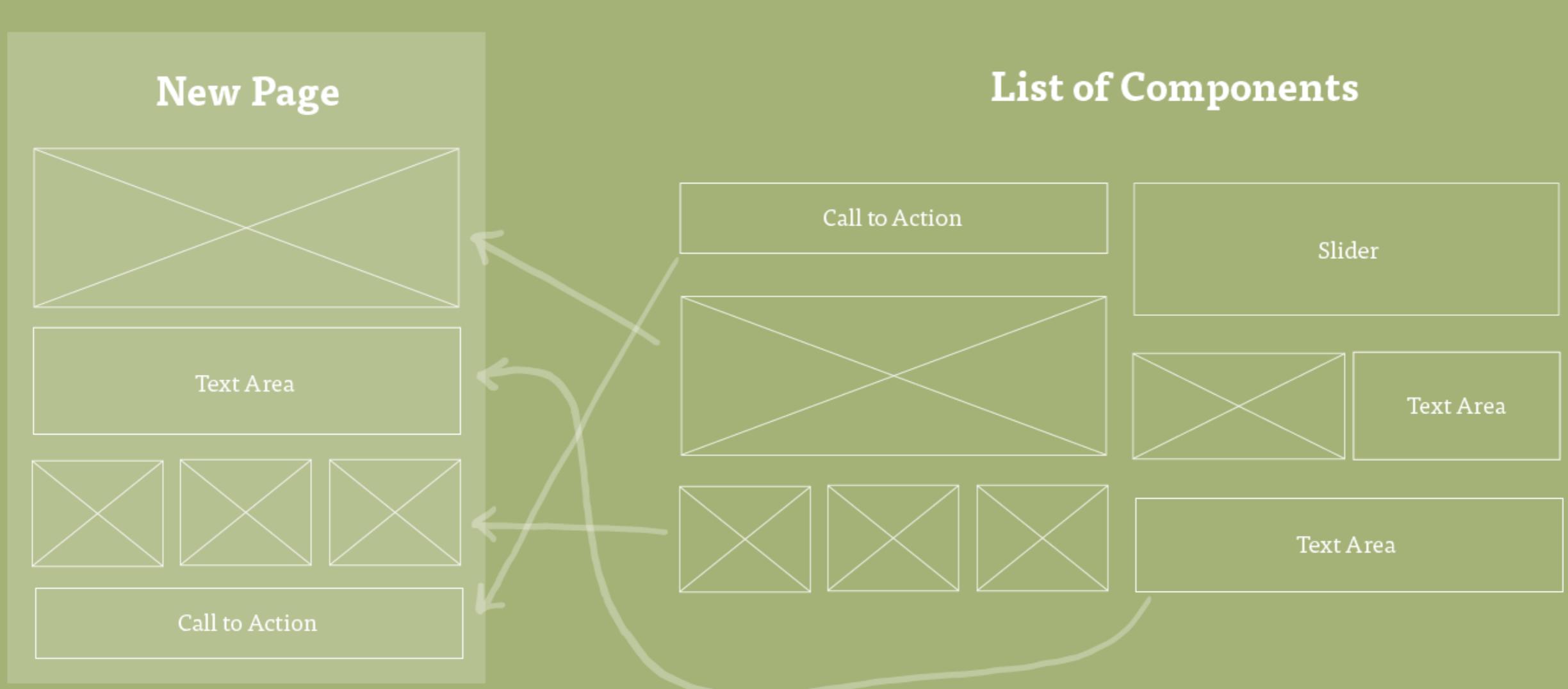


## Products Template



**FIXED TEMPLATES** *choose a template, add content to the pre-made areas*

# COMPONENTS



**PAGE BUILDER + COMPONENTS** build your layout using stackable components

← → C ⌂ ⌂

Bakerloo Line

▼
Go

Central Line

▼
Go

Circle Line

▼
Go

District Line

▼
Go

Hammersmith &amp; City Line

▼
Go

Jubilee Line

▼
Go

Metropolitan Line

▼
Go

# Station Name, Line

## Platform 1

Destination	Due	Current location
White City	0:00	At Platform
Ealing Broadway	2:00	Holland Park
West Ruislip	4:30	Notting Hill Gate
Ealing Broadway	6:00	Queensway

## Platform 2

Destination	Due	Current location
White City	0:00	At Platform
Ealing Broadway	2:00	Holland Park
West Ruislip	4:30	Notting Hill Gate
Ealing Broadway	6:00	Queensway

&lt; Network /&gt;

Bakerloo Line

&lt;Line /&gt;

Stations



Central Line

&lt;Line /&gt;

Stations



Circle Line

&lt;Line /&gt;

Stations



District Line

&lt;Line /&gt;

Stations



Hammersmith &amp; City Line

&lt;Line /&gt;

Stations



Jubilee Line

&lt;Line /&gt;

Stations



Metropolitan Line

&lt;Line /&gt;

Stations



# Station Name, Line

&lt;Predictions /&gt;

Platform 1

&lt;DepartureBoard /&gt;

Destination	Due	Current location
White City	0:00	At Platform
Ealing Broadway	2:00	Holland Park
West Ruislip	4:30	Notting Hill Gate
Ealing Broadway	6:00	Queensway

Platform 2

&lt;DepartureBoard /&gt;

Destination	Due	Current location
White City	0:00	At Platform
Ealing Broadway	2:00	Holland Park
West Ruislip	4:30	Notting Hill Gate
Ealing Broadway	6:00	Queensway

# CREATING A NEW COMPONENT

```
import React, { Component } from 'react'

class Hello extends Component {
  render() {
    return (
      <h1>Hello World!</h1>
    )
  }
}

export default Hello;
```

► What is happening here?

# CREATING A NEW COMPONENT

```
import React, { Component } from 'react'

class Hello extends Component {
  render() {
    return (
      <h1>Hello World!</h1>
    )
  }
}

export default Hello;
```

- ▶ Bring in outside stuff from react
- ▶ Create a class that inherits from Component
- ▶ Have a render method that returns what we want to see

# CREATING A NEW COMPONENT

```
import React, { Component } from 'react'

class Hello extends Component {
  render() {
    return (
      <div>
        <h1>Hello World!</h1>
        <p>How are you today?</p>
      </div>
    )
  }
}

export default Hello;
```

- ▶ Components must only return a **SINGLE** element.
- ▶ That element can have children though!

## USING A COMPONENT

```
import React, { Component } from 'react';
import Hello from './Hello';

class App extends Component {
  render() {
    return (
      <div className="App">
        <Hello />
      </div>
    );
  }
}

export default App;
```

- ▶ Import component where you want to use it
- ▶ Use the class as if it were its own HTML element

# YOU DO

Create a Person component that renders:

An **h3** with a person's name

A **p** tag with the person's email

## PROPS

- ▶ Arguments passed into a component, as though they were arguments to a function
- ▶ Allow data to flow downward into components from parents to children

## PASSING PROPS TO CHILDREN

```
import React, { Component } from 'react';
import Hello from './Hello';

class App extends Component {
  render() {
    return (
      <div className="App">
        <Hello name={"Jackie"} />
      </div>
    );
  }
}

export default App;
```

- ▶ We can pass props from a parent element to a child just like we would give html elements attributes

# PASSING PROPS TO CHILDREN

```
import React, { Component } from 'react'

class Hello extends Component {
  render() {
    return (
      <div>
        <h1>Hello {this.props.name}!</h1>
        <p>How are you today?</p>
      </div>
    )
  }
}

export default Hello;
```

- ▶ All classes that extend Component have props
- ▶ We can access them through the keyword this
- ▶ Props act like an object where the different attributes can be accessed with dot notation

# YOU DO

Edit your Person component to take use  
props for your person's name and email

# ITERATION TO CREATE COMPONENTS

```
import React, { Component } from 'react';
import Hello from './Hello';
var names = ["Trevor", "Jackie", "Rosco"]

class App extends Component {
  renderHellos(){
    return names.map(function(name, index){
      return <Hello name={name} key={index} />
    })
  }
  render() {
    return (
      <div className="App">
        {this.renderHellos()}
      </div>
    );
  }
}

export default App;
```

- ▶ We want to take the data from an array and change it into a list of elements
- ▶ Good time for map!
- ▶ In render this array will be interpreted as just multiple elements
- ▶ The key is used to uniquely identify similar elements to assist with faster re-rendering

# YOU DO

Create a function to render multiple  
people using map

# Welcome to Hogwarts!



## GRIFFINDOR

founder: Godric Gryffindor  
mascot: lion

### Values

courage  
bravery  
nerve  
chivalry

### Colors

scarlet  
gold

### Students

Harry Potter  
Hermione Granger  
Ron Weasley



## HUFFLEPUFF

founder: Helga Hufflepuff  
mascot: badger

### Values

hardwork  
patience  
justice  
loyalty

### Colors

canary yellow  
black

### Students

Cedric Diggory  
Susan Bones  
Nymphadora Tonks



## RAVENCLAW

founder: Rowena Ravenclaw  
mascot: eagle

### Values

intelligence  
creativity  
learning  
wit

### Colors

blue  
bronze

### Students

Luna Lovegood  
Cho Chang  
Padma Patil



## SLYTHERIN

founder: Salazar Slytherin  
mascot: serpent

### Values

ambition  
cunning  
leadership  
resourcefulness

### Colors

green  
silver

### Students

Draco Malfoy  
Pansy Parkinson  
Tom Riddle

# YOU DO

Harry Potter React

Run `npm install`

# HOUSE

Create a House component that takes

A house object as a prop

And renders its image, name, founder, and mascot

Render each of the houses in App passing the house as a prop

# TITLED LIST

Create a TitledList component that takes

A title and a list as props

And renders the title as a h3 and a ul of each of the list items

Use TitledList to render each house's values, color, and students