**Your First Component**

*Components* are one of the core concepts of React. They are the foundation upon which you build user interfaces (UI), which makes them the perfect place to start your React journey!

! You can even jumpstart your project with the thousands of components shared by the React open source community like [Chakra UI](https://chakra-ui.com/) and [Material UI.](https://material-ui.com/)

**A React component is a JavaScript function that you can sprinkle with markup**

**Step 1: Export the component**

The export default prefix is a [standard JavaScript syntax](https://developer.mozilla.org/docs/web/javascript/reference/statements/export) (not specific to React). It lets you mark the main function in a file so that you can later import it from other files. (More on importing in [Importing and Exporting Components](https://react.dev/learn/importing-and-exporting-components)!)

### Step 2: Define the function

With function Profile() { } you define a JavaScript function with the name Profile.

React components are regular JavaScript functions, but **their names must start with a capital letter** or they won’t work!

### Step 3: Add markup

The component returns an <img /> tag with src and alt attributes. <img /> is written like HTML, but it is actually JavaScript under the hood! This syntax is called [JSX](https://react.dev/learn/writing-markup-with-jsx), and it lets you embed markup inside JavaScript.

But if your markup isn’t all on the same line as the return keyword, you must wrap it in a pair of parentheses:

return <img src="https://i.imgur.com/MK3eW3As.jpg" alt="Katherine Johnson" />;

return (

<div>

<img src="https://i.imgur.com/MK3eW3As.jpg" alt="Katherine Johnson" />

</div>

);

Without parentheses, any code on the lines after return [will be ignored](https://stackoverflow.com/questions/2846283/what-are-the-rules-for-javascripts-automatic-semicolon-insertion-asi)!

## Using a component

Now that you’ve defined your Profile component, you can nest it inside other components. For example, you can export a Gallery component that uses multiple Profile components:

Components can render other components, but **you must never nest their definitions:**

* React lets you create components, **reusable UI elements for your app.**
* In a React app, every piece of UI is a component.
* React components are regular JavaScript functions except:
  1. Their names always begin with a capital letter.
  2. They return JSX markup.

# Importing and Exporting Components

* The magic of components lies in their reusability: you can create components that are composed of other components. But as you nest more and more components, it often makes sense to start splitting them into different files. This lets you keep your files easy to scan and reuse components in more places.