# React.js Week 1 – Day 1: Introduction to Components

## 1. What are Components?

* In React, **components** are like reusable building blocks.
* Each component is a **function (or class)** that returns UI (HTML-like code using JSX).
* Components let you break your UI into **small, independent, reusable pieces**.

Example analogy: - Think of a **website** as a house. - **Components** are like bricks, windows, and doors. - You build the full house by combining these smaller parts.

## 2. Types of Components

1. **Functional Components (modern standard)**
   * Just a JavaScript function that returns JSX.

* function Welcome() {  
   return <h1>Hello, I am a Functional Component!</h1>;  
  }  
  export default Welcome;

1. **Class Components (older style)**
   * A class that extends React.Component.
   * Still works, but nowadays **functional components + hooks** are preferred.

* import React, { Component } from 'react';  
    
  class Welcome extends Component {  
   render() {  
   return <h1>Hello, I am a Class Component!</h1>;  
   }  
  }  
  export default Welcome;

## 3. How Components Work

* Each component can:
  + Return **JSX** (HTML inside JavaScript).
  + Be **reused** multiple times.
  + Be **nested** inside other components.

Example:

function Header() {  
 return <h1>Welcome to My Website</h1>;  
}  
  
function Footer() {  
 return <p>© 2025 My Website</p>;  
}  
  
function App() {  
 return (  
 <div>  
 <Header />  
 <p>This is the main content.</p>  
 <Footer />  
 </div>  
 );  
}  
  
export default App;

Here: - Header and Footer are components. - App combines them to make the full page.

## 4. Rules for Components

* Component names **must start with a capital letter** (e.g., Header, not header).
* Must return **one root element** (usually a <div> or <>...</> fragment).
* Components can be imported and reused in other files.

## 5. Your Task (Practice)

👉 Now it’s your turn: 1. Inside your src/ folder, create a file called Header.js. 2. Define a **functional component** Header that shows: Hello, I am learning React Components 🚀. 3. Import Header into App.js and display it **above** your Hello React.js text. 4. Run the app and confirm your custom component is visible.

✅ By completing this, you’ll understand how to: - Create a custom component. - Import and use it inside another component. - Structure your React app with reusable pieces.