



# WEB TECHNOLOGIES

## React JS – Stateless Components

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### *Acknowledgement*

*The slides are created from various internet resources with valuable contributions from multiple professors and teaching assistants in the university.*

# Stateless Components

## Agenda

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- Introduction
- Demo
- Key differences

# Stateless Components

## Introduction

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- A component that has **no internal state management** in it
- Can be **written as functions that just return the JSX** element
- Simple **functional components without having a local state**
- Usually associated with how a concept is presented to the user
- Properties are passed like regular parameters. The props are displayed like **{props.name}**
- Hook in react is available to add state behavior in functional component

# Stateless Components

## Demo

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- Sample code

```
function Demo(props) {  
  return <h1> Welcome to REACT JS, {props.Name} </h1>; }  
}
```

- Code to render such components remains the same.

```
ReactDOM.render(<Demo Name = "friend"/>, destination )
```

//Rendering the component in React 18

```
const root = ReactDOM.createRoot(document.getElementById('root'));  
root.render(<Demo Name="friend" />);
```

# Stateless Components

## Demo



```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>React 18 Example</title>
</head>
<body>
  <div id="root"></div>
  <script src="https://unpkg.com/react@18/umd/react.development.js" crossorigin></script>
  <script src="https://unpkg.com/react-dom@18/umd/react-dom.development.js" crossorigin></script>
  <script src="https://unpkg.com/@babel/standalone/babel.min.js"></script>
  <script type="text/babel">
    function Demo(props) {
      return <h1>Welcome to React JS, {props.Name}</h1>;
    }
    const root = ReactDOM.createRoot(document.getElementById('root'));
    root.render(<Demo Name="friend" />);
  </script>
</body>
</html>
```

**Welcome to React JS, friend**

# Stateless Components

## Key differences - Stateless and Stateful components

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- **Stateless component**
  - **Either functional components** (*the standard approach today*) **or class component**
  - It takes an input (props) and returns the output (react element)
  - No internal state management in it
  - Also known as Presentational components/Dumb components
- **Stateful component**
  - **Always a class component**(traditional approach) *or a functional component using React Hooks.*
  - It is created by extending the React.Component class.
  - Dependent on its state object and can change its own state. The component re-renders based on changes to its state
  - Also known as Smart or container Components



# THANK YOU

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