Developer Student Clubs

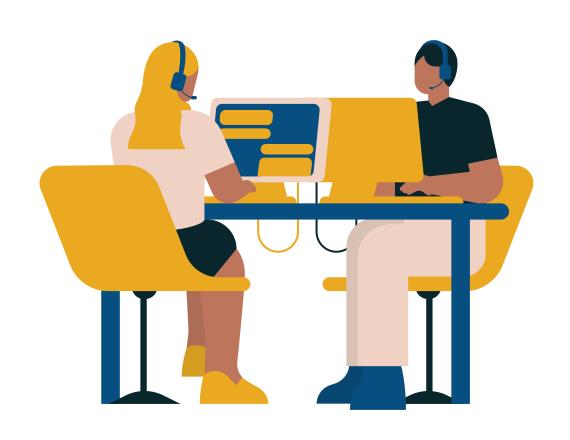Getting Started with
React JS

What is React.js

- Developed by Facebook
- React is a view layer library, not a framework like Backbone, Angular etc.
- You can't use React to build a fully-functional web app

Why should I use React?

- Easy to read and understand views
- The concept of components is the future of web development
- If your page uses a lot of fast-updating data or real-time data - React is the way to go
- Once you and your team are over React's learning curve, developing your app will become a lot faster
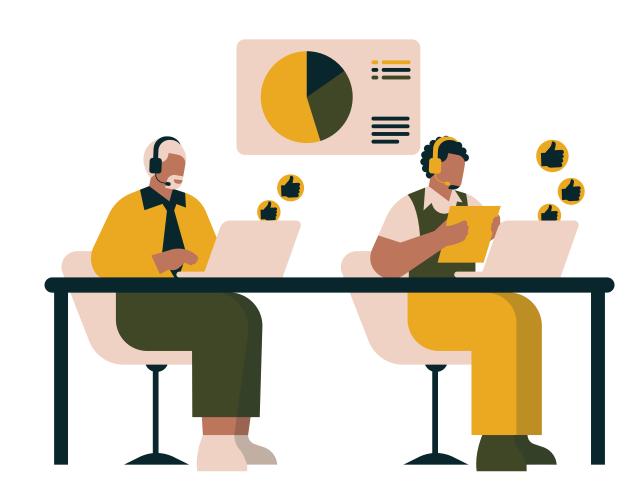
Fundamentals

Most imortant tearms in React

- Virtual DOM
- JSX
- Hooks
- Props
- Component

Virtual DOM

- The virtual DOM is used for efficient re-rendering of the DOM
- React aims to re-render the virtual tree only when the state changes
- Uses 2 virtual trees (new and previous) to find differences and batch update real DOM
- Observes data changes (setState) and does dirty-checking to know when to re-render the component
- Whenever possible, does not update the entire component in real DOM - only computes a patch operation that updates part of the DOM

JSX

- Arguably, one of the coolest things in React
- The XML-like syntax for generating component's HTML
- Easier to read and understand large DOM trees
- Translates to plain JavaScript using react-tools

```
1   const menu = <ul>
2       {menu.map(item => (
3           <li>
4               <a href={item.link}>{item.name}</a>
5           </li>
6       ))}
7   </ul>;
```
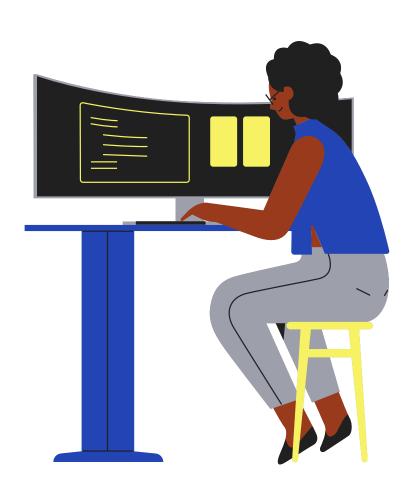
Hooks

- A Hook is a unique function that lets you "hook into" React features. For example, useState is a Hook that enables you to add React state to function components.
- If you write a function component and realize you need to add some state to it, previously you had to convert it to a class. Now you can use a Hook inside the existing function component.
- Basic hooks: usState(), useEffect(), useContext()

Props

- Passed down to component from parent component and represents data for the component

Components

- Components are self-contained reusable building blocks of the web application.
- React components are basically just idempotent functions (same input produces same output).
- They describe your UI at any point in time, just like a server-rendered app.

For any queries or help contact me:

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