COMP6080
Web Front-End Programming

Testing - Unit Tests, Component Tests

Component Testing

Component testing is a process of unit testing where we ensure that our Framework's components, regardless of how they're integrated into the broader app, function as expected.

Concepts surrounding unit & component testing were discussed in the testing introduction lecture.

Testing ReactJS

There are two main libraries we will use to test ReactJS components:

1. Jest - a Javascript unit testing framework
2. React Testing Library - A testing framework specific to ReactJS, that further extends our capabilities

Thankfully, Create React App installs Jest and React Testing Library as part of its installation.

Testing Element Example

Let's take a look at a basic black-box test for a simple ReactJS component. We are expected "title" to be optional with a fallback of 'Click Me!'

```
1  export const Button = ({ onClick, title = 'Click Me!', mode }) => {
2    const _class = mode === 'dark' ? 'dark-mode' : 'light-mode';
3    return (
4      <button onClick={onClick} className={_class}>
5        {title}
6      </button>
7    )
8  };
```