Plain Javascript vs React

Thursday, March 24, 2022   2:09 PM

Plain Javascript

- Instructive
- Traditional programming approach
  - We write program
    - to modify data
    - decide what data will be displayed on which location
    - **show the data in the right place**
    - **Pull the data from UI (textbox) manually**
- **Problem**
  - **You need to keep checking when data changes**
  - **You need to keep your data and UI in sync yourself.**
  - **It is a manual process.**

React

- Declarative
- We don't read/write data to/from UI manually
- We create a UI that is designed to display a predefined data structure
  - Cell can display one O or X that is passed to
  - A BookListItem can display detains of one book passed to it.
- UI doesn't know how it gets the information
  - Logic

- Ui **Reacts** to changes in the connected data (props/state)
  - When data changes UI is updated.
  - We don't have to do it manually

- Programmers role

What Programmer will do in React

1. Create Declarative Components

- Components should know what data they will display.
- When data changes display is updated. NO additional logic.

- Data can be 'props' or 'state'

2. Modify Data on some event

- There are only a few event that you must understand

1. Click Event (Button/Link/List Selection)
2. Input Event (Text change/checkbox selection
3. Lifecycle Event
    - componentDidMount
    - componentDidUpdate
4. Timer event
    - Less used.

In the UI, you don't think of manipulation logic. In event handling you don't think of UI model