Welcome Geeks

Topics to be covered

- Introduction to React JS
- Setting up your Dev Environment
- Introduction to Node & NPM
- Create React App Boilerplate & Introduction to JSX
- Organising Code & Creating a Hello World Application
- Projects Discussion

Introduction to React JS

React JS is a JavaScript Library for building frontend applications or user interfaces

It allows you to create reusable UI components.

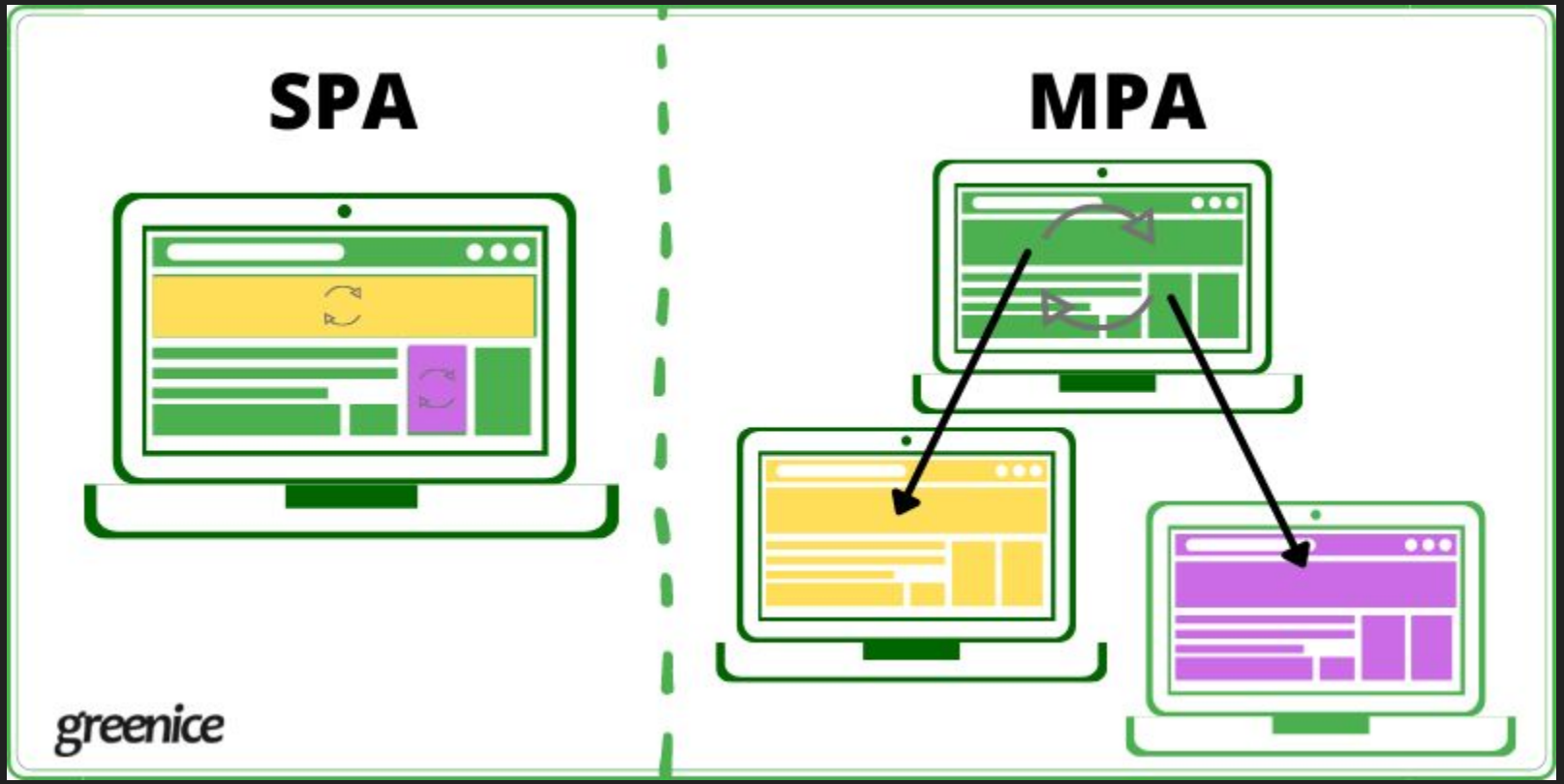
Component?

Building block of a react app. (code or function doing a specific function)

Advantages of React JS

- Efficient & Fast - allows you to build SPA
- Created by Facebook
- Popularity
- Community Support

SPA?



Components?

No Commitments
Cancel online anytime with no long-term contracts.
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Lives are on the line as the Professor's plan begins to unravel and the crew must fend off enemies from both inside and outside the Bank of Spain.
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MONEY HEIST
NARCOS
THE IRISHMAN
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YOU
BIG MOUTH
NETFLIX

Components?

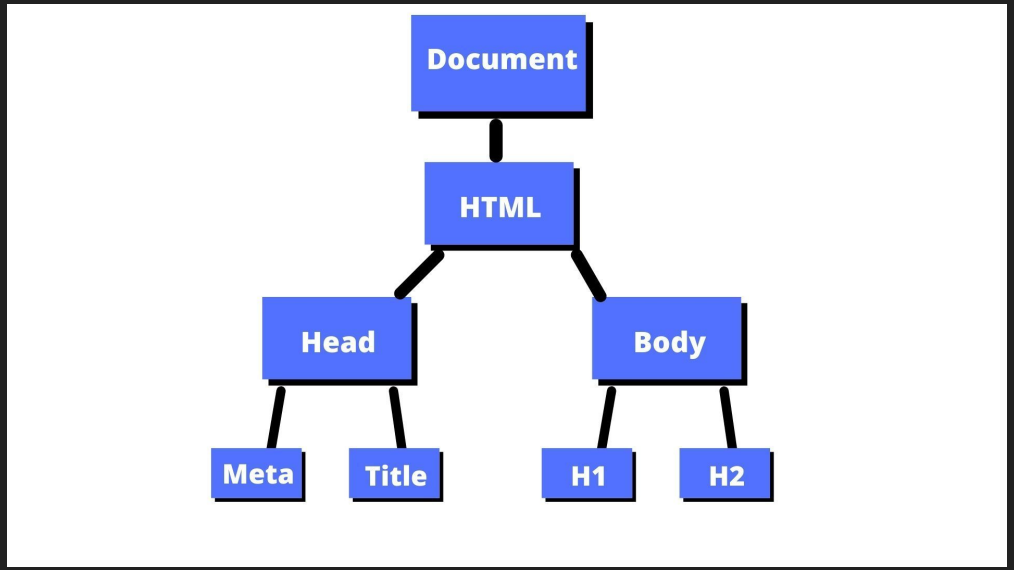
```
<div>
 <img src=”mh.jpg” >
</div>
```

```
<div>
 <img src=”mh.jpg” >
</div>
```

```
<div>
 <img src=”nc.jpg” >
</div>
```

DOM and Virtual DOM

The DOM views an HTML document as a tree of nodes. A node represents an HTML element. It is a structural representation of the HTML elements of the web application.



Virtual DOM

- In React, each UI is an individual component and each component has it’s own state.
- React follows the observable pattern and observes the changes of the states.
- Whenever a change is made in the state of any component, React updates the virtual DOM tree but does not change the real DOM tree
- After updating, React then compares the current version of the virtual DOM with the previous version.
- React knows which objects are changed in the virtual DOM, based on that it only changes those objects in the Real DOM, making minimum manipulating operations.
- This process is noted as "diffing".

Setting up your Dev Environment

- Install NodeJS and NPM:
  Go to https://nodejs.org/en/
  Download the latest version of NodeJS LTS with Administrator privileges.

npm

- npm - package manager for JS and world’s largest software registry

Setting up your Dev Environment

- Install Create React App

  npx create-react-app my-app

- Gives a major head start for creating react applications!

- Install React Dev Tools

Directory Structure Created using create-react-app

JSX - JavaScript XML

- Syntax extension to JavaScript

Example -
const name = “test”
const el = <h1> Hello {name} </h1>