React js Introduction

Agenda

- **What is React Js?**
- **React: key features**
- **Companies using React**
- **Setting Dev Envrionment**
- **Running App**

What is React Js?

- **Open source, declarative, efficient, and flexible JavaScript library for building user interfaces.**
- **compose complex UIs from small and isolated pieces of code called "components".**

What is React.js?

- **React is used to build user interfaces (UI) on the front end.**
- **Developed at facebook and instagram**
- **Reat for mobile**
- **Useful documentation**
- **Used in production by uber, netflix and twitter etc.**

What is React.js?

- **React is not a framework (unlike Angular, which is more opinionated).**

- **React is the view layer of an MVC application (Model View Controller)**

Features

- **We can create components, which are like custom, reusable HTML elements, to quickly and efficiently build user interfaces.**

- **React also streamlines how data is stored and handled, using state and props.**

Hello World React

- **ReactDOM.render(**
- **<h1>Hello, world!</h1>,**
- **document.getElementById('root')**
- **);**
-

Installing React Js

- **1. Download and install node.js and npm.**

- **2. Install npx.**

  – npm install -g npx

- **3. Install create-react-app**

  – npm install -g create-react-app

- **4. Create-react-app can be used to create starter react appplication.**

1. Installing Node and NPM

- **Node runtime**
  - JavaScript runtime built on Chrome's V8 JavaScript engine. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient.

- **NPM**
  - Node.js' package ecosystem, npm, is the largest ecosystem of open source libraries in the world.

In Windows and MacOs

- **Download the required installer:**
  - Go to https://nodejs.org/en/
  - Select the button to download the LTS(Long Term Support) build that is "Recommended for most users".

- **Install Node by double-clicking on the downloaded file and following the installation prompts.**

- **Verify installation**
  - Node -v
  - Npm -v

Installing NPM in CentOs 7

- **wget https://nodejs.org/dist/v8.9.3/node-v8.9.3-linux-x64.tar.xz**

- **tar --strip-components 1 -xf node-v8.9.3-linux-x64.tar.xz**

- **Verify installation**

- **Node -v**

- **Npm -v**

2. Install npx.

- **Node Package Executer can be installed using npm**
  - npm install -g npx
- **Verify version**
  - npx -v

3. Install create-react-app

- **Facebook has created Create React App.**
- **Its an environment that comes pre-configured with everything required to build a React app.**
- **It will create a live development server, use Webpack to automatically compile React, JSX, and ES6, auto-prefix CSS files, and use ESLint to test and warn about mistakes in the code.**
  - npm install -g create-react-app
  - create-react-app --version

Creating First React Project

- **1. create-react-app can be used to create a starter react project.**

  – npx create-react-app student

  – cd student

- **We can run our application using**

  – npm start

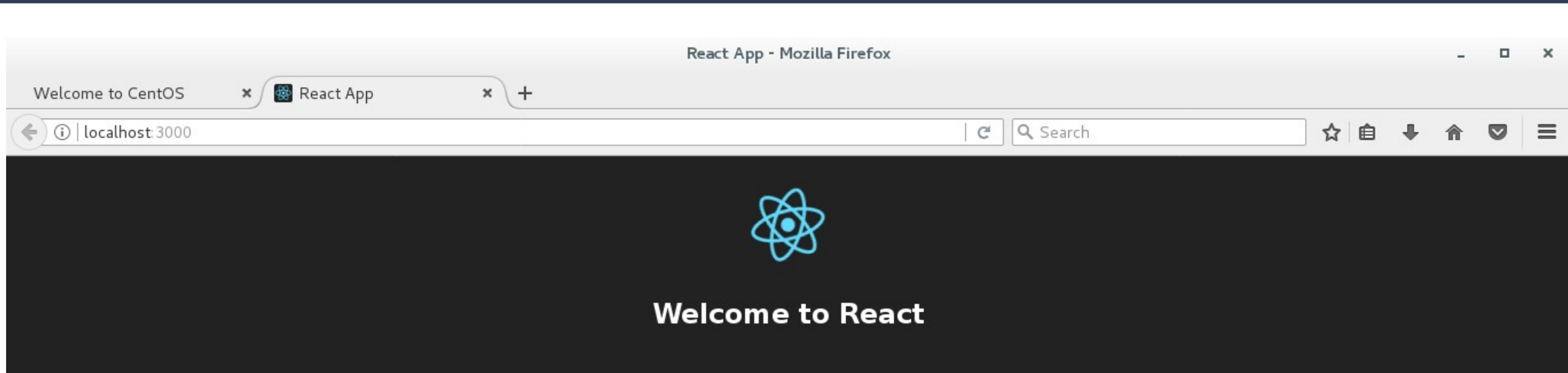- **It will compile the code and start development server at http://localhost:3000/**

-

Starting React App

React App running in browser

Resources

- **https://reactjs.org/**