**Objectives**

* Define SPA and its benefits
* Define React and identify its working
* Identify the differences between SPA and MPA
* Explain Pros & Cons of Single-Page Application
* Explain about React
* Define virtual DOM
* Explain Features of React

In this hands-on lab, you will learn how to:

* Set up a react environment
* Use create-react-app

**Prerequisites**

The following is required to complete this hands-on lab:

* Node.js
* NPM
* Visual Studio Code

**Notes**

Estimated time to complete this lab: **30 minutes.**

Create a new React Application with the name “myfirstreact”, Run the application to print “welcome to the first session of React” as heading of that page.

1. To create a new React app, Install Nodejs and Npm from the following link:

<https://nodejs.org/en/download/>

1. Install Create-react-app by running the following command in the command prompt:



1. To create a React Application with the name of “myfirstreact”, type the following command:



1. Once the App is created, navigate into the folder of myfirstreact by typing the following command:



1. Open the folder of myfirstreact in Visual Studio Code
2. Open the App.js file in Src Folder of myfirstreact
3. Remove the current content of “App.js”
4. Replace it with the following:

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1. Run the following command to execute the React application:



1. Open a new browser window and type “localhost:3000” in the address bar

**package.json**

{

"name": "myfirstreact",

"version": "0.1.0",

"private": true,

"dependencies": {

"react": "^18.0.0",

"react-dom": "^18.0.0",

"react-scripts": "5.0.1"

},

"scripts": {

"start": "react-scripts start",

"build": "react-scripts build"

},

"browserslist": {

"production": [

">0.2%",

"not dead",

"not op\_mini all"

],

"development": [

"last 1 chrome version",

"last 1 firefox version",

"last 1 safari version"

]

}

}

**index.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8" />

<meta name="viewport" content="width=device-width, initial-scale=1" />

<title>React App</title>

</head>

<body>

<noscript>You need to enable JavaScript to run this app.</noscript>

<div id="root"></div>

</body>

</html>

**index.js**

import React from 'react';

import ReactDOM from 'react-dom/client';

import './index.css';

import App from './App';

const root = ReactDOM.createRoot(document.getElementById('root'));

root.render(

<React.StrictMode>

<App />

</React.StrictMode>

);

**App.js**

import React from 'react';

function App() {

return (

<div>

<h1>Welcome the first session of React</h1>

</div>

);

}

export default App;

**index.css**

body {

margin: 0;

font-family: Arial, sans-serif;

text-align: center;

padding-top: 50px;

}

**OUTPUT**

**A screenshot of a computer

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