# ReactJS Hands-On Lab - Solutions

## Objectives

- Understand SPA (Single Page Application) vs MPA (Multi Page Application)  
- Learn about React and its features  
- Set up your first React app  
- Run the app to display a welcome message

## Prerequisites

- Node.js & NPM installed from: https://nodejs.org/en/download/  
- Visual Studio Code installed

## Step-by-Step Instructions

1. 1. Install Create React App Tool

* Command:

npm install -g create-react-app

1. 2. Create New React Application

* Command:

npx create-react-app myfirstreact

1. 3. Navigate into the project folder

* Command:

cd myfirstreact

1. 4. Open the project in Visual Studio Code

* Command:

code .

1. 5. Modify App.js

* Replace contents of src/App.js with:

import React from 'react';  
  
function App() {  
 return (  
 <div className="App">  
 <h1>Welcome to the first session of React</h1>  
 </div>  
 );  
}  
  
export default App;

1. 6. Run the React Application

* Command:

npm start

1. 7. View in Browser

* Go to: http://localhost:3000

## Key Concepts

SPA (Single Page Application): Loads a single HTML page and dynamically updates it as the user interacts.  
MPA (Multi Page Application): Loads a new page from the server each time.  
React: A JavaScript library for building user interfaces using components.  
Virtual DOM: A lightweight copy of the real DOM that React uses for efficient rendering.

## React Features

- Declarative syntax  
- Component-based architecture  
- Virtual DOM for fast UI updates  
- Reusable code