React.js

Lab Book

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Document Revision History

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| Date | Revision No. | Author | **Summary of Changes** |
| 21-Mar-2016 | 0.1 | Karthik M | Initial Draft |
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Getting Started

## Overview

This lab book is a guided tour for learning React.js. It comprises solved examples and ‘To Do’ assignments. Follow the steps provided in the solved examples and work out the ‘To Do’ assignments given.

## Setup Checklist for React.js

Here is what is expected on your machine in order for the lab to work.

Minimum System Requirements

* Intel Pentium 90 or higher (P166 recommended)
* Microsoft Windows 7 or above.
* Memory: 2GB of RAM (1GB or more recommended)
* Google Chrome v45 or above

Please ensure that the following is done:

* A text editor like Notepad++, Notepad

## Instructions

* For all coding standards refer Appendix A. All lab assignments should refer coding standards.
* Create a directory by your name in drive <drive>. In this directory, create a subdirectory react\_assign. For each lab exercise create a directory as lab <lab number>.
* You may also look up the on-line help provided in the <http://facebook.github.io/react/>.
* The faculty will introduce you to the editor to be used.

## Learning More (Bibliography if applicable)

* Apress Introduction to React by Cory Gackenheimer
* PACKT Publishing React.js Essentials by Artemij Fedosejev

1. React.js Essentials

|  |  |
| --- | --- |
| **Goals** | * Understand the process of creating a jQuery page and viewing it in a browser window. * Understanding Content Delivery Network (CDN) and using the hosted jQuery file from Google or Microsoft |
| **Time** | 20 minutes |

## 1.1: Creating Hello World React Page (By Transforming JSX to JS)

Create a web page to display the message ‘Hello World’.

Solution:

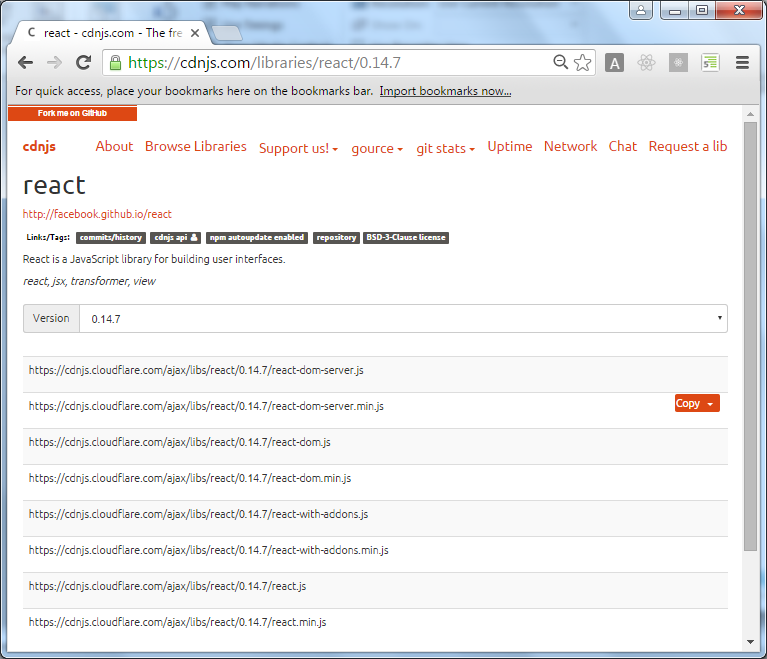
**Step 1:** Download the latest React script (React v0.14.7) from https://cdnjs.com/libraries/react

Figure 1: cdnjs.com

**Step 2:** Create a folder named scripts under React-Lab-Solutions in C:\ or D:\ and place the scripts in it by downloading it from the following url as shown below .

**react.**js : https://cdnjs.cloudflare.com/ajax/libs/react/0.14.7/react.js

**react-dom.**js : https://cdnjs.cloudflare.com/ajax/libs/react/0.14.7/react-dom.js

**browser.**js : https://cdnjs.cloudflare.com/ajax/libs/babel-core/5.8.34/browser.js

**jquery.**js : https://cdnjs.cloudflare.com/ajax/libs/react/0.14.7/react.js

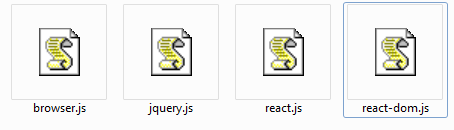


Figure Script to Download

**Step 3:** Open any text editor like notepad and type the following code and save it with .html extension in React-Lab-Solutions folder.



Figure 3: Save contents as an *.html* file

**Step 4:** Open the file which we have saved, in browser. Output will appear as shown in the following figure:

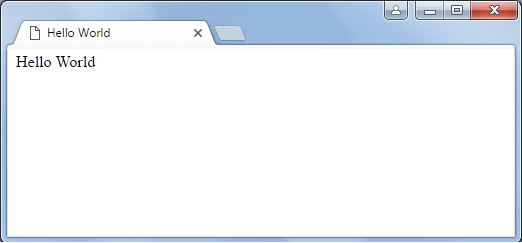
****

Figure 4: HelloWorld.html in a browser

## 1.2: TODO-Assignment: Working with CSS Classes

Create a React Webpage by referring the HTML Code given below and try to match the output as shown below.

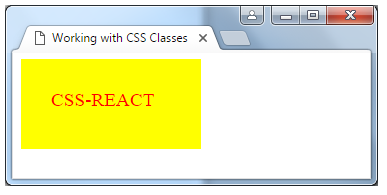


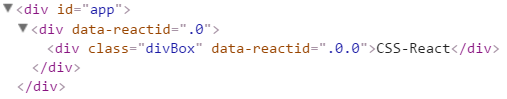
Figure TODO Assignment-Output

**Code for Reference :**



Figure TODO-Assignment-Code Snippet

****



Use **className** instead of **class** CSS Attribute for the above rendered code.

## 1.3: TODO-Assignment: Creating a React Component

Create a NumberFinder React component which has a prop number to accept number types. The component should render a div with either the text "Odd Number" or "Even Number" depending on the value passed to the prop.

Code for Reference:

****

Figure TODO-Assignment-Code Snippet

## 1.4: TODO-Assignment: Nested Component

Create a nested React component Parent and Child. Add a click handler to the button placed in child Component; so that when it is clicked call the function sayHi from the Parent Component

Code for Reference:

Figure TODO-Assignment Code Snippet

## 1.5: TODO-Assignment: Working with State and Ref

Create a nested React component Parent and Child. Add a click handler to the button placed in child Component; so that when it is clicked call the function sayHi from the Parent Component

Code for Reference:

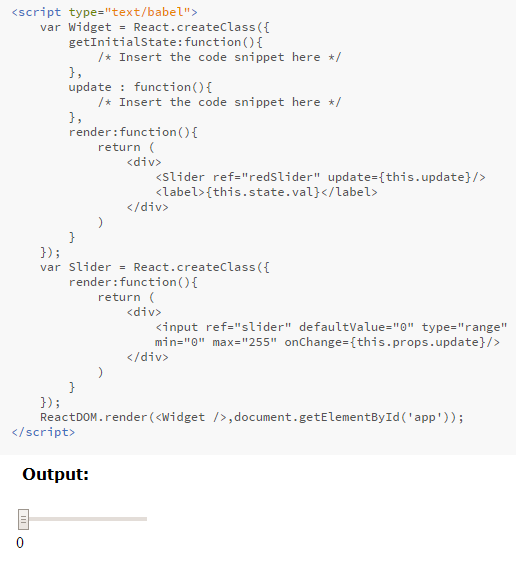


Figure TODO-Assignment-code-snippet

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