REACT JS

DEFINITION OF WHAT'S REACT?

React is a JavaScript Framework.

WHAT'S ITS PURPOSE?

Using the DOM of the browser make it slow. React will use a virtual DOM which is much fast.

BEFORE YOU START CODING, IT'S ESSENTIAL TO UNDERSTAND

COMPONENT

STATE and PROPS

LIFECYLE

EVENTS

RENDER() method

ReactDOM.render()

AJAX call

How to setup the environment
Requirements

- Download NodeJS
- Download Visual Studio Community (2017)
- IIS Express

Getting started your first project
Into the IDE (Visual Studio)

- Create **MVC** / **CORE project**
- Create a new **Controller** under the folder Controllers
- Create a new **View** by right clicking on the Index()
- Add RenderSection("scripts",false) on the **_Layout.cshtml**
- Add on the **Index.cshtml**
    - <div id="root"></div>
    - @section scripts{}

- Create a new **folder and named React** under the **folder Scripts**
- Create **webpack.config.js**
  - Look at the screenshot and copy all the structure

```
module.exports = {
    context: __dirname,
    entry: {
        index: __dirname + '/index.jsx'
    },
    output:
    {
        path: __dirname + "/dist",
        filename: "[name].bundle.js"
    },
    watch: true,
    mode: 'development',
    module: {
        rules: [{
            test: /\.jsx?$/,
            exclude: /(node_modules)/,
            use: {
                loader: 'babel-loader',
                options: { presets: ["@babel/preset-env", "@babel/preset-react"] }
            }]
        }
    }
}
```

- Create **index.js** or **jsx**
- Create the **package.json**
  - Open the **React folde**r using **folder file explorer** by right click
  - Click and Type on the bar: **CMD**, it will open your prompt cmd
  - Type the cmd line: **npm init**
  - Inside the file, add on the section scripts: { "build": "webpack" }

Note : @*Babel meant the Babel version above 7. Depend on what you install.*

Nice ! we are ready to install our dependencies :)

TWO WAYS TO INSTALL YOUR DEPENDENCIES

Install automatically

Cmd line: npm install

before you do this, make sure your package json contains all the dependencies, check the screenshot below:

```
"devDependencies": {
  "@babel/core": "^7.2.0",
  "@babel/preset-env": "^7.2.0",
  "@babel/preset-react": "^7.0.0",
  "babel-cli": "^6.26.0",
  "babel-core": "^6.26.3",
  "babel-loader": "^8.0.4",
  "babel-preset-env": "^1.7.0",
  "babel-preset-react": "^6.24.1",
  "react": "^16.6.3",
  "react-dom": "^16.6.3",
  "semantic-ui": "^2.4.2",
  "webpack": "^4.5.0",
  "webpack-cli": "^3.1.2"
}
```

Install manually by using cmd lines

npm install react react-dom

npm install webpack@latest

npm install @babel-loader @babel-core @babel/preset-react @babel/preset-env

if it asks you to install **webpack -cli** says yes and follow the steps

How to use?

- To run the compiler
  - **npm run build**
- To see any changes of your JavaScript (js) / JavaScript XML (jsx)
  - **ctrl + S**

Additional Resources

- [React Tutorial](#)
- [Semantic-ui-react](#)
- [Semantic-ui-css](#)
- [Babel](#)
- [NodeJS](#)
- [MVC visual studio 2017](#)