

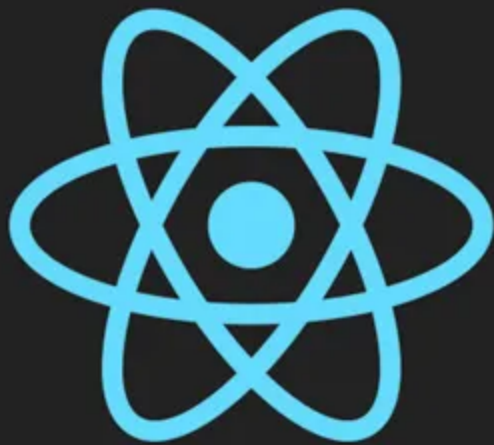
A Developer Diary

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February 23, 2016 By [Abhisek Jana](#) — [5 Comments](#) ([Edit](#))

Setup React JS Development Environment for ES5 and ES6



React

Setup - ES5/ES6

Setting up React JS Development can be sometimes confusing and time consuming. In this **Setup React JS Development Environment for ES5 and ES6** tutorial we will go through some easier way of setting up the env. We have separate setup instructions for ES5 and ES6. The objective of this tutorial is to have you up and running with React JS in no time. We will use browser based JAXTransformer for ES5 and WebPack for ES6.

React JS Setup for ES5

Most of the production ready codebase is using ES5 and it's easier to integrate with existing framework when using ES5. Setting up React JS in ES5 is also fairly easy and does not need any specific tools.

Download React JS

Download React Starter Kit from

<https://facebook.github.io/react/downloads.html>. We will use the `react-dom-x.xx.x.js` and `react-with-addons-x.xx.x.js`. As of now `React 0.14.7` is the latest version. The `JSXTransformer-0.13.3.js` is no longer available as part of the React Starter Kit.

Babel

If you have started learning React JS, then you must know that you will be using JAX to create the DOM Elements. You need to then use a transformer in order to convert the JAX Syntax into regular Java Script. We will use Babel for for.

Please add the following to your html.

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

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

Now, these can't be used in the production, since you want to pre-build your js and add that to your project. However for a development environment these browser transformers are just fine.

Adding JSX File

We will now add `app.jsx` in the index.html. The type should be `text/babel`.

Create a new file named `app.jsx` inside lib folder. Add the following code.

```
var App = React.createClass({

  propTypes: {

  },

  getInitialState:function(){
    //this.setState() in constructor()
    return {};
  },

  render: function() {
    return(

    )
  }
});
```

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```
ReactDOM.render(,document.getElementById( 'root' ));
```

Now open the index.html using any web server (I recommend Brackets.io) and you should be able to see the output is getting rendered by React JS.

Please find the ES5 related files in [github](#).

React JS Setup for ES6

Setting up React JS for ES6 is not as easy as ES5, however you need to just follow some simple steps. We will be using WebPack Here.

Prerequisites

Node.js is the only prerequisites for installing React JS Dependencies in ES6 Environment. Please install it if you don't have it already before proceed to the next step.

Install modules using npm

Create a new folder for your project. Open command prompt/terminal there and execute following commands.

```
npm init
```

Press enter to set the default values. Here is a screen print.

```
Use `npm install <pkg> --save` afterwards to install a package and save it as a dependency in the package.json file.
```

```
Press ^C at any time to quit.
```

```
name: (react_setup)
```

```
version: (1.0.0)
```

```
git repository:
```

```
keywords:
```

```
author:
```

```
license: (ISC)
```

```
npm install --save react
```

Here is the screen print

```
Abhiseks-MacBook-Pro:react_setup $ npm install --save react
react_setup@1.0.0 /Users/ / react_setup
`-- react@0.14.7
   +-- envify@3.4.0
   | +-- jstransform@10.1.0
   | | +-- base62@0.1.1
   | | +-- esprima-fb@13001.1001.0-dev-harmony-fb
   | | `-- source-map@0.1.31
   | | `-- amdefine@1.0.0
   | `-- through@2.3.8
   `-- fbjs@0.6.1
      +-- core-js@1.2.6
      +-- loose-envify@1.1.0
      | `-- js-tokens@1.0.2
      +-- promise@7.1.1
      | `-- asap@2.0.3
      +-- ua-parser-js@0.7.10
      `-- whatwg-fetch@0.9.0

npm WARN EPACKAGEJSON react_setup@1.0.0 No description
npm WARN EPACKAGEJSON react_setup@1.0.0 No repository field.
```

```
npm install --save react-dom
```

Here is the screen print

```
Abhiseks-MacBook-Pro:react_setup $ npm install --save react-dom
react_setup@1.0.0 /Users/Abhisek/Projects/ReactJS/ReactJS/react_setup
└─┬─ react-dom@0.14.7
  npm WARN EPACKAGEJSON react_setup@1.0.0 No description
  npm WARN EPACKAGEJSON react_setup@1.0.0 No repository field.
```

Then execute the following as well.

```
npm install --save-dev webpack
npm install --save-dev babel-loader babel-core
npm install --save-dev babel-preset-es2015
npm install --save-dev babel-preset-react
```

Configure Babel

We would now need to create a configuration file named `.babelrc`. Please execute the following lines to create and configure the file (this will work if you are in unix/mac). Alternatively you can just add `{ "presets": ["react", "es2015"] }` to the `.babelrc` file.

```
echo '{ "presets": ["react","es2015"] }' > .babelrc
```

Configure WebPack

Now lets create a file name `webpack.config.js` in order to configure WebPack. Add the following contents to the file. We will have our code inside

ES6 folder, otherwise can remove the ES6 folder and directly refer `lib` and `dist`.

```
module.exports={
  context: __dirname + "/ES6/lib",
  entry: "./app.jsx",
  output: {
    path: __dirname + "/ES6/dist",
    filename: "bundle.js"
  },
  module: {
    loaders: [

      {
        test: /\.jsx$/,
        exclude: /node_modules/,
        loader: ['babel'],
        query: {
          presets: ['es2015', 'react']
        }
      }
    ]
  }
};
```

Running WebPack

Our final task would be to run the WebPack. Here is the command to listen to any changes to the *.jsx files and make the bundle.js. If you run it now you might get an error saying that the app.jsx does not exists.

For windows, you might just want to run the `webpack.bat` file with the same argument.

```
./node_modules/.bin/webpack -d --watch
```

Building JSX in ES6

Now add the `index.html` in the ES6 folder. Here is the content of the file.

Create a folder named `lib` and add the `app.jsx` there.

```
import React ,{Component} from 'react';  
import ReactDOM from 'react-dom';  
  
class App extends Component {  
  render(){  
    return(  

```

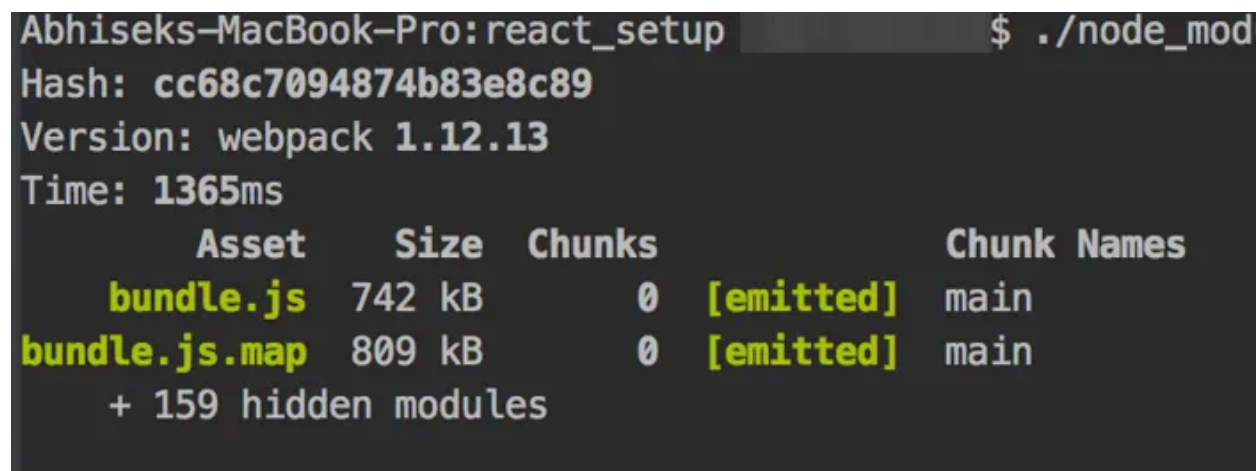
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```
    );  
  }  
}
```

```
ReactDOM.render(,document.getElementById('root'));
```

Now go ahead and the run the webpack using this

`./node_modules/.bin/webpack -d --watch`. You might see the following as the output.

A terminal window showing the output of running webpack. The prompt is 'Abhiseks-MacBook-Pro:react_setup \$./node_mod'. The output shows the hash 'cc68c7094874b83e8c89', version 'webpack 1.12.13', and time '1365ms'. Below this is a table with columns 'Asset', 'Size', 'Chunks', and 'Chunk Names'. The table lists 'bundle.js' (742 kB, 0 chunks, [emitted], main) and 'bundle.js.map' (809 kB, 0 chunks, [emitted], main), followed by '+ 159 hidden modules'.

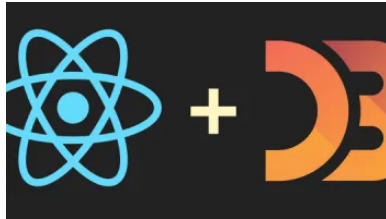
Asset	Size	Chunks	Chunk Names
bundle.js	742 kB	0	[emitted] main
bundle.js.map	809 kB	0	[emitted] main
+ 159 hidden modules			

Now the `dist/bundle.js` must have been created. Open `index.html` in any web server and you should be able to see the output.

Please find the code in [github](#).

Let me know if you have any questions. Hope this Setup React JS Development Environment for ES5 and ES6 will help you to get started with React JS. I will have more tutorials on React JS posted soon.

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ks says

October 12, 2016 at 9:46 am

(Edit)

Hi :

I tried to launch the index.html at /react_setup/ES5/index.html , why m i seeing a blank page.

Did i miss any step ?

Reply



adeveloperdiary says

October 12, 2016 at 2:56 pm

(Edit)

hi ks,

Could you please open the console and find out whether you are seeing any error? Please post the error here.

Thanks,

A Developer Diary

Reply

ks says

October 14, 2016 at 4:48 am

[\(Edit\)](#)

Hi : I running on windows, I didn't see any error from the command prompt when i issue this command

```
C:\Users\react_setup\ES5>start index.html
```

[Reply](#)

Arindam says

November 7, 2016 at 3:18 pm

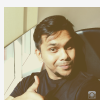
[\(Edit\)](#)

The right babel configuration that worked for me is

```
echo { "presets": ["es2015"] } > .babelrc
```

or change the content of .babelrc to

```
{ "presets": ["es2015"] }
```

[Reply](#)

Sudipto Roy says

July 18, 2017 at 6:33 am

[\(Edit\)](#)

In webpack.config.js, we need to change the loader description follows:

```
loader: 'babel-loader',
```

It's no longer allowed to omit the '-loader' suffix when using loaders. You need to specify 'babel-loader' instead of 'babel', see <https://webpack.js.org/guides/migrating/#automatic-loader-module-name-extension-removed>

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