

## Lab Exercise 12

Dr. Sarvar Abdullaev  
s.abdullaev@inha.uz

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In this project, you will learn how to set up your project using webpack. You will use Bootstrap and jQuery to build your modern-looking landing page.

### 1 Clone Project, Setup Webpack and Install Dependencies

Follow below steps in order to ensure that your project is set up correctly:

1. Clone newly created repository from accepted assignment to your local labs folder.
2. Open terminal window in this folder and run `npm init -y` to create a new project. Note that you must have NodeJS installed on your computer. If NodeJS is not installed on your computer, download and install it from this link: <https://nodejs.org/en/>
3. In newly created `package.json` file, replace `"main": "index.js"` with `"private": true`, so it looks as follows:

```
{
  "name": "bootstrap4-website",
  "version": "1.0.0",
  "description": "[![preview](images/scroll-eff.gif)]",
  "private": true,
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

4. Run `npm i -D webpack webpack-cli` to install webpack in your project folder as a development dependency.
5. Run `npm i -D webpack-dev-server` to install stand-alone development server
6. In `package.json`, make following modifications:

```
"scripts": {
  "build": "webpack",
  "start": "webpack-dev-server --open"
},
```

7. Run `npm i -D html-webpack-plugin` to install required loaders to your project
8. Run `npm i -D html-loader css-loader style-loader file-loader` to install required loaders to your project
9. Run `npm i -D sass-loader node-sass` to install SASS to your project
10. Run `npm i -S bootstrap jquery popper.js` to install Bootstrap dependencies in your project
11. Run `npm i -S autoprefixer postcss-loader` to webpack loaders necessary for compiling Bootstrap.
12. Create `webpack.config.js` file and configure it as shown below:

```
const path = require('path');
const HtmlWebpackPlugin = require('html-webpack-plugin');

const config = {
  entry: './src/index.js',
  output: {
    path: path.resolve(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  module: {
    rules: [
      {
        test: /\.scss$/,
        use: [
          {
            loader: 'style-loader'
          },
          {
            loader: 'css-loader'
          },
          {
            loader: 'postcss-loader',
            options: {
              plugins: function () {
                return [
                  require('autoprefixer')
                ];
              }
            }
          },
          {
            loader: 'sass-loader'
          }
        ]
      },
      {
        test: /\.css$/,
        use: [
          'style-loader',
          'css-loader'
        ]
      },
      {
        test: /\.html$/,
        use: 'html-loader'
      },
      {
        test: /\.(png|jpe?g|gif)$/,
        use: 'file-loader'
      }
    ]
  },
  plugins: [
    new HtmlWebpackPlugin({
      template: './src/index.html'
    })
  ]
}

module.exports = config;
```

13. Open ./src/index.html and write following HTML

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Bootstrap Landing Page</title>
```

```
</head>
<body>
<div class="container">
  <h1>Hello World</h1>
</div>
</body>
</html>
```

14. Create `./src/scss/styles.scss` and write following SASS code to import Bootstrap into your project.

```
@import "~bootstrap/scss/bootstrap";
```

15. Open `./src/index.js` and write following javascript to include Bootstrap into your project

```
import 'bootstrap';
import './scss/styles.scss';
```

16. Run `npm run build` to create `dist` folder with your `index.html` and `index.js`

17. Run `npm run start` to start your development web server. It will open a new browser window with your web site. Now, you are ready to continue your Bootstrap landing page.

18. Follow this tutorial to make your cool landing page using Bootstrap. Make sure you write all your CSS code in `./src/scss/styles.scss` file and all your Javascript code in `./src/index.js`, so your page appears and functions properly. After you finish this tutorial, you must have following page:

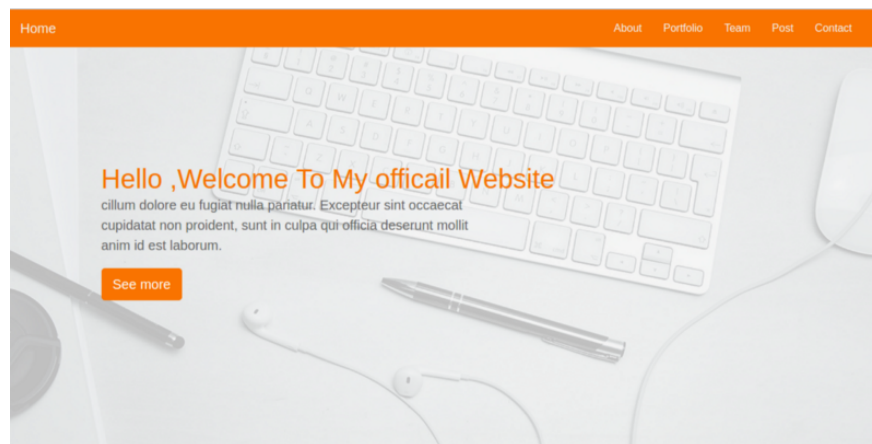


Figure 1

## 2 Final Solution

You can compare your solution with the final solution here: <https://github.com/hayanisaid/bootstrap4-website>. Note, this solution does not use Webpack.