Instructions for installing and setting up Node.js and webpack for Javascript app development using Visual Studio Code

- Install Node.js and npm will be installed as part of the node. If you use node -v in command line, and you can see the version number, node.js is installed

- Type npm -v in command line. If it shows the npm version number, then npm is installed

- Create a folder, which will be your app development folder, such as my_app. In this folder, create two sub-folders, src and dist

- Go to app folder, and type npm init. npm will ask several questions. You can use "my_app" as the package name and accept all the default for other questions. npm will automatically generate a set of files and folders for the project. One of them is the package.json file

- In the same folder in command line, type npm install webpack –save-dev to install webpack

- In the same folder in command line, type npm install webpack-cli –save-dev to install webpack cli

- In the same folder in command line, type npm install webpack-dev-server –save-dev to install webpack dev server

- In the same folder in command line, type npm install html-webpack-plugin –save-dev to install webpack html plug in

- Copy the webpack.config.js file to the my_app folder

Example of package.json file
{ "name": "my_app",
"version": "1.0.0",
"description": "the web portals for my app",
"main": "index.js",

"scripts": {
"dev": "webpack –mode development",
"build": "webpack –mode production",
"start": "webpack-dev-server –mode development –open",
"compile:saas": "node-sass src/sass/main.scss dist/css/my_app.css -w"
},
"author": "Yuan Huang",
"license": "ISC",
"devDependencies": {
"html-webpack-plugin" "^3.2.0",
"node-sass": "^4.14.1",
"webpack": "^4.41.5,
"webpack-cli":"^3.3.10","webpack-dev-server":"3.10.1"
},
"dependencies":{
"axios": "^0.19.2",

"crossfilter2": "ˆ1.5.2",
"d3": "ˆ5.16.0",
"d3-tip": "ˆ0.9.1",
"simple-datatables": "ˆ12.1.10"
} }

Example of webpack.config.js

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

module.exports = {
entry: './src/js/index.js',
output: {
path: path.resolve(__dirname, 'dist'),
filename: 'js/bundle.js'
},
devServer: {
contentBase: './dist'
},

plugins: [
new HtmlWebpackPlugin({
filename: 'index.html',
template: './src/index.html'
}) ]
}
```