

Second Assignment

* What is NPM?

NPM is the world largest Software Repository. This registry contains over 800,000 packages. It's a package manager for the JavaScript programming language managed by npm, it's a default package manager for the JavaScript runtime environment Node.js.

It consists of a Command line Client also called npm, and an online database of public and packages for private packages, called the npm registry.

* What is 'parcel/webpack'? why do we need it.

Parcel JS → It is a Web application bundler, different by its bundler developer. Superior. It offers blazing fast performance utilizing multithread processing and requires zero config.

It offers like

- Blazing fast bundle times.
- Bundle all your assets.
- Automatic Transform.
- Zero Config Code Splitting
- Hot Module Replacement

- Friendly error logging
- Parcel also cleaning our code and optimize our code.
- Parcel help to make our code compatible for our other version by ~~update~~.

Webpack.

It is a tool that bundles Javascript modules, also known as static module bundles. Modules are reusable chunks of code that are built from the Javascript, node-modules, images, CSS, style of your APP. If you have a large number of files, Webpack generates a single file that runs your app.

when Webpack process your application or package. It generates a dependency graph, which consist of various modules that your webpack app needs. in order to function as expected.

* What is .parcel-cache folder.

The .cache folder stores information about your project when parcel builds it, so that when it rebuilds, it doesn't have to re-parse, and re-analyze everything from scratch. It's a key reason why parcel can be so fast in development mode. And it should be in the .gitignore because ~~it has to be~~ it can, recreate when parcel builds the project.

* what is npx?

Npx stands for ~~npm~~ Node package execute.
It is simply an npm package. package runner. It allows developers to execute any javascript package available on the npm registry without even installing it. Npx is installed automatically with npm.

* what is difference between Dependencies and Dev Dependencies.

Dependencies

→ A Dependency is a library that a project needs to function effectively.

→ If a package doesn't already exist in the node directory then it automatically gets installed.

Dev Dependencies

→ Dev Dependencies are the packages a developer needs during development.

→ As you install a package npm will automatically install the Dev Dependencies.

Peer Dependencies

→ A peer dependency specifies that our package is compatible with a particular version of our peer package.

Peer Dependencies are not automatically installed. You need to manually modify your package.json file in order to add it.

→ included in the final code bundle.

→ Included in the final code bundle.

→ Can be included only when you are publishing your own package.

→ `npm install <package name>`

→ `npm install -D <Package name>`

→ Change the package.json file manually.

* What is Tree Shaking.

Tree Shaking is something like cleaning of code or removing the dead code or unused code from our code. In modern JavaScript the ^{module} bundlers, automatically removes all the dead code or chain's a code and make the code as production ready. By just compressing multiple files into one single file.

What is Hot Module Replacement?

HMR exchanges, add or remove the module while the application is running it make help to update the module and run the application faster.

→ It will help to maintain the last state of the application during execution.

✍

* → 5 Superpowers of Parcel.

→ Hot Reloading / Hot module Replacement

Whenever the Developer made any changes in the Code, Parcel automatically updates your Code in the browser. - no page reload necessary.

→ Dev Server.

Parcel includes a development server. Out of the box. Just run `parcel index.html` to get started.

→ Caching

Parcel builds your Code in parallel using worker threads. Everything is cached, so you never build the same Code twice. Also it handles dependency resolution, bundling, optimizing output.

→ Tree Shaking

Parcel supports tree shaking as it cleans your Code so it's clean or removes the unused module from your Code and makes it easier, and lightweight Code.

→ Minification

* What is .gitignore? What should we add and not add on it?

The .gitignore file tells Git which files has to be ignored while committing in the repository. and .gitignore is located in your root folder.

We should add to those files in the .gitignore which are created by itself or created by installing packages or while executing the packages.

Like .parcel-cache, node modules has to be in the .gitignore file.

* What is the difference between 'package.json' and 'package-lock.json'.

Package.json

Package-lock.json.

→ It contains basic information about the project

→ It describes the exact tree that was generated during the package installation. to have the identical tree.

→ It records imp. metadata about the projects.

It allows future dev to install the same dependencies in the project.

→ It contains information such as name, desc., author, script etc.

→ It contains locked version of the project

* Why should I not modify 'package-lock.json'.

It is not designed to be manually edited. as its purpose is to track the entire tree of dependencies and the exact version of each dependency.

* What is the Node module.

It provides a way to re-use the code in your Node application. In other ways like C++, C# languages. they are completely different from class.

Node Module can be said as Ocean of the modules. and we can fill our thirst by getting useful modules for our Application.

We don't have to push the Node module to the git repo.

* What is the dist folder.

It stands for distributable code like it is the build folder which contains all the files and folders, which can be hosted in server.

* What is the Browser list

It is the list of the browser in which we define. Our babel that it has to be given our code in these type of version browser.