

### 1. What is Npm?

Npm is a package manager which has two components: an online platform, and a command line interface.

So online platform helps to publish and share packages. It is written in javascript.

The Command line interface helps in installing and uninstalling packages, managing versions of the packages, and managing the dependencies of the packages.

### 2. What is parcel/Webpack? Why do we need it

The parcel is an open-source bundler that is used to create a react fast refresh application which gives the feature of hot reloading in the browser when we change a file and save it. It also has other features like tree shaking, caching, etc. We need it for building the production files, it generates a minify version based on tree shaking.

### 3. What is parcel cache?

Parcel-cache is a folder created while building a project through parcel. It uses the cache file when project rebuilds, it doesn't have to build from scratch as a result performance is fast.

<https://stackoverflow.com/questions/60695778/what-is-the-cache-folder-in-parcel-bundler-is-it-necessary-to-push-the-cache>

### 3. What is npx?

A package can be executed without installing it. It is a npm package runner, so even if a package is not installed before, it will be installed automatically and do the needful.

<https://www.geeksforgeeks.org/what-are-the-differences-between-npm-and-npx/>

### 4. What is difference between dependencies and devDependencies?

Packages which are required in production are kept in dependencies and packages which are only required for development or local development are kept in devDependencies.

<https://docs.npmjs.com/specifying-dependencies-and-devdependencies-in-a-package-json-file>

### 5. What is Tree shaking ?

Tree shaking describes the process of removing unreachable codes in the project. It works on the basis of exports and imports to remove unusable components. All the bundlers like babel, etc used tree shaking while bundling to decrease the file size.

[https://developer.mozilla.org/en-US/docs/Glossary/Tree\\_shaking](https://developer.mozilla.org/en-US/docs/Glossary/Tree_shaking)

### 6. What is Hot Module Replacement?

Hot Module Replacement exchanges, add, removes module while an application is running without a full reload.

It saves development time by only updating what is changed.

[\[https://webpack.js.org/concepts/hot-module-replacement/#:~:text=Hot Module Replacement \(HMR\) exchanges,by only updating what's changed\]\(https://webpack.js.org/concepts/hot-module-replacement/#:~:text=Hot Module Replacement \(HMR\) exchanges,by only updating what's changed\).](https://webpack.js.org/concepts/hot-module-replacement/#:~:text=Hot Module Replacement (HMR) exchanges,by only updating what's changed](https://webpack.js.org/concepts/hot-module-replacement/#:~:text=Hot Module Replacement (HMR) exchanges,by only updating what's changed).)

### 7. List down your 5 favorite superpowers of the parcel and describe any 3 them in your language.

The 5 favorites features of the parcel are: hot reloading, caching, lazy loading, tree shaking, API proxy. Hot reloading means as we change the code and save it automatically it updates the app in browser, we don't have to refresh the browser explicitly. In some cases it provides Hot Module Replacement

which only updates the change modules instead of full reload. As a result development time is saved.

Caching: when we build using parcel it creates caching files, which is used when rebuild is done to use those cached files for those modules which are not changed. It doesn't have to build from scratch.

Tree shaking: when project is built through parcel then unreachable codes are removed. It checks imports and exports to identify the unused modules. This decreases the size of the build.

<https://parceljs.org/features/development/>

#### 8. **What is gitignore? What should we add and not add into it?**

Folders specified under gitignored are not tracked by git. Even if those untracked files are changed it won't reflect in git status. Those are build files, node\_modules.

<https://git-scm.com/docs/gitignore>

#### 9. **What is the difference between package.json and package-lock.json?**

Package.json is used to install multiple packages mentioned in the dependencies and devDependencies (for local) for a project.

Package-lock.json has the exact version number which is installed in the project, specified here.

Every react project has a package.json by default but package-lock.json will come once npm installed is done.

#### 10. **Why should I not modify package-lock.json?**

Package-lock.json is not meant to be manually modified. It is implicitly modified when we do an npm install and it updates the exact version number in the package-lock. If changed randomly it might corrupt the whole project due to mismatch of packages versions and their dependencies.

<https://www.linkedin.com/pulse/packagejson-vs-package-lockjson-dehvon-curtis/>

#### 11. **What is node\_modules? Is it good idea to push node\_modules to git>?**

Node\_modules is like the cache of the external modules that the project depends on. When we do npm install they are downloaded from web and generated in node\_modules and it is node.js work to check whether the package exists or not when we do import.

It is not good idea to push node\_modules as it can be recreated by doing npm install.

[https://stackoverflow.com/questions/63294260/what-is-the-purpose-of-the-node-modules-folder#:~:text=You can think of the,\(without a specific path\)\)](https://stackoverflow.com/questions/63294260/what-is-the-purpose-of-the-node-modules-folder#:~:text=You can think of the,(without a specific path))).

#### 12. **What is dist folder?**

Dist folder contains the minified version of the source code of our project. That minified version is used in production. It comprises of all the compiled modules. In case of parcel it uses tree shaking to remove unreachable code to get as lesser size files as possible.

<https://www.geeksforgeeks.org/what-is-the-role-of-src-and-dist-folders-in-javascript->