Chapter 02 - Assignment - Igniting our App

Please Note: *Write the answers and code on your own while finishing your assignments. Try to put down your thoughts into words by yourself in your own words. (This will help you develop muscle memory and you will remember all the concepts properly)* ✌

# # Theory Assignment:

* - What is `NPM`?

Ans: NPM is just a software registry which contains various softwares which you can install as per req. You need node.js to use npm . NPM packages are defined in a file called package.json.

* - What is `Parcel/Webpack`? Why do we need it?

Ans: Parcel/Webpack is just a bundler or you can call it as a package.We need it as we want our project to be production ready.

* - What is `.parcel-cache`

Ans: . parcel-cache stores information about our project so whenever the parcel rebuilds it it does not have to create everything from scratch.

* - What is `npx` ?

Npx is just a tool for executing node packages

* - What is difference between `dependencies` vs `devDependencies`

Dependencies refers to global dependencies whereas devDependencies refers to dependencies req for our machine while developing.

* - What is Tree Shaking?

Tree Shaking is just a concept in which it removes the un wanted code, In modern JS app all this is done through bundlers automatically.

* - What is Hot Module Replacement?

When u make any small changes on your webpage , changes are reflected automatically without refreshing the page that functionality of parcel is Hot Module Replacement.

* - List down your favourite 5 superpowers of Parcel and describe any 3 of them in your own words.

1. Hot Module Replacement(HMR): When u make any small changes on your webpage , changes are reflected automatically without refreshing the page that functionality of parcel is Hot Module Replacement.
2. File Watcher Algo: When you make any changes in any file there is file watcher algo in parcel written in C++ which helps in knowing in which file we have made the changes.
3. Minify:It reduces the file size by removing whitespace , renaming variable to shorter name and other optimization.
4. Cleaning Our Code
5. Image Optimization

* - What is `.gitignore`? What should we add and not add into it?

.gitignore is just a file in which we write the files , folder name which we don’t want to be tracked by git.

Add In .gitignore: node\_modules , package-lock.json , package.json .

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

The major diff btw package.json and package-lock.json is it helps in maintaining the same version on dev and production.

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

As it helps in maintaining the same version on dev and production and helps in recreating node\_modules.

* - What is `node\_modules` ? Is it a good idea to push that on git?

node\_modules is like a database for npm. No , we never have to push node\_modules on git as we can recreate it using package\_lock.json.

* - What is the `dist` folder?

It stand for distributable . It contains the minimized version of source code. The code present in /dist folder is the code used in production.

* - What is `browserlists`

It tells us on what browsers our project will work.

Read about dif bundlers: vite, webpack, parcel

* Read about: ^ - caret and ~ - tilda

^ = If any parcel update comes then our project will automatically get updated

~ = It id used for major updates

* Read about Script types in html (MDN Docs)

# # Project Assignment:

* In your existing project
  + - intialize `npm` into your repo
  + - install `react` and `react-dom`
  + - remove CDN links of react
  + - install parcel
  + - ignite your app with parcel
  + - add scripts for “start” and “build” with parcel commands
  + - add `.gitignore` file
  + - add `browserlists`
  + - build a production version of your code using `parcel build`

# # References

* + [Creating your own create-react-app](https://medium.com/%40JedaiSaboteur/creating-a-react-app-from-scratch-f3c693b84658)
  + [Parcel Documentation](https://parceljs.org/getting-started/webapp/)
  + [Parcel on Production](https://parceljs.org/features/production/)
  + BrowsersList: <https://browserslist.dev/>