# Theory Assignment:

● - What is `NPM`?

NPM help to manage the packages

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

Parcel/Webpack will help to bundle the package. Not only that Parcel has lot of features init.

- Dev Builds

- Local Server

- HMR = HOT MODULE REPLACEMENT

- FILE WATCH ALGORITHM WRITTEN IN CPP

- CACHING--> FASTER BUILDS BECAUSE ALSO DOING CACHING

- Image optimization

- Minification

- Bundling

- Compress

- Consistent Hashing

- Differential Bundling (Support older browser)

- Diagnostic

- Error Handling

- Host your app in https

- Tree shaking remove unused code for us

- Different dev and prod bundles

● - What is `.parcel-cache`

It’s contains the cache and it helps respond faster.

● - What is `npx` ?

It execute the packages

Npx parcel index.html

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

Dependencies:- installed packages details mentioned in this section and it will help to deploy the application with require packages in any environment.

devDependencies:- installed packages details mentioned in this section and it will help to deploy the application with require packages in dev environment only.

● - What is Tree Shaking?

● - What is Hot Module Replacement?

What ever changes made in the application, it will reflect immediately.

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

Image optimization:- This will optimize the image and will

Filewatcher:- It watches the files continously and written in cpp. If any changes happen, it will invoke to rebuild the app immediately.

Manification

Compress

HMR

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

What ever mentioned in the .gitignore file it will exclude while push the code in the github.

We need to add the below details in the file

🡪node\_modules\

🡪dist\

🡪.parcel-cache

No need to add remaining files

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

Package.json:- Its main file for the application. Using this file only, dependencies will be install through npm

Package-lock.json:- It lock the vesion and keep the record of all the vesion which installed. It has exact version maintain in this file.

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

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

node\_modules contains all packages installed through npm. No its not good idea to push that on git.

● - What is the `dist` folder?

Parcel will generate the build and put it in the dist folder and maintain the code in compressed way.

● - What is `browserlists` Read about dif bundlers: vite, webpack, parcel

This will restrict to browse the app in specific versions or specific browsers or specific locations. Its all dependent on our requirement. It was explained in package.json

 "browserslist":[

    "last 2 versions"

  ]

● Read about: ^ - caret and ~ - tilda

Caret:- It will allow to install the minor version of the package

Tilda:- it will allow to install the major version of the package.

● Read about Script types in html (MDN Docs) # Project Assignment: - In your existing project

Type is module

● - intialize `npm` into your repo

Npm init

● - install `react` and `react-dom`

Npm install react,react-dom

● - remove CDN links of react

done

● - install parcel

Npm install parcel

● - ignite your app with parcel

Npx parcel index.html

● - add scripts for “start” and “build” with parcel commands

Npm run start

Npm run build

● - add `.gitignore` file

● - add `browserlists`

● - build a production version of your code using `parcel build`

Npx parcel build index.html

Note:- remove the app section in package.json