Assignment-2

1. whwhat is NPM?

NPM is a software package manager and installer

It's a key tool for modern JavaScript development, and it's widely used in both client-side and server-side development

2. what is parcel/webpack? Why do we need it?

In modern web development, **bundlers** like Parcel and Webpack are essential tools

**Parcel** and **Webpack** are both popular **bundlers** and **build tools** for modern web development. They help manage, optimize, and package your code and assets for production

3.what is .parcel-cache

The .parcel-cache directory is an internal cache used by **Parcel** to improve performance by storing intermediate build data and results

4. what is npx ?

npx is a command-line tool that comes with **npm** and is used to **execute binaries** from **npm packages** without needing to install those packages

5. what is difference between dependencies vs dev dependencies

Dependenices is a packages that your application needs in order to run in production

devDependenices is a packages that are only needed during development

6. what is Tree Shaking ?

**Tree shaking** is a technique to **remove unused code** from the final bundle, reducing the bundle size and improving load times.

7. what is Hot Module Replacement ?

**Hot Module Replacement (HMR)** is a powerful feature for modern web development that allows you to update your application in real-time without reloading the entire page

8.List down your favourite 5superpowers of parcel and describe any 3 of them in your own words.

1. Zero Configuration Setup
2. Fast Hot Module Replacement (HMR)
3. Built-in Code Splitting
4. Automatic Dependency Management
5. Optimized Production Builds

**Zero Configuration Setup**: Speed up the initial setup for your project and jump straight into development without worrying about bundler configurations.

**Fast Hot Module Replacement**: Gives you near-instant feedback, a crucial advantage for iterative development where you make many small changes.

**Built-in Code Splitting**: Optimizes your app’s load time by only loading necessary code, which is essential for large, production-grade web applications.

9. what is .gitignore ? what should we add and not add into it ?

The .gitignore file is a special file used by **Git** to specify which files and directories should **not** be tracked by version control. It tells Git which files to ignore when committing changes, ensuring that unnecessary, temporary, or sensitive files don't get added to your repository.

Add to .gitignore:

These are files that are specific to your operating system or development environment and don't need to be in the repository.

NOT Be Added to .gitignore:

You **should not** add files to .gitignore that are part of the core project, needed for the project’s functionality, or shared across team members

10. what is the differencr between package.json and package-lock.json

package.json is the high-level definition of your project's dependencies and data.

package-lock.json ensures that the exact versions of dependencies are installed consistently across all environments.

11. why should I not modify package-lock.json ?

You should **not modify** package-lock.json **manually** for several important reasons. The file is meant to be automatically managed by your package manager and modifying it directly can lead to issues.

12. what is node\_modules ? is it a good idea to push that on git ?

The node\_modules directory is where **npm** or **yarn** stores all the packages that your project needs in order to run.

**No**, it is generally **not a good idea** to push the node\_modules folder to Git.

13. what is the dist folder ?

The dist **folder** is a directory commonly used in software projects to store the **compiled**, **bundled,** or **minified** version of your code, typically ready for distribution or deployment

14. what is browserlists ?

**Browserslist** is a tool and configuration used to define which browsers your web application or website should support. It's commonly used in modern web development workflows to specify which browsers should be targeted for transpiling JavaScript, compiling CSS, and ensuring compatibility with other web technologies.