React Assignment 2

1. What is NPM?
2. NPM (Node Package Manager), npm is the world's largest Software Registry or library for software developers. It helps them easily share, download, and manage code packages that others have written. It is like a giant library of tools to save developers from writing everything from scratch.
3. What is Parcel/Webpack? Why do we use it?
4. Parcel and Webpack are tools that act like professional organizers for your website’s files. They take all the messy bits of code—HTML, CSS, JavaScript, images—and bundle them into clean, efficient packages that browsers can load quickly.

These tools save time by automating tasks like combining files, optimizing images, and fixing code issues.

1. What is Parcel Cache?
2. **Parcel cache** stores previously processed code and files to avoid redoing work during future builds. This speeds up the bundling process and saves time for developers.
3. What is npx?
4. **npx** is a tool that runs Node.js packages directly without installing them globally on your computer. It’s like borrowing a tool, using it once, and then returning it—quick and efficient!
5. What is the difference between dependencies and dev dependencies?
6. Dependencies: These are the packages your project needs to run in production (for users).

Dev Dependencies: These are the tools you need only during development, like testing frameworks or bundlers, but not when your app is live.

1. What is Tree Shaking?
2. Tree shaking is an automatic process where it removes unused code from your project during bundling in Parcel. It works especially well with modern JavaScript modules (ES6).
3. What is Hot Module Replacement?
4. Hot Module Replacement (HMR) is a feature that allows you to update parts of your web app (like styles or code) while it's running, without needing to refresh the whole page.
5. List down your 5 favorite superpowers of Parcel and describe any 3 of them in your own words?
6. Zero Configuration

Fast Builds with Caching

Hot Module Replacement (HMR)

Automatic Code Splitting

Tree Shaking

Built-in Support for Various File Types

1. Zero Configuration: Parcel works out of the box without needing complex setups. You don’t need to spend time configuring a bunch of settings to get started.
2. Hot Module Replacement (HMR) is a feature that allows you to update parts of your web app (like styles or code) while it's running, without needing to refresh the whole page.
3. Automatic Code Splitting: Parcel automatically splits your code into smaller chunks, which helps load parts of the app faster and only when needed. This reduces the overall loading time of your site.
4. What is “.gitignore”? What should we add to and not add to it?
5. .gitignore is a file that tells Git which files or folders to skip when tracking changes. You should add things like build files, logs, or secret keys that don’t need to be tracked by git and can’t add files and folders that need to be tracked like source code files.
6. What is difference between package.json and package.json?
7. package.json lists the project’s dependencies and their version ranges. package-lock.json locks the exact versions of those dependencies to ensure consistency across environments.
8. Why should I not modify package.lock.json?
9. You should not modify **package-lock.json** manually because it ensures consistency across all environments by locking exact dependency versions. Changing it can lead to unexpected issues and mismatched versions between different developers or machines.
10. what is node\_modules? is it good idea to push it to git?
11. **node\_modules** is a folder that stores all the project’s installed dependencies. It’s not good to push it to Git because it’s large and can be recreated with npm install.
12. What is dist folder?
13. The **dist** folder holds the final, optimized files of your project, ready for deployment. It includes everything needed for your app to run, like minified code and assets.
14. What is browserlists?
15. **Browserslist** is a tool that helps specify which browsers your project should support. It allows you to define a list of browsers (e.g., Chrome, Firefox) and their versions, so tools like Babel can adjust your code accordingly to ensure compatibility.