Date-21/12/2024
React Assignment-2

Theory

1.What is npm?

- NPM stands for Node Package Manager.
- NPM is a package manager for Node.js packages,modules.
- It is primarily used to manage packages or modules.
- The packages or modules are pre-built pieces of code that extend the functionality of Node.js application.
- The NPM registry hosts millions of free packages.

2.What is ‘ Parcel/Webpack’? Why do we need it ?

- Parcel and webpack are both module blunders for JavaScript applications,but they differ in their work and use.
- Webpack Usage- webpack requires some setup and configuration, typically through a web.config.js file,where you define loaders and plugins.
- Parcel Usage- parcel is typically used for smaller or less complex projects that don’t require the fine-grained control webpack offers.

3.What is ‘.parcel-cache’

- The .parcel-cache stores information about your project when parcel builds it,so that when it rebuilds,it doesn’t have to re-parse and re-analyze everything from scratch.
- It’s a key reason why parcels can be so fast in development mode.

4.What is npx ?

- Npx stands for Node Package eXecute.
- This command line utility,bundled with npm version 5.2.0 and above, allows developers to execute Node.js packages directly from the npm registry without globally installing them on your system.

5.What is the difference between ‘dependencies’ vs ‘devDependencies’ ?

- The main difference between dependencies and devDependencies is that dependencies are required for an application to run in production,while devDependencies are only needed for development and testing.

6.What is Tree Shaking?

- Tree shaking is a JavaScript technique that removes unused code from a bundle of files to optimize performance.
- Tree Shaking uses import and export statements to identify which code modules are used between files.
- It starts at the entry point and only includes functions that can be executed.
- The benefits of Tree Shaking are it reduces the file size,create clean structure and speed up load times and saves bandwidth.

7.What is Hot Module Replacement?

- Hot Module Replacement exchanges and adds or removes modules while an application is running.
- HMR speeds up development in retained applications,saves valuable development time and instantly updates the browser when modifications are made to CSS or JavaScript in the source code.

8.What is '.gitignore' ? Why should we add and not add into it ?

- .gitignore file is used in a git repository to ignore the files and directories which are unnecessary to project will be ignored by the git once the changes have been committed to the remote repository.
- The use of the .gitignore file to add the git repository command prompts the file to remove the temporary files because it can't share unnecessary files to the repository.
- So that unnecessary files are removed by git commands in the .gitignore file.

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

- While package.json sets the stage with dependency listings and version ranges through semantic versioning or specific numbers,package-lock.json goes a step further by resolving and documenting the precise dependencies,sub-dependencies,and installation paths for accurate reproducibility.
- Package.json defines the protect's basic dependencies and configuration,while package-lock.json locks down the entire dependency tree to specific versions, ensuring consistent and reproducible builds.together,they provide a robust system for managing dependencies in Node.js projects.

10. Why should I not modify ‘package-lock.json’?

- To ensure consistency and reproducibility across different environments,both files should be committed to version control.
- Package-lock.json file shouldn’t be modified directly.

11. What are ‘node-modules’? Is it a good idea to push that on git ?

- Node-modules consist of parcel and npm files when installed in the terminal and it contains many files.
- It’s not a good idea to push to git because node-modules contains many files which cannot be pushed to git.

12. What is the ‘dist’ folder?

- The dist folder,short for distribution folder, is dynamically generated when using the nuxt generate commands and includes the generated production readyHTML files and assets that are necessary to deploy and run your statically generated Nuxt application.

Coding

Github repository link- https://github.com/maradanijaswanth/React_Assignment-1