

What is Node Modules folder?

In the context of Node.js, the `node_modules` folder is a directory that typically resides in the root of a Node.js project. It is used to store the dependencies (external libraries or packages) that your Node.js project relies on.

When you install a package using the Node Package Manager (npm) or another package manager, the corresponding modules are downloaded and placed in the `node_modules` folder.

Here's why the `node_modules` folder is important:

- 1. Dependency Management:** Node.js projects often rely on third-party libraries or modules to provide functionality. These dependencies are listed in a project's `package.json` file, and the `node_modules` folder is where these dependencies are stored.
- 2. Isolation:** Each Node.js project can have its own set of dependencies in the `node_modules` folder. This ensures that different projects can use different versions of the same library without interfering with each other. Each project's dependencies are self-contained in its own `node_modules` directory.
- 3. Ease of Sharing and Distribution:** When you share your Node.js project with others or deploy it to a server, you can include

the `package.json` file, and others can easily install the required dependencies by running the `npm install` command.

The `node_modules` folder is typically excluded from version control systems (e.g., Git) to keep the repository size manageable, as dependencies can be easily installed based on the `package.json` file.

4. Version Control and Build Artifacts: As mentioned earlier, the `node_modules` folder is often excluded from version control to avoid cluttering repositories with a large number of files. Instead, developers typically include only the `package.json` file, and others can use it to install the necessary dependencies.

To install dependencies for a Node.js project, you can use the following command in the project's root directory:

```
npm install
```

This command reads the `package.json` file and installs the dependencies listed in it into the `node_modules` folder.