reactoverflow

JAVASCRIPT

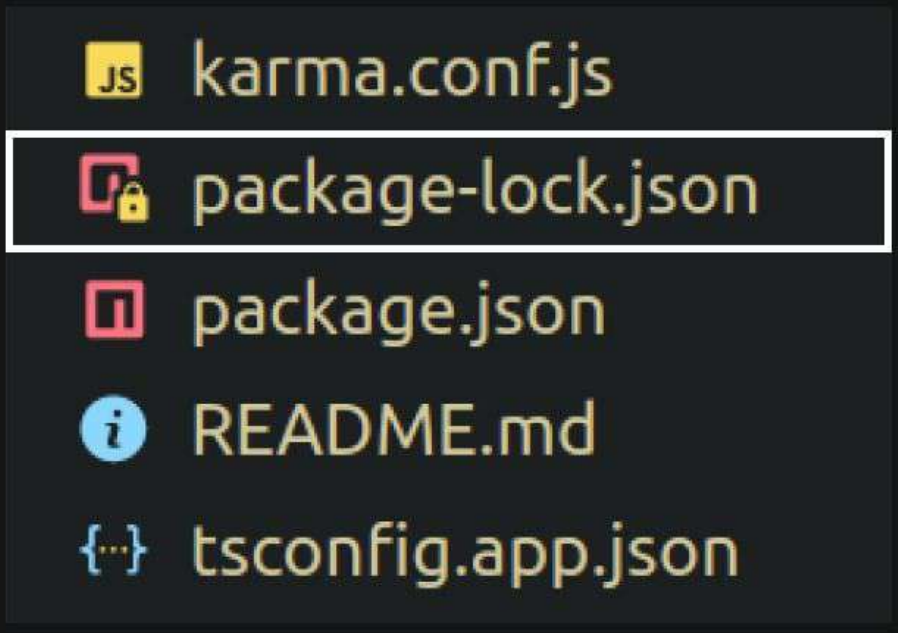
# package-lock.json Explained

SWIPE

Every project generated by npm cli have a file named package.json that stores the information about the project, like its name and depedencies

```
13    "dependencies": {
14      "@angular/animations": "~11.2.13",
15      "@angular/cdk": "^11.2.13",
16      "@angular/common": "~11.2.13",
17      "@angular/compiler": "~11.2.13",
18      "@angular/core": "~11.2.13",
19      "@angular/forms": "~11.2.13",
20      "@angular/material": "^11.2.13",
21      "@angular/platform-browser": "~11.2.13",
22      "@angular/platform-browser-dynamic": "~11.2.13",
23      "@angular/router": "~11.2.13",
24      "ngx-image-compress": "^11.0.3",
25      "rxjs": "~6.6.0",
26      "tslib": "^2.0.0",
27      "zone.js": "~0.11.3"
28    },
```

But there is also another file that gets generated named package-lock.json that you have to commit to your repo but most people don't know why it even exists



The package.json file has the list of depedencies and it's version that is required for your project to work.

And you can use special characters like ^ and ~ to let the npm install the lastest patch or minor version of the package

And this can be problematic sometimes

For example imagine you are using React version 18.0.0 on your project and you are using ^, this means npm will try to install the lastest patch and minor version of React

And then someone cloned your project and npm installed the 18.1.0 version of React and it broke your app

What he can do then is run the “npm ci” command to install the exact version of packages that were installed on your machine

The “npm ci” command will use the package-lock.json instead of package.json to look for the dependencies and its version

The package-lock.json file contains the description of the exact tree of your node_modules folder

And npm will update the package-lock.json file whenever node_modules changes by running npm commands like install, update or remove

This is mostly used for continuous integration

And this is why lockfile conflict is so common when merging in Git

Did you learn something new?

Let me know in the comments