Update Dependencies

Class Note • 1 backlink • Tag

1. Update `npm`

   `npm install -g npm@10.9.0`

```
(base) chris@YINGdeMacBook-Air codesnip % npm install -g npm@10.9.0

removed 25 packages, and changed 97 packages in 2s

25 packages are looking for funding
  run `npm fund` for details
```

2. Run `ncu` to check available update and `ncu -r` to update

```
(base) chris@YINGdeMacBook-Air codesnip % ncu
Checking /Users/chris/UCSDClass/24Fall/CSE210/codesnip/package.json
[====================] 18/18 100%

 @types/glob                          ^7.1.3  →   ^8.1.0
 @types/mocha                         ^8.0.0  →  ^10.0.10
 @types/mustache                      ^4.0.1  →   ^4.2.5
 @types/node                         ^12.11.7 →  ^22.9.1
 @types/vscode                        ^1.75.0 →   ^1.95.0
 @typescript-eslint/eslint-plugin     ^4.1.1  →   ^8.15.0
 @typescript-eslint/parser            ^4.1.1  →   ^8.15.0
 eslint                               ^7.9.0  →   ^9.15.0
 glob                                 ^7.1.6  →   ^11.0.0
 mocha                                ^9.1.3  →   ^10.8.2
 mustache                             ^4.0.1  →   ^4.2.0
 ts-loader                             8.2.0  →    9.5.1
 typescript                           ^4.0.2  →   ^5.6.3
 vscode-test                          ^1.4.0  →   ^1.6.1
 webpack                              ^5.76.0 →   ^5.96.1
 webpack-cli                          ^4.2.0  →   ^5.1.4
 y18n                                 >=4.0.1 →   >=5.0.8
```

```
(base) chris@YINGdeMacBook-Air codesnip % ncu -u
Upgrading /Users/chris/UCSDClass/24Fall/CSE210/codesnip/package.json
[====================] 18/18 100%

 @types/glob                          ^7.1.3  →   ^8.1.0
 @types/mocha                         ^8.0.0  →  ^10.0.10
 @types/mustache                      ^4.0.1  →   ^4.2.5
 @types/node                         ^12.11.7 →  ^22.9.1
 @types/vscode                        ^1.75.0 →   ^1.95.0
 @typescript-eslint/eslint-plugin     ^4.1.1  →   ^8.15.0
 @typescript-eslint/parser            ^4.1.1  →   ^8.15.0
 eslint                               ^7.9.0  →   ^9.15.0
 glob                                 ^7.1.6  →   ^11.0.0
 mocha                                ^9.1.3  →   ^10.8.2
 mustache                             ^4.0.1  →   ^4.2.0
 ts-loader                             8.2.0  →    9.5.1
 typescript                           ^4.0.2  →   ^5.6.3
 vscode-test                          ^1.4.0  →   ^1.6.1
 webpack                              ^5.76.0 →   ^5.96.1
 webpack-cli                          ^4.2.0  →   ^5.1.4
 y18n                                 >=4.0.1 →   >=5.0.8
```

3. Run `npm install` to install the dependencies
   - There are some warning, we can ignore them.

```
(base) chris@YINGdeMacBook-Air codesnip % npm install
npm warn deprecated inflight@1.0.6: This module is not supported, and leaks memory. Do not use it. Check out lru-cache if you want a good and tested way to coales
ce async requests by a key value, which is much more comprehensive and powerful.
npm warn deprecated rimraf@2.7.1: Rimraf versions prior to v4 are no longer supported
npm warn deprecated rimraf@3.0.2: Rimraf versions prior to v4 are no longer supported
npm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
npm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
npm warn deprecated fstream@1.0.12: This package is no longer supported.
npm warn deprecated vscode-test@1.6.1: This package has been renamed to @vscode/test-electron, please update to the new name
npm warn deprecated glob@8.1.0: Glob versions prior to v9 are no longer supported

added 347 packages, and audited 348 packages in 23s

71 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

4. Run `npm run compile` to try to compile the files
    - There are errors in the
        1. `src/data/fileDataAccess.ts`
        2. `src/test/suite/index.ts`
    - Fix the errors
        1. In `src/data/fileDataAccess.ts` , the `fs.readFileSync(this._dataFile, this._encoding);` takes a `BufferEncoding` as the encoding type instead of a `string`

            ```
            TypeScript
            //private _encoding = 'utf8';
                private _encoding: BufferEncoding = "utf-8"; // fs.readFileSync() takes BufferEncoding instead of string
            ```

        2. In `index.ts`, the way to import `glob` has changed.

            Correct Import for glob (with Promise support)

            If you are using **`glob`** and want to work with the **Promise-based version** of the function, you need to make sure you're importing the correct version of `glob`.

            Here's how you can import and use it correctly, assuming you're using the newer version (`glob 8.x` or higher), which supports promises:

            ```
            TypeScript
            // import * as glob from 'glob'; // For glob 7.x and below
            import glob from 'glob';
            ```

            This is because `glob` has moved to exporting the function as the default export in the newer versions. In older versions, you might have been using `import * as glob from 'glob'`, but now it's the default export.

            Using `glob` with Promises

With `glob 8.x+` and the correct import, you can use it with Promises as follows (glob 7.x and below is call-back only):

TypeScript

```
export function run(): Promise<void> {
    // Create the mocha test
    const mocha = new Mocha({
        ui: 'tdd',
        color: true
    });

    const testsRoot = path.resolve(__dirname,
'..');

    return new Promise((c, e) => {
        // Call-back version
        // glob('**/**.test.js', { cwd:
testsRoot }, (err, files) => {
        //      if (err) {
        //          return e(err);
        //      }

        // Promise version
        glob('**/**.test.js', { cwd: testsRoot
})
            .then((files: string[]) => {
            // other stuff are the same...

        });
    });
}
```