

## Introduction to Node + NPM

### Question 1: Installing node latest version and npm

#### Answer :

```
$ sudo apt update
```

Install *nodejs* using apt package manager:

```
$ sudo apt install nodejs npm
```

#### To verify :

```
$ nodejs --version
```

#### To install NPM:

```
$ sudo apt install npm
```

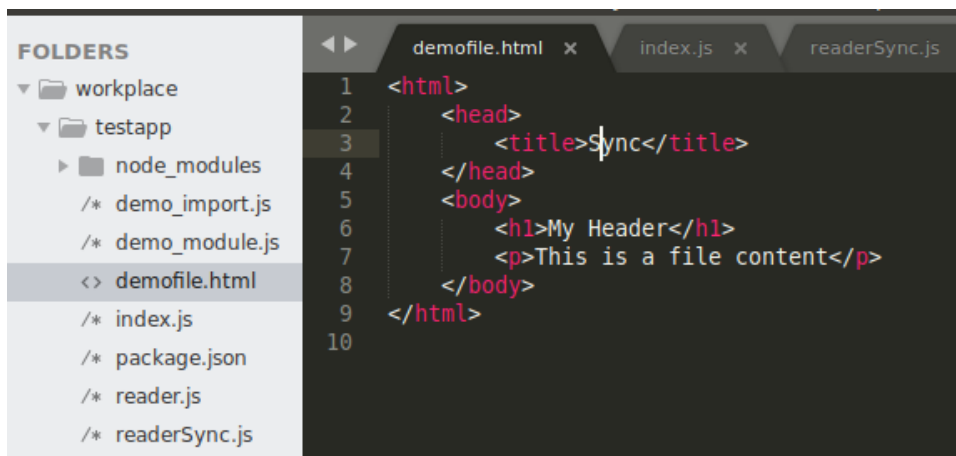
#### To verify :

```
$ npm --version
```

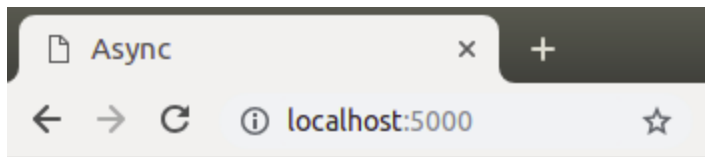
### Question 2: Read file asynchronously and synchronously.

#### Ans:

Firstly create a **demofile** and use it in read operations.



#### 1. Async reading

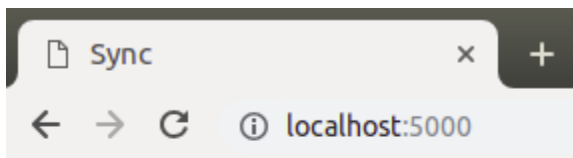


# My Header

This is a file content

```
1 var http=require('http');
2 var fs=require('fs');
3 http.createServer(function(request,response){
4     fs.readFile('demofile.html',
5         function(err,data){
6             response.writeHead(200,{ 'Content-Type': 'text/html' });
7             response.write(data);
8             response.end();
9         });
10 }).listen(5000);
11
```

## 2. Sync reading:



# My Header

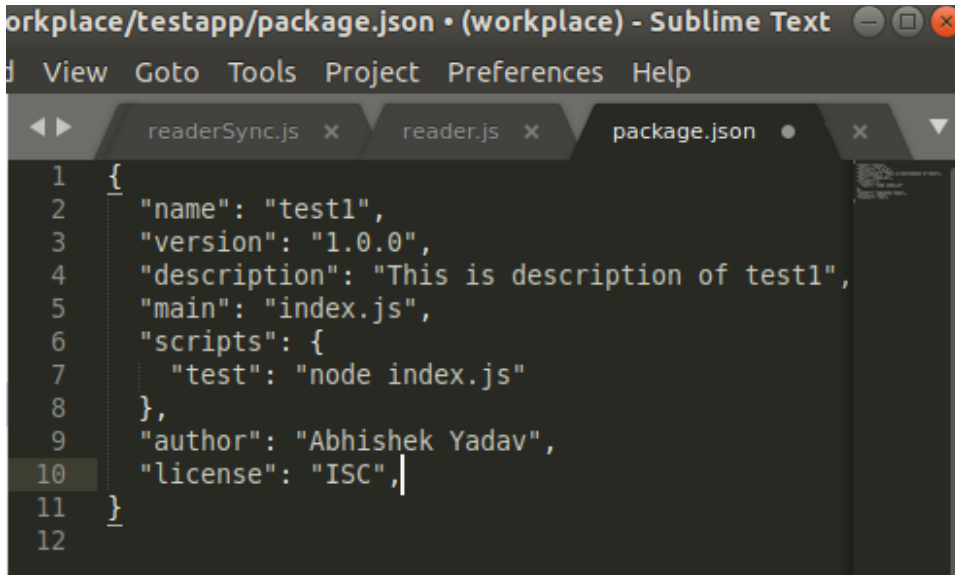
This is a file content

```
1 var http=require('http');
2 var fs=require('fs');
3 http.createServer(function(request,response){
4     var data=fs.readFileSync('demofile.html');
5     response.writeHead(200,{ 'Content-Type': 'text/html' });
6     response.write(data);
7     response.end();
8 }).listen(5001);
9
```

**Question 3. Install dependency and devdependencies.**

**Ans:** Installing dependencies.

**Before installing dependencies :**

A screenshot of a Sublime Text editor window titled "workplace/testapp/package.json • (workplace) - Sublime Text". The window has a menu bar with "File", "View", "Goto", "Tools", "Project", "Preferences", and "Help". Below the menu bar are three tabs: "readerSync.js", "reader.js", and "package.json". The "package.json" tab is active, showing a JSON file with the following content:

```
1 {  
2   "name": "test1",  
3   "version": "1.0.0",  
4   "description": "This is description of test1",  
5   "main": "index.js",  
6   "scripts": {  
7     "test": "node index.js"  
8   },  
9   "author": "Abhishek Yadav",  
10  "license": "ISC",  
11 }  
12
```

**In the process of installation:**

```
ttn@abhishek-yadav:~/Documents/workplace/testapp$ npm install lite-server --save-dev
test1@1.0.0 /home/ttn/Documents/workplace/testapp
+-- lite-server@2.4.0
| +-- browser-sync@2.26.3
| | +-- browser-sync-client@2.26.2
| | | +-- mitt@1.1.3
| | | | -- rxjs@5.5.12
| | | | -- symbol-observable@1.0.1
| | +-- browser-sync-ui@2.26.2
| | +-- async-each-series@0.1.1
| | +-- socket.io-client@2.2.0
| | | +-- backo2@1.0.2
| | | +-- base64-arraybuffer@0.1.5
| | | +-- component-bind@1.0.0
| | | +-- component-emitter@1.2.1
| | | +-- engine.io-client@3.3.2
| | | | +-- component-inherit@0.0.3
| | | | +-- ws@6.1.4
| | | | +-- xmlhttprequest-ssl@1.5.5
| | | | -- yeast@0.1.2
| | +-- y18n@3.2.1
| | | -- yargs-parser@4.2.1
| +-- connect-history-api-fallback@1.6.0
| +-- connect-logger@0.0.1
| | -- moment@2.24.0
| +-- lodash@4.17.11
| | -- minimist@1.2.0
| -- test1@0.4.5 extraneous

npm WARN optional Skipping failed optional dependency /chokidar/fsevents:
npm WARN notsup Not compatible with your operating system or architecture: fsevents@1.2.8
npm WARN test1@1.0.0 No repository field.
```

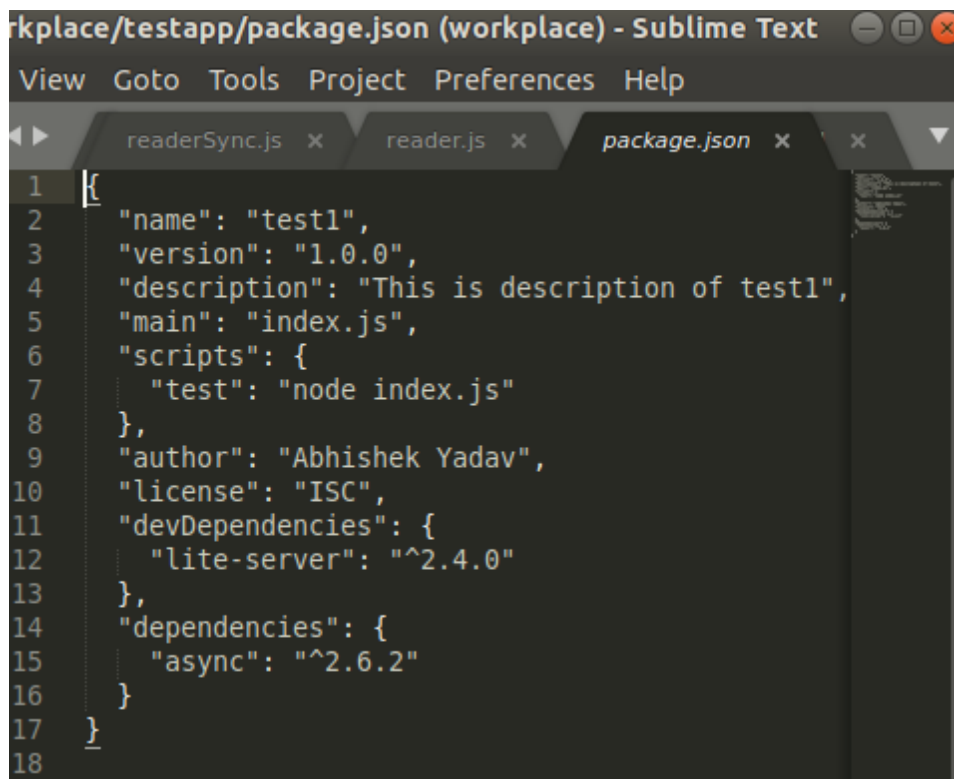
After installing devdependencies :

```
orkplace/testapp/package.json (workplace) - Sublime Text
View Goto Tools Project Preferences Help

readerSync.js x reader.js x package.json x
1 {
2   "name": "test1",
3   "version": "1.0.0",
4   "description": "This is description of test1",
5   "main": "index.js",
6   "scripts": {
7     "test": "node index.js"
8   },
9   "author": "Abhishek Yadav",
10  "license": "ISC",
11  "devDependencies": {
12    "lite-server": "^2.4.0"
13  }
14 }
15
```

**Installing production dependencies :**

```
ttn@abhishek-yadav:~/Documents/workplace/testapp$ npm install async --save
test1@1.0.0 /home/ttn/Documents/workplace/testapp
+-- async@2.6.2
+-- lite-server@2.4.0
|   -- browser-sync@2.26.3
|     -- portscanner@2.1.1
|       -- async@1.5.2
|         -- test1@0.4.5 extraneous
npm WARN optional Skipping failed optional dependency /chokidar/fsevents:
npm WARN notsup Not compatible with your operating system or architecture: fsevents@1.2.8
npm WARN test1@1.0.0 No repository field.
ttn@abhishek-yadav:~/Documents/workplace/testapp$
```

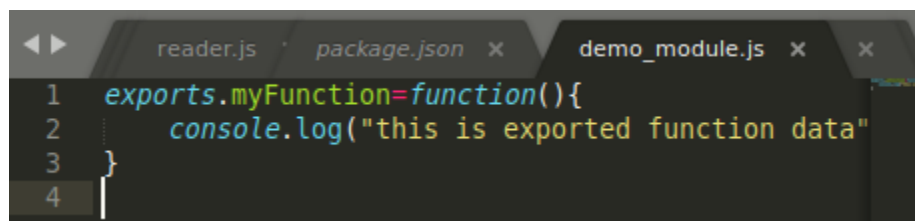
**After installation :**

```
workplace/testapp/package.json (workplace) - Sublime Text
View Goto Tools Project Preferences Help

readerSync.js x reader.js x package.json x x
1 {
2   "name": "test1",
3   "version": "1.0.0",
4   "description": "This is description of test1",
5   "main": "index.js",
6   "scripts": {
7     "test": "node index.js"
8   },
9   "author": "Abhishek Yadav",
10  "license": "ISC",
11  "devDependencies": {
12    "lite-server": "^2.4.0"
13  },
14  "dependencies": {
15    "async": "^2.6.2"
16  }
17 }
18
```

**Question 4: Creating module and importing & exporting them.**

**Ans:** Creating and exporting the module.



```
reader.js x package.json x demo_module.js x x
1 exports.myFunction=function(){
2   console.log("this is exported function data")
3 }
4
```

Importing the module:

```
package demo_module.js x demo_import.js x  
1 var imported_module=require('./demo_module');  
2 imported_module.myFunction();
```

Question 5: Creating a http server.

Ans:

```
index.js x readerSync.js x reader.js x  
1 const http=require('http');  
2  
3 http.createServer(function(req,res){  
4   res.writeHead(200,{  
5     'Content-Type':'text/plain'  
6   });  
7   res.end("Hello World Abhishek");  
8 }).listen(8080);
```

```
tn@abhishek-yadav:~/Documents/workplace/testapp$ node index
```

Activities Google Chrome ▾

localhost:8080 x +

← → ↻ ⓘ localhost:8080

Hello World Abhishek

17 April 2019

Intro to node + npm