

xio [Running]
Activities Terminal Thu 21:31

```
weijian@weijian-VirtualBox:~$ node -v
v10.19.0
weijian@weijian-VirtualBox:~$ npm -v
6.13.4
weijian@weijian-VirtualBox:~$ sudo npm install -g ethereumjs-testrpc
[sudo] password for weijian:
Sorry, try again.
[sudo] password for weijian:
Sorry, try again.
[sudo] password for weijian:
npm [WARN] deprecated ethereumjs-testrpc@6.0.3: ethereumjs-testrpc has been renamed to ganache-cli, please use this package from now on.
npm [WARN] deprecated mkdirp@0.5.4: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)
/usr/bin/testrpc -> /usr/lib/node_modules/ethereumjs-testrpc/build/cli.node.js

> uglifyjs-webpack-plugin@0.4.6 postinstall /usr/lib/node_modules/ethereumjs-testrpc/node_modules/uglifyjs-webpack-plugin
> node lib/post_install.js

npm [WARN] optional SKIPPING OPTIONAL DEPENDENCY: fsevents@^1.2.7 (node_modules/ethereumjs-testrpc/node_modules/chokidar/node_modules/fsevents):
npm [WARN] notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.12: wanted {"os":"darwin","arch":"any"} (current: {"os":"linux","arch":"x64"})
npm [WARN] optional SKIPPING OPTIONAL DEPENDENCY: abbrev@1.1.1 (node_modules/ethereumjs-testrpc/node_modules/fsevents/node_modules/abbrev):
npm [WARN] enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory,
rename '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/fsevents/node_mod
```

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weijian@weijian-VirtualBox: ~

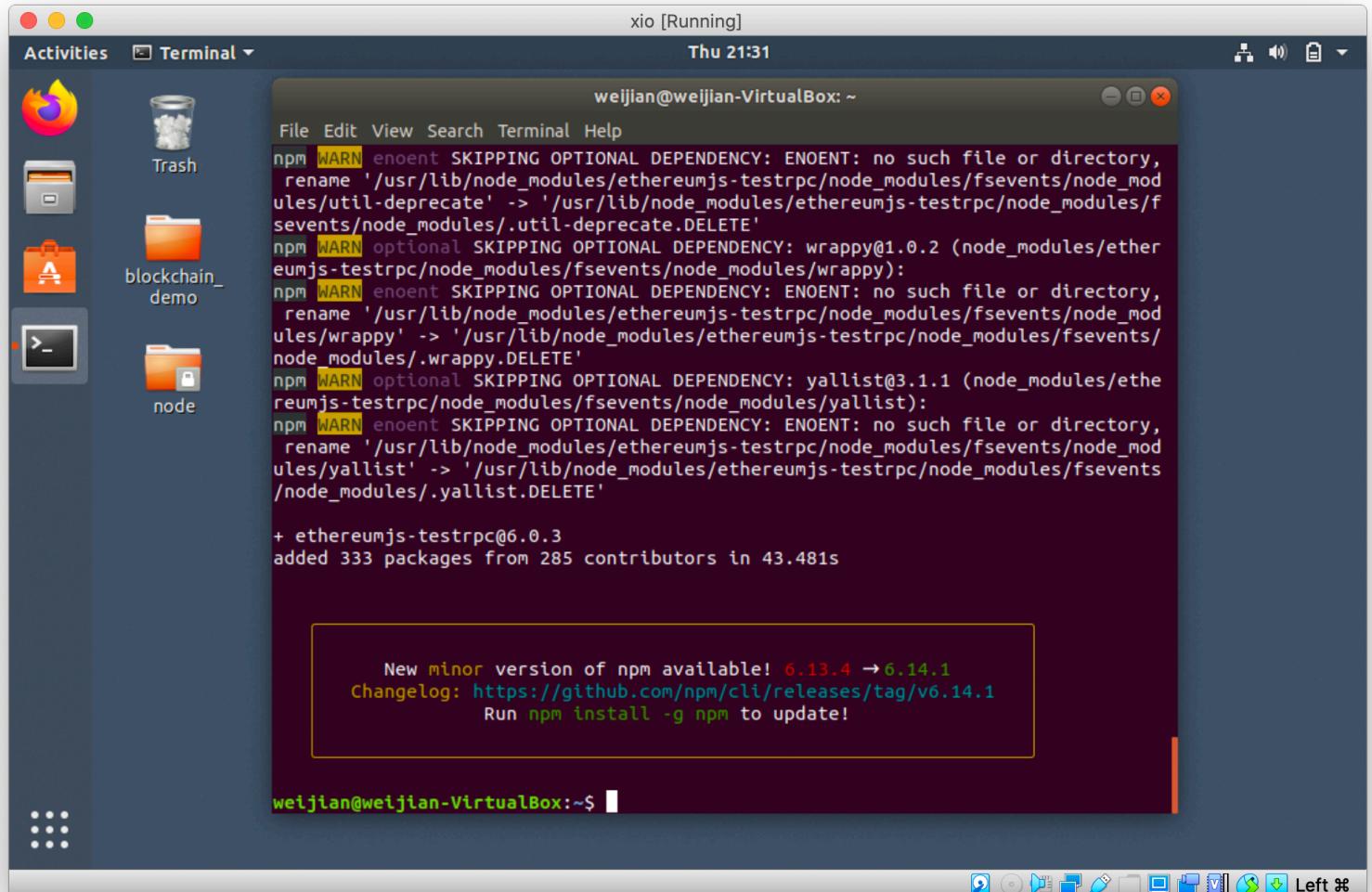
```
File Edit View Search Terminal Help
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory,
  rename '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/fsevents/node_mod
ules/util-deprecate' -> '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/f
sevents/node_modules/.util-deprecate.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: wrappy@1.0.2 (node_modules/ether
eumjs-testrpc/node_modules/fsevents/node_modules/wrappy):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory,
  rename '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/fsevents/node_mod
ules/wrappy' -> '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/fsevents/
node_modules/.wrappy.DELETE'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: yallist@3.1.1 (node_modules/ethe
reumjs-testrpc/node_modules/fsevents/node_modules/yallist):
npm WARN enoent SKIPPING OPTIONAL DEPENDENCY: ENOENT: no such file or directory,
  rename '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/fsevents/node_mod
ules/yallist' -> '/usr/lib/node_modules/ethereumjs-testrpc/node_modules/fsevents/
node_modules/.yallist.DELETE'

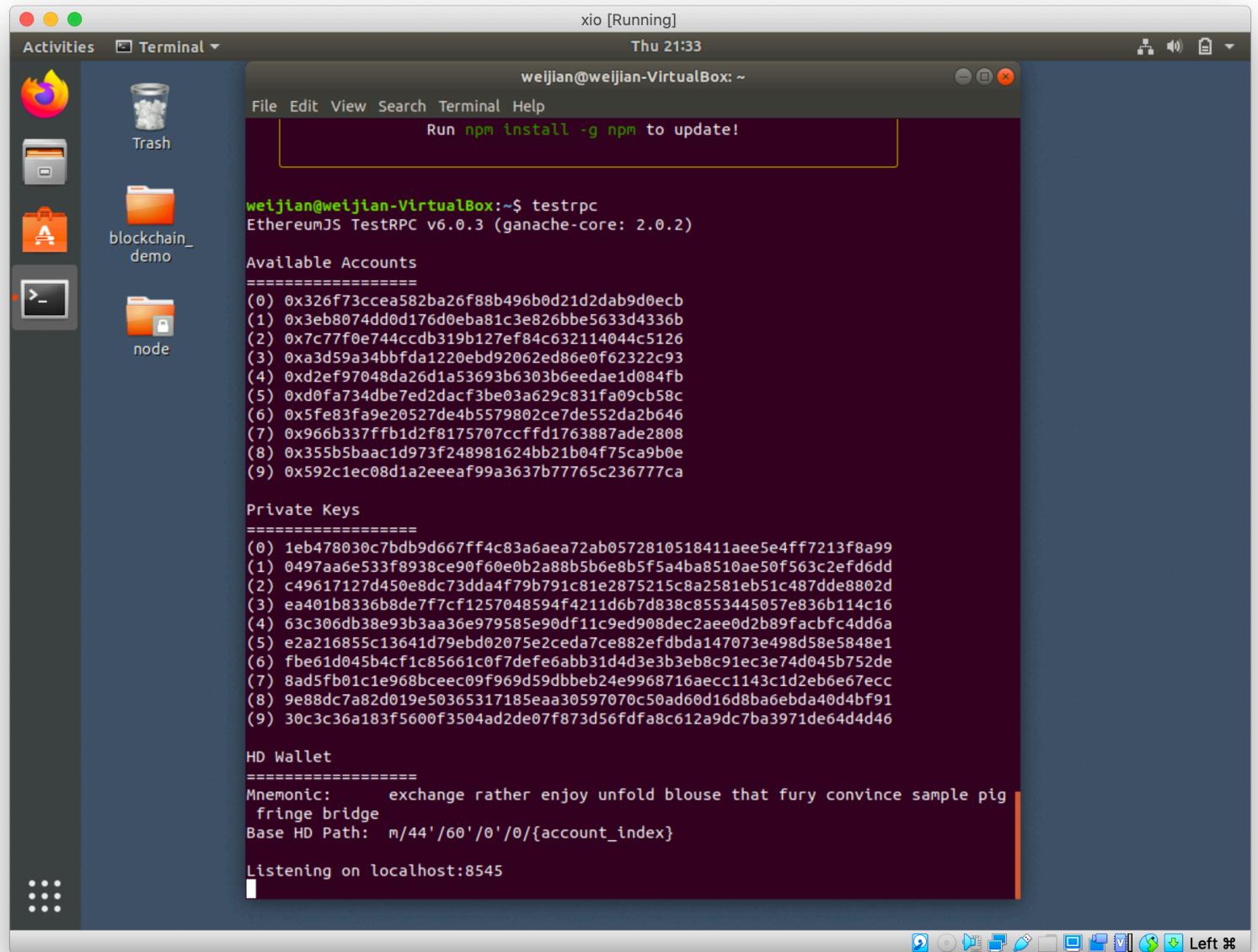
+ ethereumjs-testrpc@6.0.3
added 333 packages from 285 contributors in 43.481s
```

New minor version of npm available! 6.13.4 → 6.14.1
Changelog: <https://github.com/npm/cli/releases/tag/v6.14.1>
Run `npm install -g npm` to update!

weijian@weijian-VirtualBox:~\$

Left ☰

A screenshot of an Ubuntu desktop environment. On the left is a vertical dock with icons for the Dash, Activities, Home, Trash, blockchain_demo, and node. A terminal window titled 'Terminal' is open, showing the command 'npm install -g ethereumjs-testrpc'. The output includes several 'WARN' messages about skipping optional dependencies due to ENOENT errors, followed by a success message adding 333 packages. A yellow-bordered box highlights a notification at the bottom of the terminal about a new npm version (6.14.1) available, with a link to the changelog and instructions to run 'npm install -g npm' to update. The terminal prompt 'weijian@weijian-VirtualBox:~\$' is visible at the bottom. The top bar shows the window title 'xio [Running]', the date and time 'Thu 21:31', and various system icons.



xio [Running]
Thu 21:49

```
Activities Terminal weijian@weijian-VirtualBox: ~/coursetro-eth
File Edit View Search Terminal Help
weijian@weijian-VirtualBox:~$ mkdir coursetro-eth
weijian@weijian-VirtualBox:~$ cd coursetro-eth
weijian@weijian-VirtualBox:~/coursetro-eth$ npm init
This utility will walk you through creating a package.json file.
It only covers the most common items, and tries to guess sensible defaults.
block
  deSee `npm help json` for definitive documentation on these fields
  and exactly what they do.

  Use `npm install <pkg>` afterwards to install a package and
  save it as a dependency in the package.json file.

  nc
  Press ^C at any time to quit.
  package name: (coursetro-eth) npm install ethereum/web3.js --save
  Sorry, name can only contain URL-friendly characters.
  package name: (coursetro-eth) npm install web3@0.20.6 --save
  Sorry, name can only contain URL-friendly characters.
  package name: (coursetro-eth)
  version: (1.0.0)
  description:
  entry point: (index.js)
  test command:
  git repository:
  keywords:
  author:
  license: (ISC)
  About to write to /home/weijian/coursetro-eth/package.json:

{
  "name": "coursetro-eth",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "",
  "license": "ISC"
```

xio [Running]
Thu 21:49

```
weijian@weijian-VirtualBox: ~/coursetro-eth$ File Edit View Search Terminal Help  
Tr package name: (coursetro-eth) npm install web3@0.20.6 --save  
Sorry, name can only contain URL-friendly characters.  
package name: (coursetro-eth)  
version: (1.0.0)  
description:  
entry point: (index.js)  
test command:  
git repository:  
keywords:  
author:  
license: (ISC)  
About to write to /home/weijian/coursetro-eth/package.json:  
  
{  
    "name": "coursetro-eth",  
    "version": "1.0.0",  
    "description": "",  
    "main": "index.js",  
    "scripts": {  
        "test": "echo \"Error: no test specified\" && exit 1"  
    },  
    "author": "",  
    "license": "ISC"  
}  
  
Is this OK? (yes)  
  
New minor version of npm available! 6.13.4 → 6.14.4  
Changelog: https://github.com/npm/cli/releases/tag/v6.14.4  
Run npm install -g npm to update!  
weijian@weijian-VirtualBox:~/coursetro-eth$
```

The screenshot shows a Linux desktop environment with a terminal window open in the Activities application. The terminal window title is "xio [Running]" and the date and time are "Fri 01:54". The user is at the prompt "weijian@weijian-VirtualBox: ~/coursetro-eth". The terminal displays the following output:

```
New minor version of npm available! 6.13.4 → 6.14.4
Changelog: https://github.com/npm/cli/releases/tag/v6.14.4
Run npm install -g npm to update!

weijian@weijian-VirtualBox:~/coursetro-eth$ npm install ethereum/web3.js --save

> web3@1.2.6 postinstall /home/weijian/coursetro-eth/node_modules/web3
> lerna bootstrap

sh: 1: lerna: not found
npm WARN coursetro-eth@1.0.0 No description
npm WARN coursetro-eth@1.0.0 No repository field.

npm ERR! code ELIFECYCLE
npm ERR! syscall spawn
npm ERR! file sh
npm ERR! errno ENOENT
npm ERR! web3@1.2.6 postinstall: `lerna bootstrap`
npm ERR! spawn ENOENT
npm ERR!
npm ERR! Failed at the web3@1.2.6 postinstall script.
npm ERR! This is probably not a problem with npm. There is likely additional logging output above.

npm ERR! A complete log of this run can be found in:
npm ERR!   /home/weijian/.npm/_logs/2020-03-27T04_51_18_456Z-debug.log
weijian@weijian-VirtualBox:~/coursetro-eth$ npm install web3@0.20.6 --save
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN coursetro-eth@1.0.0 No description
npm WARN coursetro-eth@1.0.0 No repository field.

connect+ web3@0.20.6
created added 6 packages from 9 contributors and audited 6 packages in 13.359s
Creating found 1 low severity vulnerability
  run `npm audit fix` to fix them, or `npm audit` for details
  ↵ Object weijian@weijian-VirtualBox:~/coursetro-eth$
```

Below the terminal, there is a developer tools panel showing the following information:

- Console tab: Inside coursetro.getInstructor, Inside !error, Array ["Bruce", {}]
- Network tab: index.html:32:20, index.html:88:13, index.html:93:13, index.html:95:13, index.html:98:16, index.html:102:19, index.html:104:19
- Elements tab: (constructor: (), allEvents: ())

xio [Running]
Fri 01:52

Activities Firefox Web Browser Document - Mozilla Firefox

Remix - Ethereum IDE My Drive - Google Drive Document +

file:///home/weijian/coursetro-eth/index.html

Coursetro Instructor

Gary (34 years old)

Instructor Name

Instructor Age

Inspector Console Debugger Network Style Editor Performance Memory Storage Accessibility What's New

http://xhr.spec.whatwg.org/

```
connected index.html:32:20
created CoursetroContract index.html:88:13
Creating Coursetro index.html:93:13
> Object { _eth: {...}, transactionHash: null, address: "0x22f3f287931195064bb1ca115448643bdः50bf", abi: (3) [...], setInstructor: (), getInstructor: (), allEvents: () } index.html:95:13
Inside Coursetro.getInstructor index.html:98:16
Inside !error index.html:102:19
> Array [ "Gary", {} ] index.html:104:19
>>
```

Errors Warnings Logs Info Debug CSS XHR Requests

Left %

