

BASIC NPM COMMAND TO MANAGE PROJECT

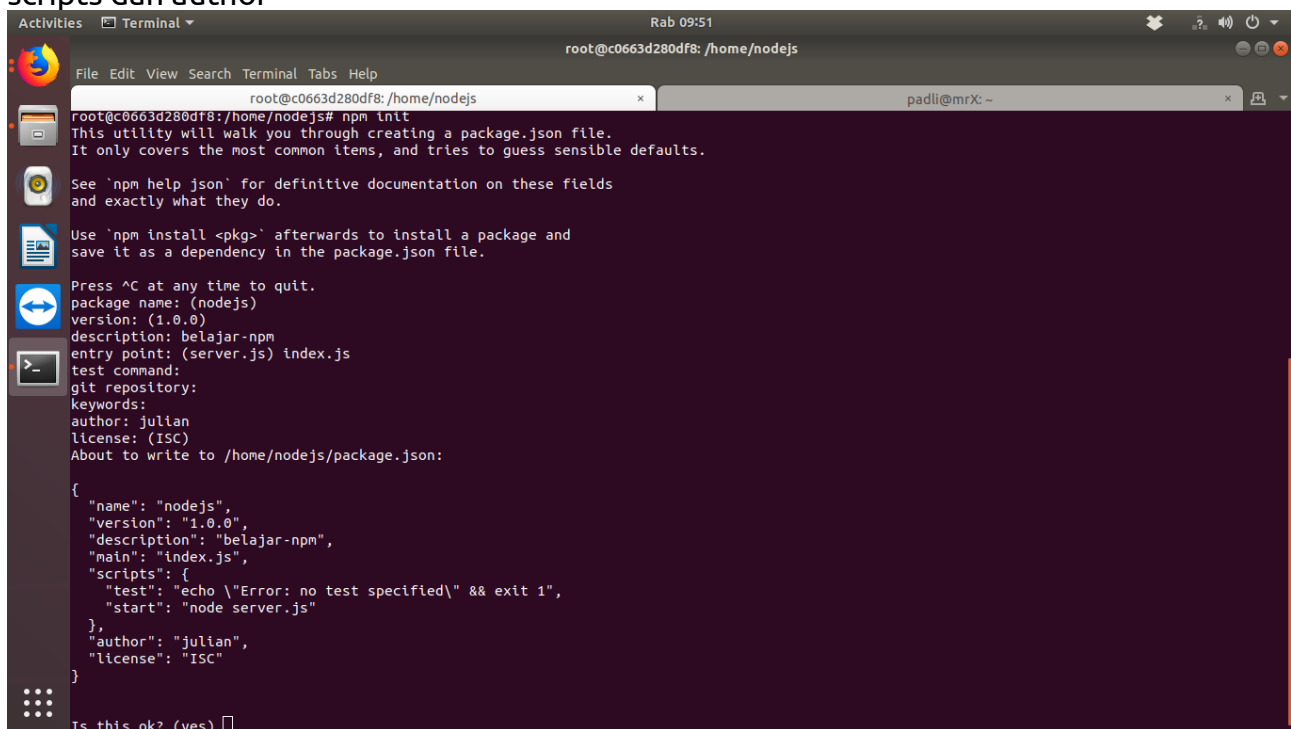
note :

Salah satu *tool* yang akan sering digunakan dalam Nodejs adalah NPM (*Node Package Manager*). NPM sudah otomatis terinstal saat kita install node.js

NPM dapat kita gunakan untuk:

1. Membuat Project Baru;
2. Menginstal modul atau library;
3. Menjalankan skrip command line.

1. npm init digunakan untuk membuat file package.json yang beri deskripsi proyek, scripts dan author



```
root@c0663d280df8: /home/nodejs# 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.

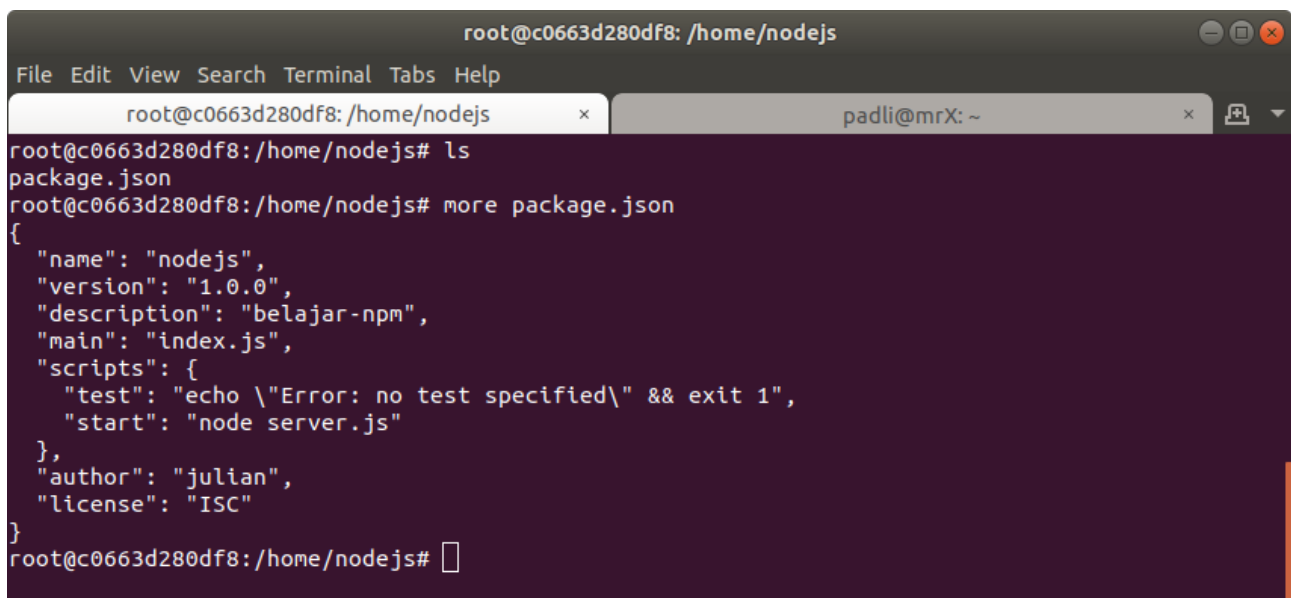
See 'npm help json' for definitive documentation on these fields
and exactly what they do.

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

Press ^C at any time to quit.
package name: (nodejs)
version: (1.0.0)
description: belajar-npm
entry point: (server.js) index.js
test command:
git repository:
keywords:
author: julian
license: (ISC)
About to write to /home/nodejs/package.json:

{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node server.js"
  },
  "author": "julian",
  "license": "ISC"
}

Is this ok? (yes) ☐
```



```
root@c0663d280df8: /home/nodejs# ls
package.json
root@c0663d280df8: /home/nodejs# more package.json
{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node server.js"
  },
  "author": "julian",
  "license": "ISC"
}
root@c0663d280df8: /home/nodejs#
```

2. situs resmi npm

The screenshot shows the npm website for the 'moment' package. The page is titled 'moment' and is marked as 'public'. It displays the package's metadata, including its version (2.22.1), download statistics (19M/month), and license (MIT). The package is described as a 'lightweight JavaScript date library for parsing, validating, manipulating, and formatting dates'. The page also shows the package's dependencies (0) and dependents (21,503). A 'Readme' tab is selected, showing the package's description and documentation link. The 'Install' section provides the command to install the package: `> npm i moment`. A graph shows the weekly downloads, with a peak of 4,399,667. The version and license information is also displayed at the bottom right.

moment

public

Readme 0 Dependencies 21,503 Dependents 59 Versions

glitter join chat

npm v2.22.1 downloads 19M/month license MIT build passing Coverage Status FOSSA Status

A lightweight JavaScript date library for parsing, validating, manipulating, and formatting dates.

Documentation

Port to ECMAScript 6 (version 2.10.0)

Install

> npm i moment

weekly downloads

4,399,667

version license

2.22.1 MIT

list daftar perintah npm

The screenshot shows a terminal window with the command `npm -l` executed. The output lists the following commands and their usage:

```
Usage: npm <command>

where <command> is one of:

  access      npm access public [<package>]
              npm access restricted [<package>]
              npm access grant <read-only|read-write> <scope:team> [<package>]
              npm access revoke <scope:team> [<package>]
              npm access ls-packages [<user>|<scope>|<scope:team>]
              npm access ls-collaborators [<package> [<user>]]
              npm access edit [<package>]

  adduser     npm adduser [--registry=url] [--scope=@orgname] [--auth-type=legacy] [--always-auth]

  aliases: login, add-user

  bin         npm bin [--global]

  bugs        npm bugs [<pkgname>]

  alias: issues

  cache       npm cache add <tarball file>
              npm cache add <folder>
              npm cache add <tarball url>
              npm cache add <git url>
              npm cache add <name>@<version>
              npm cache clean
              npm cache verify

  completion  source <(npm completion)>

  config      npm config set <key> <value>
              npm config get [<key>]
```

3. npm install <nama modul> atau npm uninstall <nama modul>

```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
root@c0663d280df8:/home/nodejs# npm install moment
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN nodejs@1.0.0 No repository field.

+ moment@2.22.1
added 1 package in 1.231s
root@c0663d280df8:/home/nodejs#
```

paket yg kita install lewat npm akan otomatis disertakan pada file package.json pada bagian dependencies atau devDependencies serta akan membuat file package-lock.json dan folder node_modules

```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
root@c0663d280df8:/home/nodejs# ls
node_modules package-lock.json package.json
root@c0663d280df8:/home/nodejs# more package.json
{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node server.js"
  },
  "author": "julian",
  "license": "ISC",
  "dependencies": {
    "moment": "^2.22.1"
  }
}
root@c0663d280df8:/home/nodejs#
```

```
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs
root@c0663d280df8:/home/nodejs# npm install gulp --save-dev
npm WARN deprecated gulp-util@3.0.8: gulp-util is deprecated - replace it, following the guidelines at https://medium.com/gulpjs/gulp-util-ca3b1f99ac5
npm WARN deprecated graceful-fs@3.0.11: please upgrade to graceful-fs 4 for compatibility with current and future versions of Node.js
npm WARN deprecated minimatch@2.0.10: Please update to minimatch 3.0.2 or higher to avoid a RegExp DoS issue
npm WARN deprecated minimatch@0.2.14: Please update to minimatch 3.0.2 or higher to avoid a RegExp DoS issue
npm WARN deprecated graceful-fs@1.2.3: please upgrade to graceful-fs 4 for compatibility with current and future versions of Node.js
npm WARN deprecated natives@1.1.3: This module relies on Node.js's internals and will break at some point. Do not use it, and update to graceful-fs@4.x.
npm WARN notice [SECURITY] minimatch has and 1 high vulnerability. Go here for more details: https://nodesecurity.io/advisories?search=minimat
ch&version=0.2.14 - Run 'npm i npm@latest -g' to upgrade your npm version, and then 'npm audit' to get more info.
npm WARN notice [SECURITY] minimatch has and 1 high vulnerability. Go here for more details: https://nodesecurity.io/advisories?search=minimat
ch&version=2.0.10 - Run 'npm i npm@latest -g' to upgrade your npm version, and then 'npm audit' to get more info.
npm WARN notice [SECURITY] lodash has and 1 low vulnerability. Go here for more details: https://nodesecurity.io/advisories?search=lodash&vers
ion=1.0.2 - Run 'npm i npm@latest -g' to upgrade your npm version, and then 'npm audit' to get more info.
npm WARN nodejs@1.0.0 No repository field.

+ gulp@3.9.1
added 255 packages in 7.03s
root@c0663d280df8:/home/nodejs# ls
```

Informasi project berisi nama, versi, dan deskripsi. Lalu di bagian script, berisi skrip-skrip *bash* atau *command line* untuk dieksekusi dengan NPM.

Selain properti-properti di atas, masih ada lagi properti lain:

- dependencies berisi keterangan modul atau library yang dibutuhkan aplikasi;
- devDependencies berisi keterangan modul atau library yang dibutuhkan untuk pengembangan aplikasi.

```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs
root@c0663d280df8:/home/nodejs# more package.json
{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node server.js"
  },
  "author": "julian",
  "license": "ISC",
  "dependencies": {
    "moment": "^2.22.1"
  },
  "devDependencies": {
    "gulp": "^3.9.1"
  }
}
root@c0663d280df8:/home/nodejs#
```

```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
root@c0663d280df8: /home/nodejs# npm uninstall gulp --save-dev
npm WARN nodejs@1.0.0 No repository field.

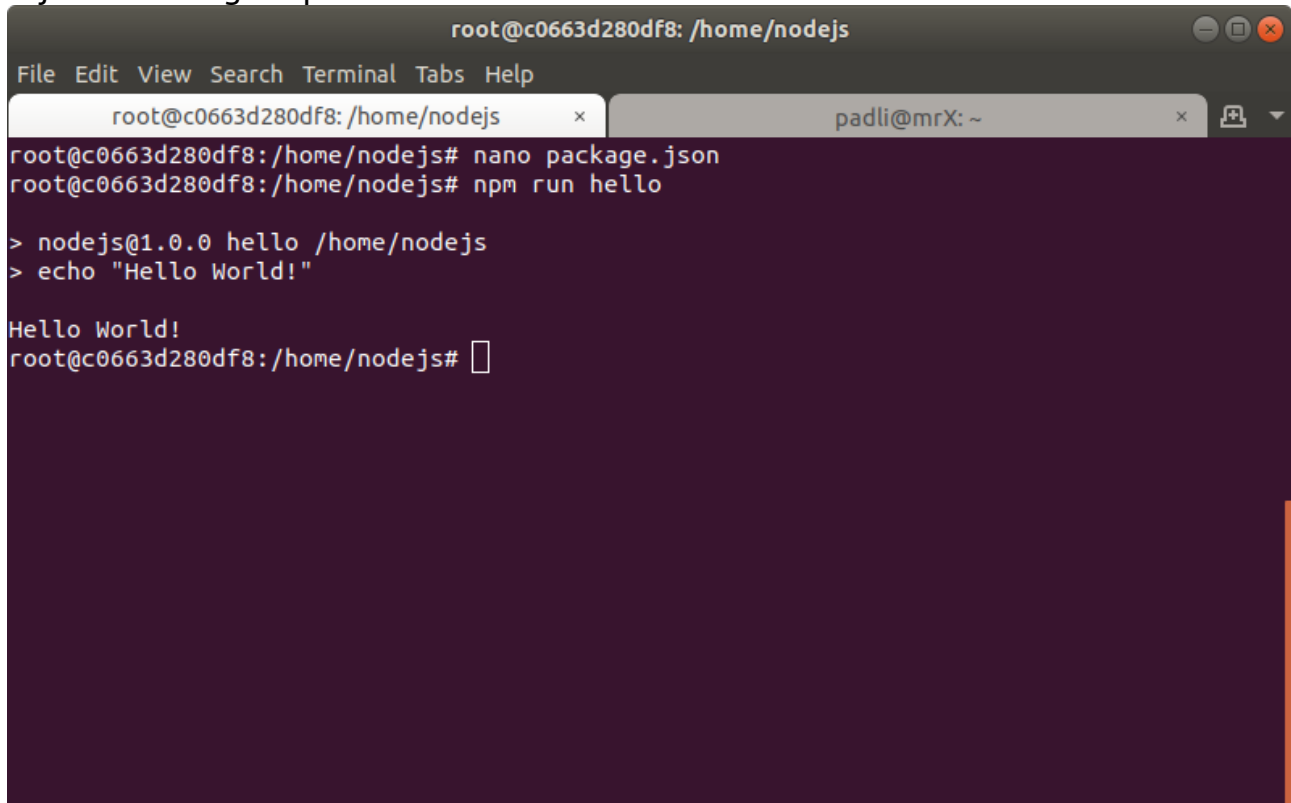
removed 255 packages in 1.055s
root@c0663d280df8: /home/nodejs# more package.json
{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start": "node server.js"
  },
  "author": "julian",
  "license": "ISC",
  "dependencies": {
    "moment": "^2.22.1"
  },
  "devDependencies": {}
}
root@c0663d280df8: /home/nodejs#
```

4. menjalankan scripts dengan npm, tambahkan var hello berisi string hello world!

```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
GNU nano 2.9.3 package.json
{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "hello": "echo \"Hello World!\""
  },
  "author": "julian",
  "license": "ISC",
  "dependencies": {
    "moment": "^2.22.1"
  },
  "devDependencies": {}
}

[ Wrote 16 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

5. jalankan dengan npm run nama variabel

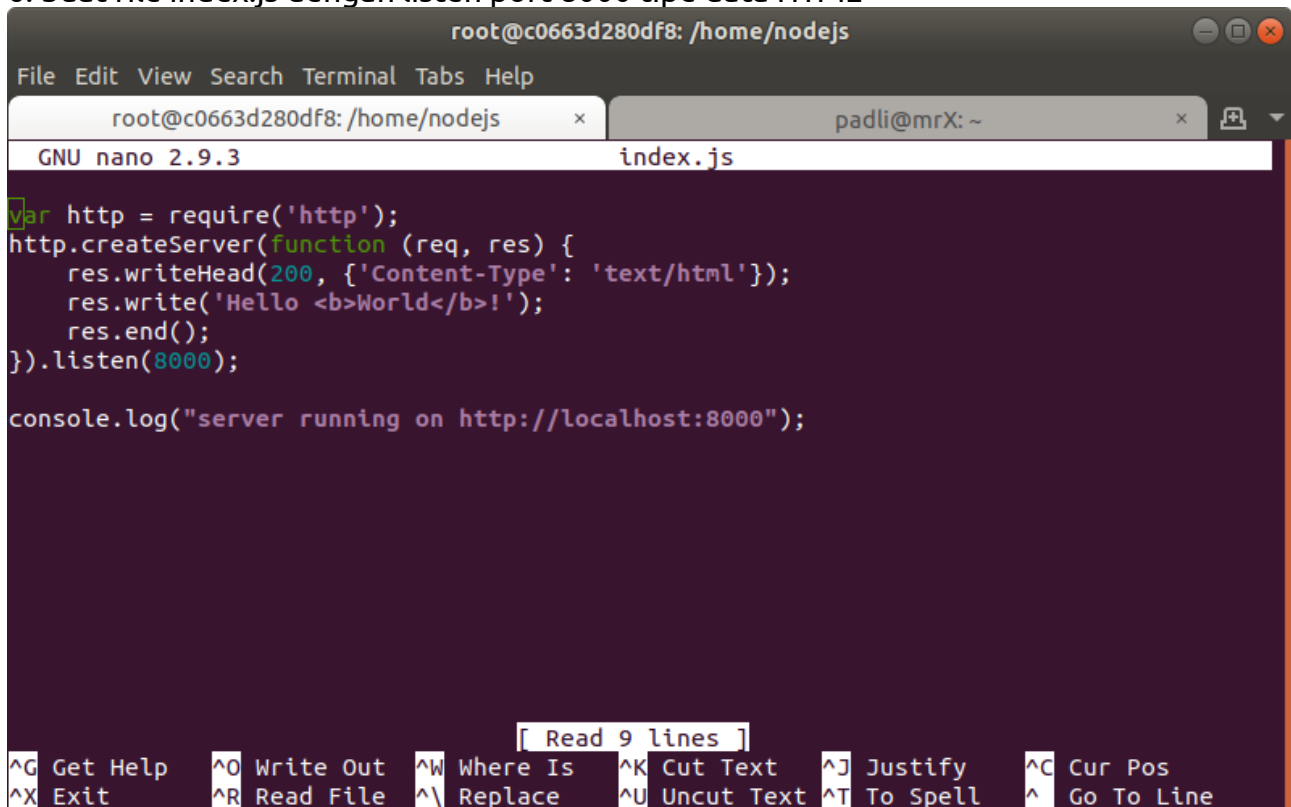


```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
root@c0663d280df8:/home/nodejs# nano package.json
root@c0663d280df8:/home/nodejs# npm run hello

> nodejs@1.0.0 hello /home/nodejs
> echo "Hello World!"

Hello World!
root@c0663d280df8:/home/nodejs#
```

6. buat file index.js dengan listen port 8000 tipe data HTML

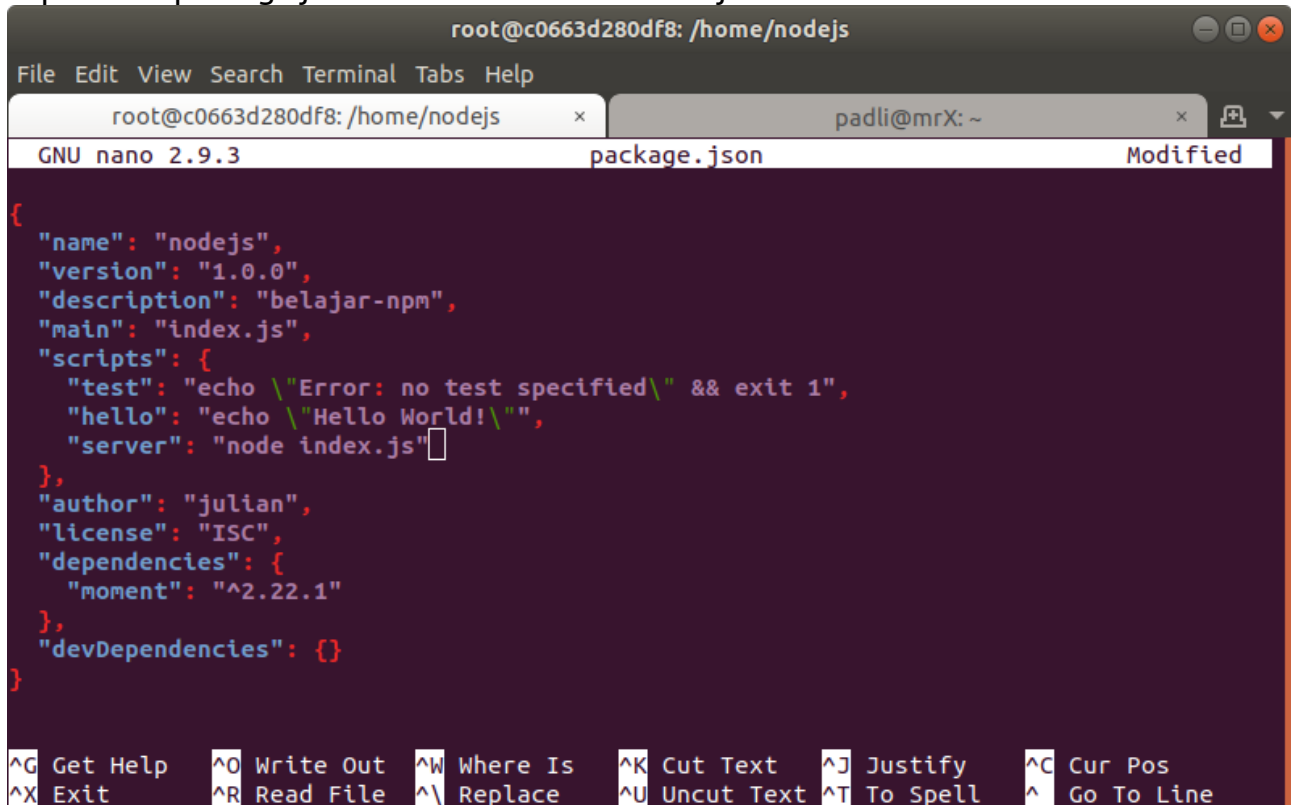


```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
GNU nano 2.9.3 index.js
var http = require('http');
http.createServer(function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/html'});
  res.write('Hello <b>World</b>!');
  res.end();
}).listen(8000);

console.log("server running on http://localhost:8000");

[ Read 9 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

7. pada file package.json arahkan server ke index.js

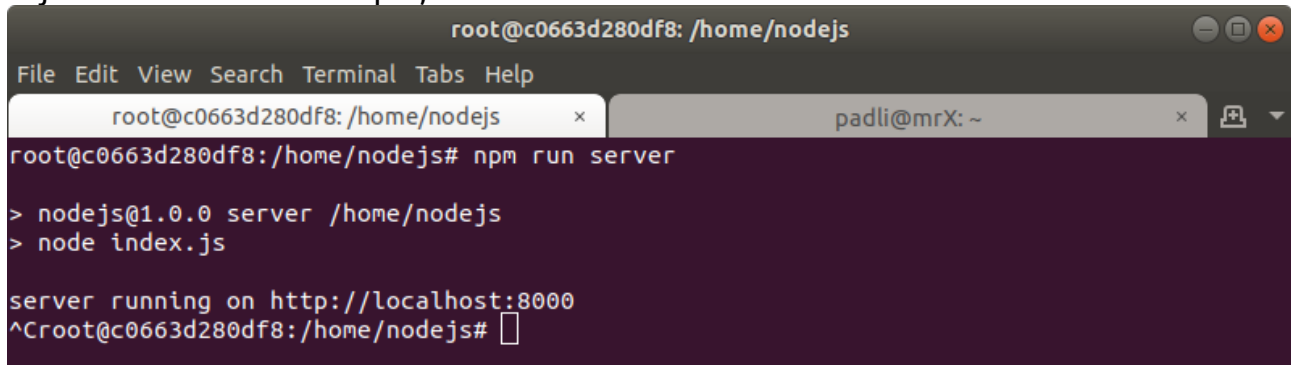


```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
GNU nano 2.9.3 package.json Modified

{
  "name": "nodejs",
  "version": "1.0.0",
  "description": "belajar-npm",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "hello": "echo \"Hello World!\"",
    "server": "node index.js"
  },
  "author": "julian",
  "license": "ISC",
  "dependencies": {
    "moment": "^2.22.1"
  },
  "devDependencies": {}
}

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

8. jalankan server lewat npm, ctrl+c untuk berhenti

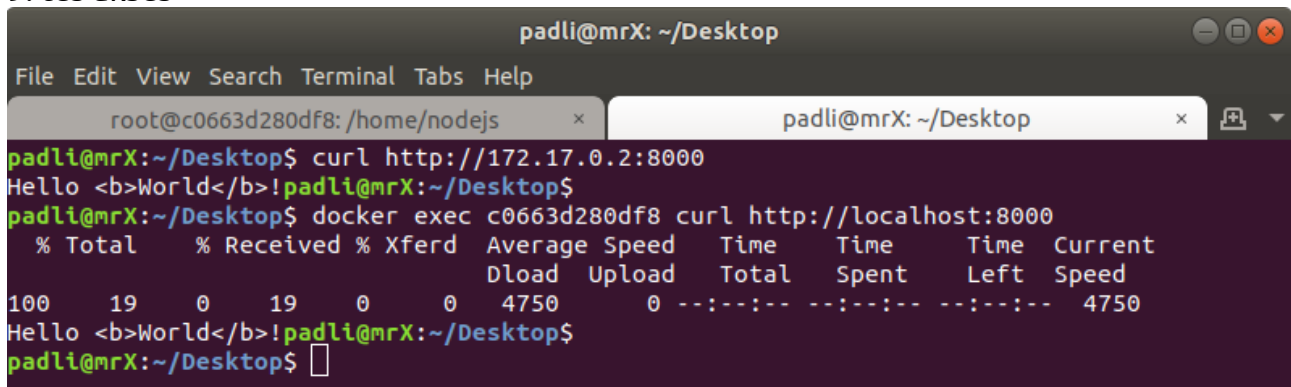


```
root@c0663d280df8: /home/nodejs
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~ x
root@c0663d280df8:/home/nodejs# npm run server

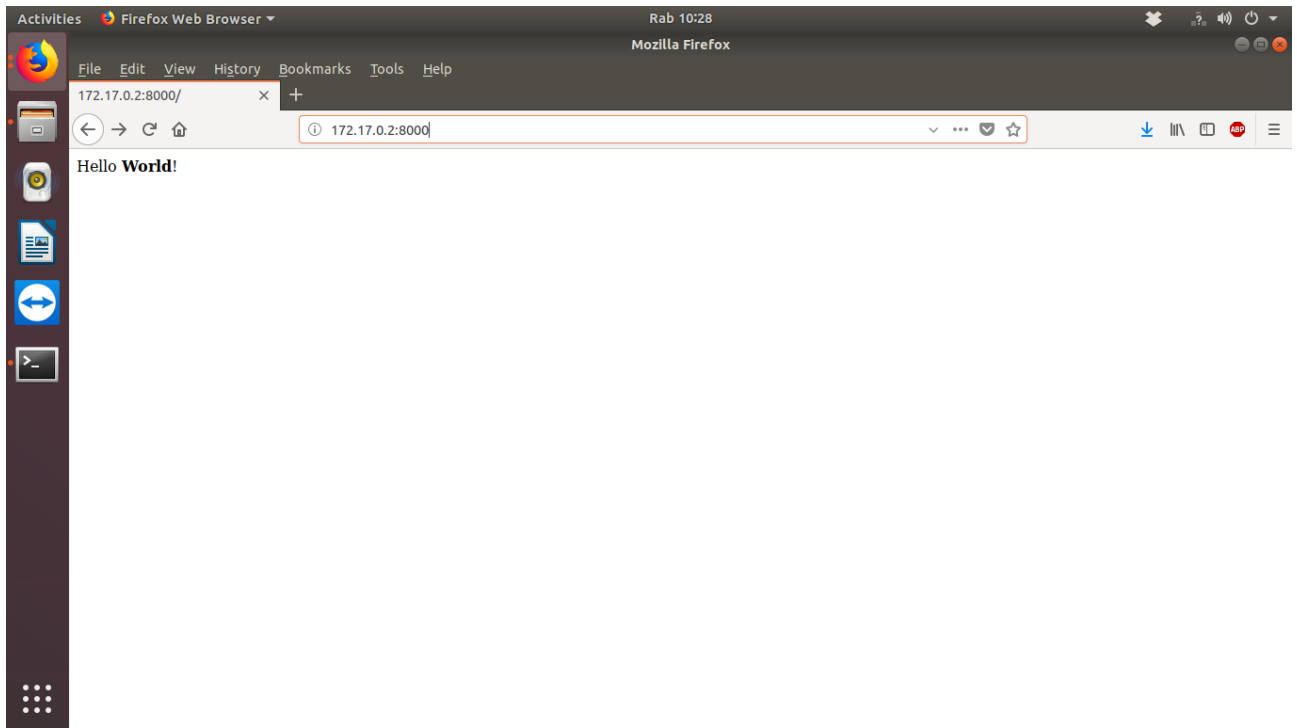
> nodejs@1.0.0 server /home/nodejs
> node index.js

server running on http://localhost:8000
^Croot@c0663d280df8:/home/nodejs#
```

9. tes akses



```
padli@mrX: ~/Desktop
File Edit View Search Terminal Tabs Help
root@c0663d280df8: /home/nodejs x padli@mrX: ~/Desktop x
padli@mrX:~/Desktop$ curl http://172.17.0.2:8000
Hello <b>World</b>!padli@mrX:~/Desktop$
padli@mrX:~/Desktop$ docker exec c0663d280df8 curl http://localhost:8000
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 19 0 19 0 0 4750 0 --:--:-- --:--:-- --:--:-- 4750
Hello <b>World</b>!padli@mrX:~/Desktop$
padli@mrX:~/Desktop$
```



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