

How to install NVM on Debian

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NVM stands for Node Version Manager. With NVM, you can manage multiple Node.js instances of NodeJS and switch between them without uninstalling and reinstalling the Node.

This tutorial will guide you through installing and using NVM on a Debian 11 system.

Note: This guide was written for Debian 11 (Bullseye), but is also applicable to most other Debian-based distributions.

Prerequisites

1. A server running Debian 11
2. Non-root users have sudo privileges

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Step 1: Update the system

Before we start installing packages and making changes to the system, we should make sure that everything is up to date.

```
sudo apt update && sudo apt upgrade
```

It will take some time for this process to complete and then your system will be updated.

Step 2: Install NVM

Once the above command is executed, we can install NVM.

We will use the cURL package. To do this, we need to install it first.

```
sudo apt install curl -y
```

After that, we can download and run the installation file for NVM.

```
curl https://raw.githubusercontent.com/creationix/nvm/master/install.sh | bash
```

The above command downloads a short script from GitHub, runs it as root using bash, and installs NVM.

To apply the changes, we need to close and reopen our terminal or run the following command.

```
source ~/.profile
```

Again, this shouldn't take too long, and when it's done, we can verify that NVM is installed by running the command with the `-v nvm` argument. We cannot use the command with `nvm` because it is a user-installed script. It is not an actual application on the system.

```
command -v nvm
```

If successful, you will see the following results. If not, repeat the installation steps above.



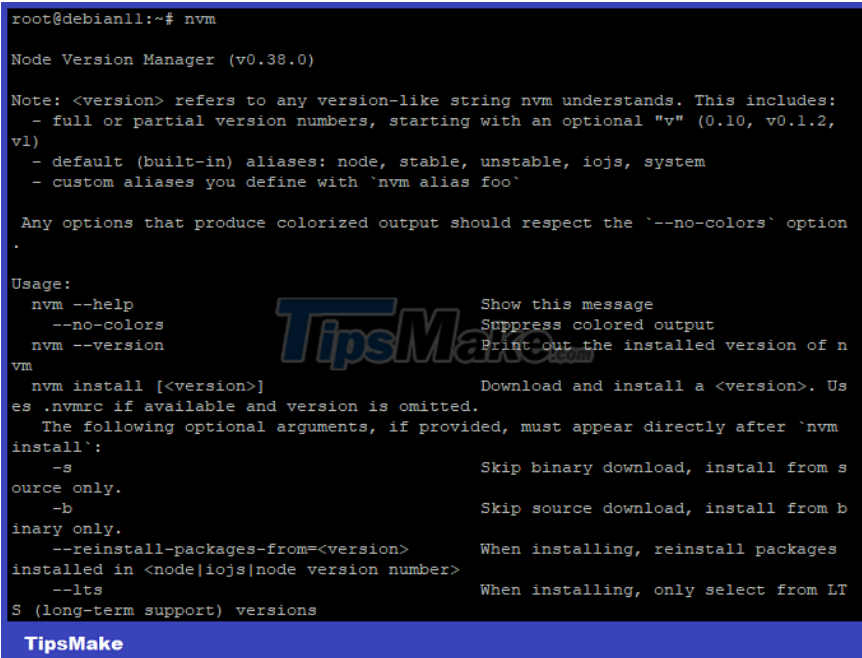
```
root@debian11:~# command -v nvm
nvm
```

The screenshot shows a terminal window with a blue background. The prompt is `root@debian11:~#`. The command `command -v nvm` has been entered, and the output is `nvm`. A red arrow points to the output. A watermark for 'TipsMake.com' is visible in the background.

To check if the installation worked, you can run the following command, which will show you all the sub-commands available for NVM.

```
nvm
```

As you can see on the screenshot below, the installation was successful and sub-commands for NVM are available.



```
root@debian11:~# nvm
Node Version Manager (v0.38.0)

Note: <version> refers to any version-like string nvm understands. This includes:
- full or partial version numbers, starting with an optional "v" (0.10, v0.1.2, v1)
- default (built-in) aliases: node, stable, unstable, iojs, system
- custom aliases you define with 'nvm alias foo'

Any options that produce colored output should respect the '--no-colors' option
.

Usage:
  nvm --help                Show this message
  --no-colors              Suppress colored output
  nvm --version            Print out the installed version of nvm
  nvm install [<version>] Download and install a <version>. Uses .nvmrc if available and version is omitted.
                          The following optional arguments, if provided, must appear directly after `nvm install`:
    -s                    Skip binary download, install from source only.
    -b                    Skip source download, install from binary only.
    --reinstall-packages-from=<version> When installing, reinstall packages installed in <node|iojs|node version number>
    --lts                 When installing, only select from LTS (long-term support) versions
```


The screenshot shows a terminal window with a blue background. The prompt is `root@debian11:~#`. The command `nvm` has been entered, and the output is as shown above. A watermark for 'TipsMake.com' is visible in the background.

Step 3: Install Node.js with NVM

After installing NVM, installing Node.js is quite simple. With NVM, you can install multiple versions of Node.js under a single user account - you don't have to uninstall and reinstall Node.js or run into other hassles associated with multiple installations different versions of the same application.

To install the latest version of Node.js, run the following command.


```
root@debian11:~# nvm ls-remote
v0.1.14
v0.1.15
v0.1.16
v0.1.17
v0.1.18
v0.1.19
v0.1.20
v0.1.21
v0.1.22
v0.1.23
v0.1.24
v0.1.25
v0.1.26
v0.1.27
v0.1.28
v0.1.29
```



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Once you've found the version you want, run the following command to install it.

```
nvm install
```

In there is the version of Node.js you want to install.

For example, if you want to install version 0.1.14, you need to run the following command.

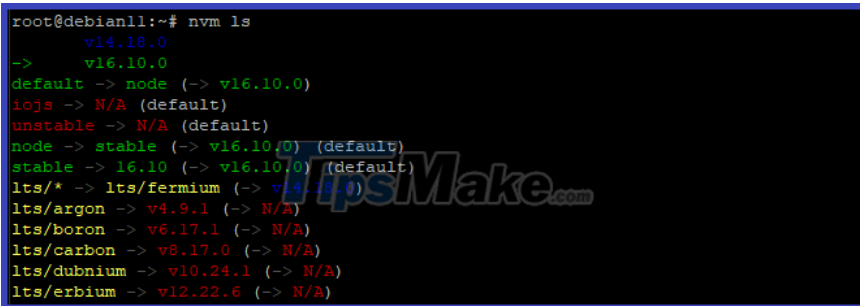
```
nvm install 0.1.14
```

To get a complete list of all Node.js versions installed on your server, run the command below.

```
nvm ls
```

Sample output:

```
root@debian11:~# nvm ls
v14.18.0
-> v16.10.0
default -> node (-> v16.10.0)
iojs -> N/A (default)
unstable -> N/A (default)
node -> stable (-> v16.10.0) (default)
stable -> 16.10 (-> v16.10.0) (default)
lts/* -> lts/fermium (-> v14.18.0)
lts/argon -> v4.9.1 (-> N/A)
lts/boron -> v6.17.1 (-> N/A)
lts/carbon -> v8.17.0 (-> N/A)
lts/dubnium -> v10.24.1 (-> N/A)
lts/erbium -> v12.22.6 (-> N/A)
```



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You can also switch to a different Node.js version for the current activeshell/user account.

```
nvm use
```

For example, to change Node.js version to v10.24.1, run the command below.

```
nvm use v10.24.1
```

Sample output:

```
root@debian11:~# nvm use v10.24.1
```

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To find the default version of Node.js that the current user account is using, run the following command.

```
nvm run default --version
```

Sample output:

```
root@debian11:~# nvm run default --version
Running node v16.10.0 (npm v7.24.0)
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```

Step 4: Test Node.js

So far, we've installed Node.js using NVM, creating a new Node.js instance, but how do we know if it's installed correctly?

In this step, we will create a simple Hello World project to test our Node.js installation with NVM.

To do this, create a file named hello.js in your home directory.

```
CD
```

```
sudo nano hello.js
```

Fill the file with the following content. Don't forget to save the file and exit when you're done by pressing CTRL + X, then Y then ENTER.

```
const http = require('http'); const hostname = 'localhost'; const port = 3000; c
```

Run your Node application using the command below.

```
nodejs hello.js
```

You should see the following output on the screen, letting you know that your Node.js application started correctly.

```
root@debian11:~# node hello.js
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```

To test if your Node.js installation is working properly, open another terminal window on the same computer and try running the curl command below to output "Hello World!".

```
curl http://localhost:3000/
```

Your output will look something like this. If you don't get any errors, your Node.js installation is fine.

```
root@debian11:~# curl http://localhost:3000
Howtoforge-Hello World!
root@debian11:~#
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```

Now, remove your Node.js application using the rm command:

```
sudo rm -rf hello.js
```

Don't forget to exit the Node.js application by pressing CTRL + C. Otherwise, all further commands will be blocked. And the Node.js application running on your server may still be in a zombie state.

Congratulations! You have successfully installed and tested NVM and Node.js on your server.

You finished reading the article "**How to install NVM on Debian**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.