

## Install and host Node.js on EC2 Instance.

## Step 1 : Launch EC2 instance.

Sign-in into your AWS account and go to the EC2 service console.

Select **Launch Instance** option, provide name for your instance and select the machine image you want. I am using an Ubuntu image for this task.

Next select the Key-Pair that you will use to connect to your instance. While adding the security group to your instance make sure that it allows the inbound traffic on port 22 for SSH and port 8080 and port 3000 for Node.js.

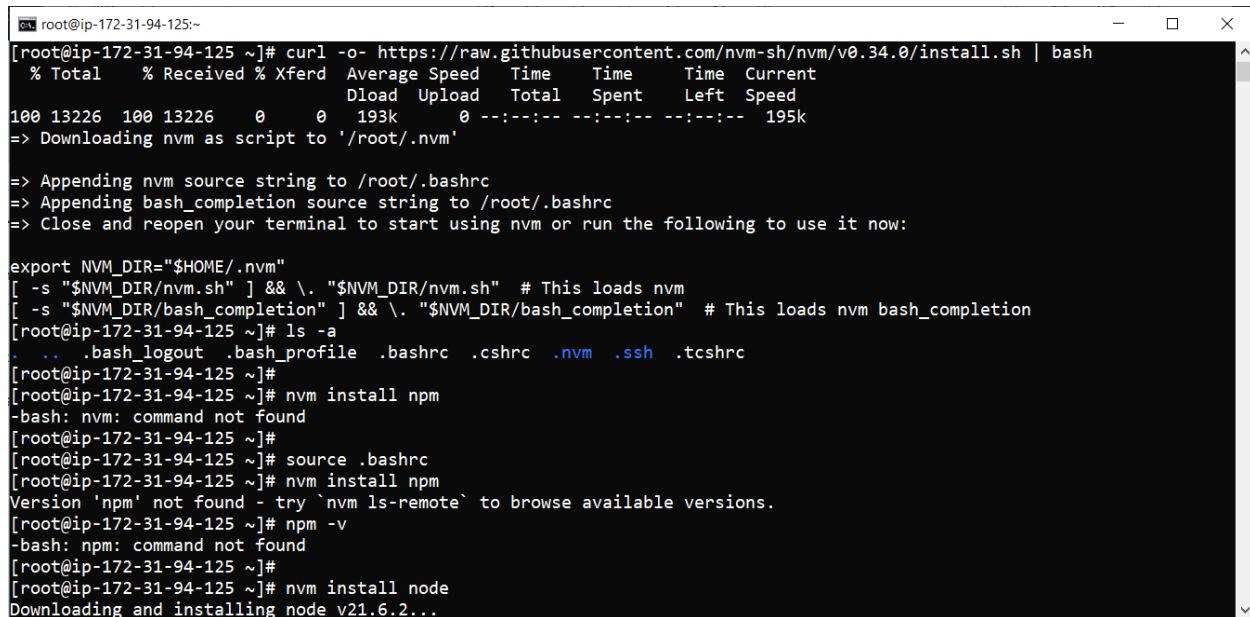
Click on **Launch Instance** to launch your instance. Once the instance is in running state, use any terminal to SSH into your EC2 Instance.

```
ec2-user@ip-172-31-94-125:~  
Microsoft Windows [Version 10.0.19045.4046]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\Dell>ssh -i Downloads/id_rsa ec2-user@35.171.21.80  
The authenticity of host '35.171.21.80 (35.171.21.80)' can't be established.  
ECDSA key fingerprint is SHA256:j4LHxvMDJ8+17z1lytm3MNaDFv01K6wyhniGlavx03A.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '35.171.21.80' (ECDSA) to the list of known hosts.
```

## Step 2 : Install Node.js

Download Node Version Manager(NVM) using following command. We will need NVM to install Node Package Manager(NPM) and Nodejs on our instance.

***curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.34.0/install.sh | bash***

A terminal window screenshot showing the installation of Node Version Manager (NVM) and Node.js. The terminal output includes the curl command, progress bars for downloading the script, and subsequent commands to source the script and install npm and node. The user is prompted to close and reopen the terminal to use nvm, but instead sources the .bashrc file and attempts to use nvm and npm directly, resulting in 'command not found' errors. The final step shows the installation of node v21.6.2.

```
root@ip-172-31-94-125:~  
[root@ip-172-31-94-125 ~]# curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.34.0/install.sh | bash  
% Total % Received % Xferd Average Speed Time Time Time Current  
Dload Upload Total Spent Left Speed  
100 13226 100 13226 0 0 193k 0 --:--:-- --:--:-- --:--:-- 195k  
=> Downloading nvm as script to '/root/.nvm'  
  
=> Appending nvm source string to /root/.bashrc  
=> Appending bash_completion source string to /root/.bashrc  
=> Close and reopen your terminal to start using nvm or run the following to use it now:  
  
export NVM_DIR="$HOME/.nvm"  
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm  
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm bash_completion  
[root@ip-172-31-94-125 ~]# ls -la  
.. .bash_logout .bash_profile .bashrc .cshrc .nvm .ssh .tcshrc  
[root@ip-172-31-94-125 ~]#  
[root@ip-172-31-94-125 ~]# nvm install npm  
-bash: nvm: command not found  
[root@ip-172-31-94-125 ~]#  
[root@ip-172-31-94-125 ~]# source .bashrc  
[root@ip-172-31-94-125 ~]# nvm install npm  
Version 'npm' not found - try `nvm ls-remote` to browse available versions.  
[root@ip-172-31-94-125 ~]# npm -v  
-bash: npm: command not found  
[root@ip-172-31-94-125 ~]#  
[root@ip-172-31-94-125 ~]# nvm install node  
Downloading and installing node v21.6.2...
```

Navigate to .nvm directory and start NVM by running following command.

***bash nvm.sh***

Now refresh the .bashrc file to apply the changes using following command.

***source .bashrc***

Install nodejs using NVM, run following command to install nodejs.

## ***nvm install node***

```
root@ip-172-31-94-125:~  
[root@ip-172-31-94-125 ~]# nvm install node  
Downloading and installing node v21.6.2...  
Downloading https://nodejs.org/dist/v21.6.2/node-v21.6.2-linux-x64.tar.xz...  
##### 100.0%  
Computing checksum with sha256sum  
Checksums matched!  
Now using node v21.6.2 (npm v10.2.4)  
Creating default alias: default -> node (-> v21.6.2)  
[root@ip-172-31-94-125 ~]# node -v  
v21.6.2  
[root@ip-172-31-94-125 ~]# npm -v  
10.2.4  
[root@ip-172-31-94-125 ~]#
```

## **Step 3 : Download the code and start nodejs.**

Download a simple node-js server side code from github. Clone the github repository using following command.

***git clone <https://github.com/yeshwanthlm/nodejs-on-ec2>***

```
root@ip-172-31-94-125:~/nodejs-on-ec2  
[root@ip-172-31-94-125 ~]# git clone https://github.com/yeshwanthlm/nodejs-on-ec2  
Cloning into 'nodejs-on-ec2'...  
remote: Enumerating objects: 68, done.  
remote: Total 68 (delta 0), reused 0 (delta 0), pack-reused 68  
Receiving objects: 100% (68/68), 11.15 KiB | 1.59 MiB/s, done.  
Resolving deltas: 100% (27/27), done.  
[root@ip-172-31-94-125 ~]# ls  
nodejs-on-ec2  
[root@ip-172-31-94-125 ~]# cd nodejs-on-ec2/  
[root@ip-172-31-94-125 nodejs-on-ec2]# ls  
README.md index.js package-lock.json package.json  
[root@ip-172-31-94-125 nodejs-on-ec2]#
```

If git is not installed on your system, first install git by running following command and then clone the repository.

## *yum install git -y*

```
root@ip-172-31-94-125:~  
[root@ip-172-31-94-125 ~]# yum install git -y  
Last metadata expiration check: 0:20:43 ago on Thu Feb 29 06:01:30 2024.  
Dependencies resolved.  
=====
```

Package	Architecture	Version	Repository	Size
Installing:				
git	x86_64	2.40.1-1.amzn2023.0.1	amazonlinux	57 k
Installing dependencies:				
git-core	x86_64	2.40.1-1.amzn2023.0.1	amazonlinux	4.3 M
git-core-doc	noarch	2.40.1-1.amzn2023.0.1	amazonlinux	2.6 M
perl-Error	noarch	1:0.17029-5.amzn2023.0.2	amazonlinux	41 k
perl-File-Find	noarch	1.37-477.amzn2023.0.6	amazonlinux	26 k
perl-Git	noarch	2.40.1-1.amzn2023.0.1	amazonlinux	45 k
perl-TermReadKey	x86_64	2.38-9.amzn2023.0.2	amazonlinux	36 k
perl-lib	x86_64	0.65-477.amzn2023.0.6	amazonlinux	15 k

```
Transaction Summary  
=====
```

Transaction Summary			
Install 8 Packages			
Total download size: 7.1 M			
Installed size: 34 M			
Downloading Packages:			
(1/8): perl-lib-0.65-477.amzn2023.0.6.x86_64.rpm	229 kB/s	15 kB	00:00
(2/8): perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64.rpm	517 kB/s	36 kB	00:00
(3/8): git-2.40.1-1.amzn2023.0.1.x86_64.rpm	3.7 MB/s	57 kB	00:00

Now navigate to downloaded repository, and run following command to start nodejs server.

## *npm start*

```
root@ip-172-31-94-125:~/nodejs-on-ec2  
[root@ip-172-31-94-125 ~]# git clone https://github.com/yeshwanthlm/nodejs-on-ec2  
Cloning into 'nodejs-on-ec2'...  
remote: Enumerating objects: 68, done.  
remote: Total 68 (delta 0), reused 0 (delta 0), pack-reused 68  
Receiving objects: 100% (68/68), 11.15 KiB | 1.59 MiB/s, done.  
Resolving deltas: 100% (27/27), done.  
[root@ip-172-31-94-125 ~]# ls  
nodejs-on-ec2  
[root@ip-172-31-94-125 ~]# cd nodejs-on-ec2/  
[root@ip-172-31-94-125 nodejs-on-ec2]# ls  
README.md index.js package-lock.json package.json  
[root@ip-172-31-94-125 nodejs-on-ec2]# npm start  
Unknown command: "start"  
  
Did you mean one of these?  
  npm star # Mark your favorite packages  
  npm stars # View packages marked as favorites  
  npm start # Start a package  
  
To see a list of supported npm commands, run:  
  npm help  
[root@ip-172-31-94-125 nodejs-on-ec2]# npm start  
  
> node-hello@1.0.0 start  
> node index.js
```

Copy Public IP of EC2 instance and paste it in search bar of your browser to check if nodejs is working.

