Lesson 05 Demo 09

Installing Node Package Manager

Objective: To install Node Package Manager for creating Node.js projects

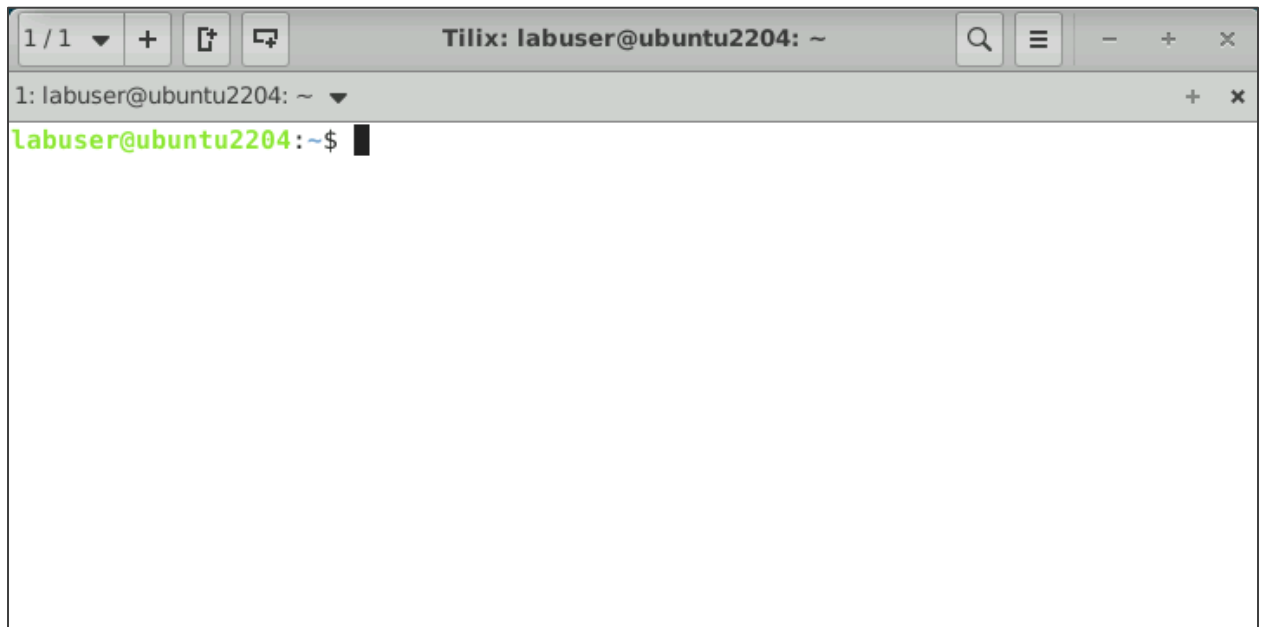**Tools required:** Node Package Manager and Visual Studio Code

Prerequisites: Basic Linux Commands

Steps to be followed:

1. Download Node.js
2. Install NPM

Step 1: Download Node.js

1.1 Open the terminal on the system

1.2 Execute the following command to check whether Node.js in installed in the system:
node --v

```
demopython1yopm@ip-172-31-16-204:~$ node -v

Command 'node' not found, but can be installed with:

apt install nodejs
Please ask your administrator.
```

If this is the output displayed, then Node.js is not installed in the system.

1.3 Execute the following command to install Node.js:
sudo apt install nodejs

```
demopython1yopm@ip-172-31-16-204:~$ apt install nodejs
E: Could not open lock file /var/lib/dpkg/lock-frontend - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontend), are you root?
```

1.4 Type **y** and press **Enter** to confirm the installation of Node.js

```
demopython1yopm@ip-172-31-16-204:~$ sudo apt install nodejs
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  docker-ce-rootless-extras docker-scan-plugin slirp4netns
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  libc-ares2 libnode64 nodejs-doc
Suggested packages:
  npm
The following NEW packages will be installed:
  libc-ares2 libnode64 nodejs nodejs-doc
0 upgraded, 4 newly installed, 0 to remove and 125 not upgraded.
Need to get 6807 kB of archives.
After this operation, 30.7 MB of additional disk space will be used.
Do you want to continue? [Y/n] 
```

```
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 libc-ares2 amd64 1.15.0-1ubu
ntu0.1 [38.2 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 libnode64 amd64 10.19.0~dfsg-3ub
untu1 [5765 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 nodejs-doc all 10.19.0~dfsg-3ubu
ntu1 [942 kB]
```

1.5 Again, execute the following command to verify the installation of Node.js:

node --v

```
demopython1yopm@ip-172-31-16-204:~$ node -v
v10.19.0
```

Step 2: Install NPM

2.1 Execute the following command in terminal to install NPM:

sudo apt install npm

```
demopython1yopm@ip-172-31-16-204:~$ sudo apt install npm
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  docker-ce-rootless-extras docker-scan-plugin slirp4netns
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  gyp libjs-inherits libjs-is-typedarray libjs-psl libjs-typedarray-to-buffer libnode-dev libuv1-dev
  node-abbrev node-ajv node-ansi node-ansi-align node-ansi-regex node-ansi-styles node-ansistyles
  node-anroba node-archy node-are-we-there-yet node-asan node-asn1 node-assert-plus node-asynckit
```

2.2 Verify the installation of NPM by executing the following command:

npm --version

```
demopython1yopm@ip-172-31-16-204:~$ npm --version
6.14.4
```

2.3 Create a new directory using the command **mkdir <folder-name>** and initialize the node environment using the command **npm init**

```
demopython1yopm@ip-172-31-16-204:~/Desktop/nodeProjec$ cd demo1/
demopython1yopm@ip-172-31-16-204:~/Desktop/nodeProjec/demo1$ 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 init` 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: (demo1)
version: (1.0.0)
description:
entry point: (index.js)
test command:
git repository:
keywords:
author:
license: (ISC)
About to write to /home/demopython1yopm/Desktop/nodeProjec/demo1/package.json:
```

After execution, the **package.json** file will be created in the project. This file will contain all the information about the installed packages in the Node.js project.

> **Note:** When the **npm init** command is executed, a few questions are asked that can be skipped by adding a **-y** flag in the **npm init** command.

2.4 Open the Node.js project with VS Code and navigate to the **package.json** file

```
{} package.json ×

 {} package.json > ...
  1   {
  2       "name": "demo1",
  3       "version": "1.0.0",
  4       "description": "",
  5       "main": "index.js",
         ▷ Debug
  6       "scripts": {
  7         "test": "echo \"Error: no test specified\" && exit 1"
  8       },
  9       "author": "",
 10       "license": "ISC"
 11   }
 12   |
```

2.5 Execute the **npm install http** command in the terminal to install the HTTP package in the Node.js project

```
demopython1yopm@ip-172-31-16-204:~/Desktop/nodeProjec/demo1$ npm install http

added 1 package, and audited 2 packages in 590ms

found 0 vulnerabilities
```

2.6 View the **package.json** in VS Code to see the information regarding installed HTTP package

```json
{} package.json ×

{} package.json > ...
1    {
2      "name": "demo1",
3      "version": "1.0.0",
4      "description": "",
5      "main": "index.js",
       ▷ Debug
6      "scripts": {
7        "test": "echo \"Error: no test specified\" && exit 1"
8      },
9      "author": "",
10     "license": "ISC",
11     "dependencies": {
12       "http": "^0.0.1-security"
13     }
14   }
15
```

By following these steps, you have successfully installed Node Package Manager for creating Node.js projects.