

🔗 Module 1 Assignment

Problem Statement:

You are assigned a task to install a web server, in order to control multiple worker processes from one master process. After you've done your research you found out that NGINX is the best suitable option in this scenario. Update the host system and install NGINX. Check the version installed.

This will update the list of available packages and their versions, then upgrade the currently installed packages to their latest versions.

```
sudo apt update && sudo apt upgrade -y
```

```
vagrant@ubuntu-bionic:~$ sudo apt update && sudo apt upgrade -y
Get:1 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Hit:2 http://archive.ubuntu.com/ubuntu bionic InRelease
Get:3 http://archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Get:4 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [2717 kB]
Get:5 http://archive.ubuntu.com/ubuntu bionic-backports InRelease [83.3 kB]
Get:6 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en [467 kB]
Get:7 http://archive.ubuntu.com/ubuntu bionic/universe amd64 Packages [8570 kB]
Get:8 http://security.ubuntu.com/ubuntu bionic-security/restricted amd64 Packages [1317 kB]
Get:9 http://security.ubuntu.com/ubuntu bionic-security/restricted Translation-en [182 kB]
Get:10 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [1303 kB]
```

We install NGINX using the package manager:

```
sudo apt install nginx -y
```

```
vagrant@ubuntu-bionic:~$ sudo apt install nginx -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libnginx-mod-http-geoip
  libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream libtiff5 libwebp6 libxpm4
  nginx-common nginx-core
Suggested packages:
  libgd-tools fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libnginx-mod-http-geoip
  libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream libtiff5 libwebp6 libxpm4
  nginx-common nginx-core nginx
```

After installation, starting the NGINX service:

```
sudo systemctl start nginx
```

```
vagrant@ubuntu-bionic:~$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2023-08-19 03:00:37 UTC; 4min 8s ago
     Docs: man:nginx(8)
  Main PID: 9367 (nginx)
    Tasks: 3 (limit: 1151)
   CGroup: /system.slice/nginx.service
           └─9367 nginx: master process /usr/sbin/nginx -g daemon on; master_process on;
             └─9372 nginx: worker process
               └─9373 nginx: worker process

Aug 19 03:00:37 ubuntu-bionic systemd[1]: Starting A high performance web server and a reverse proxy server...
Aug 19 03:00:37 ubuntu-bionic systemd[1]: nginx.service: Failed to parse PID from file /run/nginx.pid: Invalid argument
Aug 19 03:00:37 ubuntu-bionic systemd[1]: Started A high performance web server and a reverse proxy server.
vagrant@ubuntu-bionic:~$
```

Ensure that NGINX starts automatically at boot:

```
sudo systemctl enable nginx
```

```
vagrant@ubuntu-bionic:~$ sudo systemctl start nginx
vagrant@ubuntu-bionic:~$ sudo systemctl enable nginx
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
vagrant@ubuntu-bionic:~$
```

Checking version:

```
nginx -v
```

```
vagrant@ubuntu-bionic:~$ nginx -v
nginx version: nginx/1.14.0 (Ubuntu)
vagrant@ubuntu-bionic:~$ |
```

Getting the IP of Nginx Server:

```
vagrant@Intellipaat:~$ ifconfig | grep -A 1 'enp0s8'
enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.110 netmask 255.255.255.0 broadcast 192.168.1.255
```

Testing the service:



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

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Get:9 http://security.ubuntu.com/ubuntu bionic-security/restricted Translation-en [182 kB]
Get:10 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [5101 kB]
Get:11 http://security.ubuntu.com/ubuntu bionic-security/universe Translation-en [182 kB]
Fetched 25.7 MB in 10s (2570 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

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