

# OpenStack DevStack Installation (with User & Private Network)

## System Requirements:

- Ubuntu 18.04 (in VM or cloud instance)
- 4 GB RAM minimum
- Good internet connection

## Step 1: Update the System

```
sudo apt update  
sudo apt -y upgrade  
sudo apt -y dist-upgrade  
sudo reboot
```

## Step 2: Create a Stack User

```
sudo useradd -s /bin/bash -d /opt/stack -m stack  
echo "stack ALL=(ALL) NOPASSWD: ALL" | sudo tee /etc/sudoers.d/stack  
sudo su - stack
```

## Step 3: Install Git

```
sudo apt install -y git
```

## Step 4: Clone DevStack

```
git clone https://opendev.org/openstack/devstack  
cd devstack
```

## Step 5: Create Configuration File

Create local.conf file:

```
nano local.conf
```

Paste the following into the file:

```
[[local|localrc]] ADMIN_PASSWORD=StrongAdminSecret  
DATABASE_PASSWORD=$ADMIN_PASSWORD  
RABBIT_PASSWORD=$ADMIN_PASSWORD  
SERVICE_PASSWORD=$ADMIN_PASSWORD HOST_IP=<your_VM_IP>
```

Replace <your\_VM\_IP> with the actual IP.

Find it using `ip a` or `ifconfig`.

Press Ctrl + X, then Y, then Enter to save.

## Step 6: Install OpenStack

Run:

`./stack.sh`

This takes 15–20 minutes. Let it complete.

## Step 7: Access OpenStack Dashboard

Open in your browser:

`http://<your_VM_IP>/dashboard`

Login with:

- **Username:** admin
- **Password:** StrongAdminSecret (or what you set)

## Step 8: Create Instance & Private Network

Once logged in:

- Go to **Project > Network > Networks** → Create your **Private Network**
- Go to **Instances** → Launch an Instance with:
- Source: select image
- Flavor: choose one
- Network: select your private network



