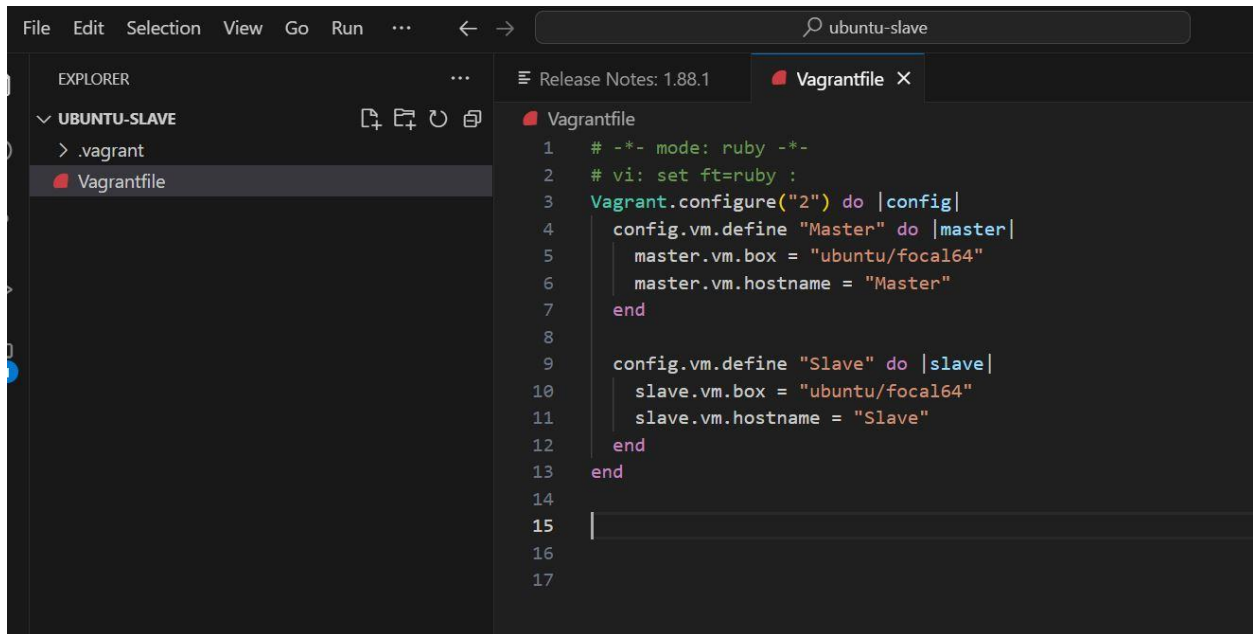


Step 1: Provisioning with Vagrant

Install Vagrant and VirtualBox (if not already installed).

Create a directory for your project and navigate into it.

Create a Vagrantfile with the following content:



The screenshot shows a code editor with a dark theme. The Explorer panel on the left shows a project named 'UBUNTU-SLAVE' with a subdirectory '.vagrant' containing a file 'Vagrantfile'. The main editor area displays the content of 'Vagrantfile' with the following code:

```
1 # -*- mode: ruby -*-
2 # vi: set ft=ruby :
3 Vagrant.configure("2") do |config|
4   config.vm.define "Master" do |master|
5     master.vm.box = "ubuntu/focal64"
6     master.vm.hostname = "Master"
7   end
8
9   config.vm.define "Slave" do |slave|
10     slave.vm.box = "ubuntu/focal64"
11     slave.vm.hostname = "Slave"
12   end
13 end
14
15
16
17
```

Step 2: Bash Script for Master Node (provision_master.sh)

The screenshot shows a Windows terminal window with a dark theme. The title bar includes standard Windows menu items: File, Edit, Selection, View, Go, Run, and a search bar. Below the title bar, a blue banner reads: "Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More". The terminal has several tabs open: "playbook (3).yaml", "My Atschool exam documentation", "exam.md", and "latest (1).sh". The active tab is "latest (1).sh", showing a shell script with 28 lines of commands for installing Laravel on a Linux system. The commands include updating the system, installing Apache, adding the Ondrej PHP repository, installing PHP 8.2 and its dependencies, enabling the rewrite module, restarting Apache, installing Composer globally, and cloning the Laravel repository to /var/www/laravel. The terminal status bar at the bottom shows "Restricted Mode" and some system icons.

```
C: > Users > HP > Downloads > $ latest (1).sh
1  #!/bin/bash
2  #update your linux system
3  sudo apt update -y
4  #install your apache webserver
5  sudo apt install apache2 -y
6  #add the php ondrej repository
7  sudo add-apt-repository ppa:ondrej/php --yes
8  #update your repository again
9  sudo apt update -y
10 # install php8.2
11 sudo apt install php8.2 -y
12 #install some of those php dependencies that are needed for laravel to work
13 sudo apt install php8.2-curl php8.2-dom php8.2-mbstring php8.2-xml php8.2-mysql zip unzip -y
14 #enable rewrite
15 sudo a2enmod rewrite
16 #restart your apache server
17 sudo systemctl restart apache2
18 #change directory in the bin directory
19 cd /usr/bin
20 install composer globally -y
21 sudo curl -sS https://getcomposer.org/installer | sudo php -q
22 #move the content of the default composer.phar
23 sudo mv composer.phar composer
24 #change directory in /var/www directory so we can clone of laravel repo there
25 cd /var/www/
26 sudo git clone https://github.com/laravel/laravel.git
27 sudo chown -R $USER:$USER /var/www/laravel
28 cd laravel/
```

Step 3: Ansible Playbook for Slave Node

Install Ansible (sudo apt-get install ansible).

Create an Ansible playbook (lamp_deploy.yml):

```
GNU nano 4.8 lamp_deploy.y
---
- name: deploy lamp stack
  hosts: all
  become: true
  tasks:
    - name: Copy file with owner and permissions
      ansible.builtin.copy:
        src: /home/vagrant/latest.sh
        dest: /home/vagrant/latest.sh
        owner: root
        group: root
        mode: '0755'

    - name: install lamp stack and laravel
      script: /home/vagrant/latest.sh
```