

Step 1: Install Vagrant and VirtualBox

1. Go to [Vagrant downloads](#) and download the **Windows installer**. Install it.
 2. Go to [VirtualBox downloads](#) and download the **Windows installer**. Install it.
 3. Restart your computer after installation (to make sure both tools are recognized in PATH).
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Step 2: Create a Folder for Your VM

1. Open **Windows Terminal** (or Command Prompt / PowerShell).
2. Choose a folder where you want to store your VM files. For example, on your desktop:

```
cd Desktop
mkdir validate_email_vm
cd validate_email_vm
```

Step 3: Initialize and Start the Vagrant VM

1. Initialize a basic Linux VM (Ubuntu 32-bit) in this folder:

```
vagrant init hashicorp/precise32
```

2. Start the VM:

```
vagrant up
```

- This downloads the VM box and boots it.

3. SSH into the VM:

```
vagrant ssh
```

- You are now inside the Linux VM. All further commands are **inside the VM**, not your Windows PC.
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Step 4: Install Python and pip inside the VM

1. Update your VM packages:

```
sudo apt-get update
```

2. Install Python and pip:

```
sudo apt-get install python python-pip -y
```

3. Verify pip is installed:

```
pip --version
```

Step 5: Install **pyDNS** (Dependency for `validate_email`)

1. Install pyDNS:

```
sudo pip install pydns
```

2. Confirm it installed successfully:

```
python -c "import DNS; print('pyDNS installed')"
```

Step 6: Install Git

1. Install git:

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

2. Check it:

```
git --version
```

Step 7: Clone the **validate_email** Repository

1. Inside the VM, clone the repo using HTTPS (safer for beginners):

```
git clone https://github.com/efagerberg/validate_email.git
```

2. Go into the project folder:

```
cd validate_email
```

⚠ Optional: If you want to use your Windows SSH keys, you need to enable agent forwarding in the **Vagrantfile** by adding:

```
Vagrant.configure("2") do |config|  
  config.ssh.forward_agent = true  
end
```

Then run **vagrant reload** to apply changes.

Step 8: Run **validate_email.py**

1. Make sure you are inside the **validate_email** folder:

```
pwd
```

- Should show something like **/home/vagrant/validate_email**

2. Run the script:

```
python validate_email.py
```

3. Follow any prompts or instructions the script gives.

☒ At this point, **validate_email** should be installed and ready to use inside your VM. You don't need to touch Windows beyond launching the VM.
