

# How to create mac-os VM using your mac-os

- Mac-os is the host machine
  - Vagrant for easy deployment and IaC
  - VirtualBox as the virtualisation software to host the VMs
  - Download the official Sequoia image
  - Take an image of your current mac-os to use to deploy the VM (Sequoia 15.3.1)
  - Push working solution to GitHub
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## Install VirtualBox:

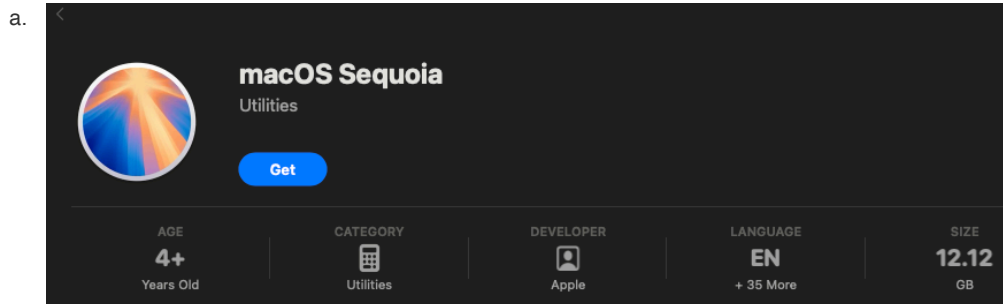
1. Install from source - <https://download.virtualbox.org/virtualbox/7.1.6/VirtualBox-7.1.6-167084-macOSArm64.dmg>
  2. Follow the Installation wizard
  3. Check working - `VBoxManage --version`
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## Install Vagrant:

1. Install from source - [https://releases.hashicorp.com/vagrant/2.4.3/vagrant\\_2.4.3\\_darwin\\_arm64.dmg](https://releases.hashicorp.com/vagrant/2.4.3/vagrant_2.4.3_darwin_arm64.dmg)
  2. Follow the installation wizard
  3. Check working - `vagrant --version`
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## Download the Mac Sequoia Installer:

1. `macappstores://apps.apple.com/app/mac-os-sequoia/id6596773750?mt=12`
2. Then in the App store download



3. Then stop the install and unmount anything it has mounted (SharedSupport.dmg)
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## Create Image of local mac-os:

Ensure you have 16.5GB free disk space!

Always take a backup first, just in case

```
# Create new disk image file in /tmp called "Sequoia.dmg"
hdiutil create -o /tmp/Sequoia -size 16410m -volname Sequoia -layout SPUD -fs HFS+J

# Now mount the Disk Image as /Volumes/install_build
hdiutil attach /Applications/Install\ macOS\ Sequoia.app/Contents/SharedSupport/Sharec

# Now use the mounted installer to restore to the target in /tmp/Sequoia
asr -noverify -source /Volumes/Shared\ Support -target /tmp/Sequoia -erase

# Unmount the installer image
hdiutil detach /Volumes/install_build

# Convert the image to ISO format to deploy as VM
hdiutil convert /tmp/Sequoia -format UDTO -o ~/Desktop/Sequoia.iso

# Rename the file if needed
mv ~/Desktop/Sequoia.iso.cdr ~/Desktop/Sequoia.iso
```

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## Now create the project & Vagrantfile:

First create a directory for your vagrant project

```
mkdir ~/Desktop/sandbox
touch ~/Desktop/sandbox/Vagrantfile
sudo chmod +x ~/Desktop/sandbox/Vagrantfile
```

```
Vagrant.configure("2") do |config|
  config.vm.box = "generic/macOS"

  # Specify the provider
  config.vm.provider "virtualbox" do |vb|
    vb.memory = "4096"
    vb.cpus = 2
    vb.customize ["modifyvm", :id, "--cpus", "2"]
    vb.customize ["modifyvm", :id, "--memory", "4096"]
    vb.customize ["modifyvm", :id, "--vram", "128"]
  end

  # Use the ISO file for installation
  config.vm.provision "shell", inline: <<-SHELL
    echo "Starting macOS installation..."
```

```
hdiutil attach ~/Desktop/Sequoia.iso
SHELL

# Set the boot command to start from the ISO
config.vm.boot_command = [
  '<Esc>',
  'boot',
  'enter'
]

# Set the ISO as the boot disk
config.vm.provider "virtualbox" do |vb|
  vb.customize ["storageattach", :id, "--storagectl", "IDE Controller", "--port", "0", "--device", "Sequoia", "--type", "hdd"]
end
end
```

#### DEPLOY THE VM USING VAGRANT:

```
vagrant up
```