

Mac Setup Guide: VS Code, VirtualBox & Ubuntu



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1. Installation Method

Chosen method Option A: Virtual Machine

2. Installation Process



1 Install VS Code

1. Open your browser and go to:
<https://code.visualstudio.com/>
2. Download for **Mac (Apple Silicon)** version.
3. Extract the **.zip** → Move **Visual Studio Code.app** to Applications.
4. Open from **Launchpad** or Applications.
5. If blocked, allow in:
System Settings → **Privacy & Security** → **Allow App**.

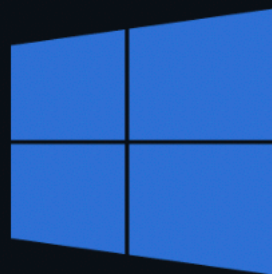


Visual Studio Code

[Docs](#)[Updates](#)[Blog](#)[API](#)

Download

Free and built on open source

**Windows**

Windows 10, 11

**.deb**

Debian, Ubuntu

User Installer	x64	Arm64
System		
Installer	x64	Arm64
.zip	x64	Arm64
CLI	x64	Arm64

By downloading and using Visual Studio Code

2 Install VirtualBox (ARM64)

1. Go to:
<https://www.virtualbox.org/wiki/Downloads>
2. Download **OS X hosts (ARM64)** version.
3. Open .dmg → Drag **VirtualBox.app** to Applications.
4. If blocked, allow in:
System Settings → **Privacy & Security** → **Allow App**.



Down

The VirtualBox Extension Pack is available for personal and e
available under commercial or enterprise terms. B

VirtualBox Platform Packages

VirtualBox 7.2.0 platform packages



Windows hosts



macOS / Intel hosts



macOS / Apple Silicon hosts



Linux distributions



Solaris hosts



Solaris 11 IPS hosts

Platform packages are released under the terms of the [GPL version 2](#)

3 Download Ubuntu (ARM64)

1. Go to:
<https://ubuntu.com/download/desktop>
2. Scroll to **Other versions** → **ARM**.
3. Download **Ubuntu 22.04 LTS ARM64**.
4. File will be a `.iso`.



Downloads

Desktop

Server

Core

Download Ubuntu Desktop

Ubuntu 24.04.3 LTS



4 Create Ubuntu VM in VirtualBox

1. Open **VirtualBox** → Click **New**.
 - **Name:** Ubuntu
 - **Type:** Linux
 - **Version:** Ubuntu (64-bit)
 2. Allocate resources:
 - **Memory:** 4096 MB (4 GB)
 - **CPUs:** 2
 - **Storage:** 25 GB+
 3. Attach ISO:
 - Go to **Settings** → **Storage** → **Empty disk** → **Choose Ubuntu .iso**.
 4. Start VM and follow Ubuntu installation instructions.
-

3. Terminal Outputs

1 `lsb_release -a`

The command `lsb_release -a` displays information about the Linux distribution you are running.

`lsb_release` = Linux Standard Base release.

`-a` option = shows all available details.

It typically outputs:

- Distributor ID (e.g., Ubuntu, Debian)
- Description (full name of the OS + version)
- Release (version number, e.g., 22.04)
- Codename (e.g., jammy, focal)

Sample Output:

```
ritsika raghuvanshi@Ritsikas-MacBook-Air ~ % sw_vers

ProductName:      macOS
ProductVersion:   15.6.1
BuildVersion:     24G90
```

2 `uname -a`

The command `uname -a` prints detailed system information about the Linux kernel and machine.

`uname` = Unix Name

`-a` option = shows all available details.

It typically outputs:

- Kernel name (e.g., Linux)
- Hostname of the machine
- Kernel release (version number)
- Kernel version (build details)
- Machine hardware name (e.g., x86_64)
- Processor type
- Hardware platform

- ### Sample Output:

3 df -h

- Filesystem name (e.g., /dev/sda1)
- Size of the partition
- Used space
- Available space
- Percentage of usage
- Mount point (where the filesystem is attached, e.g., / or /home)

Sample Output:

```

ritsika@Ritsikas-MacBook-Air ~ % df -h
Filesystem      Size      Used    Avail Capacity  iused  ifree %iused  Mounted on
/dev/disk2s1s1  228Gi     10Gi    177Gi      6%    426k   1.9G    0%      /
devfs           201Ki     201Ki     0Bi    100%     696      0   100%    /dev
/dev/disk2s6    228Gi     20Ki    177Gi      1%        0   1.9G    0%    /System/Volu
/dev/disk2s2    228Gi     6.6Gi    177Gi      4%    1.2k   1.9G    0%    /System/Volu
/dev/disk2s4    228Gi     3.7Mi    177Gi      1%       55   1.9G    0%    /System/Volu
/dev/disk1s2    500Mi     6.0Mi    482Mi      2%        1   4.9M    0%    /System/Volu
/dev/disk1s1    500Mi     5.8Mi    482Mi      2%       29   4.9M    0%    /System/Volu
/dev/disk1s3    500Mi     1.7Mi    482Mi      1%       97   4.9M    0%    /System/Volu
/dev/disk2s5    228Gi     33Gi    177Gi     16%    584k   1.9G    0%    /System/Volu
map auto_home   0Bi       0Bi     0Bi    100%        0      0      -    /System/Volu

```

4 free -m

- *total*: total installed RAM
- *used*: RAM currently in use
- *free*: unused RAM
- *shared*: memory used by tmpfs/shmem
- *buff/cache*: memory used for disk caching

- *available*: RAM available for starting new applications
- *swap*: usage of swap space (virtual memory)

Sample Output:

```
Mach Virtual Memory Statistics: (page size of 16384 bytes)
Pages free:                8391.
Pages active:              288426.
Pages inactive:            286006.
Pages speculative:         99.
Pages throttled:           0.
Pages wired down:          113972.
Pages purgeable:           53586.
"Translation faults":      208662646.
Pages copy-on-write:       4769101.
Pages zero filled:         119535057.
Pages reactivated:         14423305.
Pages purged:              13592708.
File-backed pages:        202106.
Anonymous pages:          372425.
Pages stored in compressor: 826979.
Pages occupied by compressor: 312236.
Decompressions:           24770888.
Compressions:              32192957.
Pageins:                   4833308.
Pageouts:                  199666.
Swapins:                   0.
Swapouts:                  0.
```

4. Reflection

During installation, the main challenges I faced were:

- Setting up VirtualBox guest additions.
- Configuring correct RAM and disk size.
- Enabling virtualization in BIOS.

5. Extra Questions

Q1. What are two advantages of installing Ubuntu in VirtualBox?

- Can run Ubuntu without affecting existing OS.
- Easy to take snapshots and revert to earlier states.

Q2. What are two advantages of dual booting instead of using a VM?

- Better performance (uses hardware directly).
- Access to full system resources (RAM, GPU, disk).