

Option 2. Create Windows 11 Bootable Disk Using Terminal (M1 Macs)

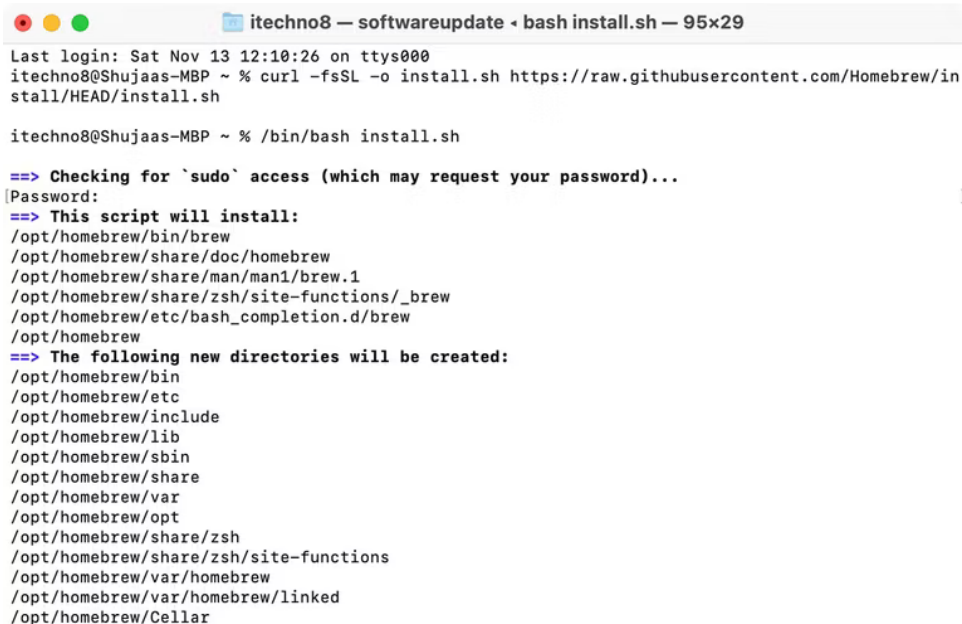
The second method we'll cover today involves using Terminal. The process is relatively simple; however, a limitation of this method is the issue of the installer being 5.2GB. You cannot burn a file bigger than 4GB on a FAT32 formatted drive, which is the only format that works with both Windows and macOS.

A workaround for this is to split the installer into smaller files, which requires the installation of a package manager, `wimlib`, that is installed through Homebrew. This will split the Windows installer file while creating the bootable disk.

To install Homebrew and create a bootable Windows 11 USB, open **Terminal** on your Mac from **Finder > Applications** and enter the following commands. Once you have entered a command, press **Enter**:

```
curl -fsSL -o install.sh https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh
```

```
/bin/bash install.sh
```



```
itechno8@Shujaas-MBP ~ % curl -fsSL -o install.sh https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh

itechno8@Shujaas-MBP ~ % /bin/bash install.sh

==> Checking for `sudo` access (which may request your password)...
[Password:
==> This script will install:
/opt/homebrew/bin/brew
/opt/homebrew/share/doc/homebrew
/opt/homebrew/share/man/man1/brew.1
/opt/homebrew/share/zsh/site-functions/_brew
/opt/homebrew/etc/bash_completion.d/brew
/opt/homebrew
==> The following new directories will be created:
/opt/homebrew/bin
/opt/homebrew/etc
/opt/homebrew/include
/opt/homebrew/lib
/opt/homebrew/sbin
/opt/homebrew/share
/opt/homebrew/var
/opt/homebrew/opt
/opt/homebrew/share/zsh
/opt/homebrew/share/zsh/site-functions
/opt/homebrew/var/homebrew
/opt/homebrew/var/homebrew/linked
/opt/homebrew/Cellar
```

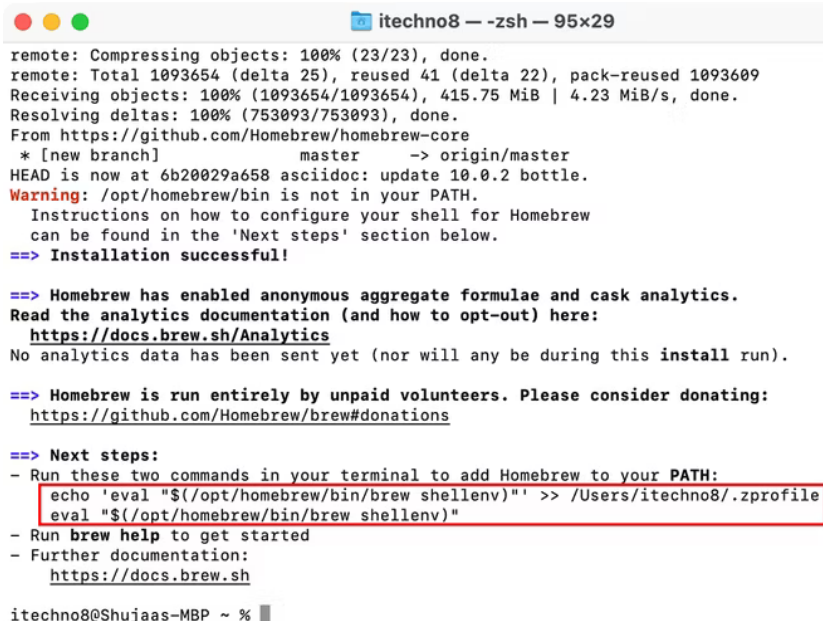
This process will download and install Xcode before installing Homebrew. Xcode is an integrated development environment (IDE) that is comprised of software development tools for macOS. The process may take a few minutes to complete.

You will be required to type in your Mac user password to authenticate yourself. You won't see anything appear on the screen when you type it in, so just type it and press **Enter** to install Homebrew.

Once the installation is complete, enter the following command and press **Enter** to install **wimlib**:

```
brew install wimlib
```

You might get an error message saying **command not found:brew**, you may also see two commands in Terminal right at the end of the previous Homebrew installation. Enter the commands to activate Homebrew, followed by the command above again to get it working successfully.

A screenshot of a macOS Terminal window titled "itechno8 — -zsh — 95x29". The output shows the completion of Homebrew installation. It includes progress bars for compressing and receiving objects, a warning that the bin directory is not in the PATH, and instructions on how to configure the shell. The installation is successful. It also mentions that Homebrew has enabled anonymous aggregate formulae and cask analytics, and provides links for analytics documentation and donations. Finally, it lists the next steps: running two commands to add Homebrew to the PATH and running 'brew help' for further documentation. The two commands to add Homebrew to the PATH are highlighted with a red box.

```
remote: Compressing objects: 100% (23/23), done.
remote: Total 1093654 (delta 25), reused 41 (delta 22), pack-reused 1093609
Receiving objects: 100% (1093654/1093654), 415.75 MiB | 4.23 MiB/s, done.
Resolving deltas: 100% (753093/753093), done.
From https://github.com/Homebrew/homebrew-core
* [new branch]      master      -> origin/master
HEAD is now at 6b20029a658 asciidoc: update 10.0.2 bottle.
Warning: /opt/homebrew/bin is not in your PATH.
Instructions on how to configure your shell for Homebrew
can be found in the 'Next steps' section below.
==> Installation successful!

==> Homebrew has enabled anonymous aggregate formulae and cask analytics.
Read the analytics documentation (and how to opt-out) here:
https://docs.brew.sh/Analytics
No analytics data has been sent yet (nor will any be during this install run).

==> Homebrew is run entirely by unpaid volunteers. Please consider donating:
https://github.com/Homebrew/brew#donations

==> Next steps:
- Run these two commands in your terminal to add Homebrew to your PATH:
  echo 'eval "$(/opt/homebrew/bin/brew shellenv)"' >> /Users/itechno8/.zprofile
  eval "$(/opt/homebrew/bin/brew shellenv)"
- Run brew help to get started
- Further documentation:
  https://docs.brew.sh

itechno8@Shujaas-MBP ~ %
```

Now, make sure your USB is connected to your Mac. Run the following command:

```
diskutil list
```

This will bring up a list of drives connected to your Mac. Find and note down the USB drive's disk identifier, which should appear to the left of **(external, physical)**, and should resemble disk2, disk3, and so on.

Use the following command to format the USB stick in Terminal (replace **disk2** with your disk identifier):

```
diskutil eraseDisk MS-DOS WINDOWS11 GPT /dev/disk2
```

Terminal should now format your disk and rename it as WINDOWS11.

```
itechno8 — -zsh — 86x26

0:      GUID_partition_scheme                *15.4 GB    disk4
1:      EFI EFI                             209.7 MB    disk4s1
2:      Microsoft Basic Data WINDOWS10      15.2 GB     disk4s2

/dev/disk5 (external, physical):
#:      TYPE NAME                            SIZE        IDENTIFIER
0:      FDisk_partition_scheme              *63.9 GB     disk5
1:      Windows_NTFS                        63.8 GB      disk5s1

/dev/disk6 (disk image):
#:      TYPE NAME                            SIZE        IDENTIFIER
0:      CCCOMA_X64FRE_EN-GB... +5.6 GB      disk6

[itechno8@Shujaas-MBP ~ % diskutil eraseDisk MS-DOS WINDOWS11 GPT /dev/disk4
Started erase on disk4
Unmounting disk
Creating the partition map
Waiting for partitions to activate
Formatting disk4s2 as MS-DOS (FAT) with name WINDOWS11
512 bytes per physical sector
/dev/rdisk4s2: 29589248 sectors in 1849328 FAT32 clusters (8192 bytes/cluster)
bps=512 spc=16 res=32 nft=2 mid=0xf8 spt=32 hds=255 hid=411648 drv=0x80 bsec=29618176
bspf=14448 rdcl=2 infs=1 bkbs=6
Mounting disk
Finished erase on disk4
itechno8@Shujaas-MBP ~ % ]
```

Mount the Windows 11 ISO from the Downloads folder on your Mac. You can do this by double-clicking on the ISO file, which should then show up in your Mac's connected devices as **CCCOMA_X64FRE_EN-US_DV9** or similar. Remember to match the file name exactly to the one above. If it's different (due to a different language preference), make sure to change it accordingly in the commands below.

RELATED:

How To Make A Bootable CD/DVD/USB To Install Windows

Since the installer file is bigger than 4GB, we'll be using two separate commands to create the bootable disk. The first command will copy all the files apart from the `install.wim` file (which is 4.2GB) in size. The second command will use `wimlib` to split and copy the `install.wim` file to the USB stick.

Use the following command to copy the content of the ISO image—excluding the `install.wim` file—onto the USB drive:

```
rsync -vha --exclude=sources/install.wim /Volumes/CCCOMA_X64FRE_EN-US_DV9/*
/Volumes/WINDOWS11
```

Then run the following command to split and copy the `install.wim` file:

```
wimlib-imagex split /Volumes/CCCOMA_X64FRE_EN-US_DV9/sources/install.wim
/Volumes/WINDOWS11/sources/install.swm 3000
```

```
itechno8 — -zsh — 86x26

support/logging/microsoft-windows-audit-instrumentation.man
support/logging/microsoft-windows-cmsetup-instrumentation.man
support/logging/microsoft-windows-oobeldr-instrumentation.man
support/logging/microsoft-windows-setup-events.man
support/logging/microsoft-windows-setup-instrumentation.man
support/logging/microsoft-windows-setupcl-instrumentation.man
support/logging/microsoft-windows-setupugc-instrumentation.man
support/logging/microsoft-windows-sysprep-instrumentation.man
support/logging/microsoft-windows-windeploy-instrumentation.man
support/logging/oobeldretw.dll
support/logging/setupcletw.dll
support/logging/setupetw.dll
support/logging/setupugcetw.dll
support/logging/sysprepetw.dll
support/logging/windeployetw.dll
support/logging/winsetupetw.dll
support/logging/en-gb/
support/logging/en-gb/actionqueueetw.dll.mui

sent 723.70M bytes  received 21.28K bytes  6.61M bytes/sec
total size is 723.54M  speedup is 1.00
itechno8@Shujaas-MBP ~ % wimlib-imagex split /Volumes/CCCOMA_X64FRE_EN-GB_DV9/sources/
install.wim /Volumes/WINDOWS11/sources/install.swm 3000
Splitting WIM: 4578 MiB of 4578 MiB (100%) written, part 2 of 2
Finished splitting "/Volumes/CCCOMA_X64FRE_EN-GB_DV9/sources/install.wim"
itechno8@Shujaas-MBP ~ %
```

That's it! Terminal should successfully create the bootable disk, which you can now use to boot a fresh Windows installation.