

Environment Setup for MacOS

# CS 10A – GETTING STARTED: MAC, OSX

# Environment Setup – MacOS (1/7)

Open up Terminal

(Go > Utilities >  
Terminal) or Ctrl+Alt+T



# Environment Setup – MacOS (2/7)

Go to website  
[brew.sh](https://brew.sh)

Copy the command  
as shown and  
paste it into  
Terminal



The screenshot shows the Homebrew website interface. At the top, there is a logo of a beer mug with an apple on top. Below the logo, the word "Homebrew" is written in a large, bold, orange font. Underneath, it says "The missing package manager for macOS". There is a language dropdown menu set to "English". The main heading is "Install Homebrew". Below this, a terminal command is highlighted with a red oval: `/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"`. Below the command, there are two columns of text: "Paste that in a Terminal prompt." and "The script explains what it will do and then pauses before it does it. There are more installation options [here](#) (required for OS X 10.8 Mountain Lion and below).". At the bottom of the screenshot, the heading "What Does Homebrew Do?" is visible.

# Environment Setup – MacOS (3/7)

Once copied into Terminal, hit Return to run that command. Press Return to continue installation if prompted.

If you have a user password, enter it when prompted (it will not appear on the screen as you type it in) and press Enter to confirm the installation.



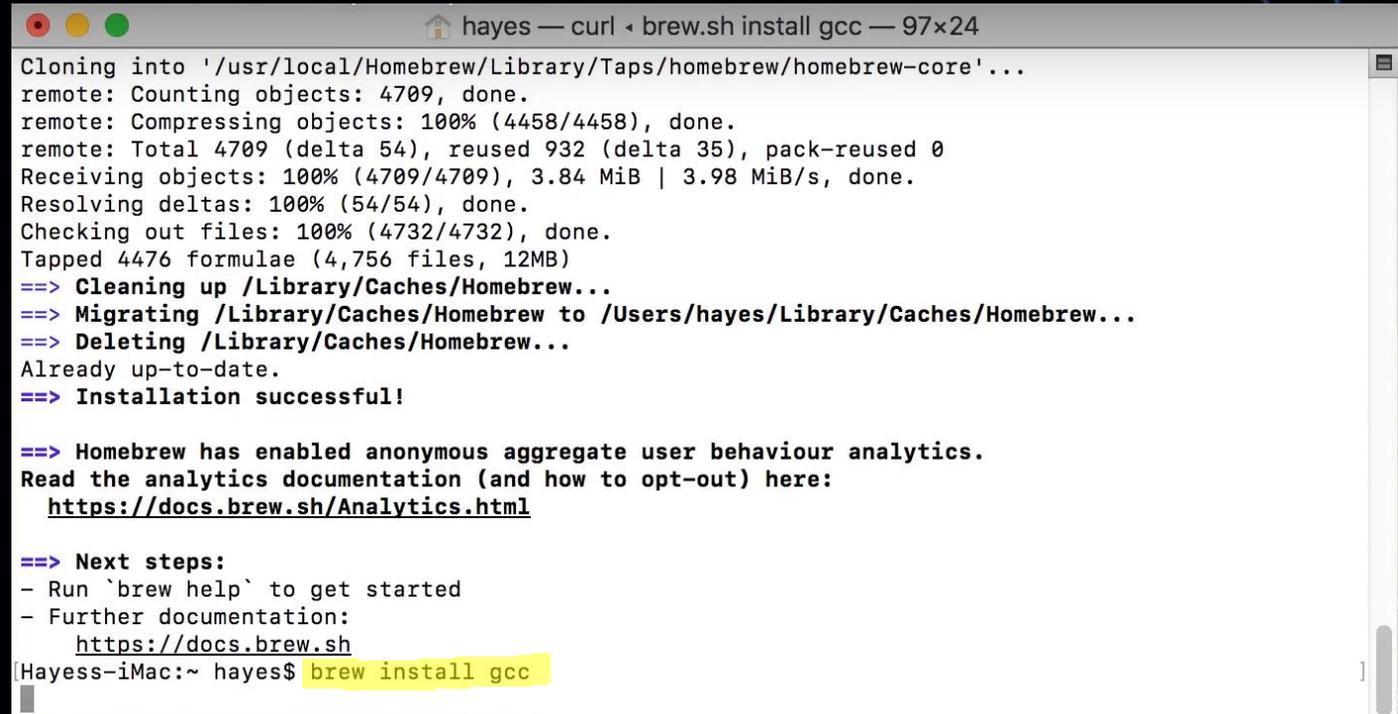
```
hayes — -bash — 80x24
Last login: Thu Jan 11 09:39:54 on ttys000
Hayess-iMac:~ hayes$ /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

# Environment Setup – MacOS (4/7)

When the installation finishes, enter the following command to install the compilers.

**brew install gcc**

Press enter and let the installation run.

A terminal window titled 'hayes — curl < brew.sh install gcc — 97x24' showing the output of the 'brew install gcc' command. The output includes progress reports for cloning, counting, compressing, and receiving objects, as well as messages about cleaning up caches, migrating, and deleting files. It concludes with 'Installation successful!' and provides links to Homebrew's analytics documentation and next steps.

```
Cloning into '/usr/local/Homebrew/Library/Taps/homebrew/homebrew-core'...
remote: Counting objects: 4709, done.
remote: Compressing objects: 100% (4458/4458), done.
remote: Total 4709 (delta 54), reused 932 (delta 35), pack-reused 0
Receiving objects: 100% (4709/4709), 3.84 MiB | 3.98 MiB/s, done.
Resolving deltas: 100% (54/54), done.
Checking out files: 100% (4732/4732), done.
Tapped 4476 formulae (4,756 files, 12MB)
==> Cleaning up /Library/Caches/Homebrew...
==> Migrating /Library/Caches/Homebrew to /Users/hayes/Library/Caches/Homebrew...
==> Deleting /Library/Caches/Homebrew...
Already up-to-date.
==> Installation successful!

==> Homebrew has enabled anonymous aggregate user behaviour analytics.
Read the analytics documentation (and how to opt-out) here:
https://docs.brew.sh/Analytics.html

==> Next steps:
- Run `brew help` to get started
- Further documentation:
  https://docs.brew.sh
Hayess-iMac:~ hayes$ brew install gcc
```

# Environment Setup – MacOS (5/7)

After the installation finishes, try running the command `g++`.

If the next line says `g++`, then proceed with installing Vim on page 7.

If the next line says `clang` instead, proceed with the commands on page 6. We need to reassign the `g++` command to run the `g++` compiler instead of `clang`.

```
hayes — -bash — 80x24
Last login: Thu Jan 11 09:54:29 on console
Hayess-iMac:~ hayes$ g++ --version
g++ (Homebrew GCC 7.2.0) 7.2.0
Copyright (C) 2017 Free Software Foundation, Inc.
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

Hayess-iMac:~ hayes$
```

```
Hayess-iMac:~ hayes$ g++
clang: error: no input files
Hayess-iMac:~ hayes$
```

# Environment Setup – MacOS (6/7)

**NOTE:** Only follow this page if your `g++` command returns clang in response.

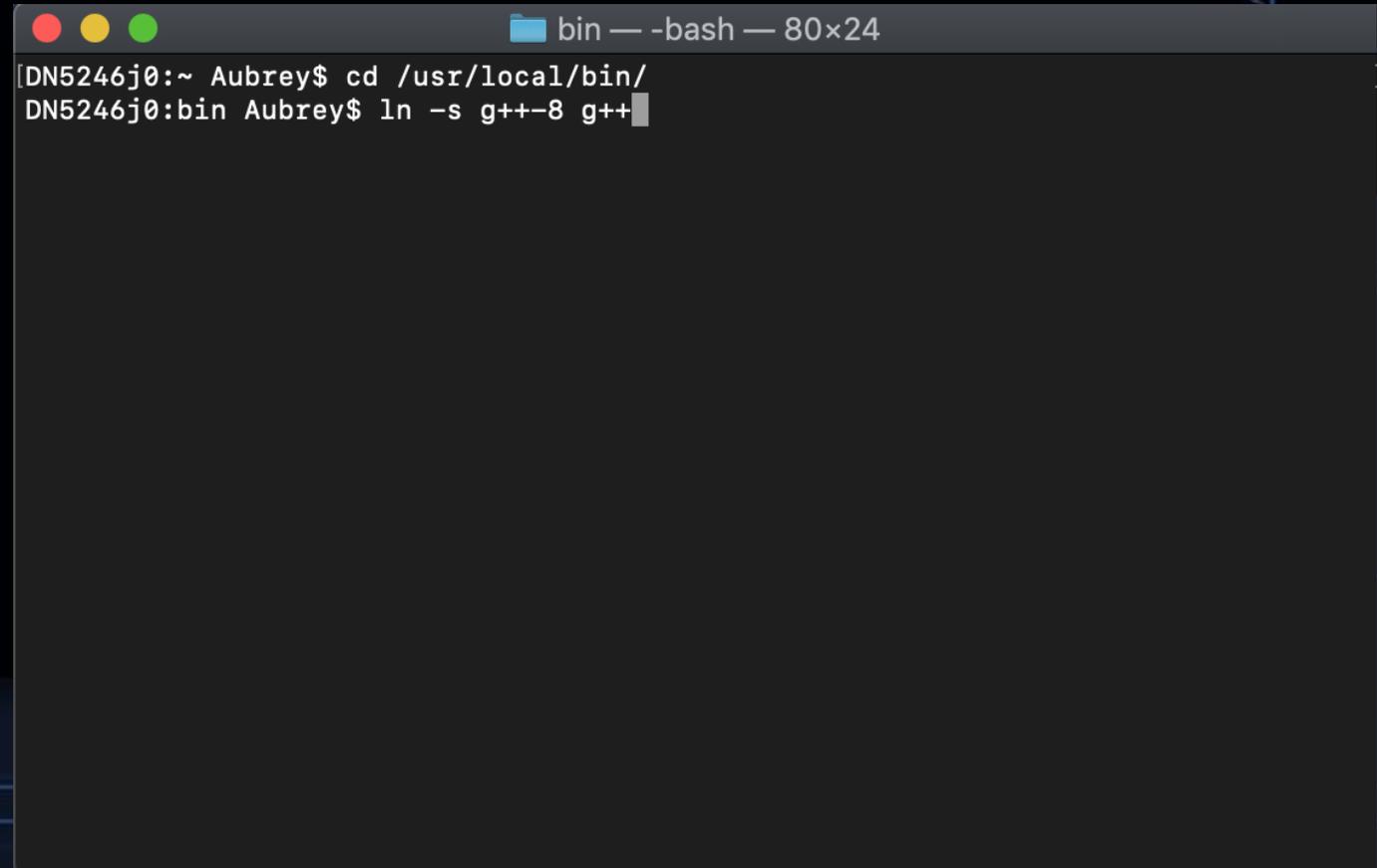
Run the following commands in the order shown.

```
cd /usr/local/bin/
```

```
ln -s g++-10 g++
```

Note that the -10 in the above command reflects the version number of `g++` as of FA20. The image on the right is from when `g++` v8 was still in effect. **This command is subject to change. See instructor for additional help if you're still seeing clang.**

Once that's done, close Terminal, log out, and log back in. Or just restart your computer.

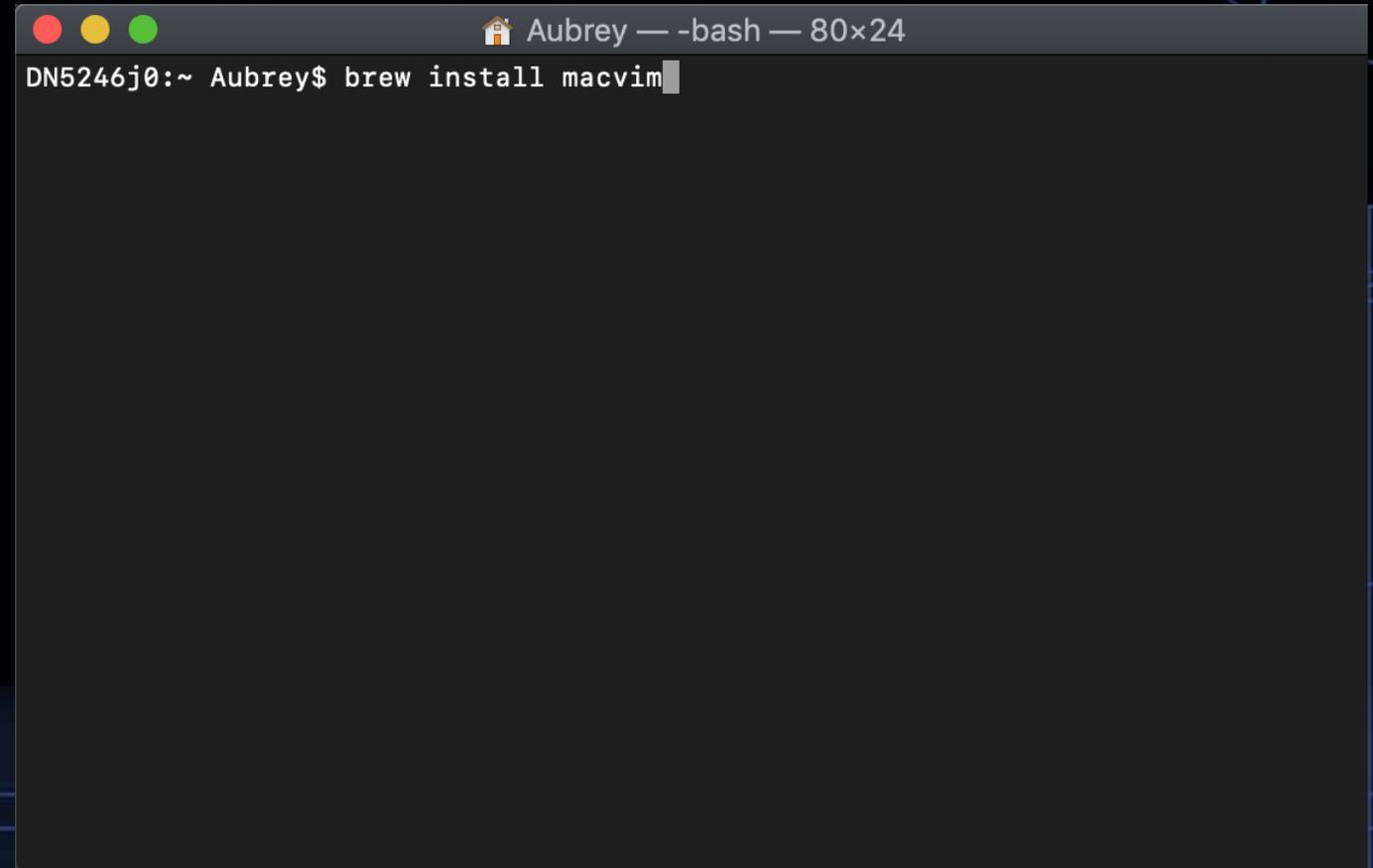


```
bin — -bash — 80x24
[DN5246j0:~ Aubrey$ cd /usr/local/bin/
DN5246j0:bin Aubrey$ ln -s g++-8 g++
```

# Environment Setup – MacOS (7/7)

Run the following command in the order shown to install Vim onto Terminal.

```
brew install macvim
```

A screenshot of a macOS Terminal window. The title bar shows the name 'Aubrey' and the shell '-bash' with a window size of '80x24'. The prompt is 'DN5246j0:~ Aubrey\$' and the command 'brew install macvim' is entered at the end of the line with a cursor. The terminal background is dark grey.

```
DN5246j0:~ Aubrey$ brew install macvim
```

# Access Terminal Files through MacOS Finder

Since Terminal is already a part of the MacOS by default, it's easy to find where the files you create are stored.

You can see where you currently are in Terminal with the `pwd` command.

Navigate to this path using Finder. The root directory starts from your hard disk drive.

