



# Command Line: Bash, Git & Homebrew Project

**Goal:** Begin to push portfolio projects to GitHub via the command line to demonstrate knowledge of Git (version control) and understanding of the command line.

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## Key Terms:

**Shell** - a shell is like a bridge or interface between the user and the computer's operating system. It's a program that takes commands and translates them into instructions that the operating system can understand and execute.

**Command Line** - also known as a command-line interface (CLI), a command line a text-based interface that allows users to interact with a computer's operating system and execute commands by typing them as text strings.

**Git** - Git is an open source distributed version control system (VCS) used for tracking changes in files and coordinating work on projects among multiple people.

**MacOS Terminal** - a command-line interface (CLI) application that allows users to interact with the MacOS operating system using text-based commands.

## Steps

1. I changed the shell on my MacOS from Zsh to Bash. Zsh is a more customizable shell and has more customization, however, in doing research I learned that Bash is still the default shell on many Unix-based systems, including Linux distributions. I'm also more familiar with Bash so I decided to stick with it.

Changed the shell on my MacOS machine from Zsh to Bash using the command line.

```
echo $SHELL
```

```
chsh -s /bin/bash
```

- **chsh** : This stands for "change shell" and is a command-line utility that allows me to change my default login shell.
- **s /bin/bash** : This part of the command specifies the new shell that you want to set as the default. In this case, **/bin/bash** refers to the Bash shell, which is a popular Unix shell and command language.

2. Homebrew - Homebrew is a package manager for macOS and Linux that simplifies the installation and management of software packages and libraries. It provides a command-line interface (CLI) for managing software installations, updates, and dependencies. Homebrew also allows for the installation of software not packaged for Linux the home directory without requiring 'sudo'. I installed Homebrew via the command line.

Install Homebrew:

```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/homebrew-core/main/install.sh)"
```

- a. `/bin/bash` : This specifies the shell to be used to execute the rest of the command. In this case, it's using the Bash shell ( `/bin/bash` ).
  - b. `c` : This option tells Bash to execute the following string as a command.
  - c. `"$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"` : This part of the command uses `curl` to download the Homebrew installation script ( `install.sh` ) from the specified URL.
  - d. Here's what each component does:
    - `curl` : This is a command-line tool for transferring data from or to a server using various protocols (in this case, HTTP).
    - `fsSL` : These options for `curl` :
      - `f` : Fail silently on server errors (i.e., don't show error messages).
      - `s` : Silent mode (i.e., don't show progress or download information).
      - `S` : Show error messages if there are any.
      - `L` : Follow redirects (if the URL redirects to another location).
3. I double-checked to make sure I now had the latest version of Homebrew installed. I then used Homebrew to update Git, and then checked to make sure I had the latest version.

```
brew update
brew upgrade git
git --version
```

Bash, Homebrew and Git are now installed and updated on my MacOS machine via the command line Next step: Create a repository, initialize Git, commit and push to GitHub.