

# Git Basics



maybe more, maybe less.

# Skid Vis

@skidvis 😊

CoVis CoWorking - [covisco.com](http://covisco.com) - @covisco



Consultant at

Agape ❤ Red

Feb 2014



# CoVis CoWorking

April 2012

[covisco.com](http://covisco.com)

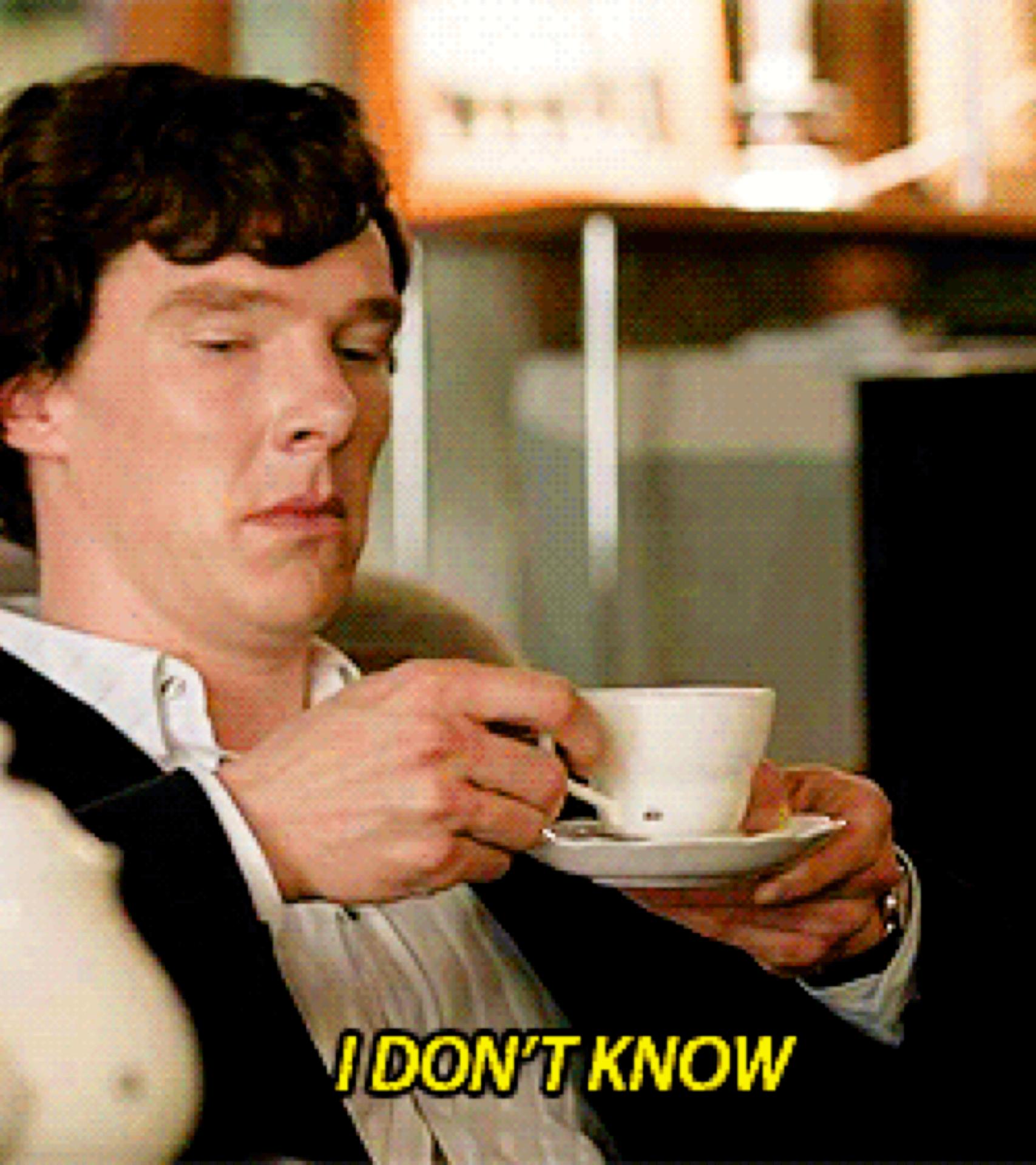


Warning:  
I like gifs.



# What is git?

?



**I DON'T KNOW**

A Way To Repel  
Stray Dogs?  
no. 



# Version Control

CoVis CoWorking - [covisco.com](http://covisco.com) - @covisco



**multiplicity.**

# Time Machine



another  
Time  
Machine

just in case



The website says:



Git is a distributed revision control system with an emphasis on speed, data integrity, and support for distributed, non-linear workflows.

# Make Sense?



It will.



but maybe it won't.

Don't worry

GOTCHU COVERED



# Where do I get it?

# git-scm.com



CoVis CoWorking - covisco.com - @covisco

The screenshot shows the official Git website ([git-scm.com](http://git-scm.com)) displayed in a web browser. The page features a large orange header with the text "Where do I get it?" and "git-scm.com". Below the header, there's a large orange "git" logo with the tagline "fast-version-control". A search bar at the top right says "Search entire site...". The main content area includes a brief introduction to Git, highlighting its speed and efficiency, and a diagram showing multiple repositories connected by lines. A "Try Git" button is present. The page also lists "About", "Documentation", "Downloads", and "Community" sections, along with a link to the "Pro Git" book. On the right, there's a "Latest source Release" section for version 2.3.3, download links for Mac, Windows, and Source Code, and logos for various companies and projects that use Git.

git --fast-version-control

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, **convenient staging areas**, and **multiple workflows**.

Learn Git in your browser for free with [Try Git](#).

**About**  
The advantages of Git compared to other source control systems.

**Documentation**  
Command reference pages, Pro Git book content, videos and other material.

**Downloads**  
GUI clients and binary releases for all major platforms.

**Community**  
Get involved! Bug reporting, mailing list, chat, development and more.

**Pro Git** by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

**Companies & Projects Using Git**

Google facebook Microsoft twitter LinkedIn NETFLIX PostgreSQL Camel PostgreSQL

ANDROID LINUX RAILS QT GNOME ECLIPSE KDE Xfce

How is it  
better than..



Sorry, No.  
Not this time.



# Why should I use it?

- It's awesome.
- Everyone else is.
- Created by the linux guy.
- Résumé on github.



Git != Github

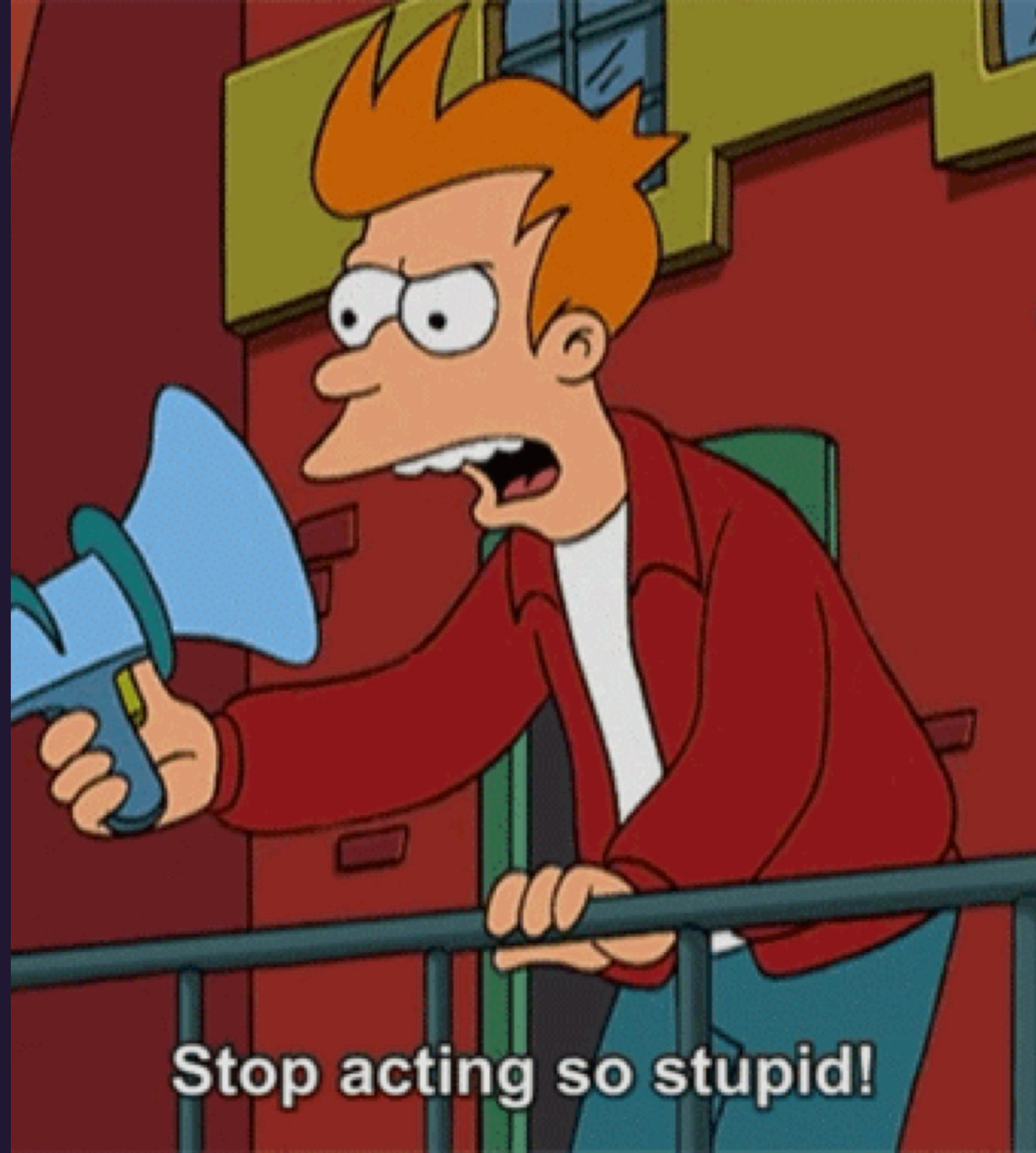
or

Github < > Git

whatevs, gosh

# Soapbox time.

Use the command line tools.



Stop acting so stupid!

# Save your questions.

..until after my escape.



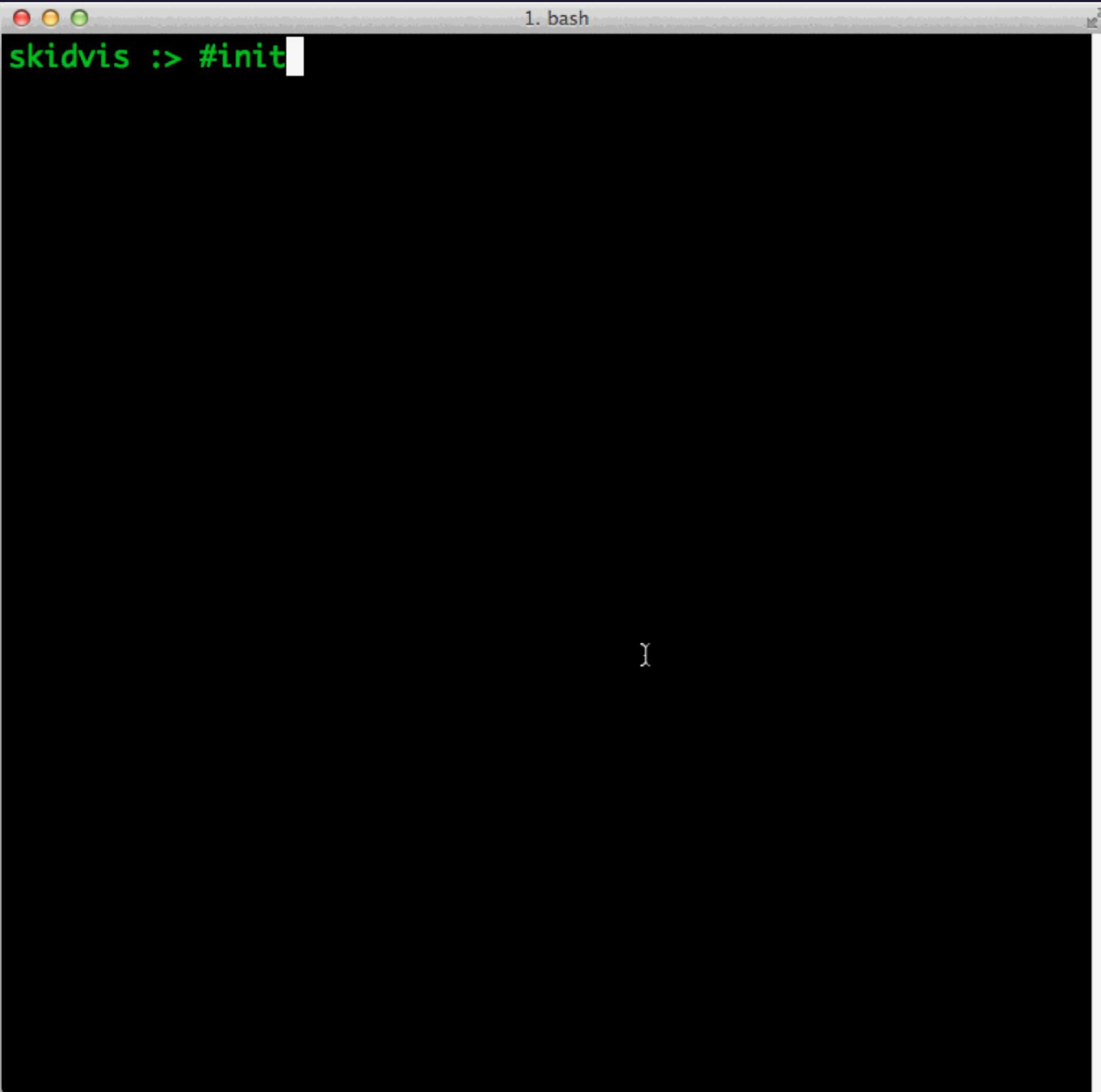
# Let's Git Started

CoVis CoWorking - [covisco.com](http://covisco.com) - @covisco



# git init

Creates an empty Git repository or reinitializes an existing one.



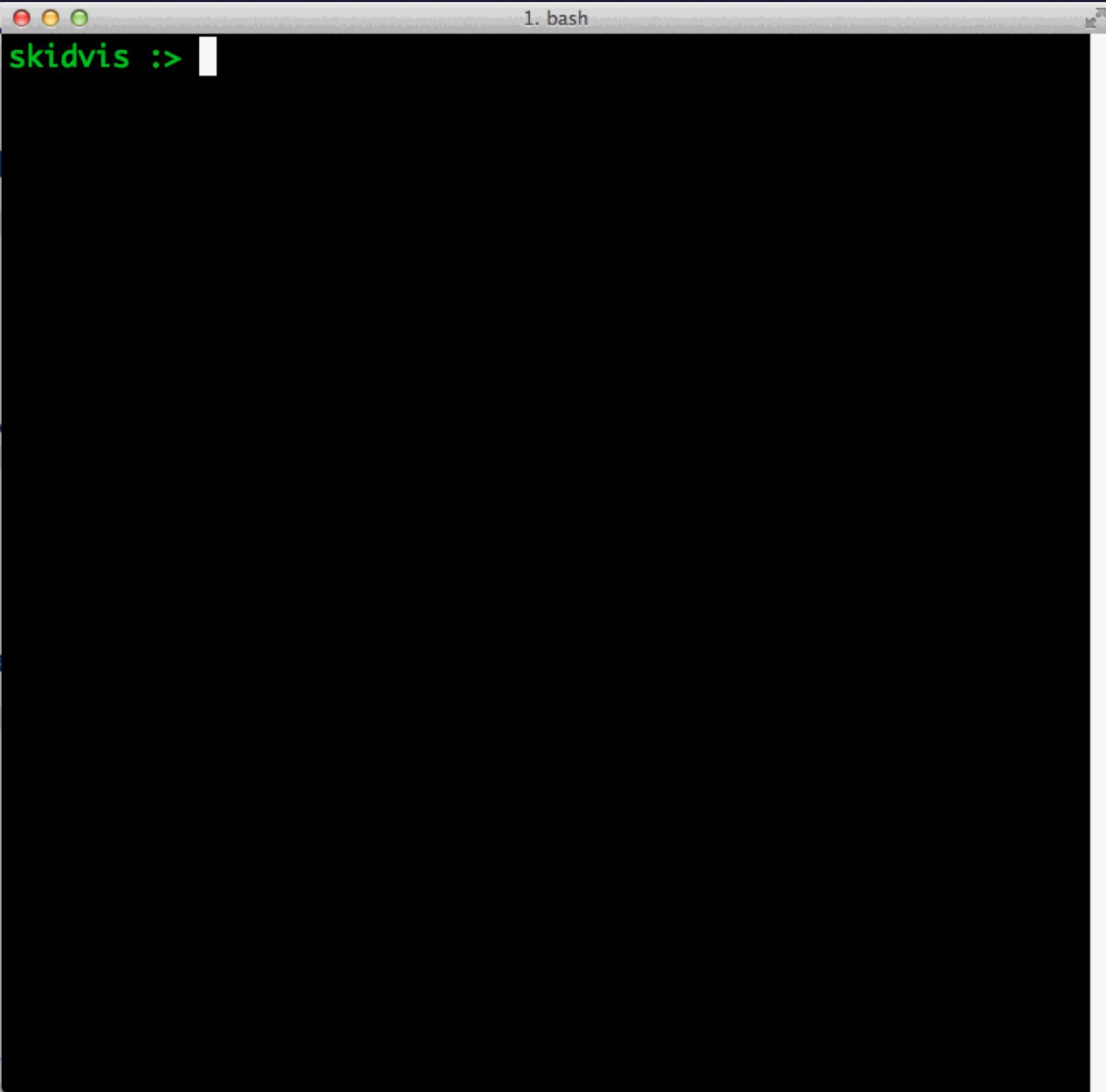
A screenshot of a terminal window titled "1. bash". The window has a dark background with light-colored text. At the top, there are three red, yellow, and green circular icons. The title bar says "1. bash". The main area of the terminal shows the command "skidvis :> #init" followed by a cursor. There is also a small "x" icon in the bottom right corner of the terminal window.

# The Magical .git directory



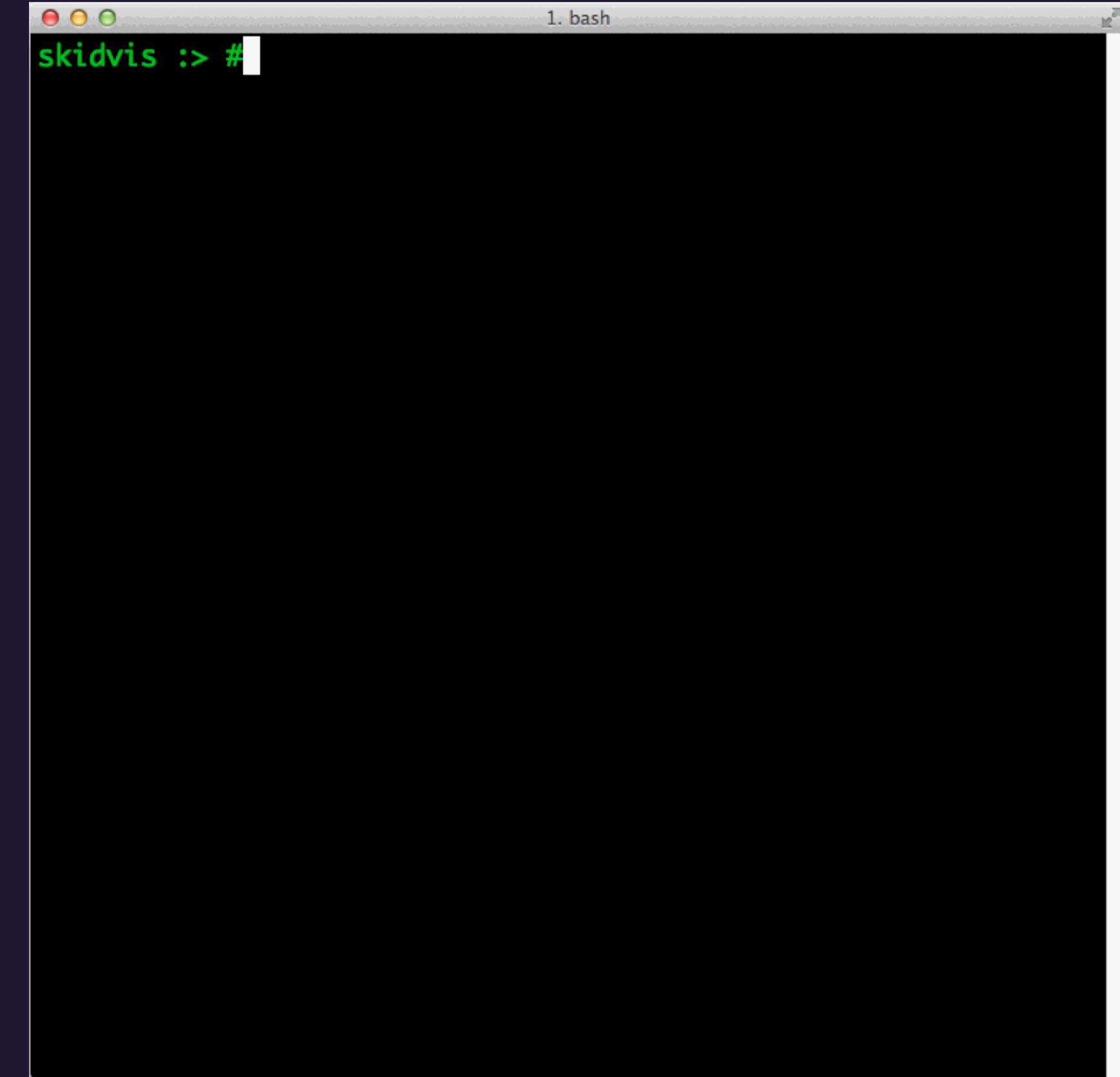
# git status

Show the working tree  
status



A screenshot of a terminal window titled "1. bash". The window has a dark background with red, yellow, and green window control buttons at the top left. The title bar says "1. bash". Inside the terminal, the text "skidvis :>" is displayed in green, followed by a white cursor character. The rest of the screen is blank, indicating no output from the command.

**git add <filename>**  
**Add file contents to the**  
**index**

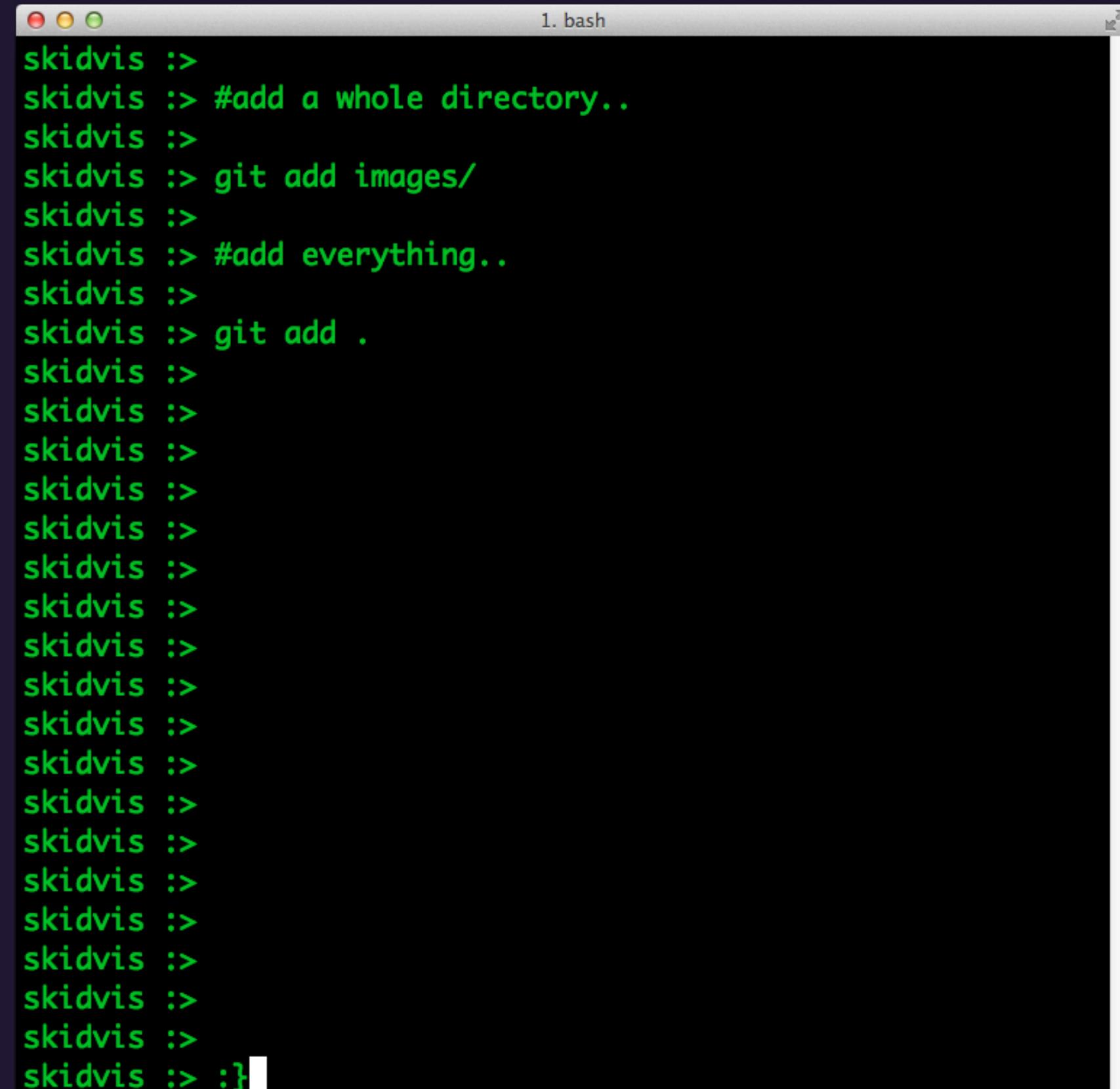


The image shows a terminal window with a dark background and light-colored text. The title bar of the window reads "1. bash". Inside the window, the text "skidvis :> #" is displayed, indicating that the user has typed a command and is awaiting further input or output.

git add <filename>

git add <directory>

git add .

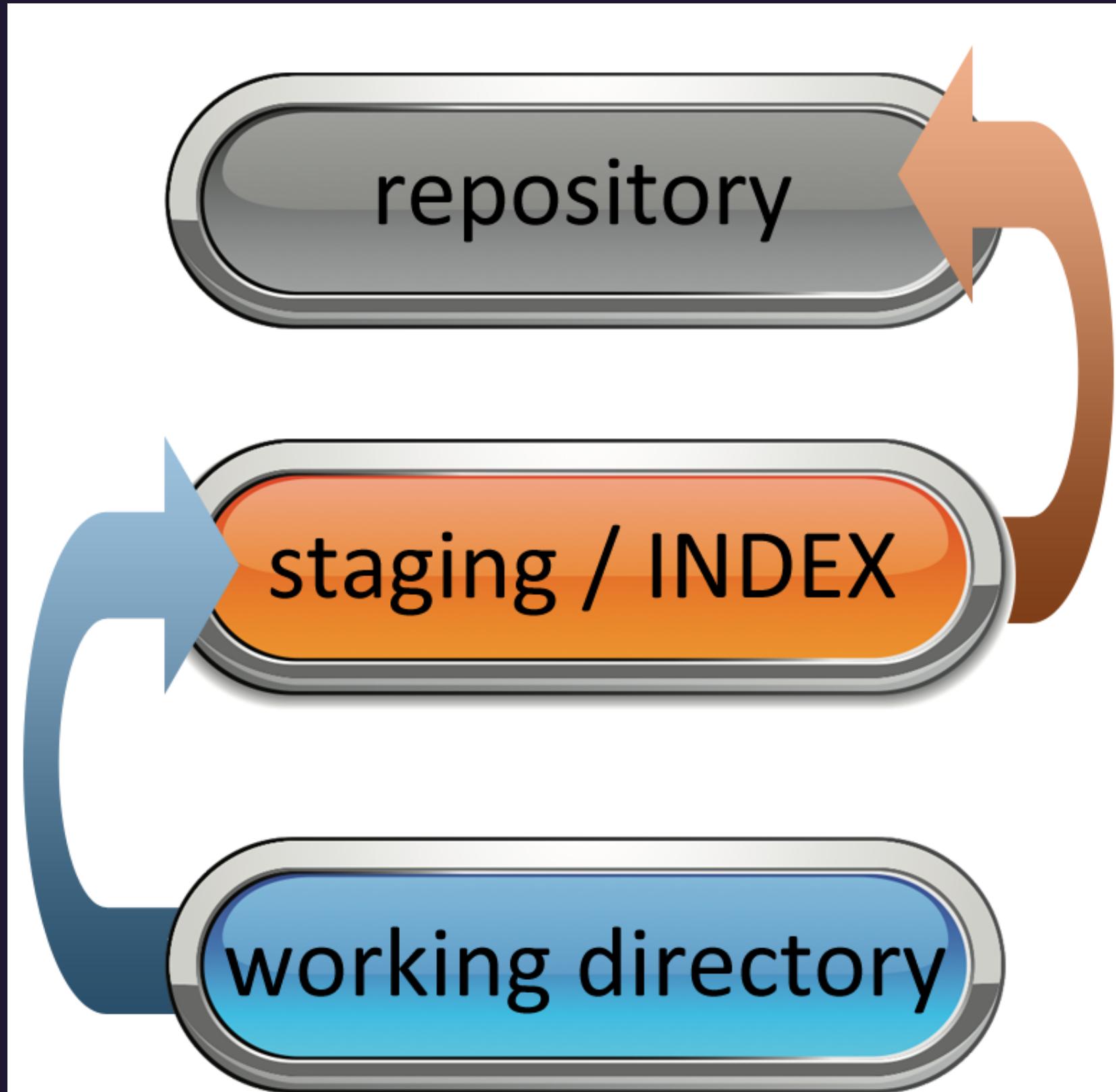


```
skidvis :>
skidvis :> #add a whole directory..
skidvis :>
skidvis :> git add images/
skidvis :>
skidvis :> #add everything..
skidvis :>
skidvis :> git add .
skidvis :>
skidvis :> :}||
```

What does  
add  
actually do?



# 3 States of brain-tingling fun!



# Working Directory

The directory where you work.

CoVis CoWorking - [covisco.com](http://covisco.com) - @covisco



# Staging

also called the INDEX

What you want to keep.



# Repository

I know what I'm doing,  
commit my actions  
to the annals of  
awesomeness!



# git commit

*Record changes to the repository*



```
skidvis :>
```

# commit message "rules":

Be as verbose as you want. want a lot.

Be descriptive. What changed?

Speak in the present tense.

# git log

Show commit logs

A screenshot of a terminal window titled "1. bash". The window has a dark background with white text. At the top, there are three colored window control buttons (red, yellow, green). Below them, the title "1. bash" is displayed. The main area of the terminal shows the command "skidvis :>" in white text. The terminal window is set against a dark blue background of the slide.

git log --oneline  
Make it easier to read.



skidvis >

# Hashes

What's with the weird numbers and stuff?

```
commit 6cab73eca8059171e6910696a8b8f9e4db63be80
Author: Skid Vis <skid.vis@agapered.com>
Date:   Thu Mar 19 01:04:18 2015 -0500
```

Write a cool poem.

# Use the hash

It's useful!

```
skidvis :>
skidvis :> git log 6cab73eca8059171e6910696a8b8f9e4db63be80
commit 6cab73eca8059171e6910696a8b8f9e4db63be80
Author: Skid Vis <skid.vis@agapered.com>
Date:   Thu Mar 19 01:04:18 2015 -0500

        Write a cool poem.
skidvis :>
skidvis :> git log --oneline 6cab73
6cab73e Write a cool poem.
skidvis :>
skidvis :> #neat, huh?■
```

# git diff

Show changes between  
commit and working tree,  
etc

```
skidvis :>
skidvis :> git diff
diff --git a/my_file.txt b/my_file.txt
index 0b544e5..2cff1d3 100644
--- a/my_file.txt
+++ b/my_file.txt
@@ -1 +1 @@
-Hi Mom. You are the very best!
\ No newline at end of file
+Hi Mom. You are awesome!
\ No newline at end of file
skidvis :> |
```

# Branches

Sometimes you need to  
**LEAVE** what you're  
working on.



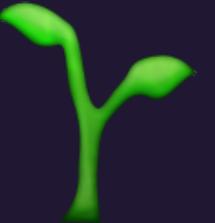
# git branch

Shows all available branches.



# git branch <branch>

Create a new branch which mirrors the current working directory.



# git checkout <branch>

Switch to a branch.



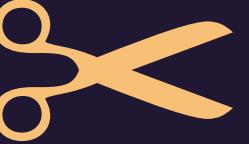
# git checkout -b <branch>

Create and switch to a new branch.



```
git branch -d <branch>
```

Delete a branch.



# git branch -D <branch>

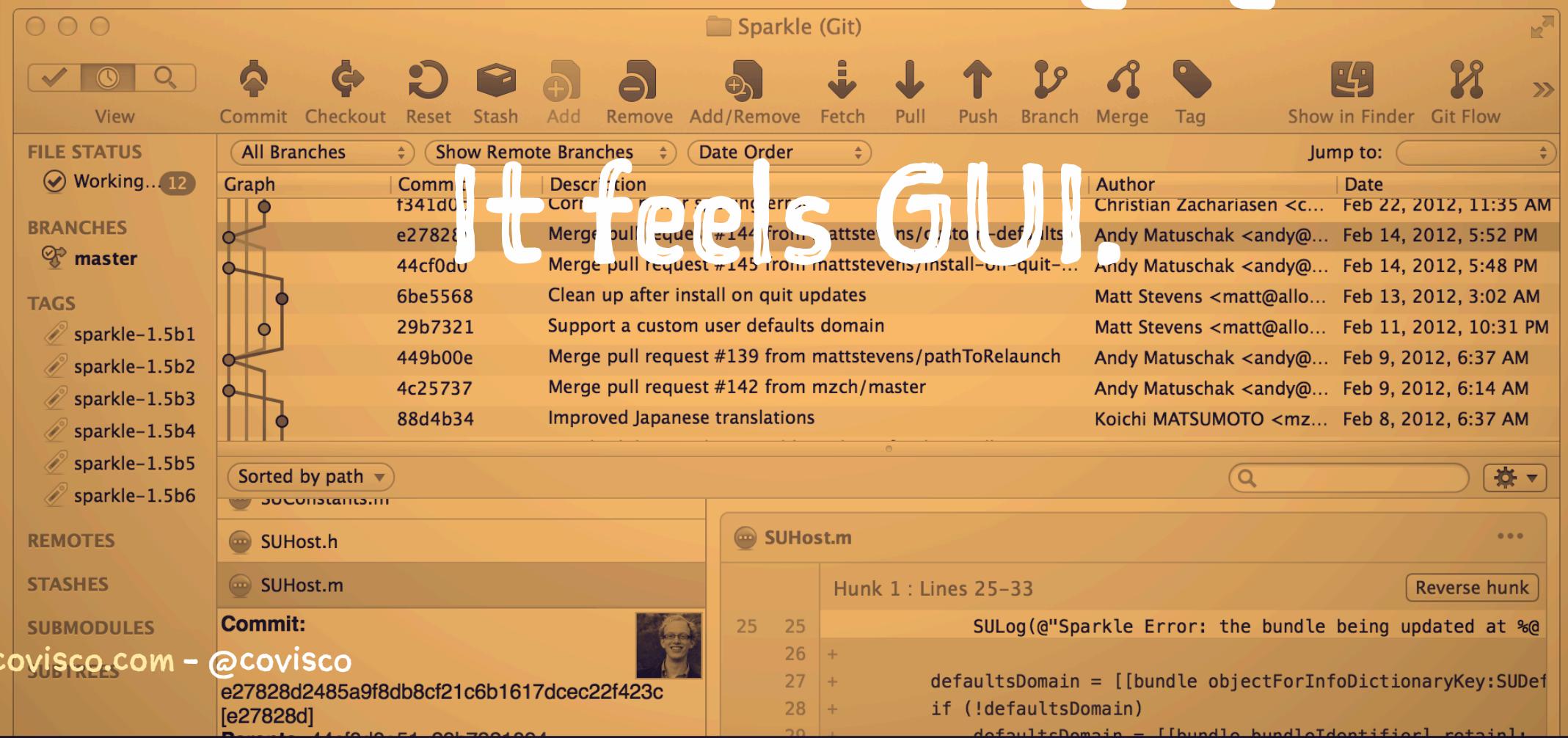
*Force deleting of a branch.*



Atlassian  
**SourceTree**

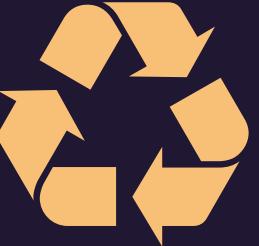
A free Git & Mercurial client for Windows or Mac.

sourcetreeapp.com



# git merge <branch>

Pull the contents of the branch into the current working directory.



# Hap!

Sometimes you screw up.



# The saidhsf /skdASFADS scenario



Sometimes cats screw up.



```
git reset --hard HEAD
```

Undo all changes since the last commit.

```
git reset --hard HEAD^
```

Undo all changes and go back one commit.

# git reflog

See a history of all changes to HEAD.

`git reset --hard <hash>`  
Undo all changes and go back one commit.

```
git checkout -b <branch> <hash>
```

**Checkout a previous commit into a new branch.**

# The End.

so sad. 😭



Midwest Dev Chat is an invite-only, Slack-powered message group.

The newest 15 messages in the super-cool #general channel.

03/19 11:54:33 **Gisselle**: I used to speak really fast and forget to find natural pauses to breathe.

03/19 11:55:13 **Aimee**: OK, finally getting out of work. Heading to Lincoln

03/19 11:58:18 **Dovie**: lincoln++

03/19 11:58:43 **Adriel**: yay @Aimee

03/19 12:13:45 **Quinn**: uploaded a file: PRIVATE IMAGE UPLOADED, MEMBERS ONLY. SORRY.

03/19 12:14:19 **Quinn**: To help you visualize, @Adriel

03/19 12:15:08 **Quinn**: I'm sorry, I'm being mean. :)

03/19 12:18:37 **Kariane**: is registration open all day?

03/19 12:19:51 **Quinn**: Not likely /p / but yes

03/19 12:21:18 **Kariane**: www. [REDACTED] 14pm

03/19 12:33:15 **Stone**: IMAGE FILE [CLICK TO VIEW]

03/19 12:40:22 **Quinn**: @Kariane 4 is OK, I asked. But not 5.

03/19 12:41:11 **Kariane**: Alrighty thanks.

03/19 13:23:30 **Adriel**: @Quinn: thanks, that does help me realize they won't all be in that room. :P

03/19 13:25:15 **Adriel**: FYI: @Conor and I are on our way...

\*User names have been changed to protect the innocent.

Where we be.

We're currently 289 members strong. Join us!

Email Address

Request invite

Check out all the cool channels!

CoVis CoWorking - [covisco.com](http://covisco.com) - [@covisco](https://slack.covisco.com)

#angularjs #architecture #bsd #cloud #coderdojo #communityorganizing #database #devops #dotnet #emberjs #events #frontend #fullstack #gamedev  
#gaming #general #github #go #java #javascript #jobopportunities #ladydevs #linux #mobile #music #music\_royale #nebraskajs #node #perl  
#personaldev #pets #php #privacy\_security #puns #python #random #reactis #remoteworkers #ruby #scala #speakers #startups #students #tdd

# Questions?



# Questions?

@nicknisi 😎

He's so smart.



Love all the gifs??

@zachleat

He's my gif guru.



twitter

skid@skidvis.com

web

email