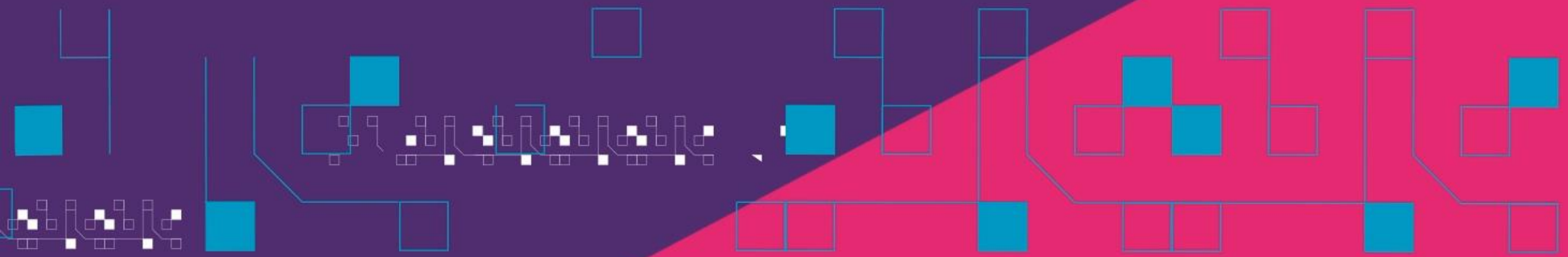
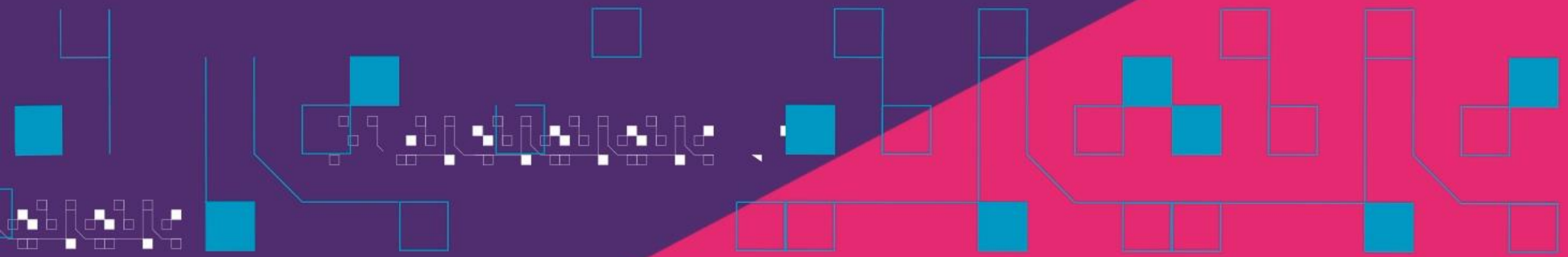
Intro to Git Recap



Setup



Cats

Working Directory

What Git Knows

Terminal

git config --global user.name “DrG”
git config --global user.email “DrG@email.com”

Explanation

Git now knows who the user is:
user.name = “DrG”
user.email = “DrG@email.com

Cats

Working Directory

What Git Knows

Cats

Terminal

```
git init
```

Explanation

There is a folder called “Cats” and the user wants Git to track the changes in that folder.

Cats

Working Directory

index.html

What Git Knows

Cats

Terminal

touch index.html
git status

Explanation

A file in the “Cats” folder, called “index.html” exists, but we haven’t asked Git to track index.html yet.

Cats

Working Directory

index.html

What Git Knows

Cats

Terminal

git add .

Explanation

Git needs to now track the index.html file, but it hasn’t saved a version of it yet.

Cats

Working Directory

index.html

What Git Knows

Cats

index.html

43da025

Terminal

git commit index.html -m "Create an empty index.html file"

Explanation

Git now has a version of index.html saved with a message and it has associated a hash to it.

Cats

Working Directory

index.html

CODE

What Git Knows

Cats

index.html

43da025

Terminal

code index.html

Make edits and save file

Explanation

Git knows that the index.html file has changed but does not have a version of it.

Cats

Working Directory

index.html

CODE

What Git Knows

Cats

index.html

43da025

Cats

index.html

CODE

9bb9e46

Terminal

```
git commit -a -m "Add a heading to index.html"
```

Explanation

Git checks all files (in this case only index.html) for changes, and then saves those changes as a new version.

Cats

Working Directory

index.html

CODE
CODE

What Git Knows

Cats

index.html

43da025

Cats

index.html

CODE

9bb9e46

Terminal

code index.html

Make edits and save file

Explanation

Git knows that index.html has changed.

Cats

Working Directory

index.html

CODE
CODE

What Git Knows

Cats

index.html

43da025

Cats

index.html

CODE

9bb9e46

Terminal

git diff

index.html

CODE
CODE

index.html

CODE

Explanation

Git shows us the difference between what is in the working directory and what is the most recent commit (aka the HEAD).

Cats

Working Directory

index.html

CODE
CODE

What Git Knows

Cats

index.html

43da025

Cats

index.html

CODE

9bb9e46

Cats

index.html

CODE
CODE

92d2f61

Terminal

git commit -m "Add HTML boilerplate to index.html" index.html

Explanation

Git checks only index.html for changes
(happens to be the only file) and saves a version of it.

Cats

Working Directory

index.html

```
CODE
CODES
```

.gitignore

```
*.bak
*~
```

What Git Knows

Cats

index.html

43da025

Cats

index.html

```
CODE
```

9bb9e46

Cats

index.html

```
CODE
CODE
```

92d2f61

Terminal

code .gitignore

Make edits and save file

code index.html

Make edits and save file

Explanation

Git now knows about a .gitignore file and will ensure that it does *not* check for changes in any of the types of files specified. In this case, anything with the extension .bak (a backup file) or anything ending in ~ (a temp file). Git also knows that index.html was modified.

Cats

Working Directory

index.html

```
CODE
CODES
```

.gitignore

```
*.bak
*~
```

What Git Knows

Cats

index.html

43da025

Cats

index.html

```
CODE
```

9bb9e46

Cats

index.html

```
CODE
CODE
```

92d2f61

Terminal

```
git add -A
```

Explanation

Git now knows about the .gitignore file, but will not bother “knowing” about the files with .bak extensions or ending in ~

Cats

Working Directory

index.html

```
CODE
CODES
```

.gitignore

```
*.bak
*~
```

What Git Knows

Cats

index.html

43da025

Cats

index.html

```
CODE
```

9bb9e46

Cats

index.html

```
CODE
CODE
```

92d2f61

Cats

index.html

```
CODE
CODES
```

.gitignore

```
*.bak
*~
```

393f20e

Terminal

git commit -am "Make small wording change; ignore editor backups"

Explanation

Git now has a version of the .gitignore file and an Updated version of the index.html file.

Cats

Working Directory

index.html

```
CODE
CODES
```

.gitignore

```
*.bak
*~
```

CSS

.git-keep

What Git Knows

Cats

index.html

43da025

Cats

index.html

```
CODE
```

9bb9e46

Cats

index.html

```
CODE
CODE
```

92d2f61

Cats

index.html

```
CODE
CODES
```

.gitignore

```
*.bak
*~
```

393f20e

Terminal

mkdir CSS
touch CSS/.git-keep
git add CSS

Explanation

Git knows it needs to track an empty folder called “CSS”

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

```
*.bak
*~
```

CSS

site.css

```
COE
```

What Git Knows

Cats

index.html

43da025

Cats

index.html

```
CODE
```

9bb9e46

Cats

index.html

```
CODE
CODE
```

92d2f61

Cats

index.html

```
CODE
CODE
```

.gitignore

```
*.bak
*~
```

393f20e

Terminal

```
rm CSS/.git-keep
cd CSS
code site.css
Make edits and save file
cd ../
code index.html
Make edits and save file
git add .
```

Explanation

Git know that index.html has changed and it now needs to track a site.css file inside of the CSS folder.

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

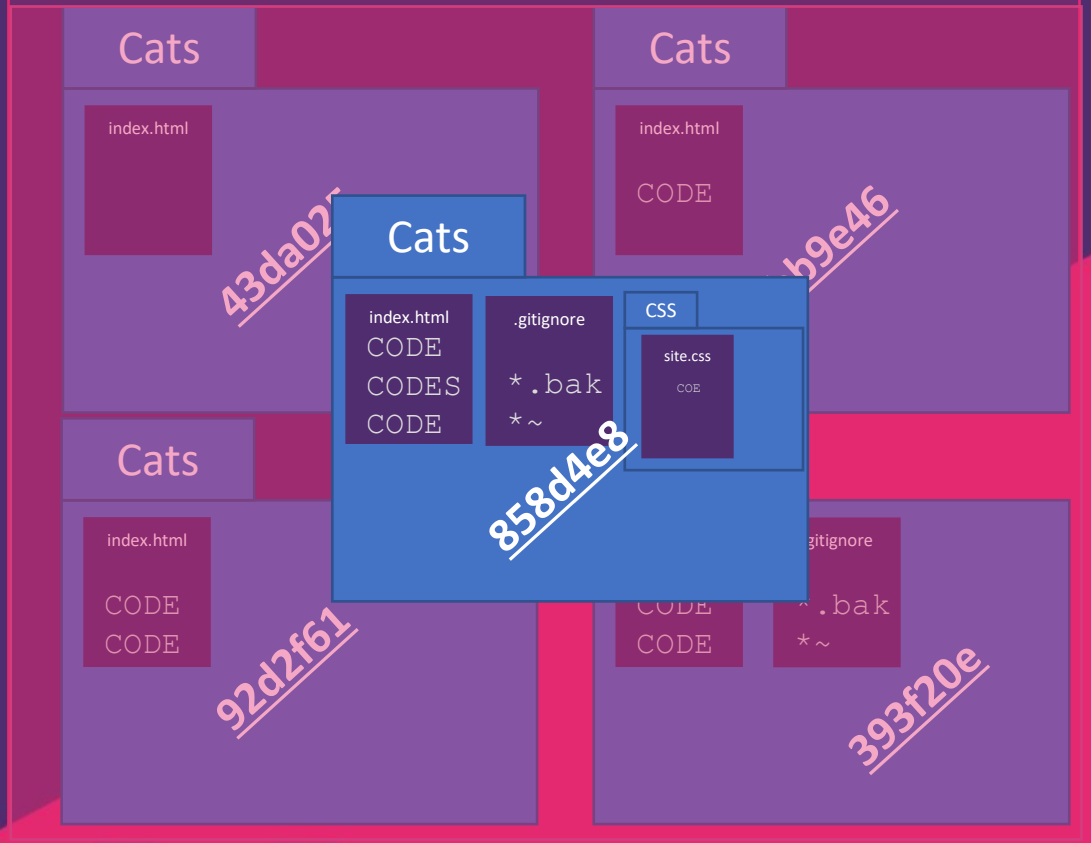
```
*.bak
*~
```

CSS

site.css

```
COE
```

What Git Knows



Terminal

git commit -am "Add a simple stylesheet"

Explanation

Git now has a version of site.css (which is in the CSS folder) and has an updated version of index.html

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

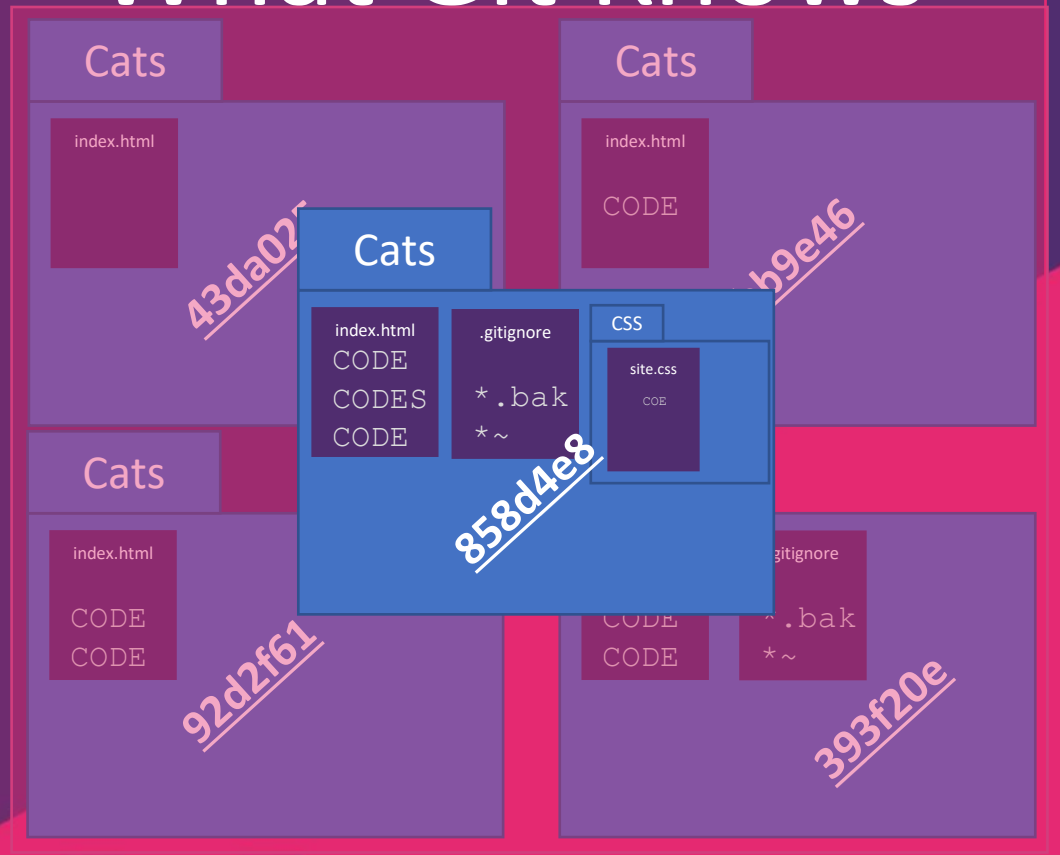
```
*.bak
*~
```

CSS

site.css

```
CODE
```

What Git Knows



Terminal

code CSS/site.css

Make edits and save file

Explanation

Git knows that site.css has been modified

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

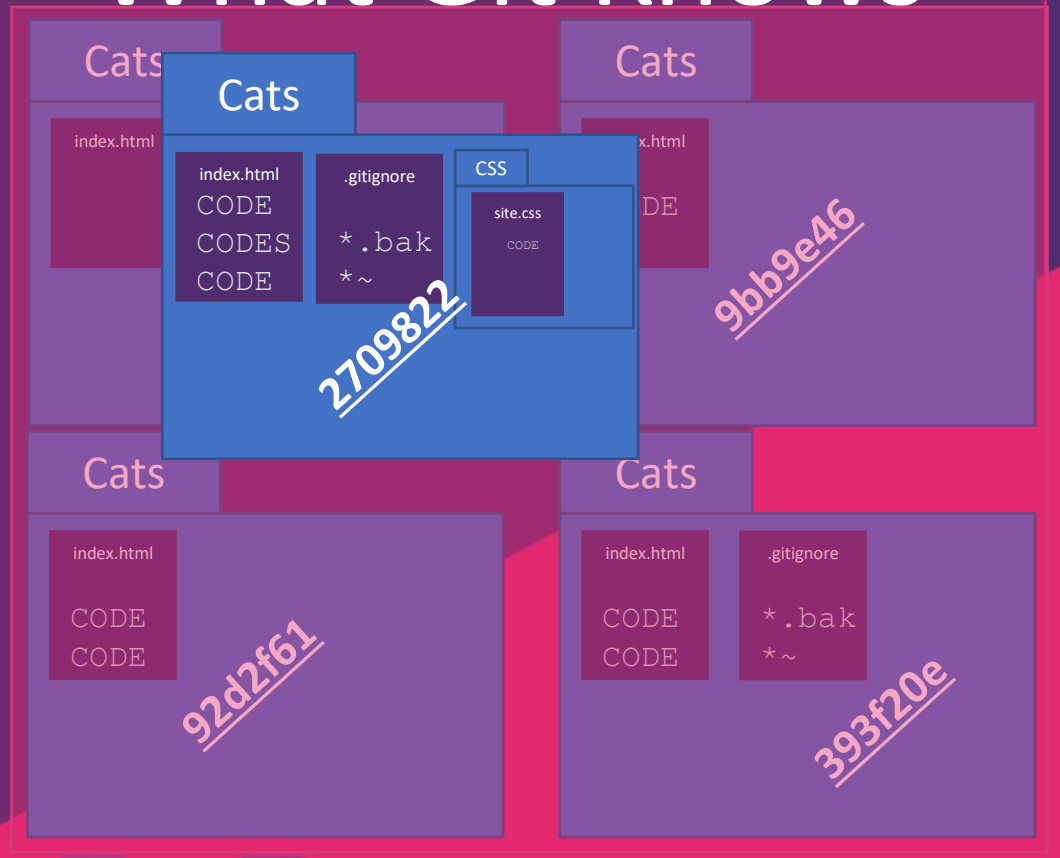
```
*.bak
*~
```

CSS

site.css

```
CODE
```

What Git Knows



Terminal

```
git commit --amend --no-edit
```

Explanation

Git updates the last commit with the modifications to site.css.

Cats

Working Directory

.gitignore

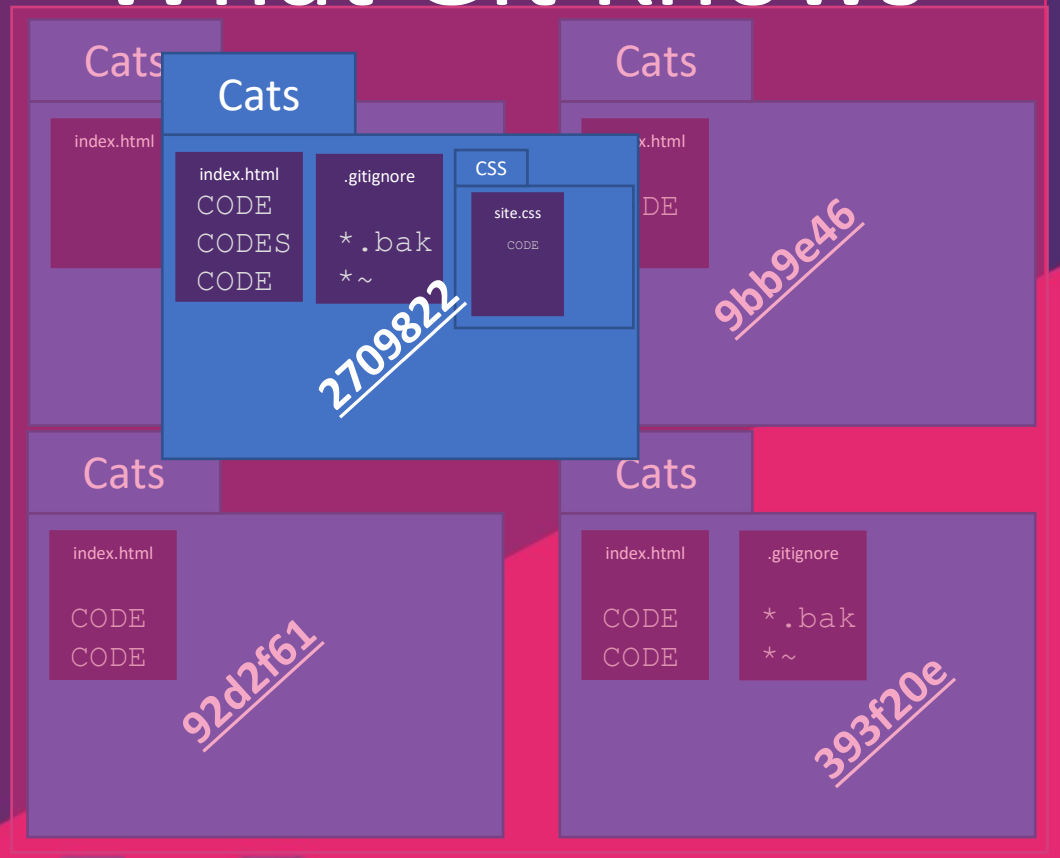
```
*.bak
*~
```

CSS

site.css

CODE

What Git Knows



Terminal

```
rm index.html
```

Explanation

Git knows that you have deleted index.html from your working directory.

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

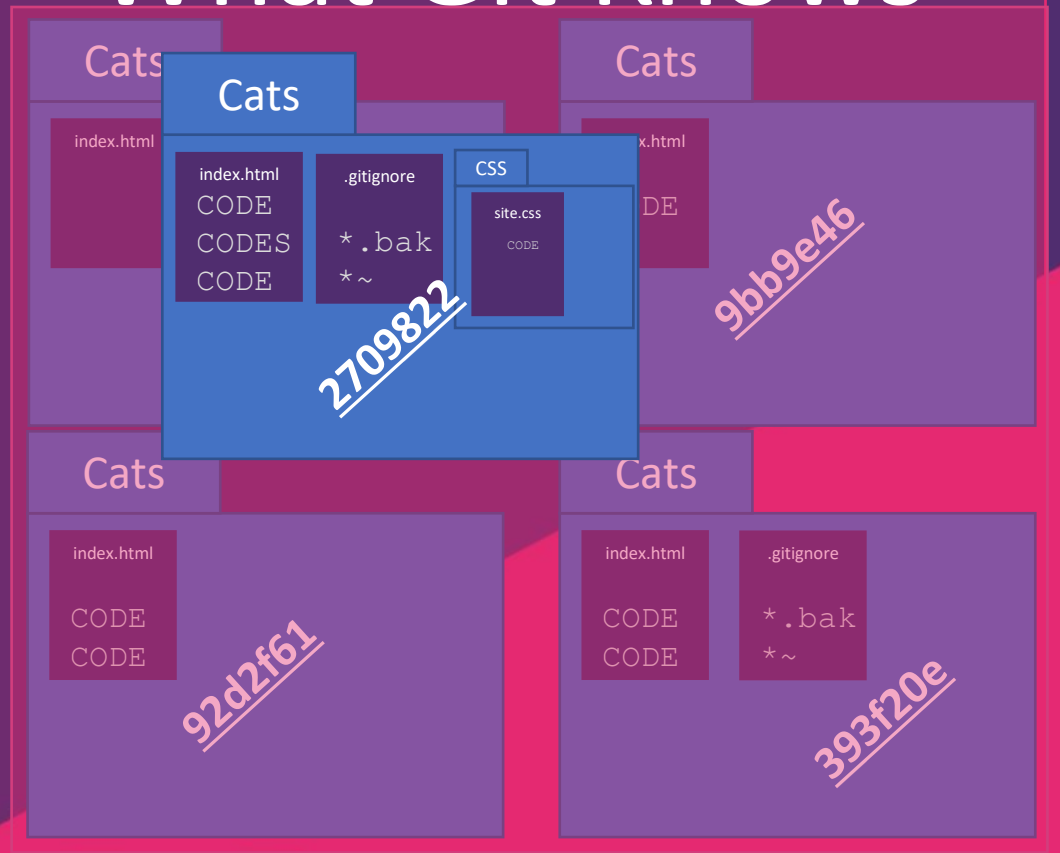
```
*.bak
*~
```

CSS

site.css

```
CODE
```

What Git Knows



Terminal

```
git checkout -- index.html
```

Explanation

Git restores the most recent version of index.html to your working directory.

Cats

Working Directory

.gitignore

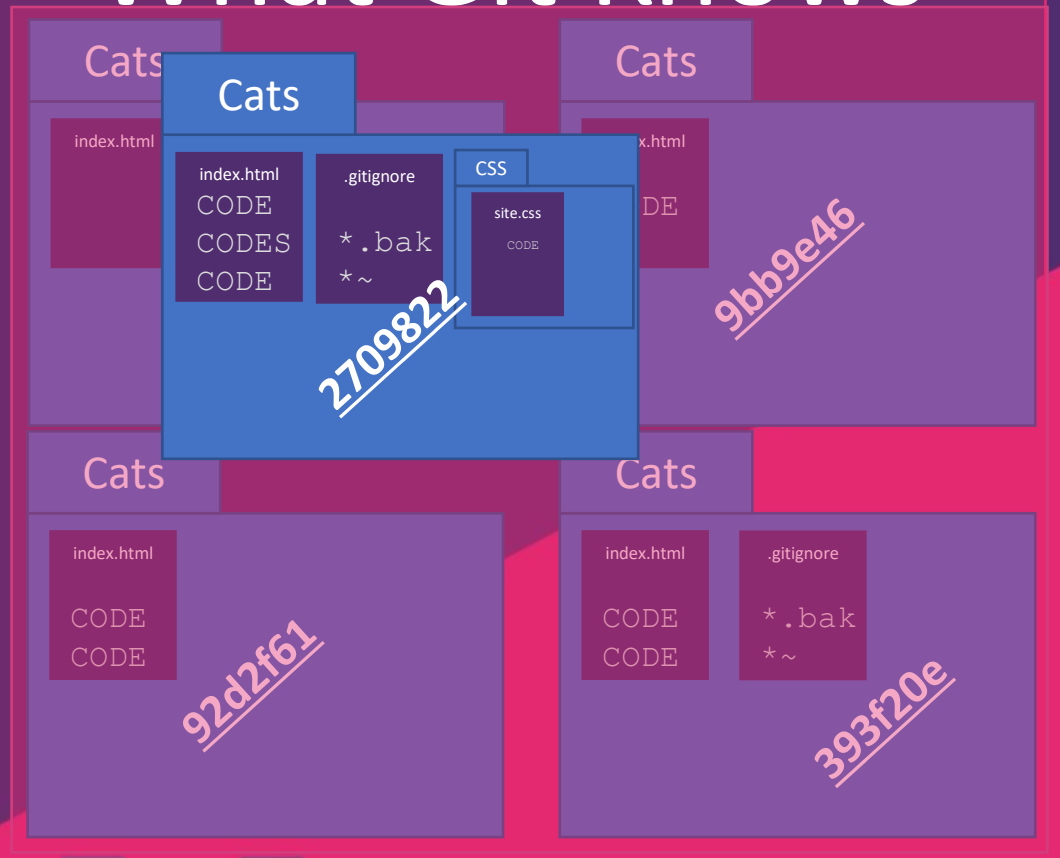
```
*.bak
*~
```

CSS

site.css

```
CODE
```

What Git Knows

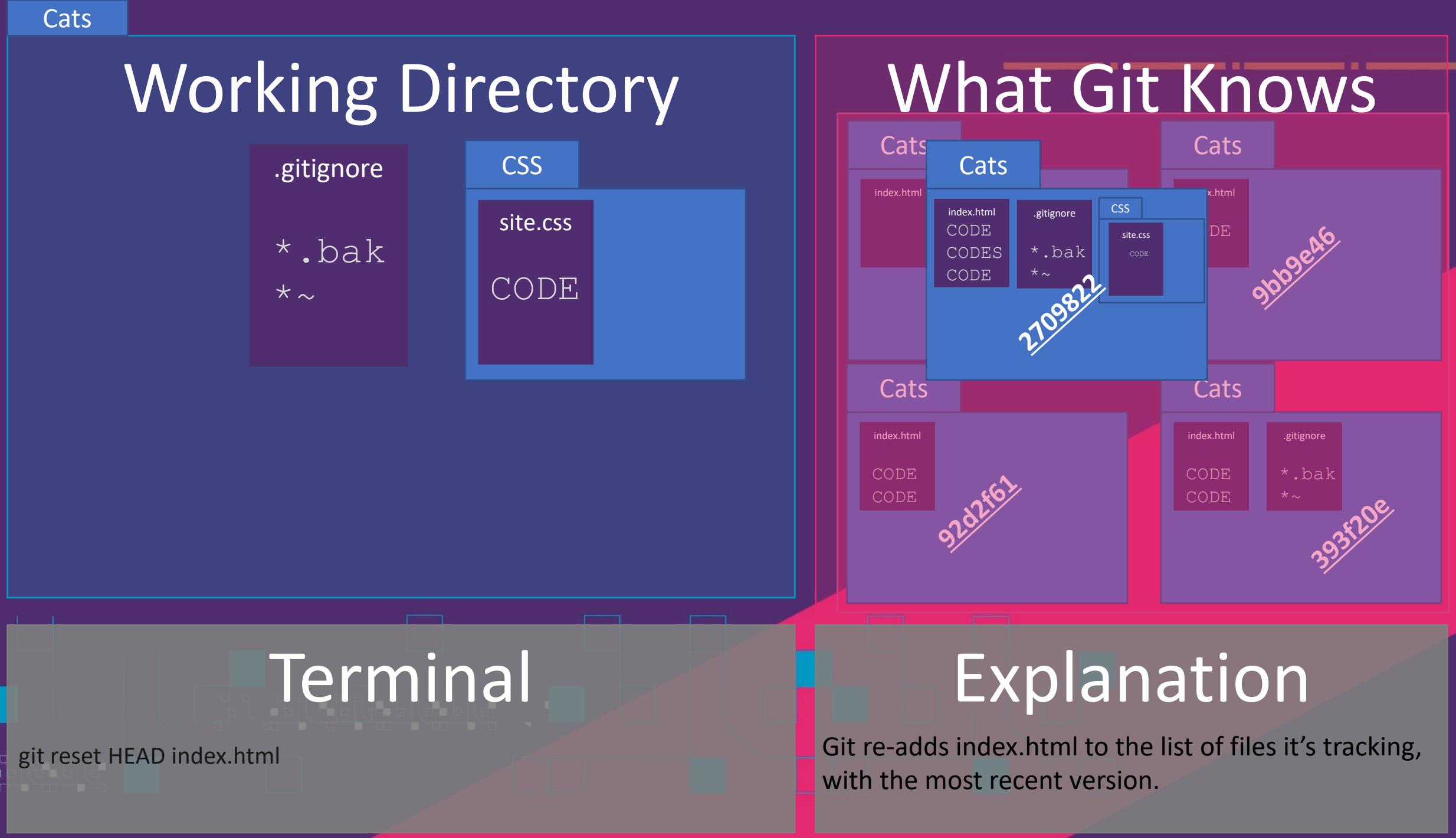


Terminal

```
git rm index.html
```

Explanation

Git knows that you deleted index.html and no longer are tracking it at all -> basically forgetting about it


Cats
Working Directory
.gitignore
*.bak
*~
CSS
site.css
CODE
What Git Knows
Cats
index.html
Cats
index.html
CODE
CODES
CODE
.gitignore
*.bak
*~
CSS
site.css
CODE
2709822
Cats
9bb9e46
Cats
index.html
CODE
CODE
92d2f61
Cats
index.html
CODE
CODE
.gitignore
*.bak
*~
393f20e
Terminal
git reset HEAD index.html
Explanation
Git re-adds index.html to the list of files it's tracking, with the most recent version.

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

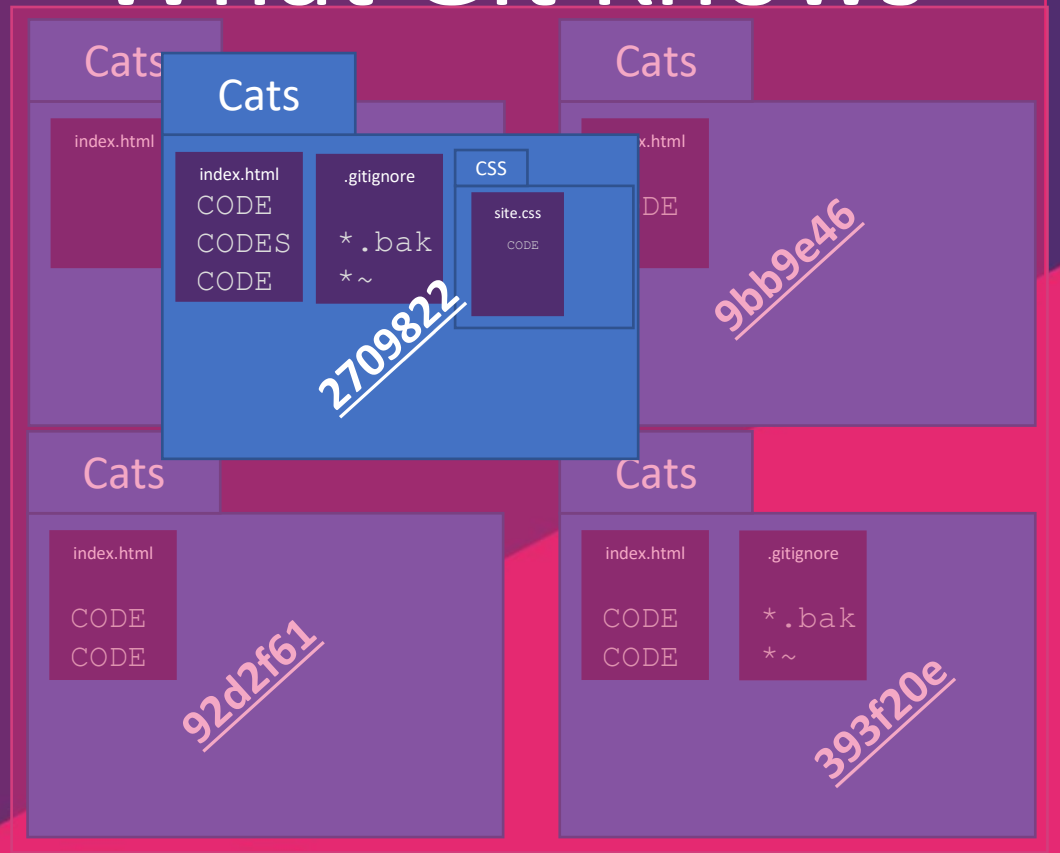
```
*.bak
*~
```

CSS

site.css

```
CODE
```

What Git Knows



Terminal

```
git checkout -- index.html
```

Explanation

Git restores the most recent version of index.html to your working directory.

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

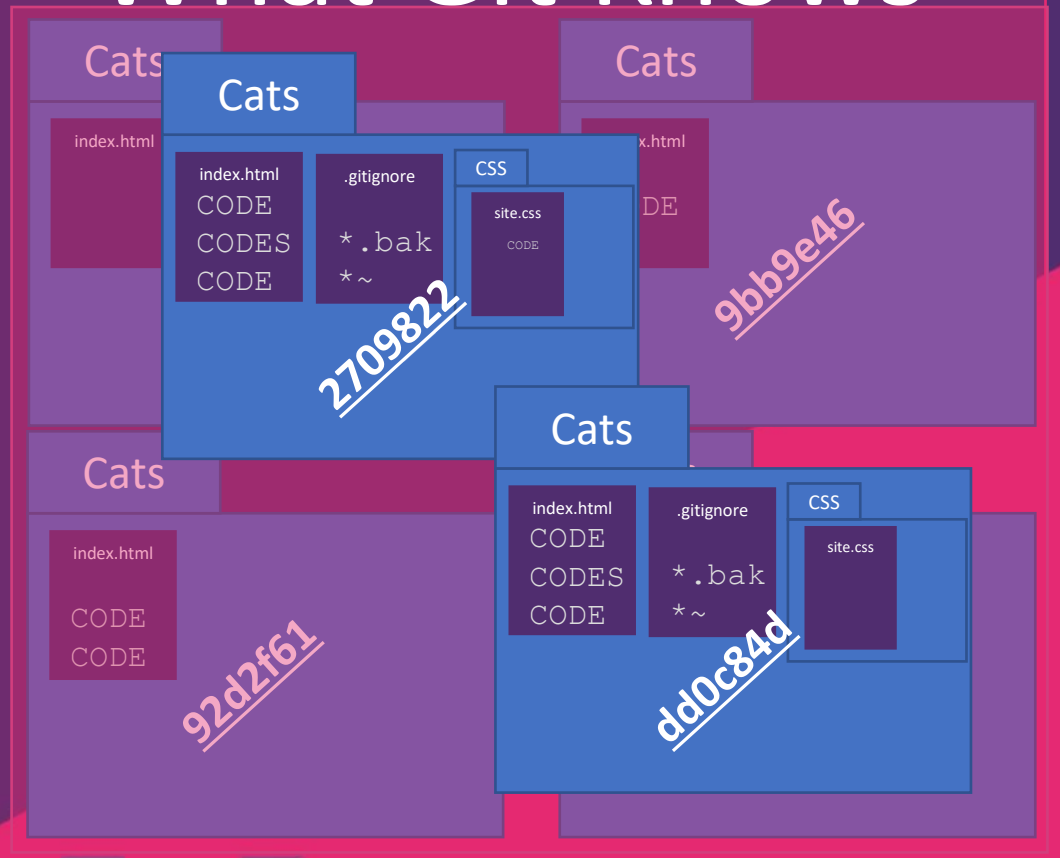
.gitignore

```
*.bak
*~
```

CSS

site.css

What Git Knows



Terminal

code CSS/site.css

Make edits and save file

git commit -am “Erasing the contents of the stylesheet"

Explanation

Git knows that you have made edits and now has a new version saved.

Cats

Working Directory

index.html

```
CODE
CODES
CODE
```

.gitignore

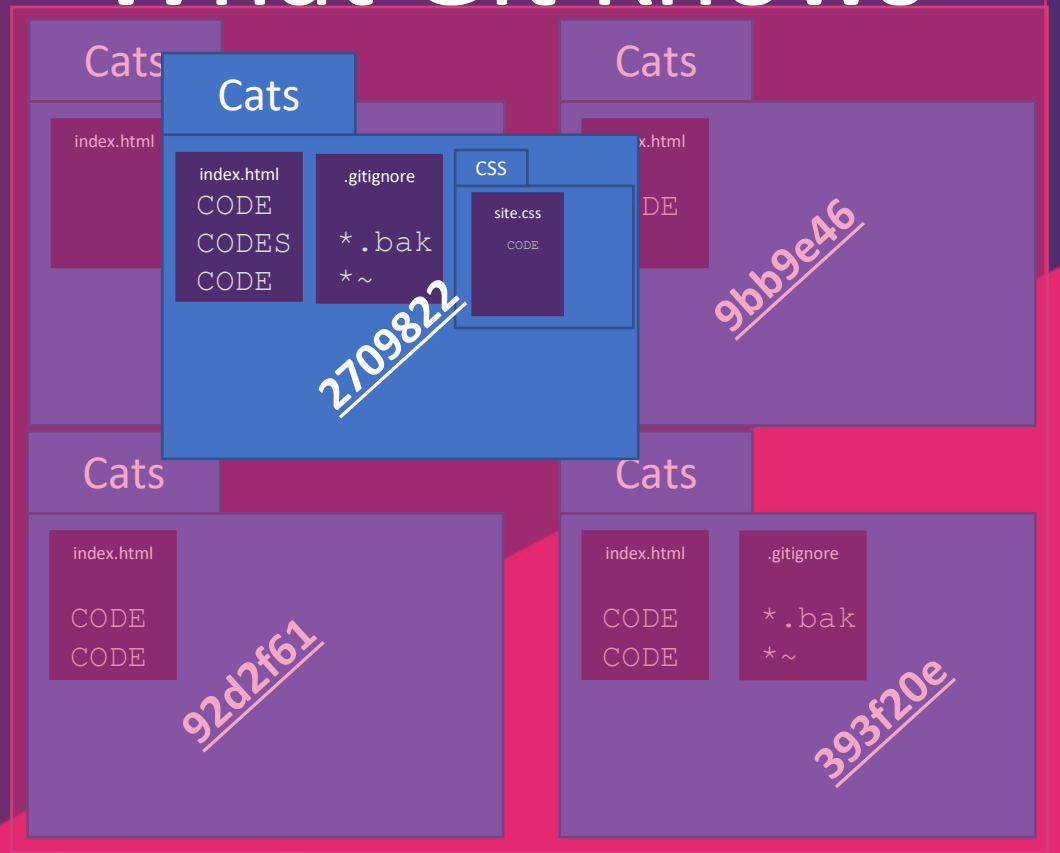
```
*.bak
*~
```

CSS

site.css

```
CODE
```

What Git Knows



Terminal

```
git reset --hard HEAD^
git checkout -- CSS/site.css
```

Explanation

Git basically erases the commit as if it never happened.

Cats

Working Directory

index.html

CODE
CODES
CODE
CODE

.gitignore

*.bak
*~

CSS

site.css

CODE

What Git Knows

Terminal

code index.html
Make edits and save file
git commit -am “Modifying index.html to include dogs – BIG MISTAKE”

Explanation

Git knows that you changed the index.html file and has saved a version with those changes.

Cats

Working Directory

index.html

CODE
CODES
CODE
CODE

.gitignore

*.bak
*~

CSS

site.css

CODE

What Git Knows

Terminal

git revert --no-edit HEAD

Explanation

Git will take the commit from the second most recent version and create a new commit with version.

Cats

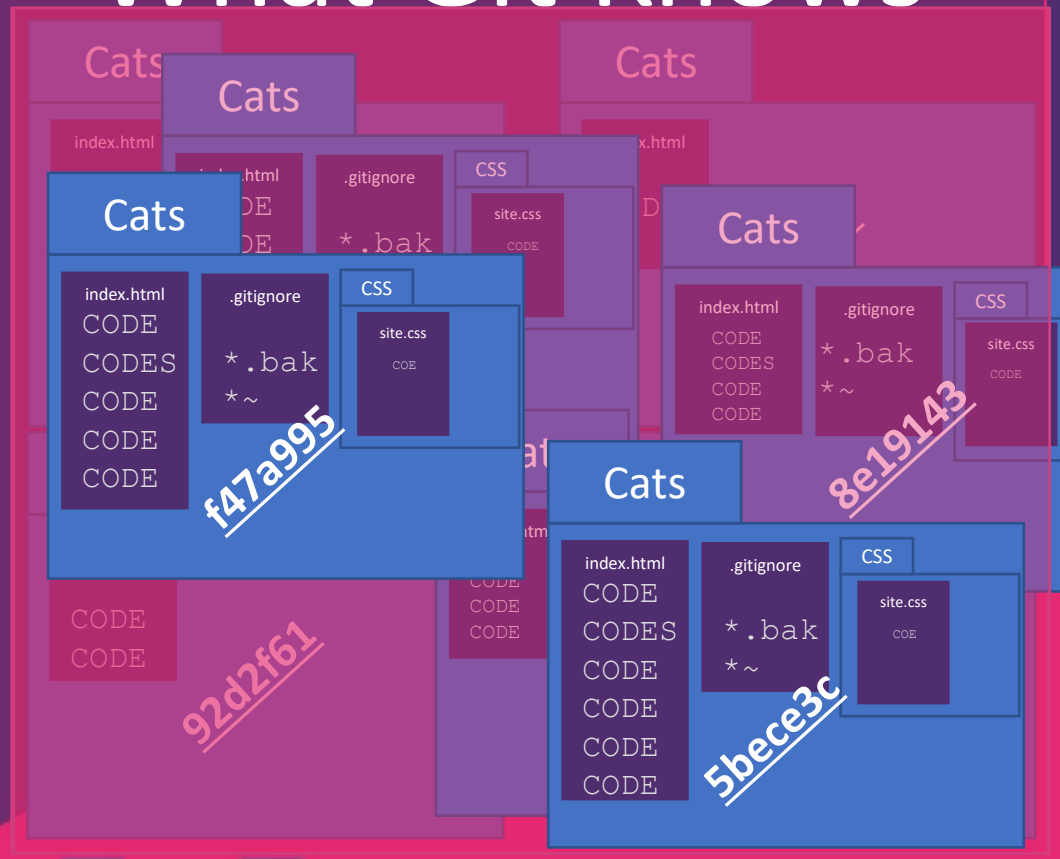
Working Directory

index.html
CODE
CODES
CODE
CODE
CODE
CODE

.gitignore
*.bak
*~

CSS
site.css
CODE

What Git Knows



Terminal

code index.html
Make edits and save file
git commit -am “Modifying index.html to include birds”
code index.html
Make edits and save file
git commit -am “Modifying index.html to include fish”

Explanation

Git now has two new versions, first when birds were added and then when fish were added.

Cats

Working Directory

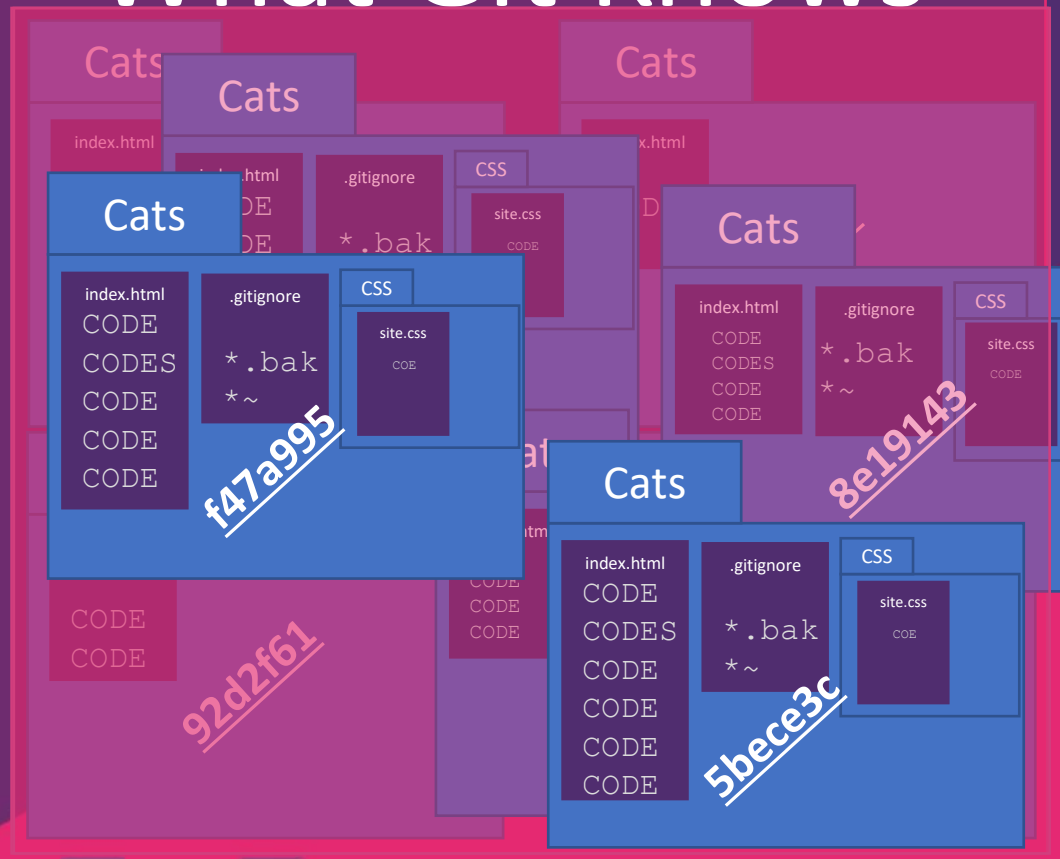
index.html
CODE
CODES
CODE
CODE

.gitignore
*.bak
*~

CSS

site.css
CODE

What Git Knows



Terminal

git checkout 8e19143 .

Explanation

Git grabs the version with the hash 8e19143 and puts that version in your working directory

Cats

Working Directory

index.html

CODE
CODES
CODE
CODE

.gitignore

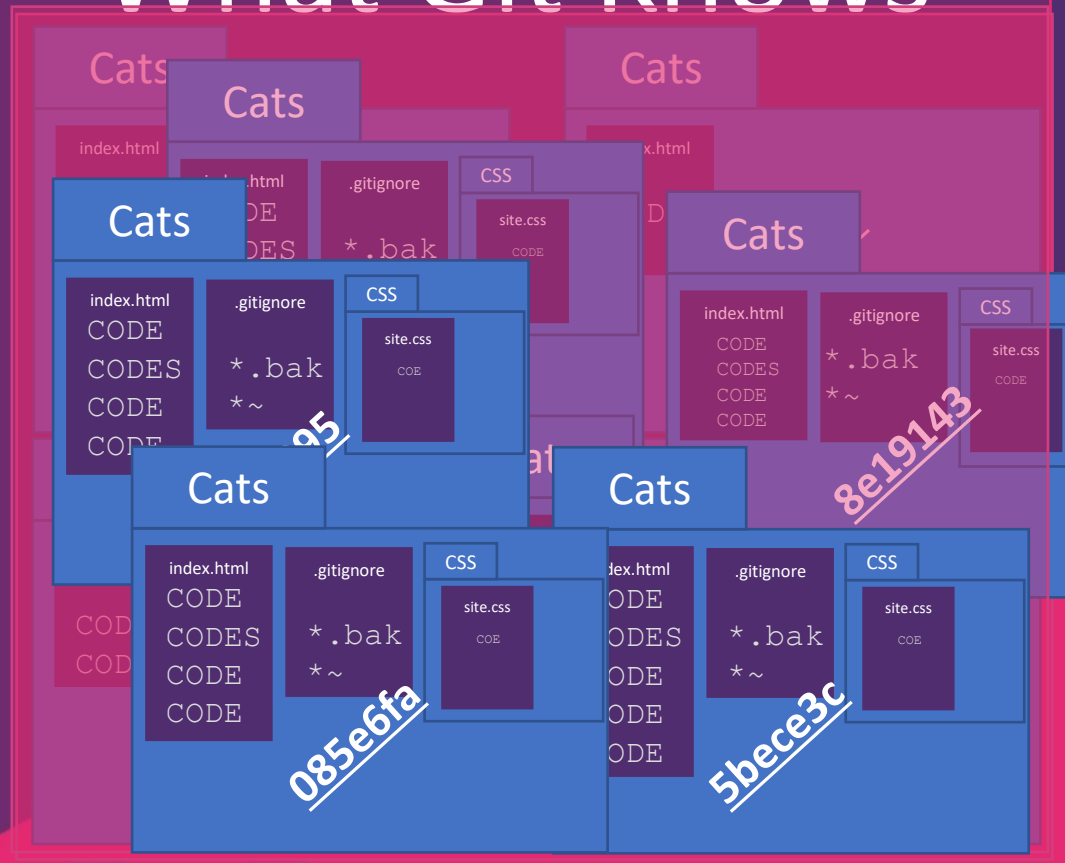
*.bak
*~

CSS

site.css

CODE

What Git Knows

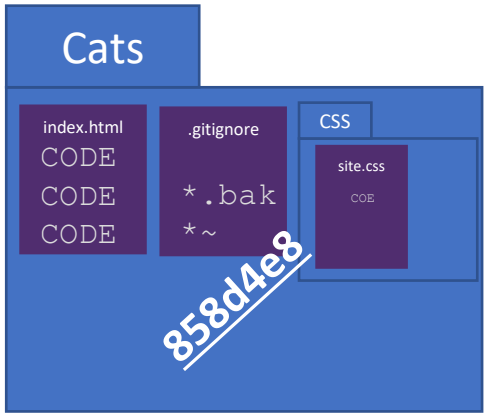


Terminal

git commit -m “Reverting back to only have cats in index.html”

Explanation

Git now has a new version that is identical to the one with the hash 8e19143.

Command	Options	Examples	Explanation
git add	<file_name>	git add index.html	Add index.html to the list of files that Git should track
		git add .	Add all files in the local git repository (folder) to the list of files that Git should track
		git add *.html	Add all of the files with a .html extension to the list of files that Git should track
		git add monday*	Add all of the files that start with “monday” to the list of tiles that Git should track
git commit	-a -> all -m -> message <file_name>	git commit –am “commit message”	Commit all files that are being tracked and that have changed with the message “commit message”
		git commit –a -m “commit message”	Same as above
		git commit index.html –m “commit message”	Commit only the index.html file with the message “commit message”

- Git squash
- Rollback to a specific commit