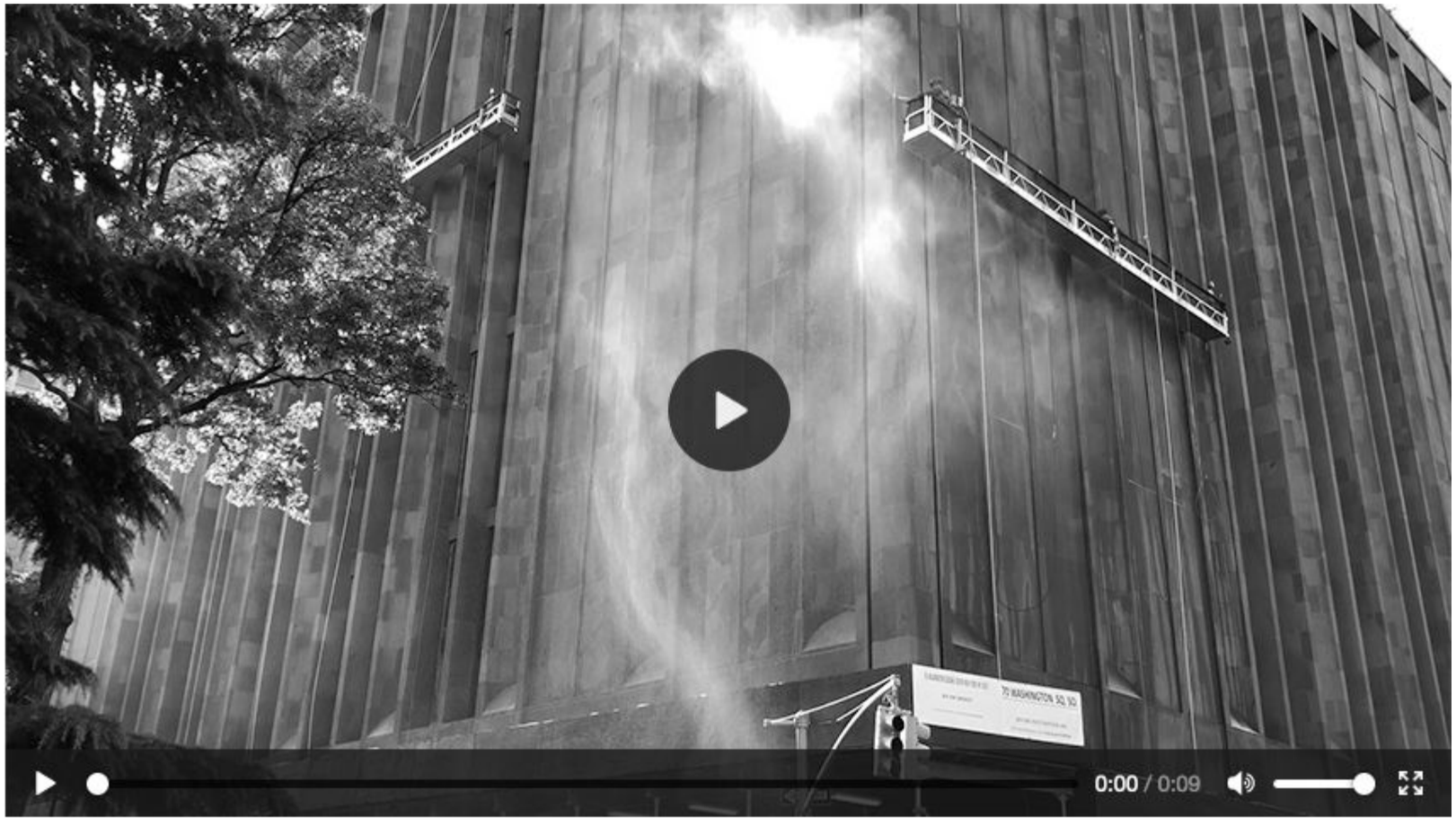

0:00 / 0:09

WEB AUDIO AND VIDEO

HTML5 AUDIO AND VIDEO ELEMENTS

HTML5 SUPPORTS AUDIO AND VIDEO NATIVELY IN THE WEB BROWSER.

FOR YEARS, IT WAS NECESSARY TO RELY ON A THIRD PARTY TO DELIVER THIS KIND OF CONTENT.

NOW WE CAN USE THE `<audio>` AND `<video>` TAGS.

THE `<audio>` AND `<video>` TAGS USE SRC ATTRIBUTE OR THE `<source>` TAG TO SPECIFY ONE OR MORE MEDIA RESOURCES.

WEB AUDIO AND VIDEO

HTML5 AUDIO AND VIDEO ELEMENTS

```
<audio controls>
   <source src="forest.ogg" type="audio/ogg">
   <source src="forest.mp3" type="audio/mpeg">
   <p>Your browser cannot play this audio but you can download the file <a
href="forest.mp3">here</a>.</p>
</audio>
```

```
<video src="library-mist.mp4" controls poster="library-mist.png" width="853"
height="480">
   <p>Your browser cannot play this video but you can download the file <a
href="library-mist.mp4">here</a>.</p>
</video>
```

WEB AUDIO AND VIDEO

HTML INLINE FRAMES

ANOTHER WAY TO EMBED MEDIA ON A WEB PAGE IS WITH THE HTML INLINE FRAME ELEMENT:

`<iframe>`

AN INLINE FRAME REPRESENTS A NESTED BROWSING CONTEXT, EMBEDDING ANOTHER HTML PAGE INTO THE CURRENT ONE.

EMBEDDING ALL OR PART OF ONE WEB PAGE INTO ANOTHER IS WAY TO PRESENT CONTENT ON A WEBSITE.

git

VERSION CONTROL

A SYSTEM THAT RECORDS CHANGES TO A FILE OR SET OF FILES OVER TIME SO THAT YOU CAN RECALL SPECIFIC VERSIONS LATER

COMMONLY USED FOR SOFTWARE SOURCE CODE BUT ANY TYPE OF FILE CAN BE PLACED UNDER VERSION CONTROL

A VERSION CONTROL SYSTEM (VCS) ALLOWS YOU TO:

- REVERT FILES BACK TO A PREVIOUS STATE
- REVIEW CHANGES MADE OVER TIME
- COLLABORATE MORE EFFICIENTLY
- MAINTAIN PROJECT BACKUPS

VERSION CONTROL

GIT

GIT WAS WAS CREATED IN 2005 BY LINUS TORVALDS AND THE LINUX DEVELOPMENT COMMUNITY FOR LINUX KERNEL MAINTENANCE

LINUX IS AN OPEN SOURCE OPERATING SYSTEM PROJECT OF FAIRLY LARGE SCOPE

ITS GOAL WAS TO BE A FULLY DISTRIBUTED VCS WITH A SIMPLE DESIGN, SUPPORT FOR NON-LINEAR DEVELOPMENT, AND THE ABILITY TO HANDLE LARGE PROJECTS EFFICIENTLY

VERSION CONTROL

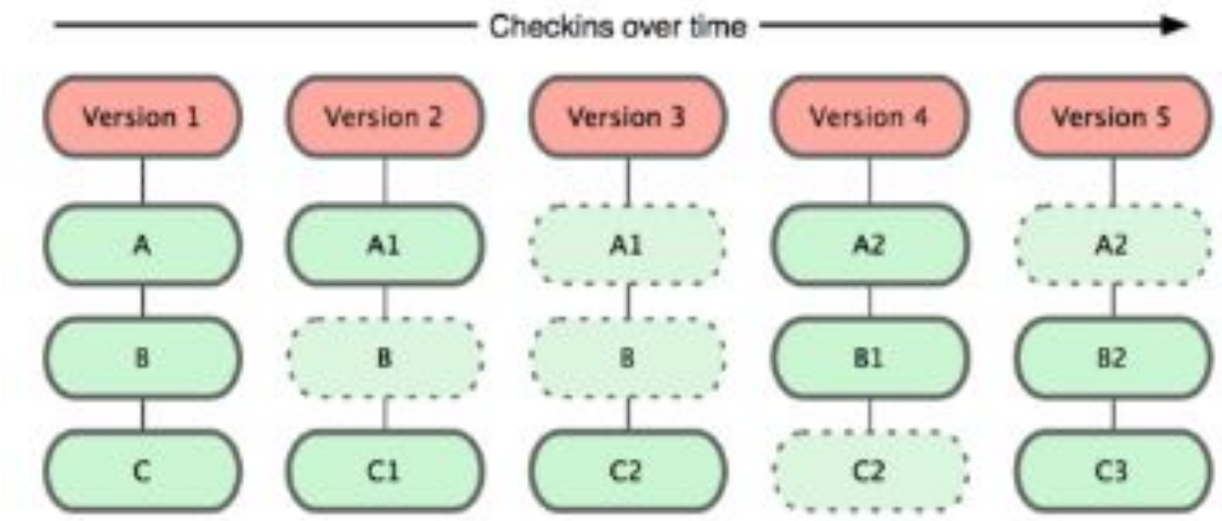
GIT BASICS

GIT THINKS OF ITS DATA LIKE A SET OF SNAPSHOTS OF A MINI FILE SYSTEM.

EVERY TIME YOU SAVE THE STATE OF YOUR PROJECT, IT BASICALLY TAKES A PICTURE OF WHAT ALL YOUR FILES LOOK LIKE THEN AND STORES A REFERENCE TO THAT SNAPSHOT.

TO BE EFFICIENT, IF FILES HAVE NOT CHANGED, GIT DOESN'T STORE THE FILE AGAIN—JUST A LINK TO THE PREVIOUS IDENTICAL FILE IT HAS ALREADY STORED.

THIS MAKES GIT MORE LIKE A MINI FILE SYSTEM WITH SOME POWERFUL TOOLS BUILT ON TOP OF IT.


Checkins over time
Version 1
Version 2
Version 3
Version 4
Version 5
A
A1
A1
A2
A2
B
B
B
B1
B2
C
C1
C2
C2
C3

VERSION CONTROL

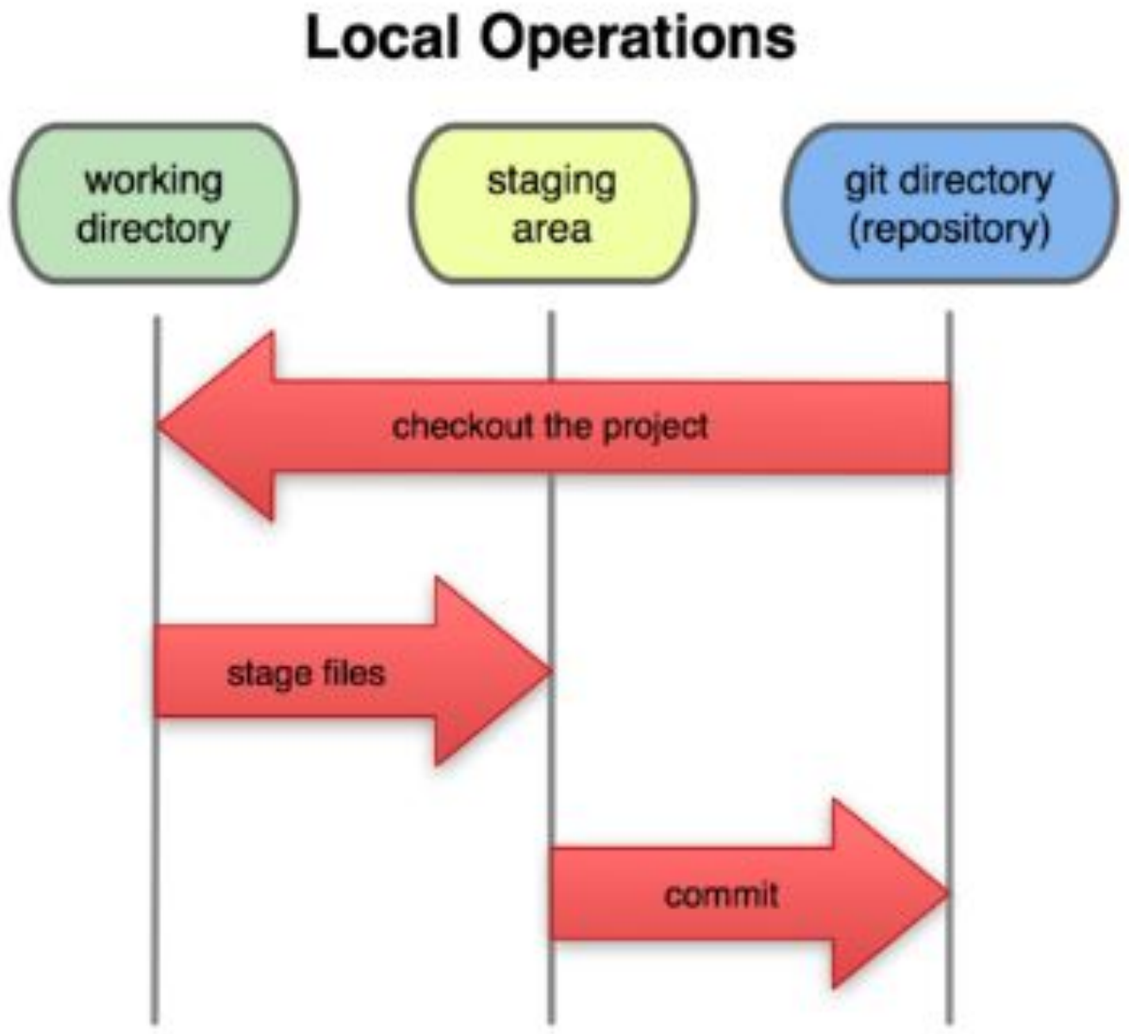
GIT STATES

GIT HAS THREE MAIN STATES THAT YOUR FILES CAN RESIDE IN:
MODIFIED, STAGED, AND COMMITTED.

MODIFIED MEANS THAT YOU HAVE CHANGED THE FILE BUT HAVE NOT COMMITTED IT TO YOUR DATABASE YET.

STAGED MEANS THAT YOU HAVE MARKED A MODIFIED FILE IN ITS CURRENT VERSION TO GO INTO YOUR NEXT COMMIT SNAPSHOT.

COMMITTED MEANS THAT THE DATA IS SAFELY STORED IN YOUR LOCAL DATABASE.


Local Operations
working directory
staging area
git directory (repository)
checkout the project
stage files
commit

VERSION CONTROL

GIT WORKFLOW

1. MODIFY FILES IN YOUR WORKING DIRECTORY.

2. STAGE THE FILES, ADDING SNAPSHOTS OF THEM TO YOUR STAGING AREA.

3. COMMIT CHANGES, WHICH TAKES THE FILES AS THEY ARE IN THE STAGING AREA AND STORES THAT SNAPSHOT PERMANENTLY TO YOUR GIT DIRECTORY.

VERSION CONTROL

GITHUB

GITHUB IS A WEB-BASED HOSTING SERVICE THAT USES THE GIT VCS.

OUR CLASS WEBSITE IS HOSTED THERE! (CLICK IN THE TOP RIGHT CORNER OF THE WEBSITE!)

THE SITE ALSO PROVIDES SOCIAL NETWORKING FUNCTIONALITY SUCH AS FEEDS, FOLLOWERS, WIKIS, AND STATISTICS.

THE COMPANY WAS FOUNDED IN 2008 AND IS LOCATED IN SAN FRANCISCO.

IN ADDITION TO COMPUTER PROGRAMMERS, ARCHITECTS, MUSICIANS, MUNICIPAL GOVERNMENTS, AND ACADEMICS ARE AMONG ITS USERS.