~~ESPRESSO 101~~

GIT AND GITHUB 101☕

An Introduction to Git and Github

WHAT GIT?

WHY GIT?

HOW GIT?

WHAT GIT?

- Distributed version control system
- Work together on the same codebase.
- Management of changes to documents, computer programs, and other collections of information.
- Keep track of every change made to the codebase

WHY GIT?

- Git include better collaboration
- Easier code review
- Ability to revert to previous versions of your code.

HOW GIT?

INSTALLING GIT

Navigate to this and download the latest version
https://kzilla.xyz/DSDVC

```
Last login: Fri Oct  6 22:03:29 on ttys019
manayapachpor@Manayas-MacBook-Air ~ % brew install git
Running `brew update --auto-update`...
Installing from the API is now the default behaviour!
You can save space and time by running:
  brew untap homebrew/core
==> homebrew/cask is old and unneeded, untapping to save space...
Untapping homebrew/cask...
Untapped 4237 casks (4,318 files, 374.2MB).
==> Auto-updated Homebrew!
Updated 2 taps (homebrew/core and homebrew/cask).
==> New Formulae
aerleon                         ebook2cw                        massdriver                      python@3.12
apify-cli                       eza                             medusa                          qalculate-qt
apprise                         falco                           meson-python                    recoverpy
arm-none-eabi-binutils          falcoctl                        mfem                            riscv64-elf-binutils
arm-none-eabi-gcc               feishu2md                       mgis                            riscv64-elf-gcc
arm-none-eabi-gdb               fwupd                           mjml                            riscv64-elf-gdb
asn                             ggshield                        modsecurity                     risor
asnmap                          ghc@9.4                         mtbl                            roadrunner
bandicoot                       gickup                          mysql-client@8.0                rpmspectool
bashunit                        gismo                           mysql@8.0                       s3scanner
bazel-diff                      gitea                           netlistsvg                      sbom-tool
bazel-remote                    go@1.20                         notation                        scoutsuite
biome                           goread                          numbat                          shuffledns
blake3                          gotestwaf                       ollama                          smlfmt
bozohttpd                       helidon                         onionprobe                      spacer
build2                          hyfetch                         opentofu                        sqlsmith
caracal                         img2pdf                         orbiton                         squiid
cargo-all-features              imgdiet                         orcania                         surelog
cargo-auditable                 imgdiff                         orogene                         tailwindcss
cargo-binutils                  incus                           postgresql@16                   talhelper
cargo-deps                      iocextract                      powerlevel10k                   terraform-graph-beautifier
cargo-docset                    jr                              proxify                         tf-profile
cdi                             json2ts                         pter                            toxiproxy
cdxgen                          jupyter-r                       pwned                           tpm
chaoskube                       karmadactl                      pyspelling                      trafilatura
checkdmarc                      katana                          pystring                        udp2raw-multiplatform
cloud-sql-proxy                 kor                             python-argcomplete              uffizzi
cloudfox                        kosli-cli                       python-certifi                  uhdm
cloudlist                       ldeep                           python-click                    uncover
codelimit                       ldid-procursus                  python-flit-core                urlfinder
coder                           legitify                        python-gdbm@3.12                vulkan-utility-libraries
colmap                          libgit2@1.6                     python-lxml                     vunnel
counts                          libimobiledevice-glue           python-markupsafe               web-ext
cryptopp                        libjcat                         python-mutagen                  woodpecker-cli
ctpv                            libmapper                       python-packaging                wormhole-william
cyclonedx-gomod                 libpanel                        python-psutil                   wtfis
cyclonedx-python                libshumate                      python-pycurl                   xlsxio
czkawka                         libxmlb                         python-pyparsing                yazi
dezoomify-rs                    llvm@16                         python-pyproject-hooks          yder
dnsrobocert                     lune                            python-pytz
dolphie                         lxi-tools                       python-setuptools
dovi_tool                       mariadb@11.0                    python-tk@3.12
==> New Casks
aifun                           devtunnel                       hp-easy-admin                   pieces                          sparkplate
akuity                          dockx                           hypercal                        pieces-os                       spundle
apidog                          draw-things                     iem-plugin-suite                piphero                         stash
applite                         dropbox-dash                    json-viewer                     playdate-mirror                 telegram-a
ava                             dropshelf                       jukebox                         proxy-audio-device              to-audio-converter
batteryboi                      ecodms-client                   kreya                           recipeui                        twelite-stage
bepo                            elektron-transfer               kuaitie                         reqable                         updf
browser-deputy                  energiza                        low-profile                     rippling                        viso
```

- Initialize a repo and track file
- Concept of branches
- Commiting changes
- Pushing changes
- Making PR

“Github and git are not same!”

https://kzilla.xyz/spzWT

WORKING

- Checkout
- Forking Repo
- Gitmoji
- PR convention

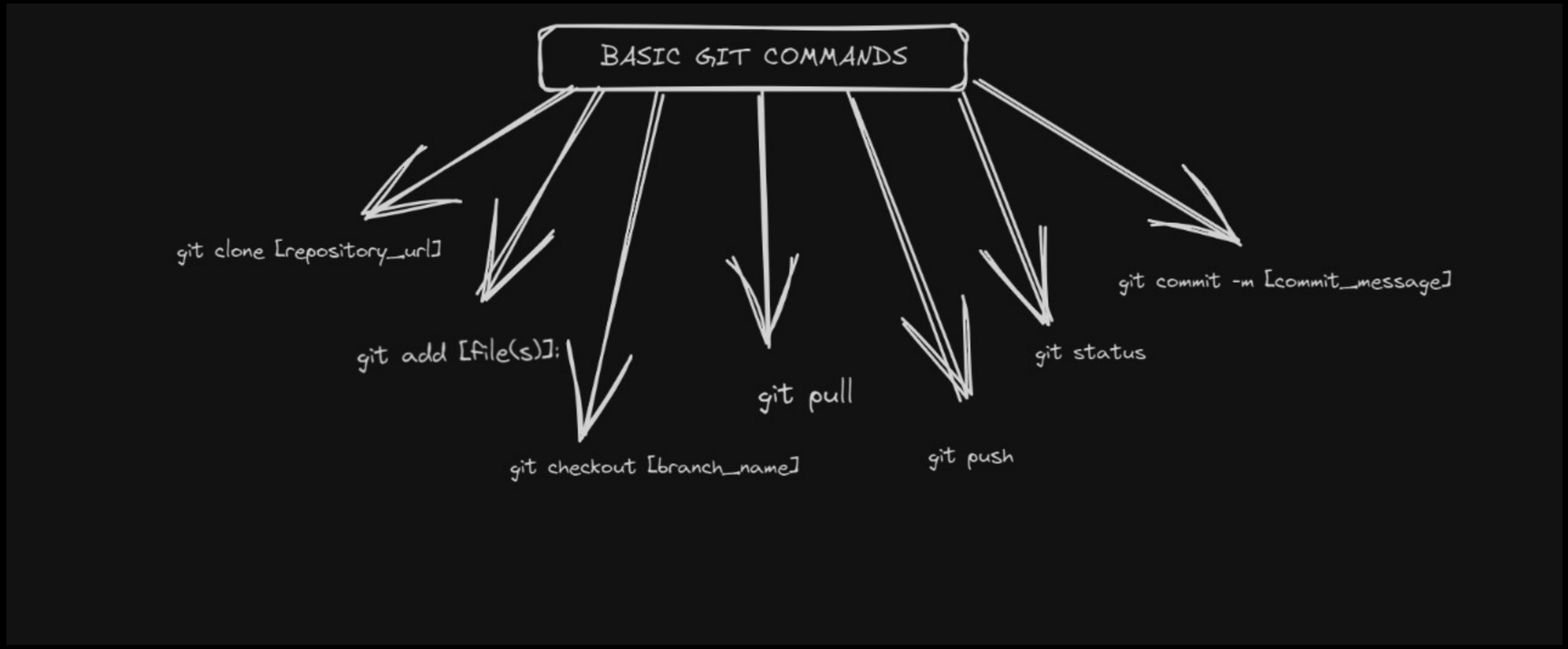
INDUSTRY STANDARD CONVENTIONS

Your branch name should go like this “first initialts of your full name/operation type/operation”

The same goes for your commit messages and pr title, it should be “operation type: operation”

GIT COMMANDS

https://kzilla.xyz/vnpFy



Why bulk pushes and PR are bad?

(Sami Bhaiya hates reviewing bulk of PRs)

- Difficult to review every change made
- Merging conflicts
- Longer to integrate
- Difficulty in Identifying the Source of Issue

Task

- fork the repository
- create a new branch
- upload any small program file in any language in the new branch
- make a pr with proper convention and description

Deadline: 20 Oct 2023

Keep drinking coffee☕