
Platform setup: macOS

Key takeaways

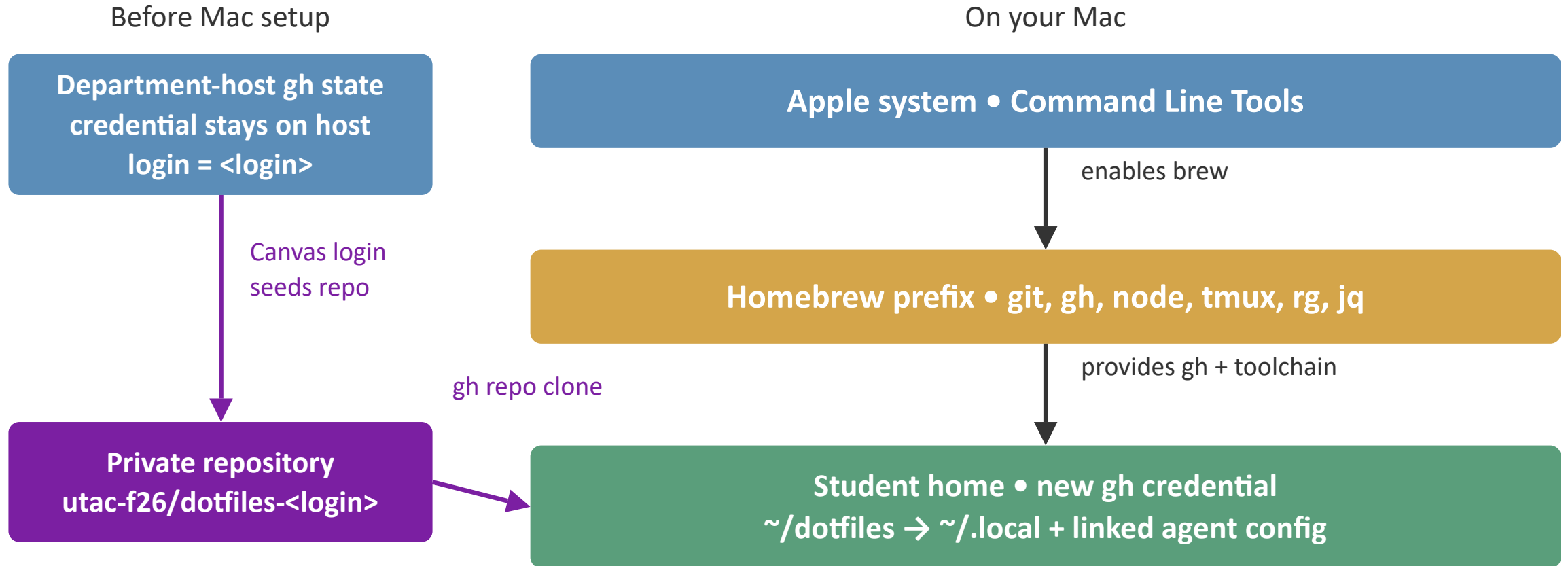
1. Register one GitHub login in Canvas; use that account on every machine.
2. Install Apple tools and Homebrew once; let ~/dotfiles own user-space state.
3. Clone only the seeded private repository to exactly ~/dotfiles.

Your Mac is already a Unix machine

- macOS is a good course platform: zsh, SSH, git, and a Unix file model are already close to Linux.
- Before Mac setup, submit the exact GitHub login to Canvas and wait for the private dotfiles repository.
- GitHub credentials are per machine; authenticate that same account separately on this Mac.

Repos move; credentials stay per machine

Canvas records the repository owner; macOS authenticates that account again



One-time system setup

Run this before the dotfiles setup if the machine is fresh

```
xcode-select --install          # Apple's compilers, headers, git

# Install Homebrew if brew is not already present:
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"

brew update                    # refresh Homebrew's package index
brew install git gh node tmux ripgrep jq # course toolchain
```

- Apple Silicon Homebrew usually lives under `/opt/homebrew`; Intel Homebrew usually lives under `/usr/local`.
- Open a new terminal after installing Homebrew so `PATH` updates take effect.

GitHub auth and the required clone path

HW0 expects exactly ~/dotfiles

```
gh auth login          # authenticate this Mac
gh auth status         # inspect the signed-in account
gh api user --jq .login # must match the Canvas value

# clone your private homework repository
gh repo clone utac-f26/dotfiles-<login> ~/dotfiles
cd ~/dotfiles          # enter the cloned repo
```

- Credentials are machine-local; authenticate this Mac separately with the same GitHub account.
- Replace <login> with your GitHub username.
- If GitHub asks for SSO authorization for the utac-f26 org, approve it before retrying the clone.

Run setup, then verify

The receipt is the HW0 artifact

```
./setup                # install tools, link config

codex login status     # Codex signed in?
claude auth status     # Claude Code signed in?
./self-check           # HW0 completion checklist

git status             # check for uncommitted changes
```

- setup installs user-space tools into ~/.local and links owned config under ~/.claude and ~/.codex.
- self-check writes .setup-receipt.json only after required checks pass.
- Codex and Claude Code logins are both required; UT provides both accounts.

PATH and shells

Most macOS setup bugs are stale shell state

Check	Command	What it tells you
Active shell	echo \$SHELL	zsh is normal on modern macOS
User bin path	echo \$PATH	~/local/bin and ~/bin should appear
Tool location	which uv codex gh	Confirms the commands your shell will run
Repo state	git status	Confirms you are inside ~/dotfiles

Keep course repos together

Use ~/utac for projects, but leave dotfiles at ~/dotfiles

```
# create and enter your course workbench directory
mkdir -p ~/utac
cd ~/utac

# Later assignments follow this shape:
gh repo clone utac-f26/<repo>-<login> <repo> # copy the private repo
cd <repo> # enter it
git status # confirm a clean checkout
```

~/dotfiles is your portable environment. ~/utac is your course workbench.

macOS gotchas

Quick checks before asking an agent to debug your laptop

- Homebrew command not found
 - Open a new terminal; if needed, run the brew shellenv command printed by the installer.
- xcode-select tools missing
 - Run xcode-select --install and accept the install prompt before retrying brew packages.
- gh clone fails after browser login
 - Check gh api user --jq .login against Canvas, then verify utac-f26 is authorized for the token.
- self-check sees unexpected secrets or runtime files
 - Do not add ~/.claude, ~/.codex, tokens, transcripts, or plaintext .env files to git.

When in doubt, reproduce the same step on a department Linux host. If it works there, the bug is local platform setup.

Key Takeaways

1. Canvas records the repository owner; authenticate that same GitHub account on the Mac.
2. Install Apple tools and Homebrew once; let ~/dotfiles own user-space tools and agent config.
3. Clone the seeded private repository to ~/dotfiles; keep later course repositories under ~/utac.