LESSON 5



UNIX

macOS Darwin



A FREE MYWEBUNIVERSITY COURSE

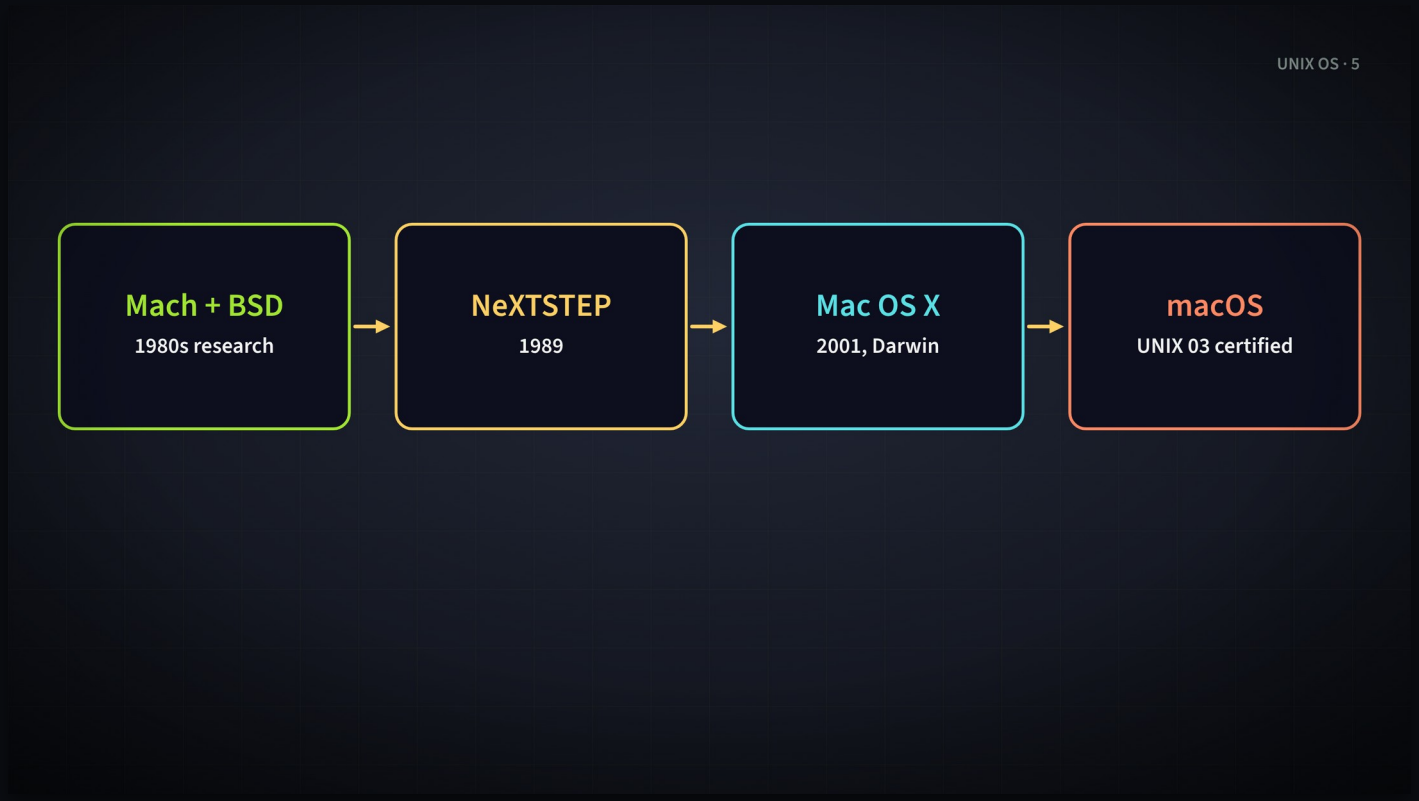
UNIX OS

LESSON 5

macOS: Darwin UNIX

Darwin and the XNU kernel, Terminal and zsh, Homebrew, launchd, APFS and diskutil

Darwin and XNU



- Mach + BSD — 1980s research
- NeXTSTEP — 1989
- Mac OS X — 2001, Darwin

01

Terminal and zsh



- Open Terminal from Applications, Utilities, or with Spotlight. Since Catalina in 2019 the …
- sw_vers shows the macOS version, and system_profiler shows detailed hardware information.

02

Homebrew

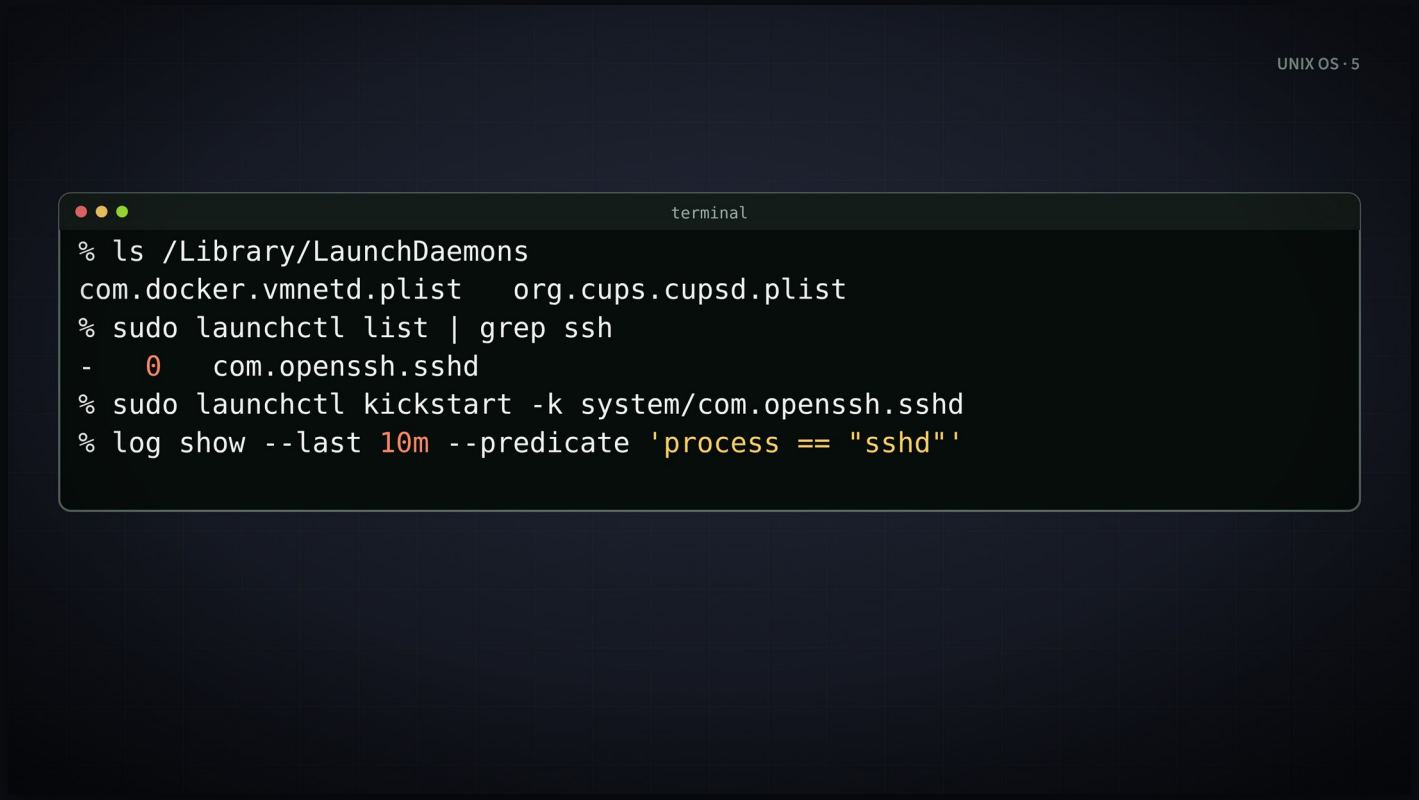
terminal

```
% /bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
% brew install wget nmap coreutils
% brew install --cask visual-studio-code
% brew upgrade
% brew list
```

- macOS has no built-in package manager for command-line tools. Homebrew fills the gap: brew …
- brew update and brew upgrade keep everything current.

03

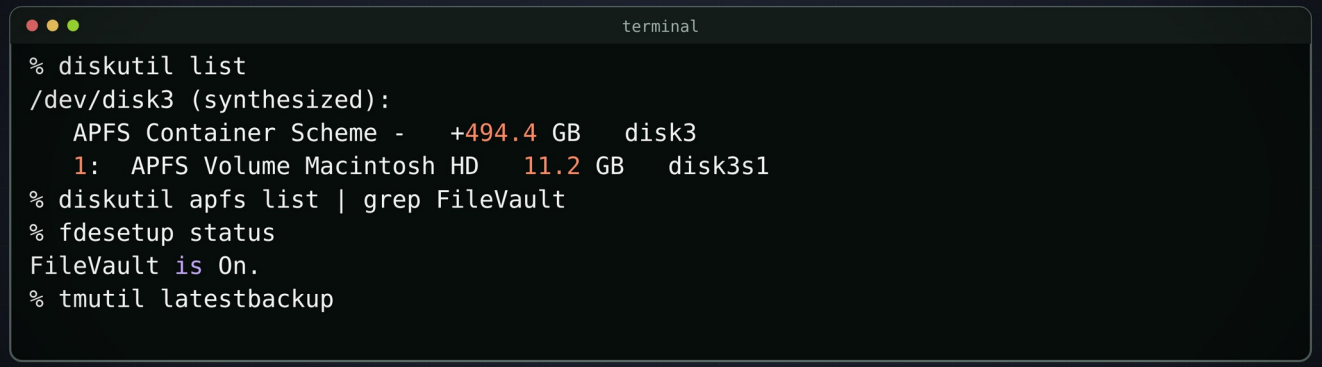
launchd: Services on macOS



- launchd is process number one on macOS. It starts services from property list files in …
- launchctl lists, loads and controls them. Apple's log command reads the unified log.

04

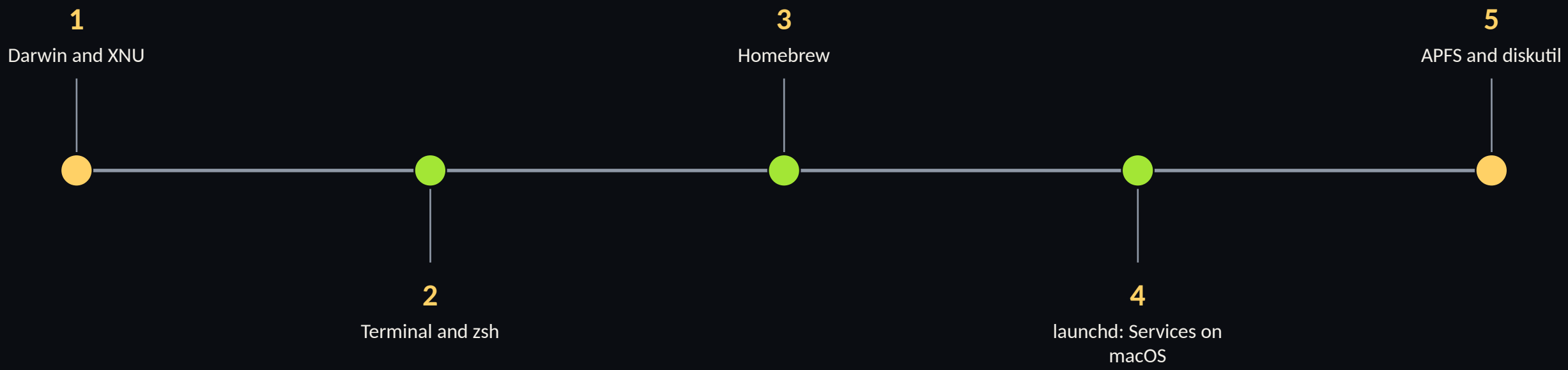
APFS and diskutil



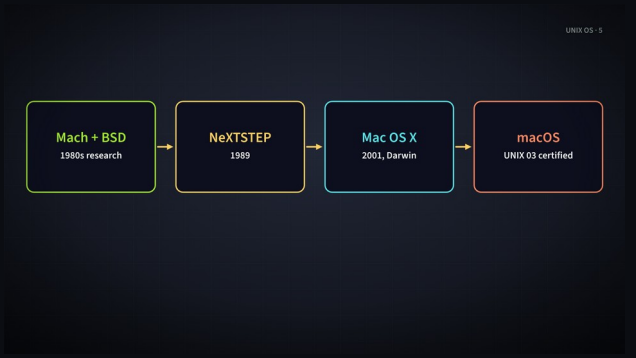
- APFS, the Apple File System, is built for SSDs, with snapshots, space sharing between …
- diskutil manages disks from the command line, and tmutil controls Time Machine backups.

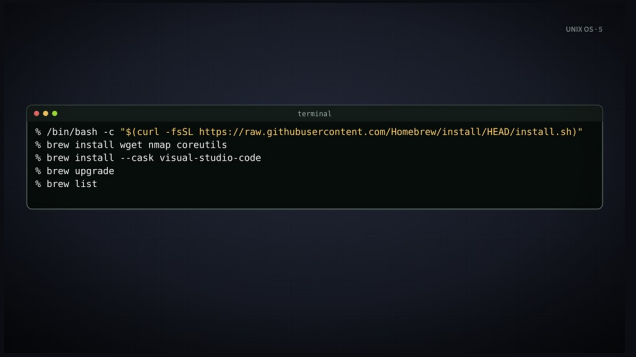
05

Lesson Map


1
Darwin and XNU
2
Terminal and zsh
3
Homebrew
4
launchd: Services on macOS
5
APFS and diskutil

Sources and Further Reading





Thank you for watching

MyWebUniversity.com

Free technical education since 2000 — English and Dari

@MyWebUniversity · @MyWebUniversity-Dari