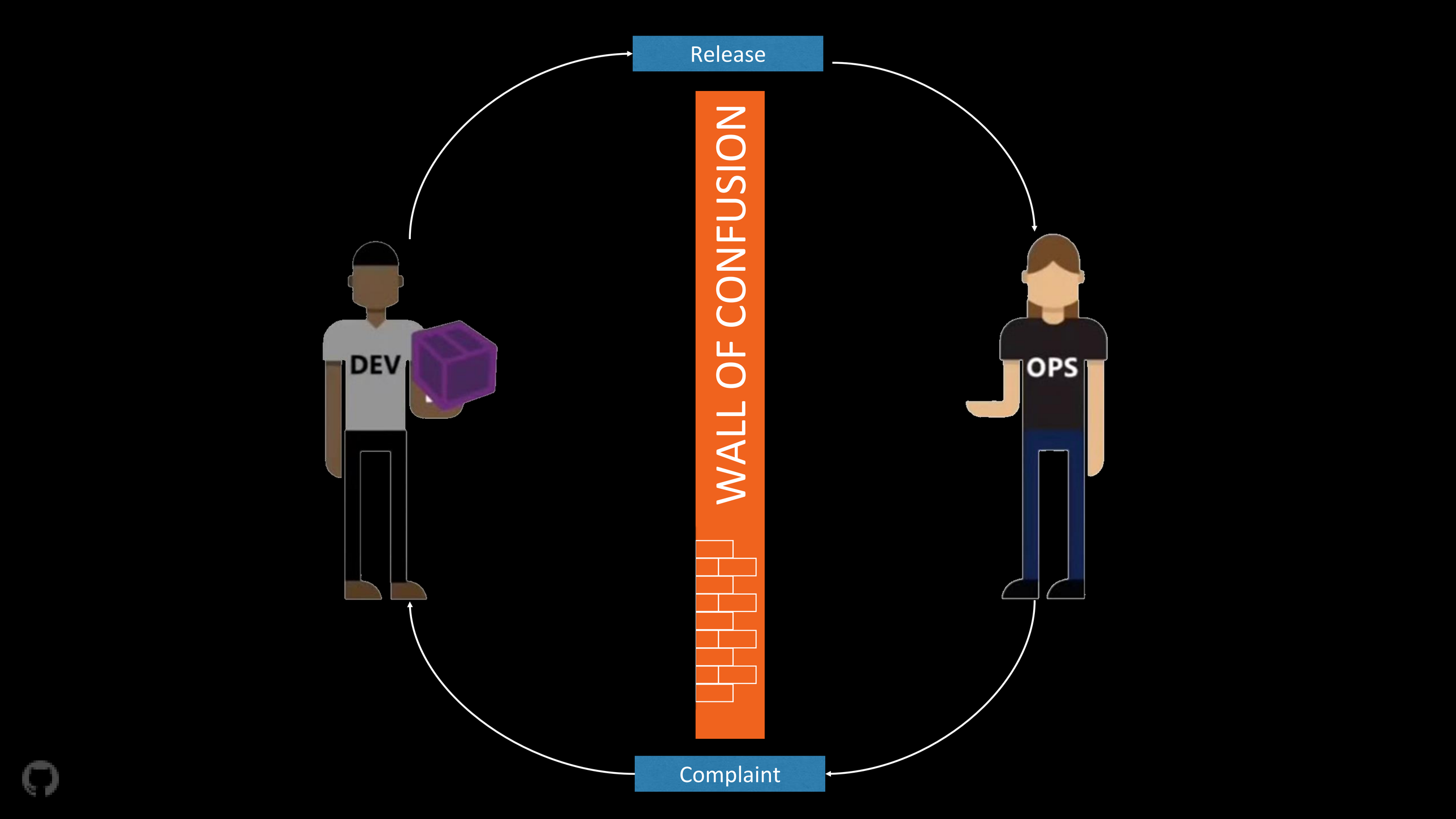
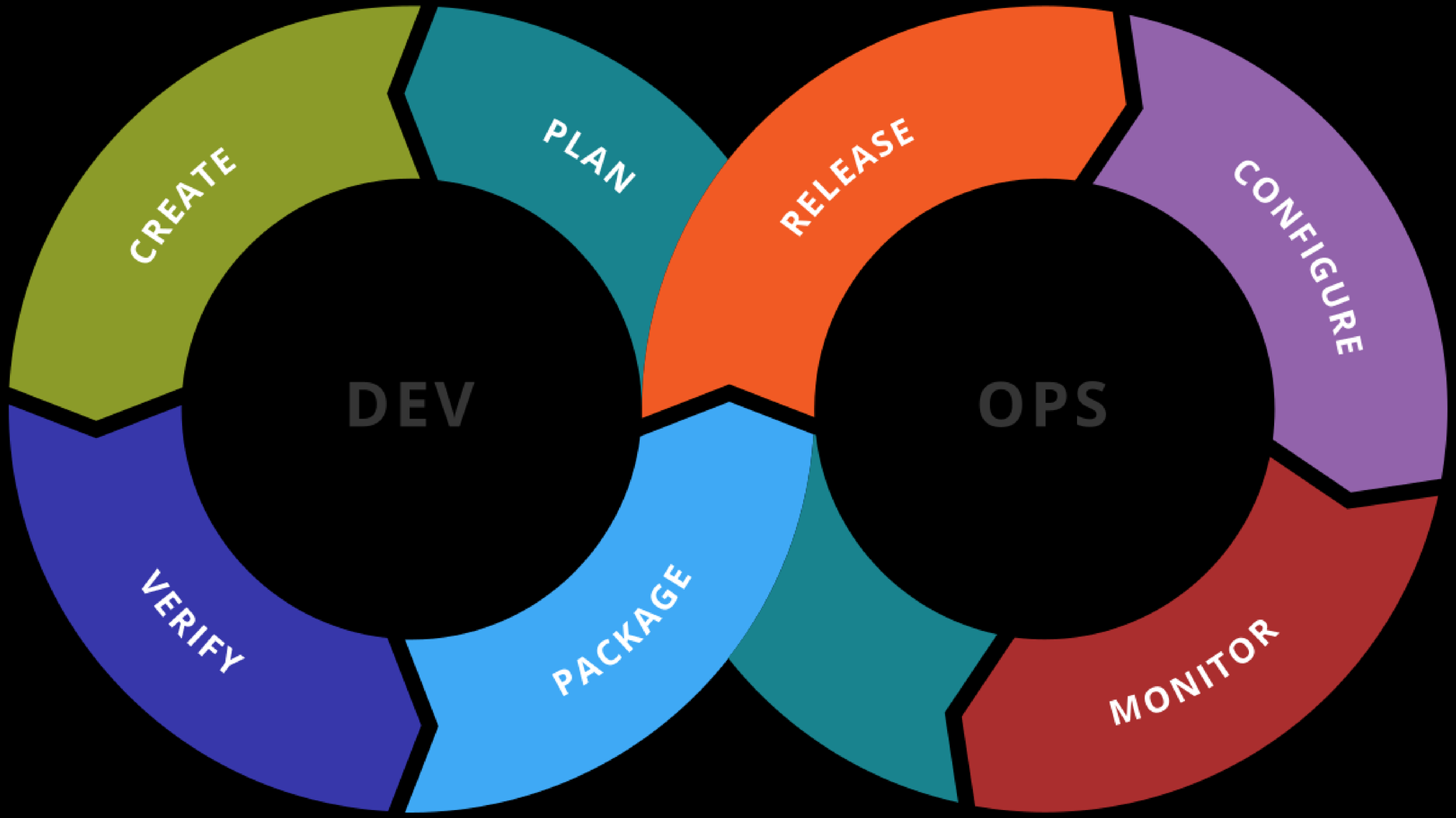
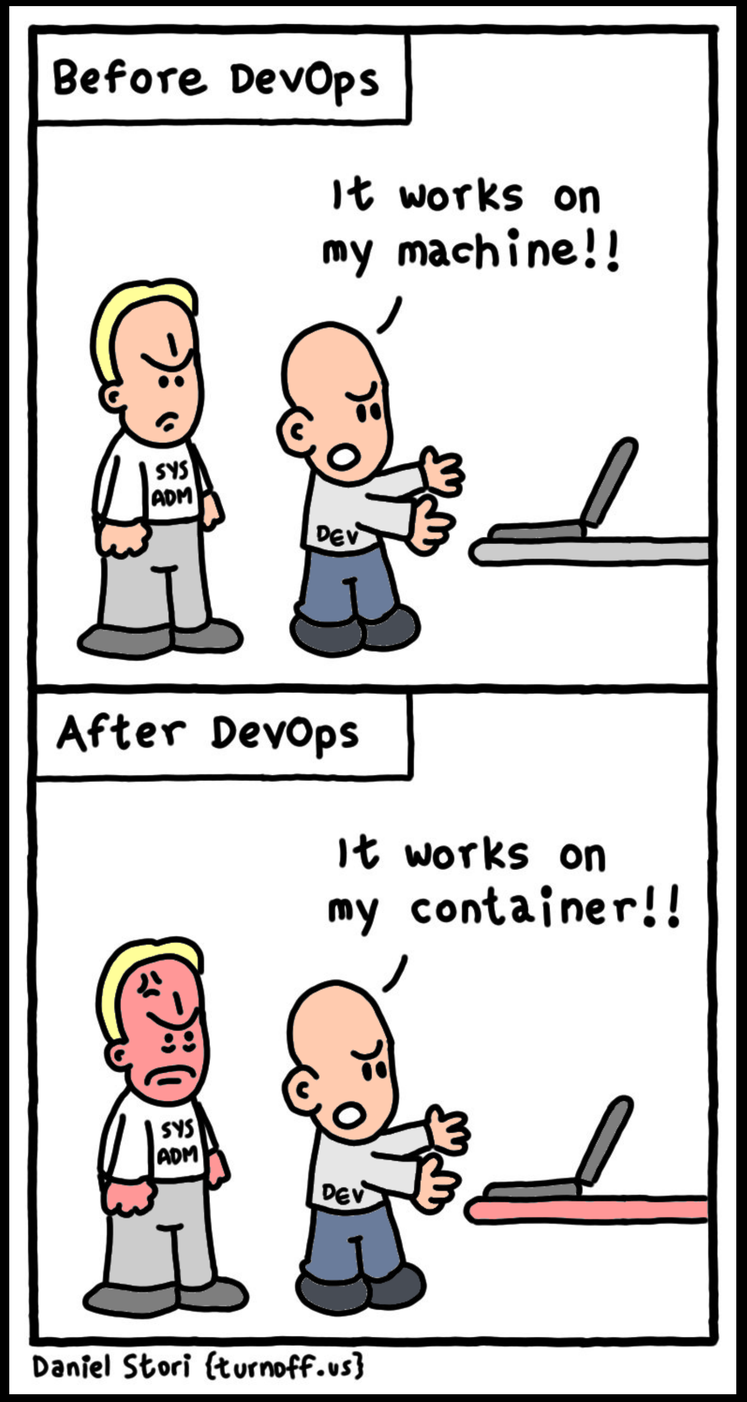
GitHub – 101

Codespaces


Release
WALL OF CONFUSION
DEV
OPS
Complaint


CREATE
PLAN
RELEASE
CONFIGURE
DEV
OPS
VERIFY
PACKAGE
MONITOR



“We lost a whole day getting a QA engineer running on that project.”

“It works on my laptop. Why doesn’t it work on yours?”

“Can I have a 16 core machine?”

“I have no idea what I’ve installed over the years?”

Developer productivity challenges

Reliance on physical PCs

Slow setup and onboarding times

Conflicting project configurations

Development hardware constraints

Admin Challenges

Hybrid Work

- Differing hardware needs
- Global teams
- Emerging security threats

Mo

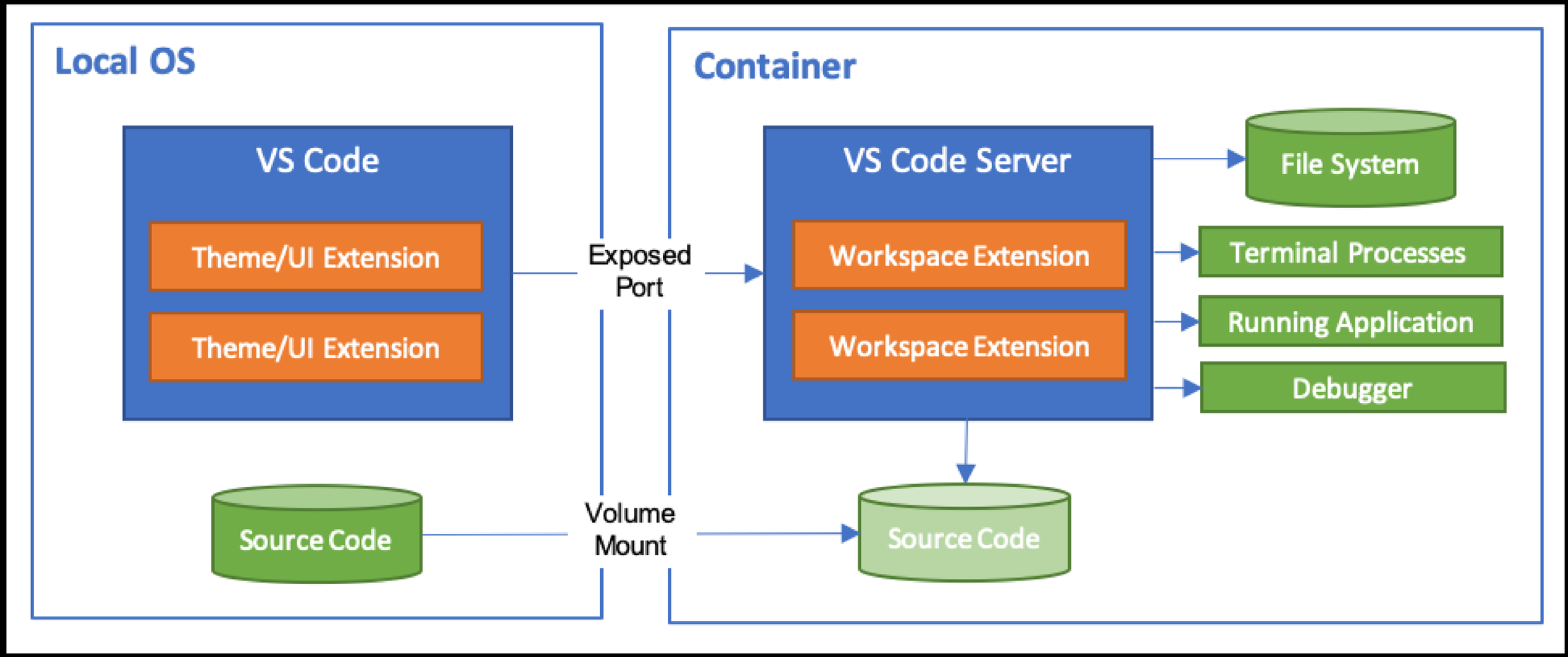
At @Airbnb, engineers wrote code on local machines and had it synced to the cloud where we ran our services. It was built in-house. Does something like this exist for smaller teams?

Facebook for Developers Blog

[Most engineering] is done on individually reserved development servers that live within our data centers. Being able to access code on these servers in a seamless, performant way is critical for productivity.

Jean-Michel Lemieux

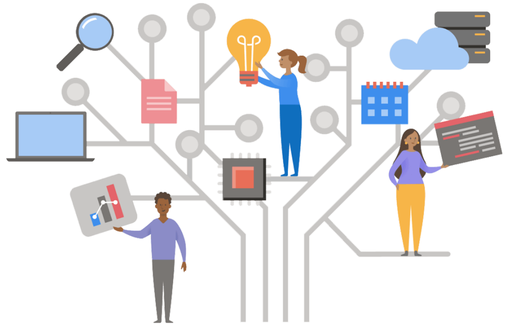
We’re going all-in with cloud based dev environments. So much faster, less local setup conflicts, and @code tooling is great.


Local OS
VS Code
Theme/UI Extension
Theme/UI Extension
Source Code
Exposed Port
Volume Mount
Container
VS Code Server
Workspace Extension
Workspace Extension
Source Code
File System
Terminal Processes
Running Application
Debugger

Container in the cloud

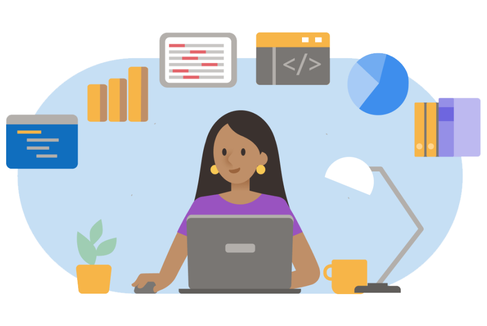
Container on a local machine

What are GitHub Codespaces?



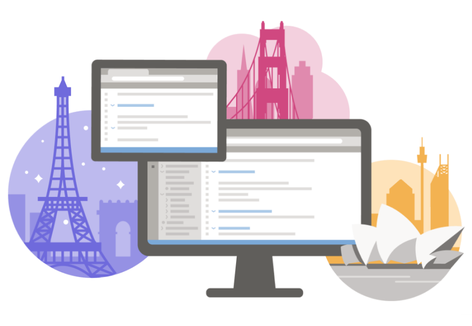
Managed environments for any project

Fully-managed, on-demand dev environments that dramatically reduce setup and maintenance



Feel at home even when away

Environment can be configured, and your settings, themes, and Git identity, are roamed so the experience looks and feels like local



Develop from anywhere

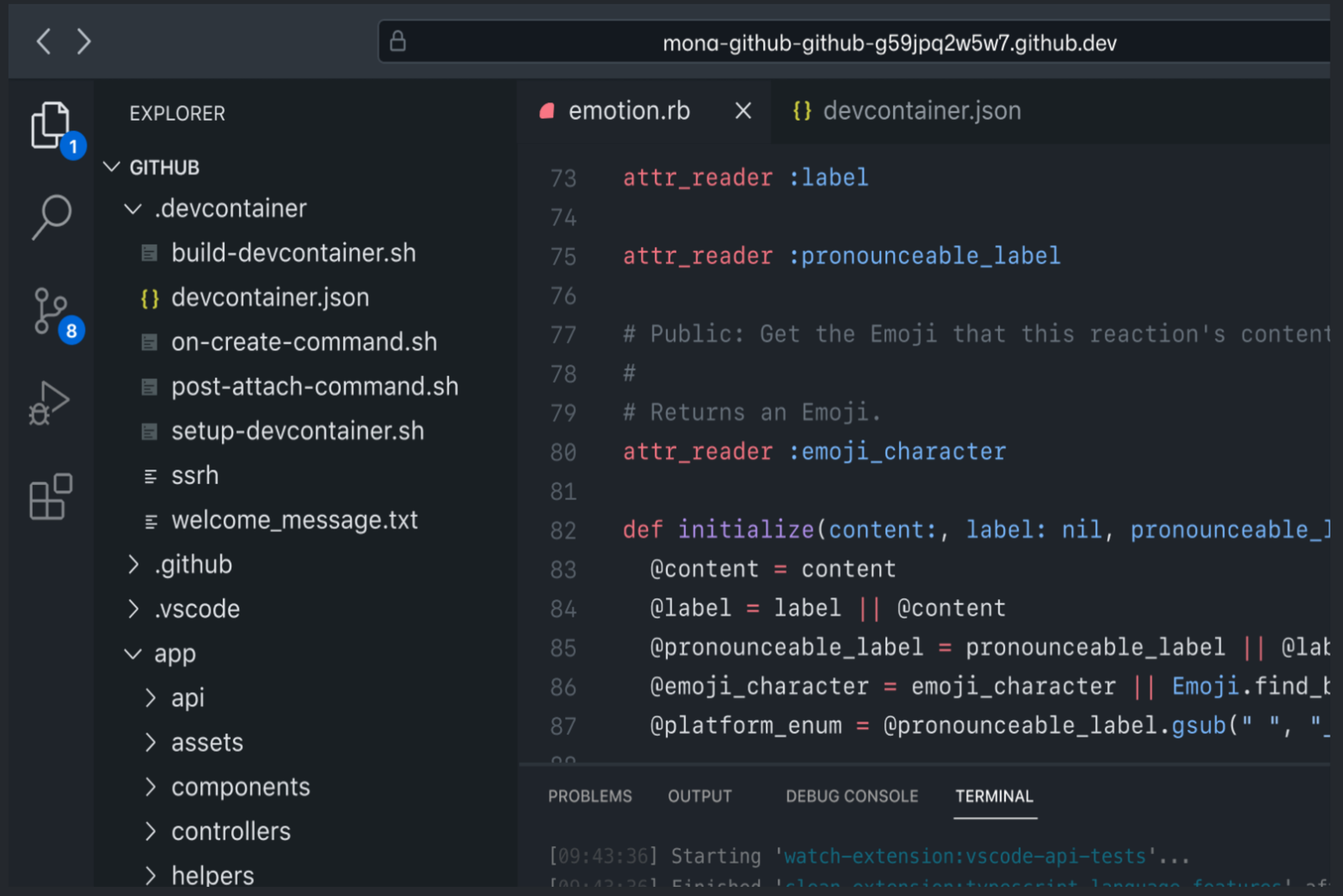
Connect from anywhere: Visual Studio, Visual Studio Code, browser-based companion editor

Supercharged collaborative development

Fully collaborative environment, complete with AI-assisted development support

GitHub Codespaces

Full compute backing, up to 32 cores and 64 GB RAM



Why use GitHub Codespaces?

- Fast to create and disposable. Create what you need and then dispose of them when you are finished.
- Managed environments which reduce the overall maintenance for you.
- Predictable pricing and you only pay for what you use with built-in auto-suspend.
- Save compute resources. When you move your development workload to the cloud, it frees the limited resources on your personal machine.