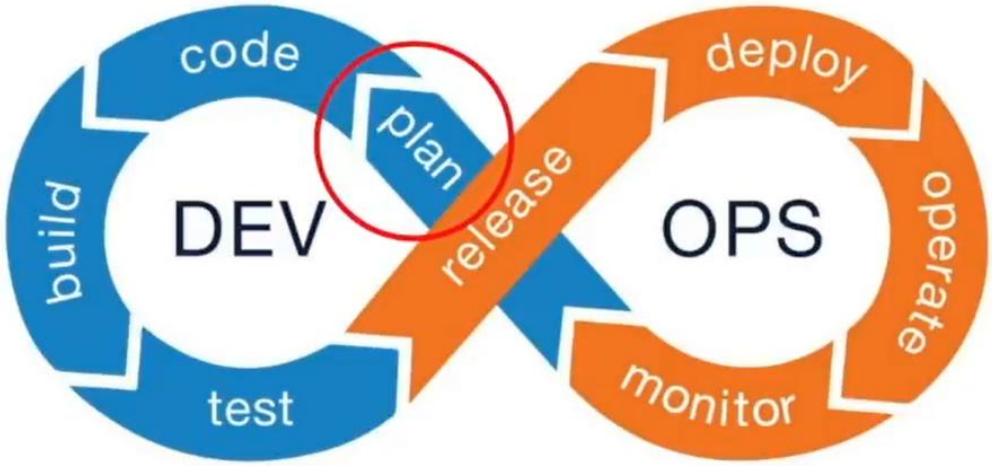
DevOps Definition

A methodology that helps engineering teams build products by continuously getting user feedback.


code
plan
build
DEV
release
deploy
operate
test
monitor
OPS

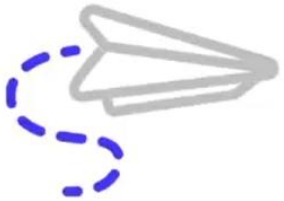

"Our company uses DevOps"

DevOps Engineering Definition

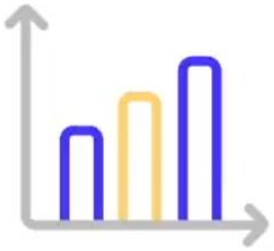
Practical use of DevOps within software engineering teams. Being able to build, test, release and monitor applications.

Devops Engineering Pillars

Pull Request
Automation



Deployment
Automation



Application
Performance
Managment

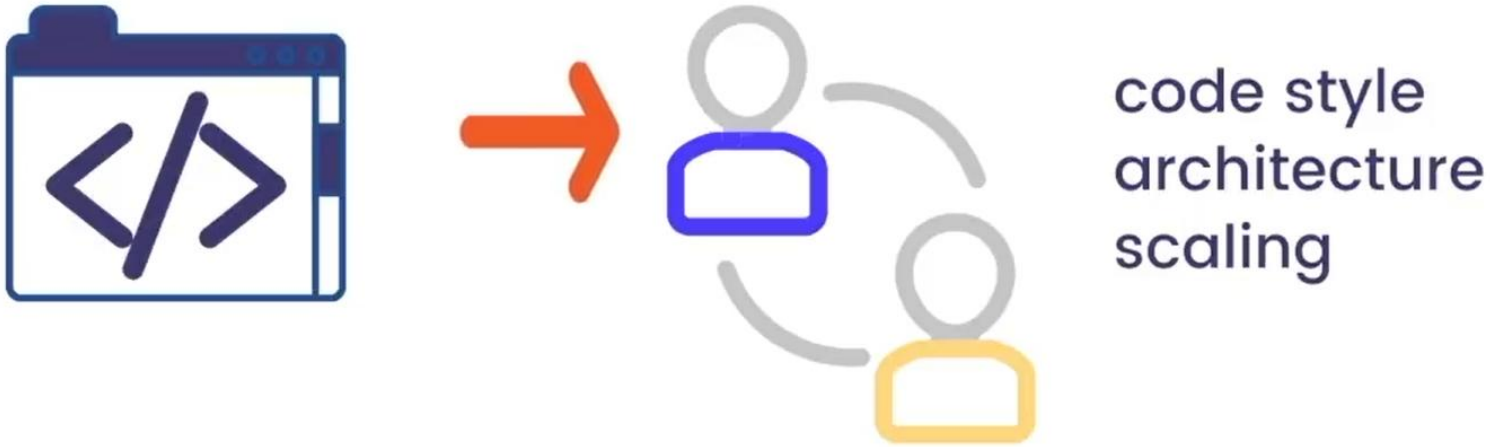
Pull Request Automation

- Developers share code changes using git tools like GitHub, GitLab and Bitbucket
- A set of code changes in git tools is called a "pull request" or "merge request"
- If pull requests are approved, the code changes can go into the main codebase

Git Definition

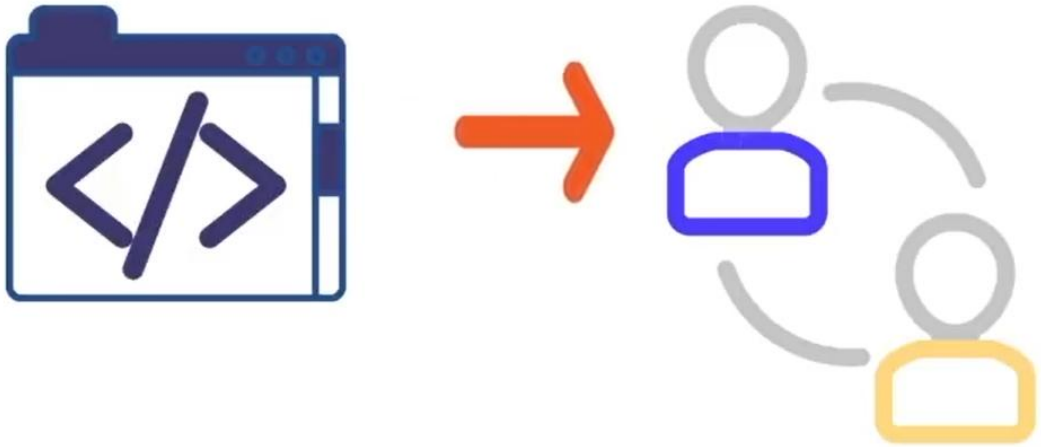
Git is used for cloud-based code change collaboration. See the full history of code changes, review developer changes, and store code in files called repositories.

The Code Review



code style
architecture
scaling

More feedback



Product Manager
Engineering Manager
Designers
Marketers
C-suite

What can you automate?

Continuous Integration (CI)

Per change ephemeral environments

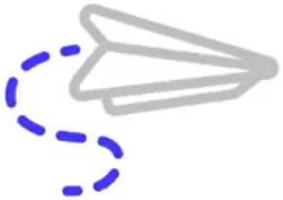
Automated security scanning

Notifications to reviewers

Goal as DevOps Engineer

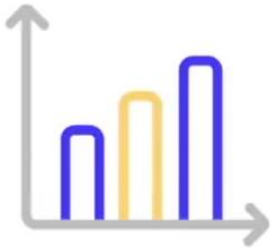
Help developer change proposals get reviewed and merged within 24 hours of when they are made.

Deployment Automation



- Deploy a feature to a certain set of users as a final test before rolling it out publically
- Starting new versions of services without causing downtime
- Rolling back to the prior version in case something does go wrong

Application Performance Management



- Metrics: numeric measurements of key numbers in production
- Logging: text descriptions of what is happening during processing
- Monitoring: take metrics and logs to convert them into health metrics
- Alerting: If monitoring detects a problem, it notifies developer