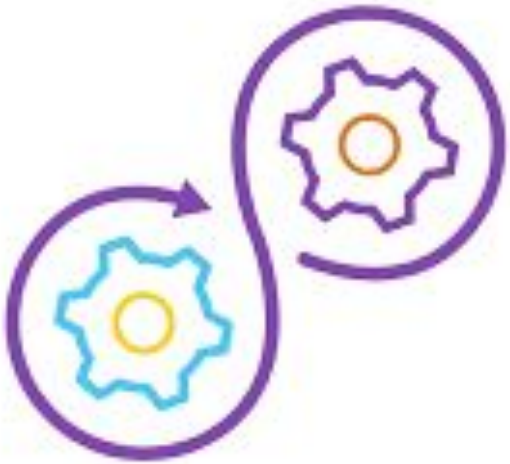
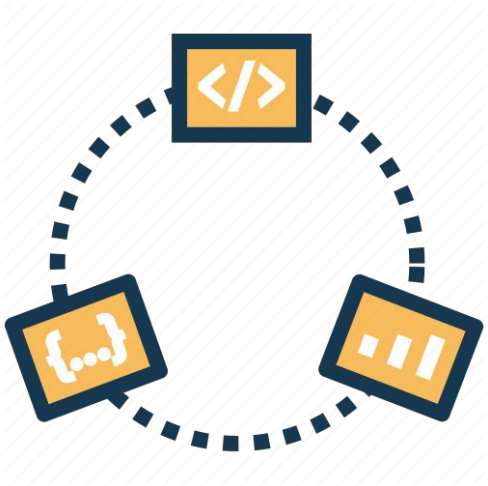


CI, CD on AWS

Devops

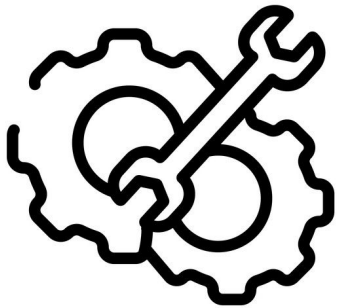
- Shortens the software development life cycle
- Provides continuous delivery with high quality

Continuous Integration



- Developers regularly merge their code changes into a central repository
- Automated builds and tests are run

Continuous Integration Components



Automation

- Single source code repo
- Automate testing/building
- Frequent commits

Cultural

- Integrate frequently
- Address bugs quickly
- Test Code

Continuous Delivery

Practice where code changes are automatically build, tested and prepared for production

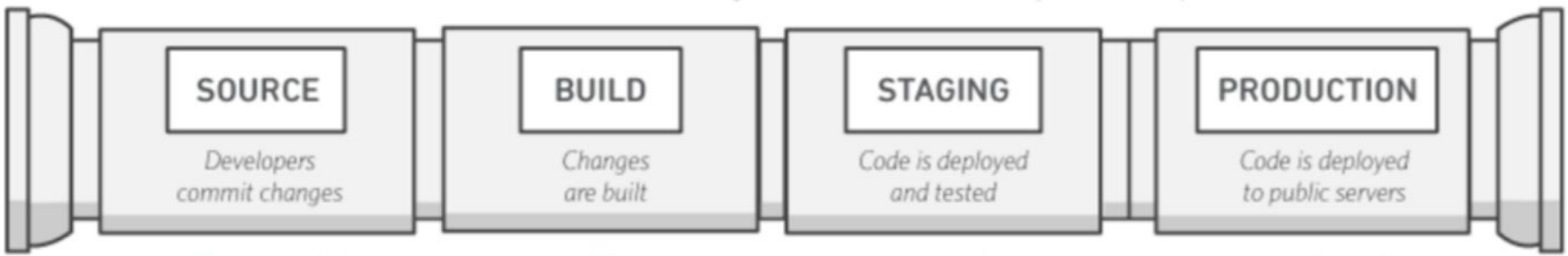
Continuous Deployment

Automatic deployment to environments based on tests, approvals and status checks.

Benefits of CI/CD

1. Release process automation
2. Improve developer productivity
3. Improve code quality
4. Delivery updates faster

CI/CD Pipeline

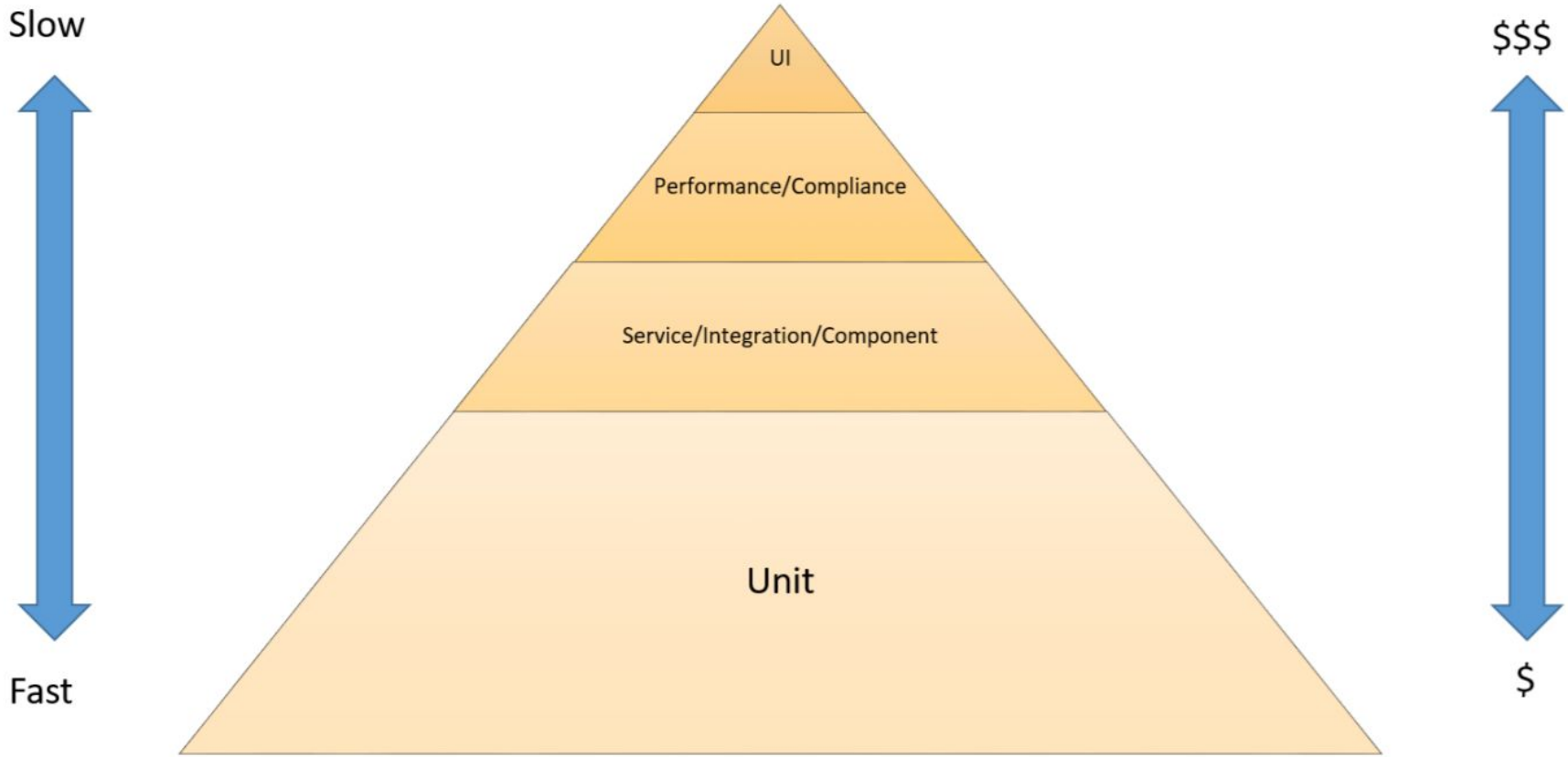


CI/CD Pipelines are used by mature organizations and teams

DevOps mindset

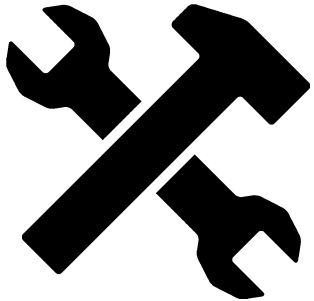
DevOps is a journey, not a destination

Testing



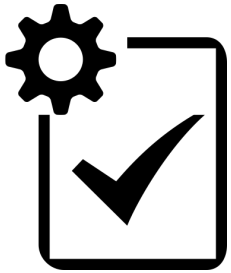
Ref: Mike Cohn, Succeeding with Agile

Testing by phases



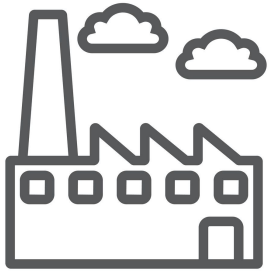
Build

- Unit Testing
- Static Code Analysis



Staging

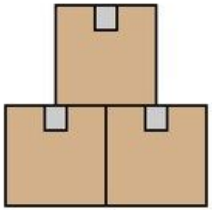
- Integration testing
- Compliance testing
- System Testing
- Performance testing



Production

- Canary

Deployment Methods



All at once

- Has downtime

Rolling

- Updates in portions
- No downtime

Blue/Green

- Copies infrastructure
- No Downtime

Blue/Green Deployment