



The logo for AWS re:Invent features the word "AWS" in a small, white, sans-serif font above the word "re:Invent" in a large, white, bold, sans-serif font. The "re:" part is positioned to the left of the main "Invent" word. The entire logo is set against a background of a diagonal gradient from dark blue at the top-left to red at the bottom-right.

AWS | re:Invent

C O N 3 2 1

DevSecOps with Docker and AWS Fargate

Hubert Cheung
Solutions Architect
AWS

Related Breakouts

Wednesday, Nov 28**

CON322-R: Mythical Mysfits: Management and Ops with AWS Fargate
11:30am – 1:45pm | Mirage, Mirage Event Center C1

Friday, Nov 30

CON322-R: Mythical Mysfits: Management and Ops with AWS Fargate
11:30am – 1:45pm | Mirage, Mirage Event Center C1

*** Repeat session if full – CON322-R1*

See session catalog for times and locations.

Agenda

Release Processes

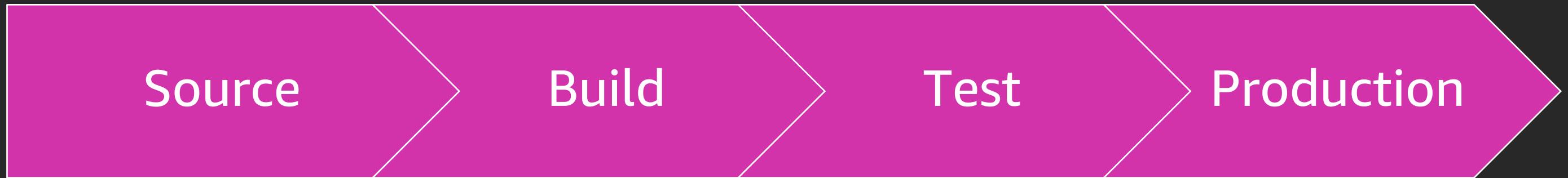
CI/CD on AWS

- AWS CodeCommit
- AWS CodePipeline
- AWS CodeBuild

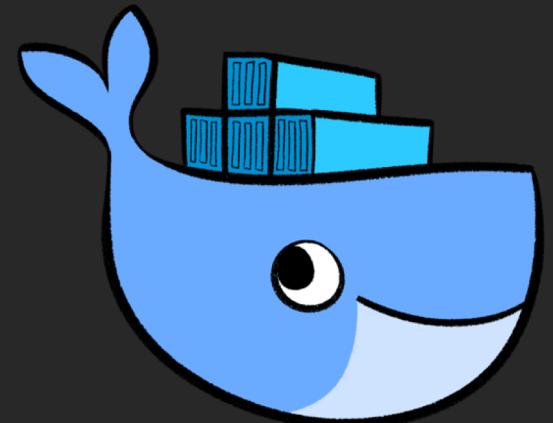
Hands On Lab

Release Processes

Release Process Phases



- Check-in source code such as Dockerfiles
- Peer review new code
- Compile code
- Unit tests
- Style checkers
- Code metrics
- Create container images
- Integration tests with other systems
- Load testing
- UI tests
- Penetration testing
- Deployment to production environments



Release Process Phases

Source

Build

Test

Production

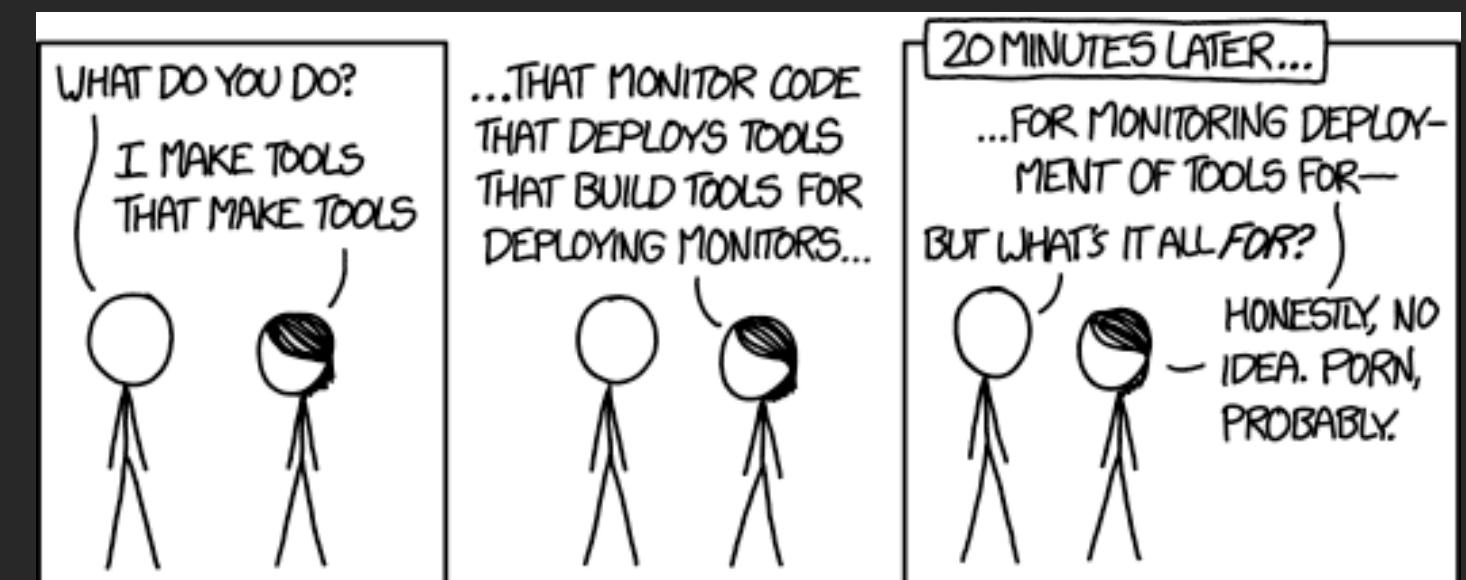
Continuous integration

Continuous delivery

Continuous deployment

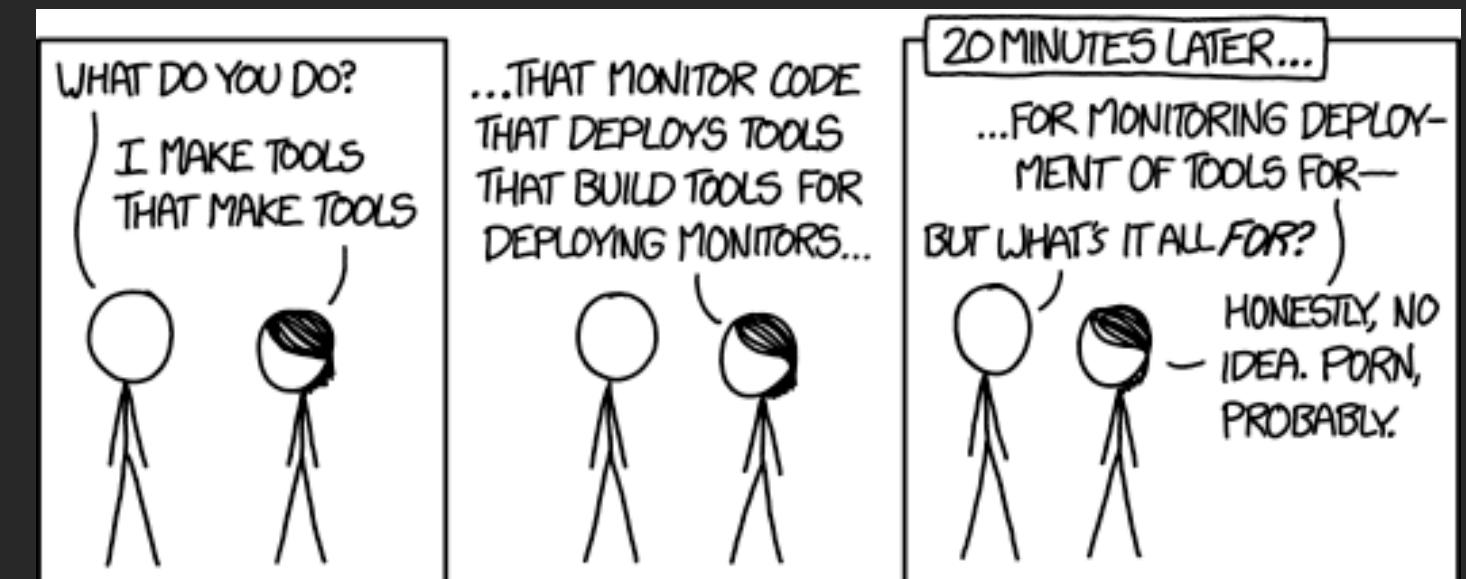
Why should I care about CI/CD?

- Velocity
- Improved Productivity and Efficiency
- Reduced Risk
- Shorter Feedback Loop
- Automation!



Challenges

- Automation!
- Metrics and Monitoring
- Legacy processes
- Legacy...anything



Common patterns and solutions

Automate as much as possible

- Start small. Don't try to automate everything

Microservices

Strict API Contracts

- Get expected outputs from teams consuming your service

Testing

- Mandate arbitrary number of tests to start

AUTOMATE AUTOMATE AUTOMATE!

Source

Build

Test

Production



AUTOMATE AUTOMATE AUTOMATE!

Source

Build

Test

Production

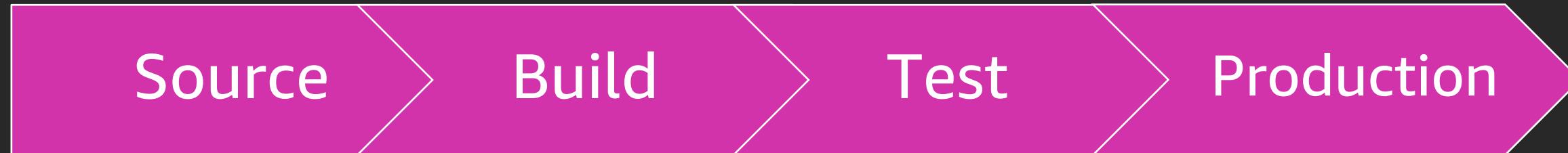


AWS
CodeCommit



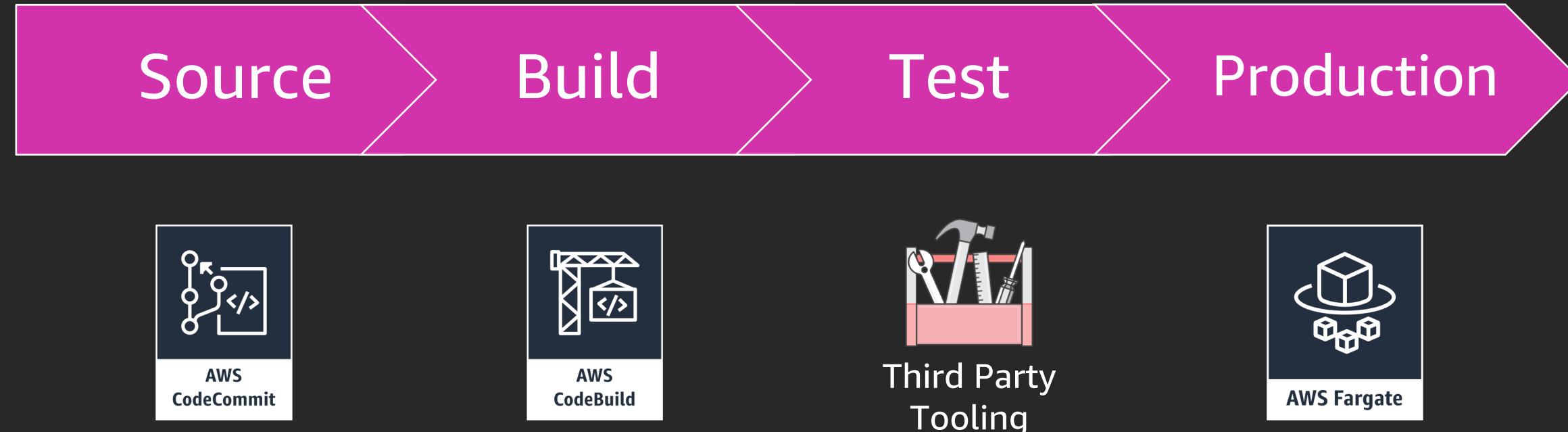
AWS
CodeBuild

AUTOMATE AUTOMATE AUTOMATE!

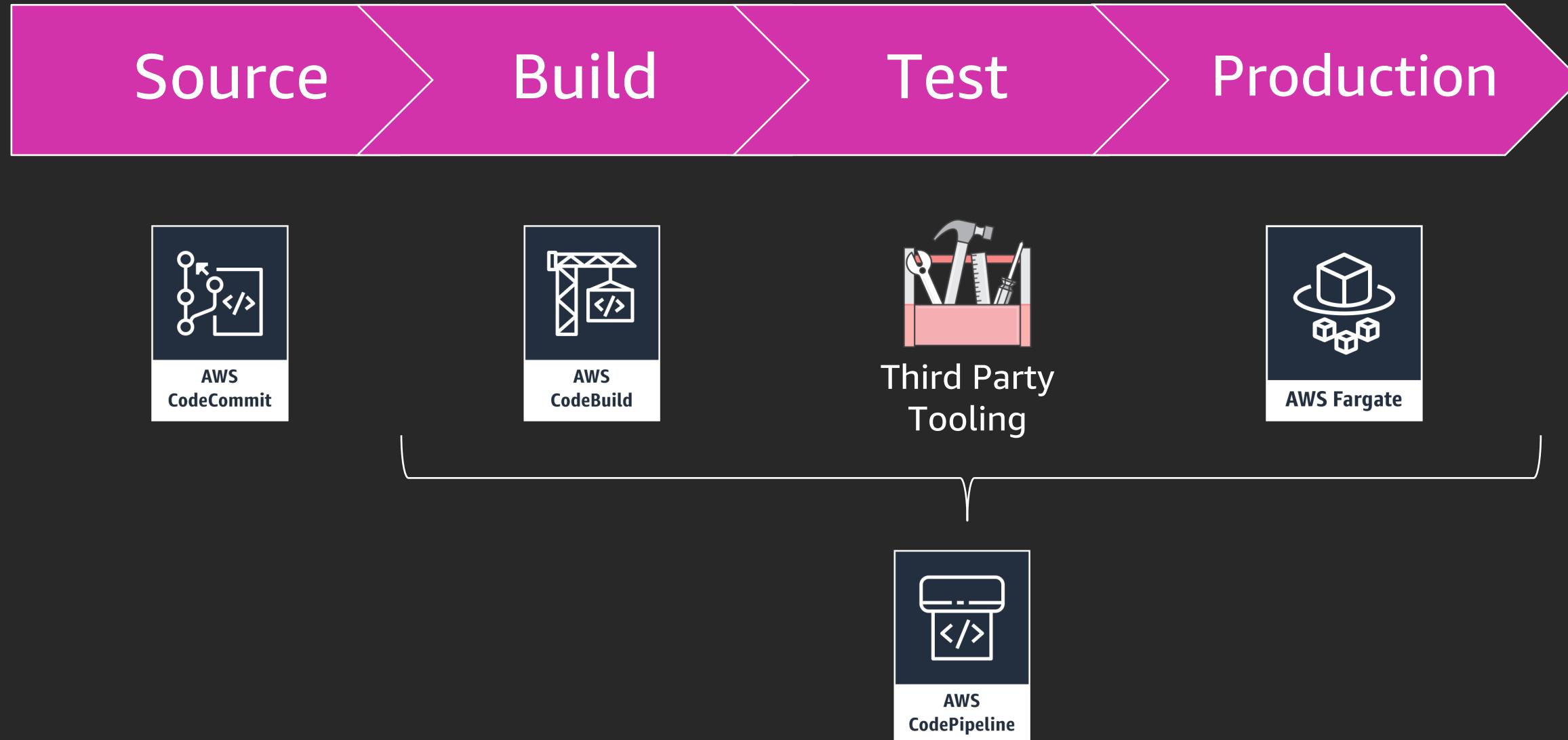


Third Party
Tooling

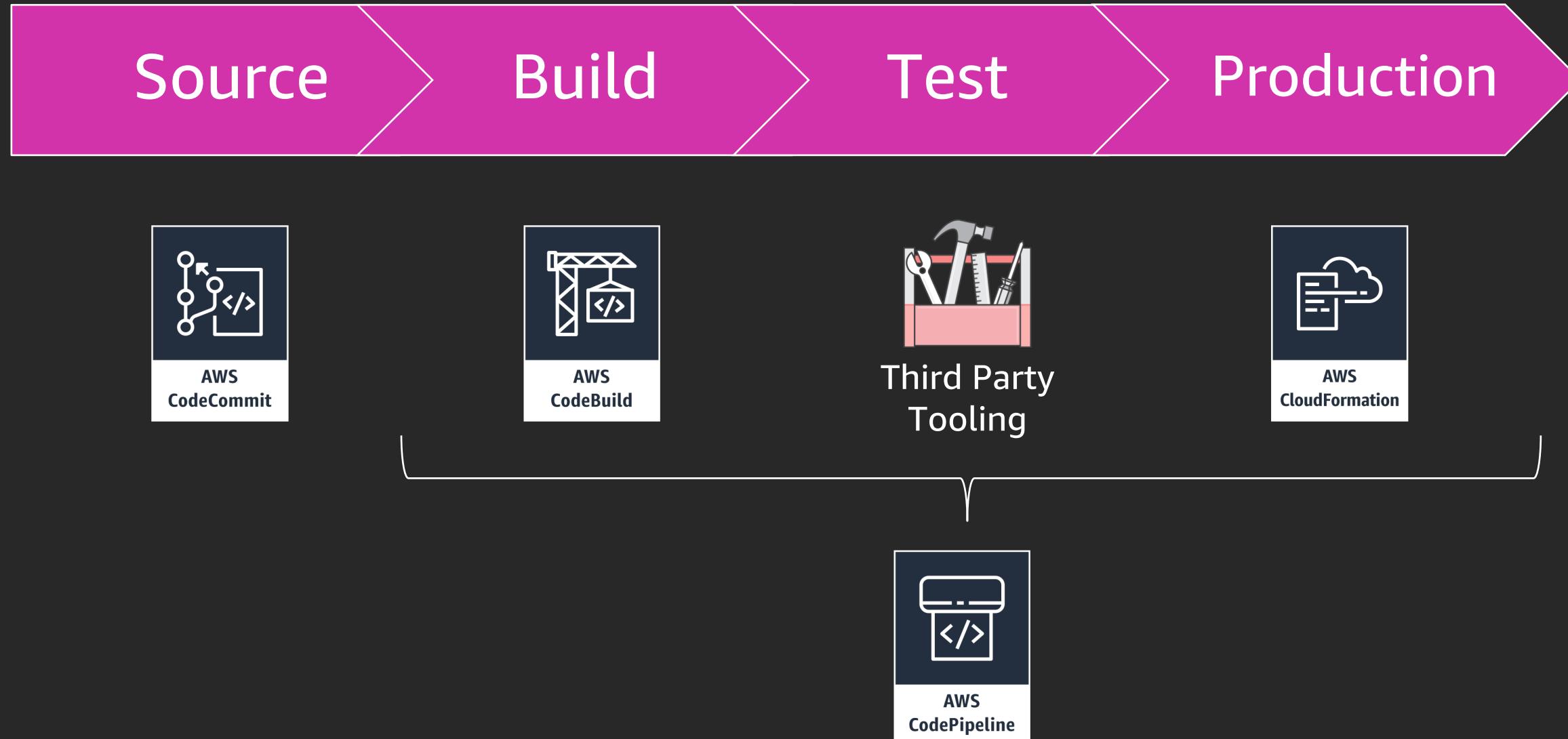
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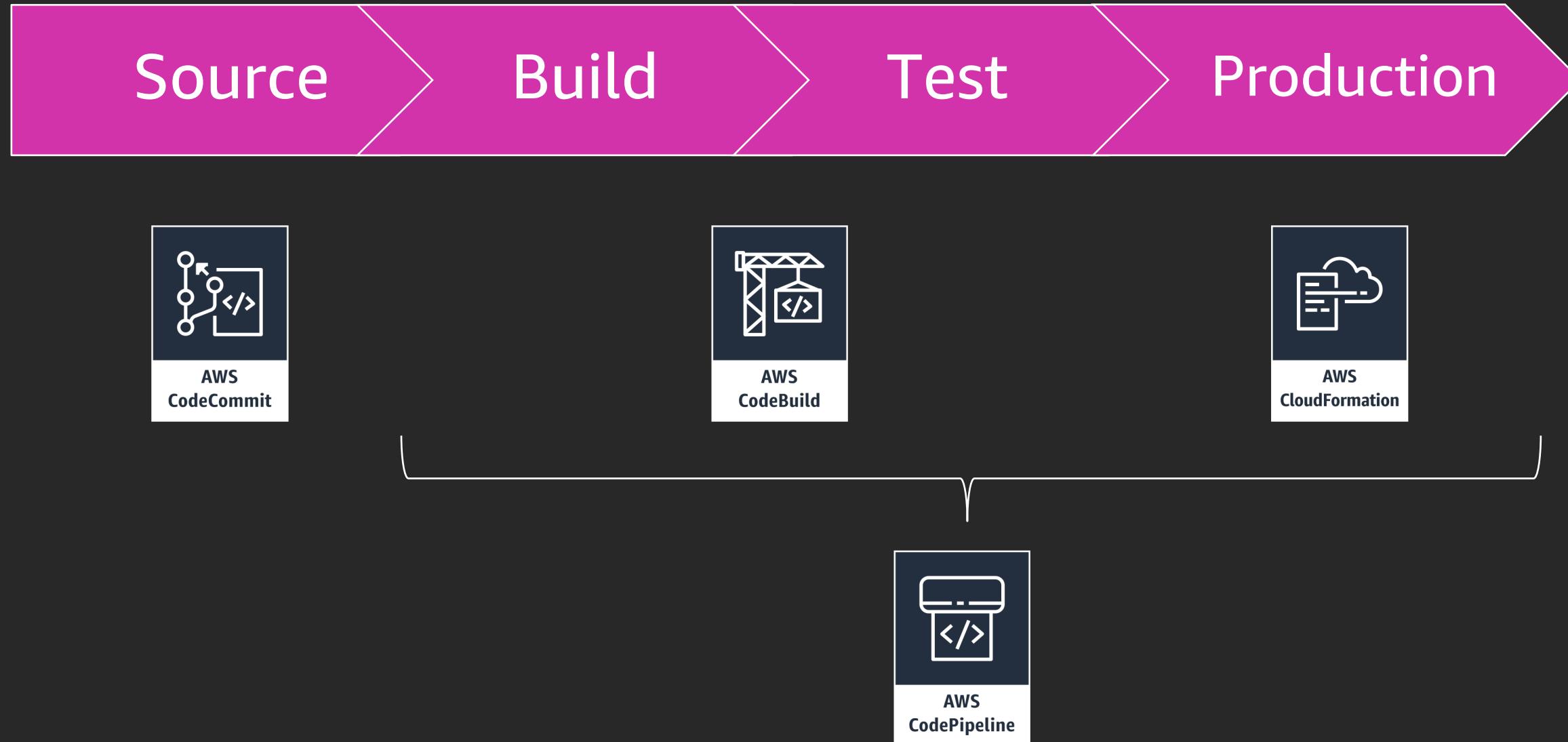
AUTOMATE AUTOMATE AUTOMATE!



AUTOMATE AUTOMATE AUTOMATE!



AUTOMATE AUTOMATE AUTOMATE!



Hands On Lab

Mythical Mysfits



www.mythicalmysfits.com

Welcome to Mythical Mysfits



Our mission: Ethical, mythical creature care.

Our priority: Find homes for the abandoned, and often misunderstood, mythical creatures in our community.



Help us find their forever homes!



Your mission: Modernize and innovate on the Mythical stack.

Lab 0: Mythical stack - recap

Lab 1: Starting the DevSecOps journey

Lab 2: Offloading builds from local machines

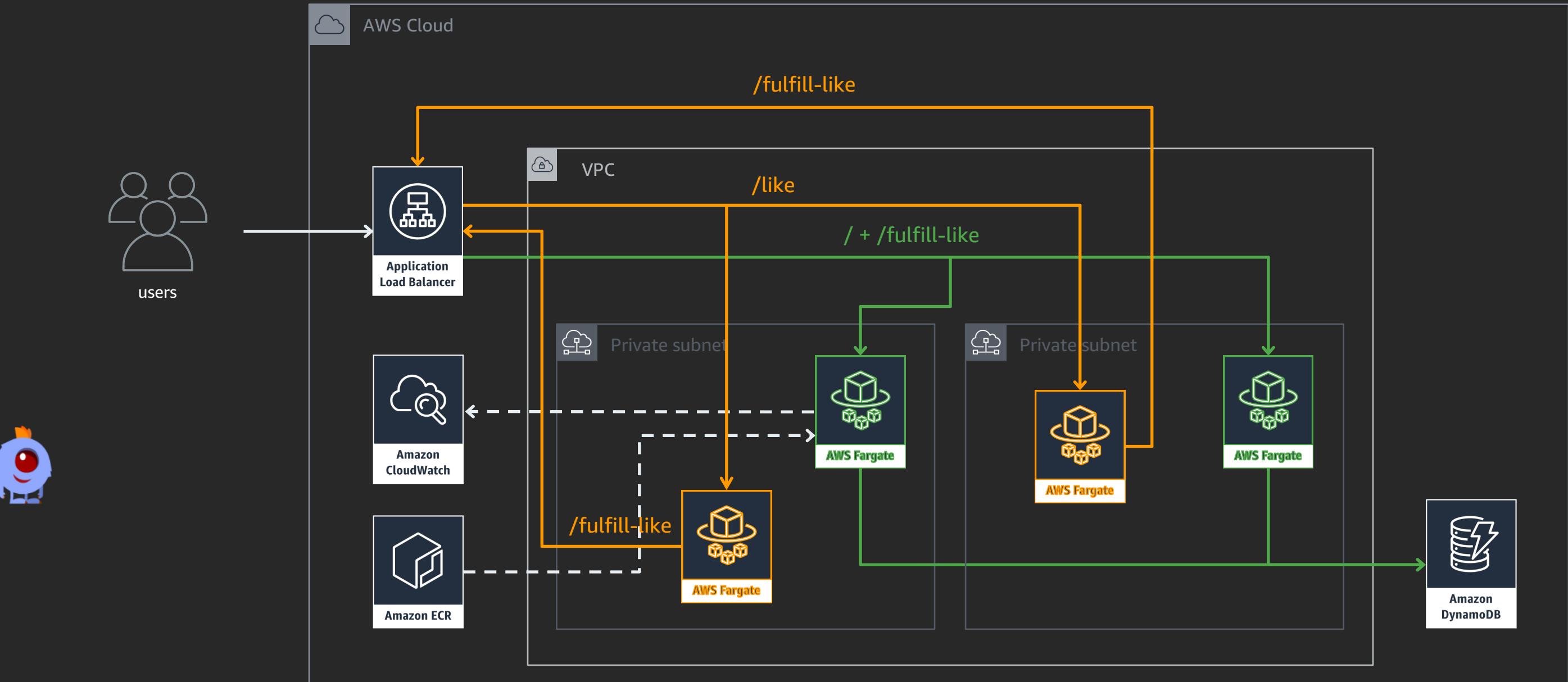
Lab 3: Automating end to end deployments

Lab 4: Implementing container image scanning





Lab 0: Mythical stack - recap





Lab 1: Starting the DevSecOps journey

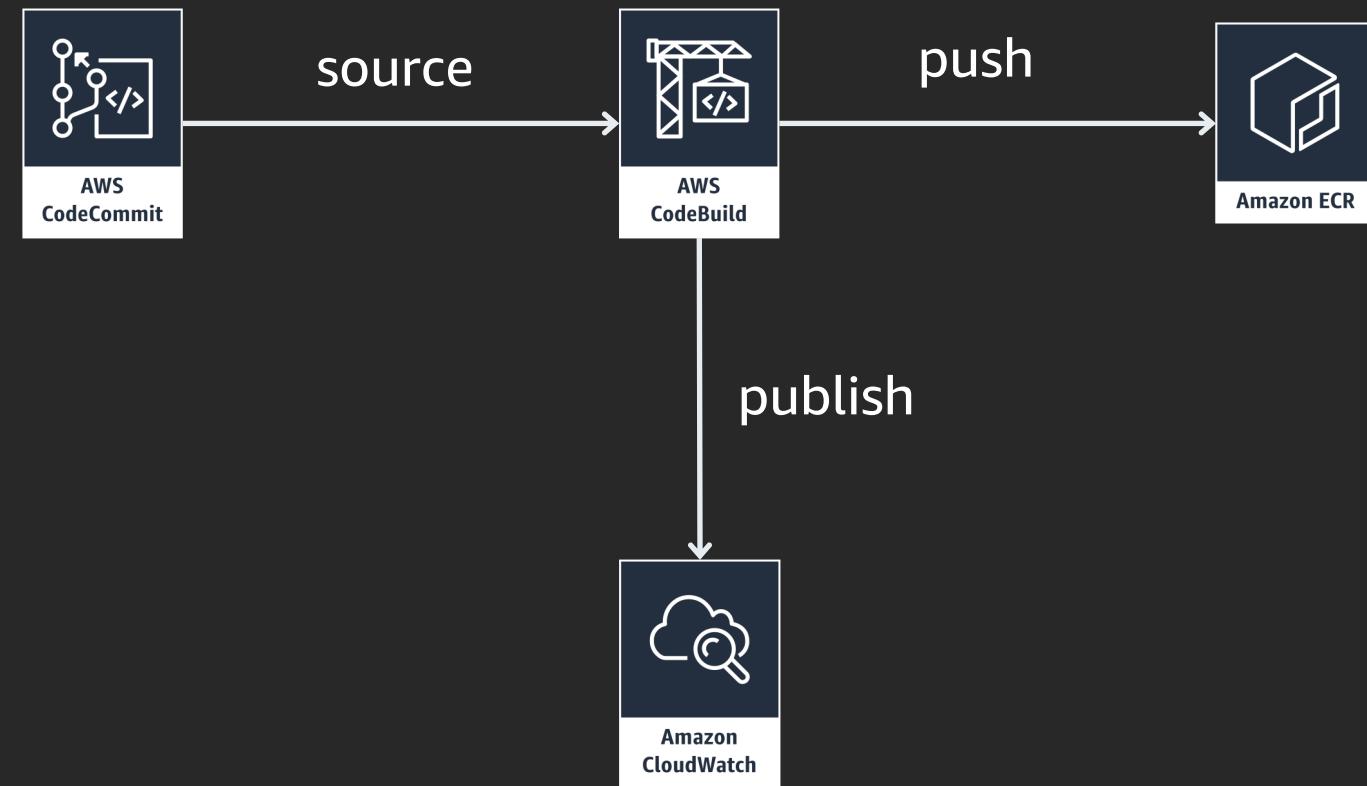


You



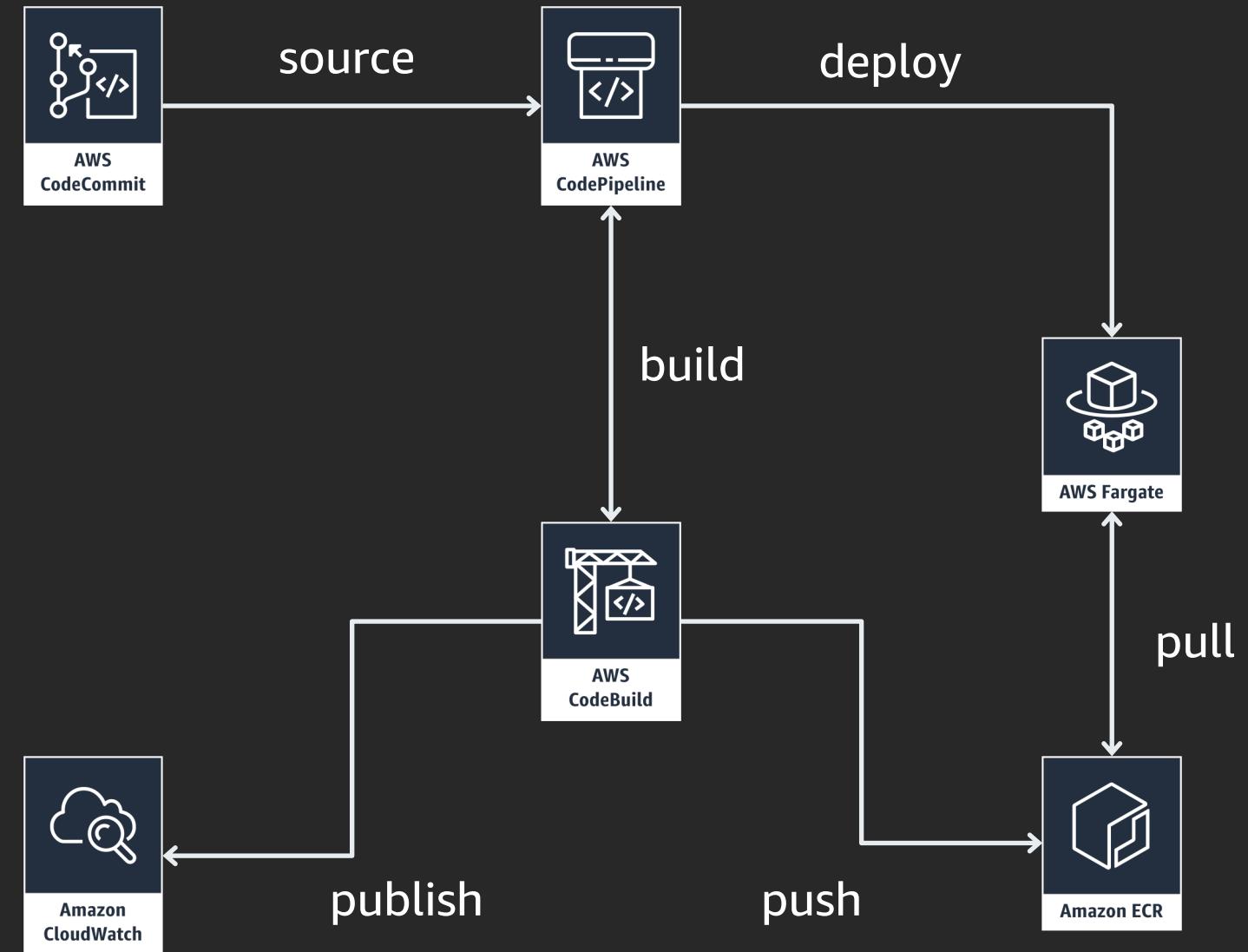


Lab 2: Offloading builds from local machines



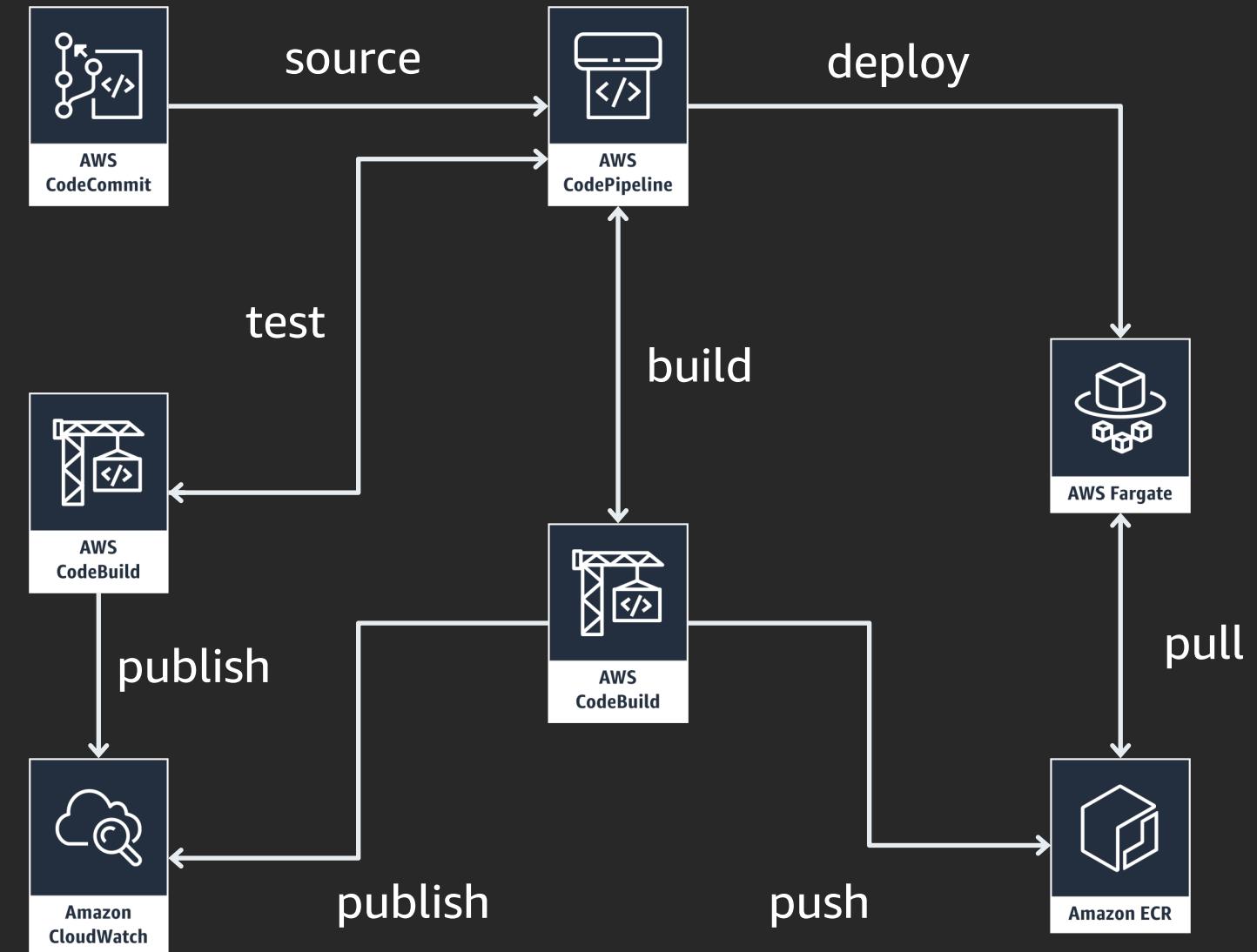


Lab 3: Automating end to end deployments





Lab 4: Implementing container image scanning



Logistics



Instructions:

<http://www.mythicalmysfits.com/fargate-devsecops>

Raise your hand if you have any questions. Feel free to work together with folks at your table. Near the end, we'll hand out \$25 AWS credit codes to cover costs for the workshop.

High-five your neighbors and have fun! Please fill out feedback forms and follow the clean-up instructions once you are done!

Email us with comments/questions/feedback:
aws-fargate-mysfits@amazon.com



Thank you!

Hubert Cheung

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Please complete the session
survey in the mobile app.