

Code-to-Cloud eXpress



Insight DevOps Fellowship, New York

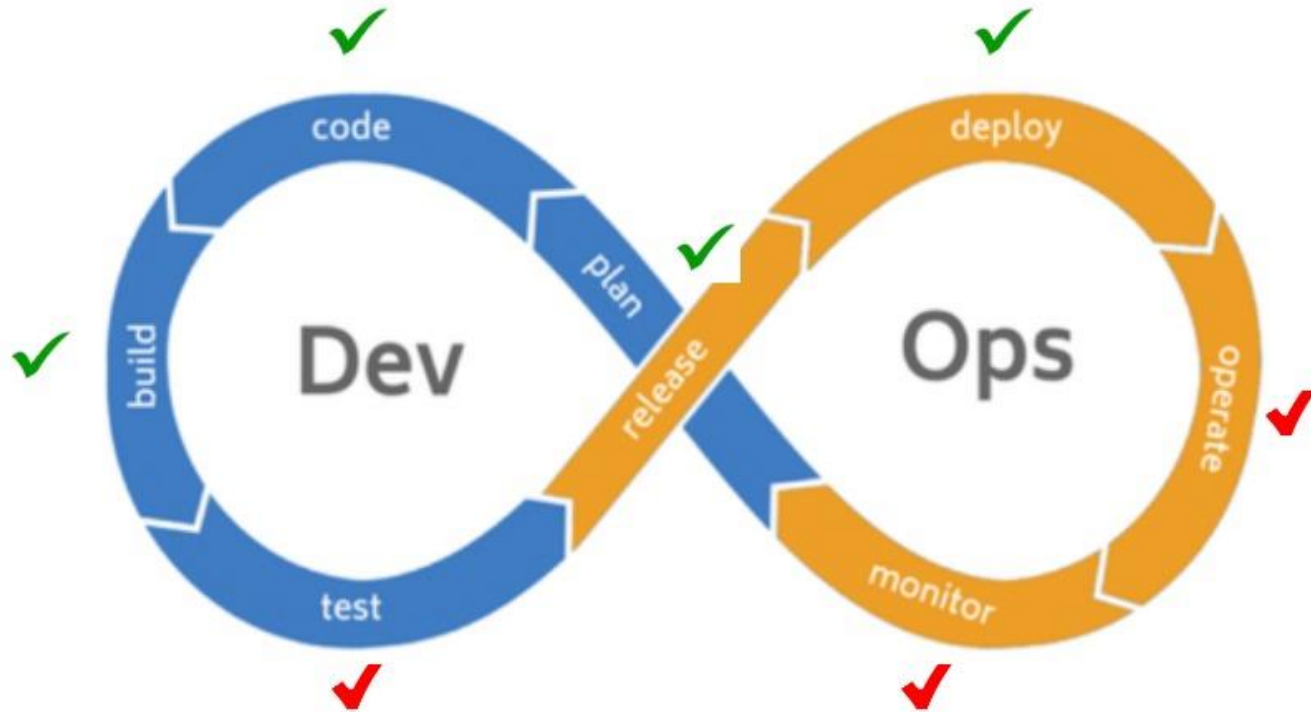
Wen Gong

2019-01-24

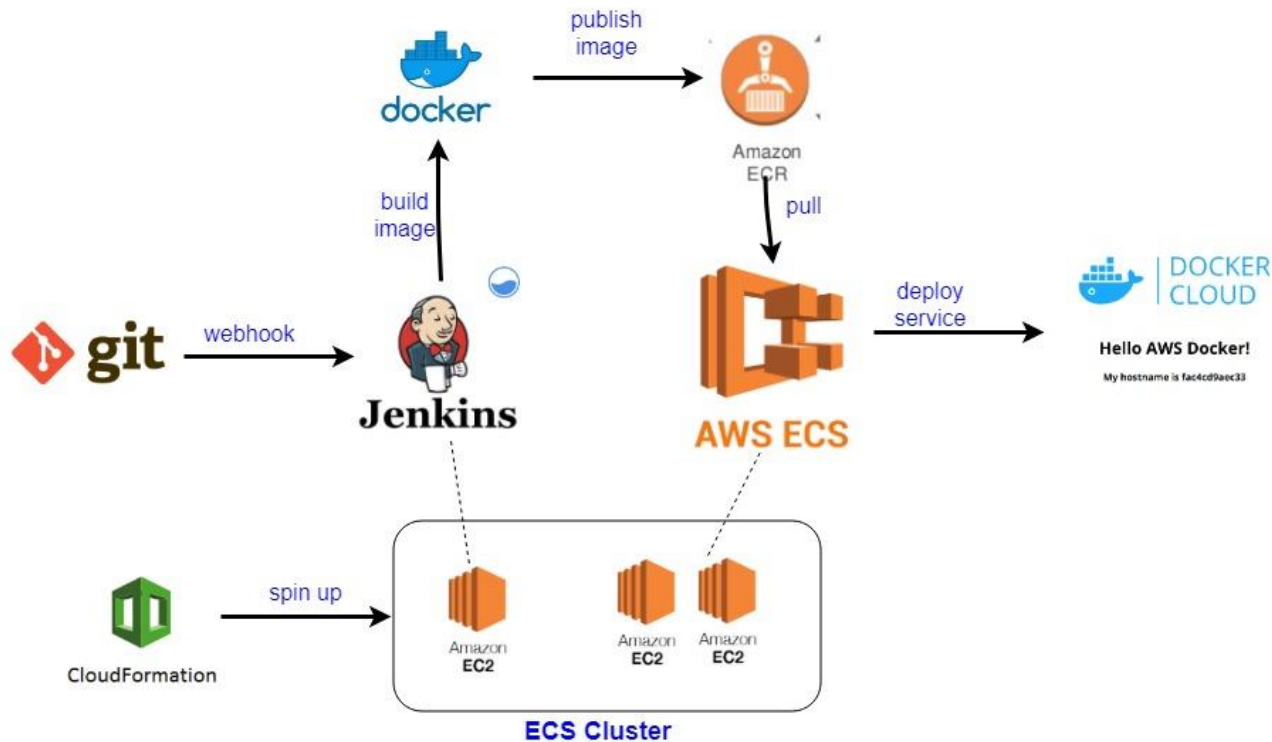
Business Problem

- What
 - Business migrates to cloud (such as AWS, GCP)
 - How to adopt best practices to boost productivity and improve development & operation support experiences at the same time?
 - Current on-prem IT app release cycle ranges from weekly to quarterly
 - How to speed up release and improve quality?
- Why
 - Cloud offers business benefits: speedup innovation and productivity gain
 - DevOps enables a paradigm shift in software development
- Goal
 - Help business move to cloud
 - Improve software development process and experience

DevOps - Continuous Pipeline



Demo – Hello Docker Cloud (Week 2)



Demo – Hello Docker Cloud

Dashboard [Jenkins] x +

Not secure | ec2-52-3-227-246.compute-1.a...

Apps Go Work Lang DS CIT MY News FO Time

Jenkins > [ENABLE AUTO](#)

Build Queue

No builds in the queue.

Build Executor Status

1 Idle
2 Idle

2) on Jenkins dashboard, one will see build job started and running

All +

S	W	Name ↓	Last Success	Last Failure	Last Duration
		hello-aws-docker-git	1 min 43 sec - #15	21 hr - #9	5.9 sec
		hello-jenkins-1	3 days 15 hr - #2	N/A	1.1 sec

Icon: S M L

Legend RSS for all RSS for failures RSS for just latest

Screenshot

Page generated: Jan 24, 2019 7:27:02 PM UTC [REST API](#) [Jenkins](#)

Learning: x Get Start: x Getting st: x Amazon E: x Hello wor: x Hello wor: x +

Not secure | ec2-35-172-234-244.compute-1.a...

Apps Go Work Lang DS CIT MY News FO Time

Other bookmarks

DOCKER CLOUD

Hello AWS Docker - 5th Demo!

My hostname is cccc28ce5756

3) go to ECS instance public DNS page to see "Hello ..." msg got updated

add des

```
devopsgong@osboxes: ~/GitHub/hello-aws-docker/www
File Edit View Search Terminal Help
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/wgong/hello-aws-docker.git
  30db55f..a5e4d7a master -> master
devopsgong@osboxes: ~/GitHub/hello-aws-docker/www$ vi index.php
devopsgong@osboxes: ~/GitHub/hello-aws-docker/www$ git add .; git commit -m "demo 5"; git push
[master 5a8fee2] demo 5
1 file changed, 1 insertion(+), 1 deletion(-)
Username for 'https://github.com': wgong
Password for 'https://github.com':
Counting objects: 4, done.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 366 bytes | 366.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/wgong/hello-aws-docker.git
  a5e4d7a..5a8fee2 master -> master
devopsgong@osboxes: ~/GitHub/hello-aws-docker/www$
```

1) revise index.php file by changing Demo number; then git push

Lessons learned

- Collab with TA + Fellows via email + MatterMost
 - Jianshi, Chuck, Arseny
- Jenkins
 - Plugin not working, debug: run bash script line-by-line
 - Build workaround
- AWS ECS
 - ECR Credential Helper
 - Console + CLI
 - Read docs

Plan for next week

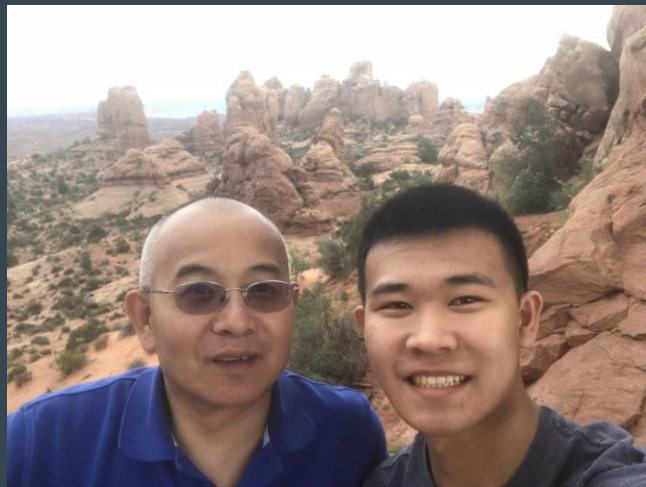
- Build test on Arseny's project (Data Freeway)
 - AWS: S3, Lambda, RDS, Dynamo, Flask, Dash
- Learn / evaluate
 - Jenkinsfile
 - Amazon EKS – Managed Kubernetes Service to run Jenkins

Project Challenges

- Build a working baseline in 3 weeks
 - CI + CD + Monitor
- Evaluate, learn and incorporate multiple new technologies and tools
 - Jenkins
 - Kubernetes + Helm Chart
 - Prometheus

Wen Gong

- 15+ years of experience as Software Engineer and IT Consultant in CRM applications
- Build customer data management solutions
 - master/hub, bridges, data quality, ETL
- Had a Ph.D. in nuclear physics
- Fun: teach kid to code
 - github.com/wgong/py4kids
 - 2019 Regeneron STS Scholar
 - introduce kid to cloud



Q&A - Love your suggestion and feedback

1.

2.

3.