



STREAMING

Free Live Webinar



CI/CD Pipelines as Code to Build Test and Deploy to Azure Cloud Web App & SQL



Saturday May 16, 2020
12:00 to 13:00 BST



Mohamed Radwan

Principal DevOps Consultant

Blog: mohamedradwan.com



Group (A)



#DevOpsVisions





Mohamed Radwan
Principal DevOps

Principal Cloud DevOps Consultant

With 17+ Years of Experience, Helped 50+
companies around the globe

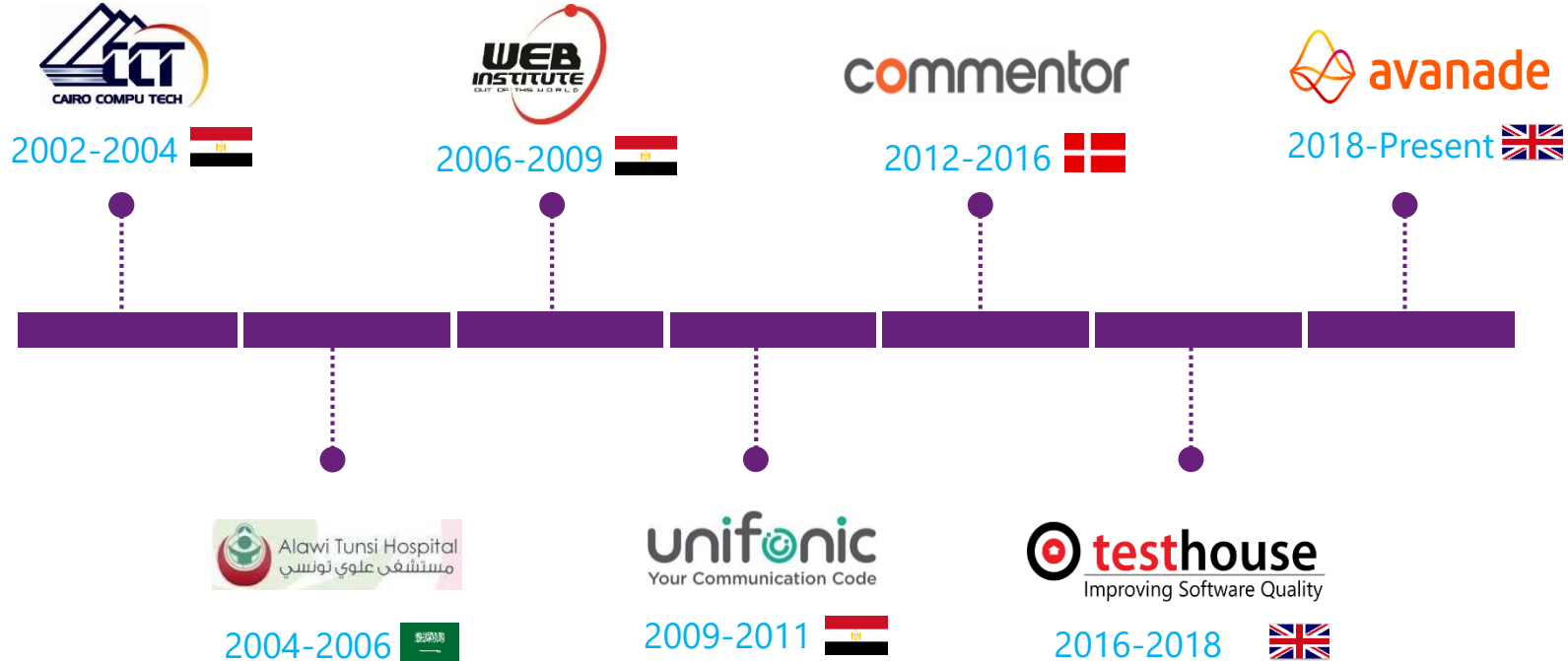


Blog: mohamedradwan.com

Twitter: [@mradwan06](https://twitter.com/mradwan06)

Work History & Locations

FORTUNE
500



Guides, Open Source & Extensions



Migrate to VSTS



Agile Testing



DevOps Principles



Migrate TFS 2012



Upgrade TFS 2013



Upgrade TFS 2010



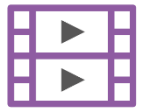
Integration Testing Framework



TFS Counter



Videos and Posts



300+
VIDEOS



22.000+
VIEWS/MONTH



1.200.000+
VIEWS



5.000+
SUBSCRIBERS



10.000+
LIKES



400+
BLOG POSTS



18.000+
VISIT/MONTH



800.000+
TOTAL VIEWS



14.000+
UNIQUE
VISITS/MONTH



300+
REGISTER
R USERS

Events, Sessions & Workshops

100+ Sessions
5000+ Attendees

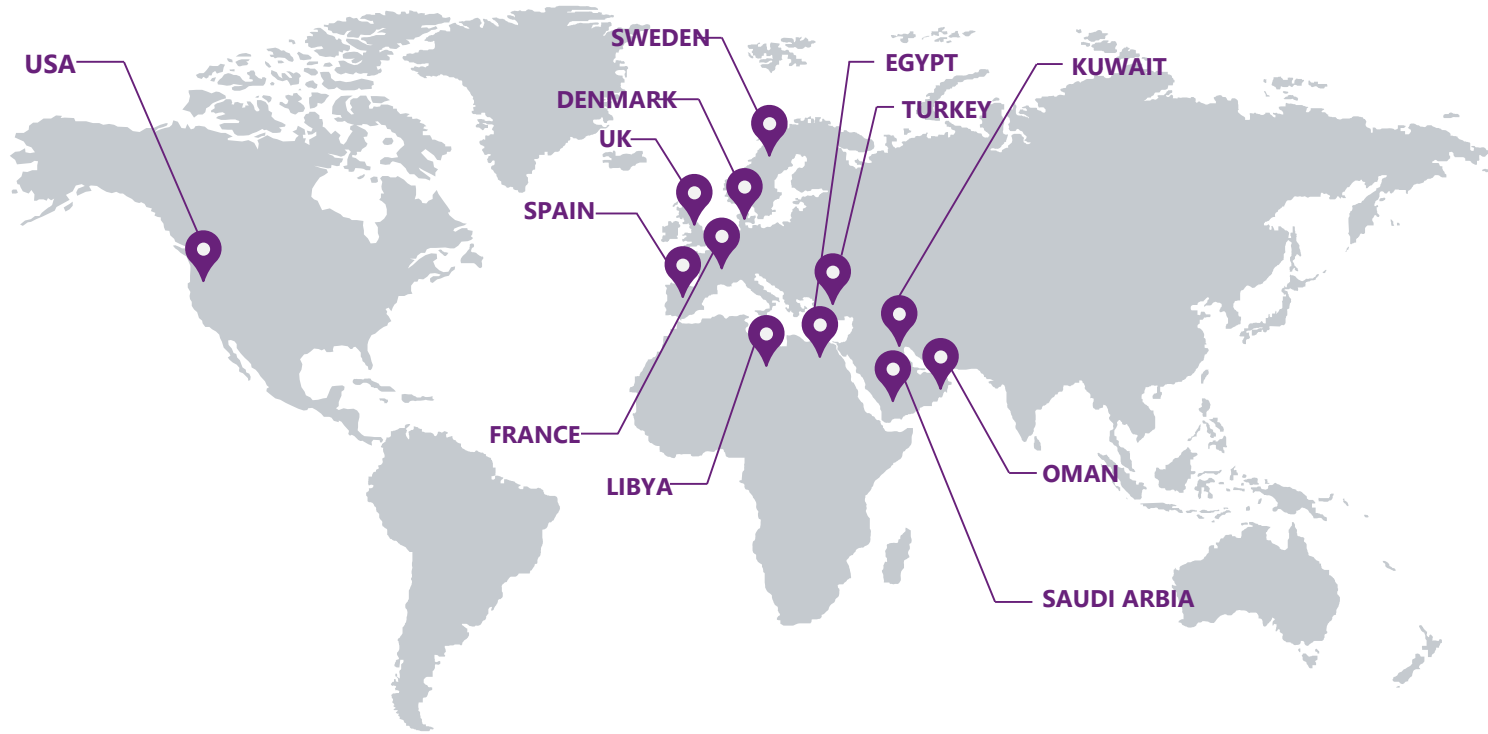


Mohamed Radwan

mohamedradwan.com

Global Experience

12+ Countries



Projects

| Session/Events

| Workshops

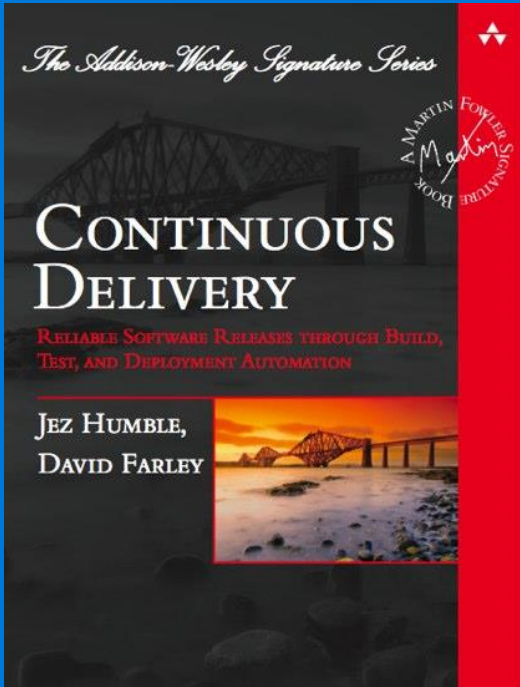
| Training

Agenda

Agenda

- Continuous Delivery Principles and Practices
- Build Task vs. Release Tasks
- What is The Stage Between Build and Deployment
- The Full Stage Stack
- Promote To Environments
- End-to-End workflow
- Demo
- Tips and Tricks
- Real pipeline in action

Principles and Practices of Continuous Delivery



- 8 Principles of Continuous Delivery
- 4 Practices of Continuous Delivery

8 Principles of Continuous Delivery

1. The process for releasing/deploying software MUST be repeatable and reliable
2. Automate everything!
3. If something is painful, do it more often
4. Keep everything in source control
5. Done means "released"
6. Build quality in
7. Everybody has responsibility for the release process.
8. Improve continuously

4 Practices of Continuous Delivery

1. Build binaries only once
2. Use precisely the same mechanism to deploy to every environment
3. Smoke test your deployment
4. If anything fails, stop the line!

Keep everything in source control

- Infrastructure as Code
- Configuration as Code
- Documentation as Code
- Pipelines as Code

Build binaries only once

- Storing packages in NuGet
- Storing packages in NPM
- Storing packages in Azure Artifacts
- Storing packages in Nexus
- Storing packages in Artifactory
- Storing docker images in Container Registry (ACR)
- And more.....

Build Tasks..... (CI)

- Compile
- Bundle and Minification
- Versioning The Application
- Run Unit Test/UI Test
- Calculate Code Coverage
- Run Code Analysis
- Measure Technical Debt, Code Smells
- Calculate and Run Code Metrics
- Create Code Documentation
- Package artifacts
- Store Package in repository

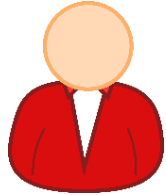


Release Tasks.....(CD)

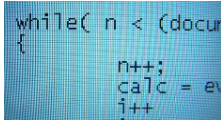
- Spin and Provision New Environments
- Configure Environments for Desired State
- Deploy App package to The Environment
- Install The Package on The Environment
- Configure The Package on The Environment
- Create Testing Data
- Run Integration and Acceptance Test
- Rollback to Previous version
- Promote Deployment to Next Environment
- Move DB from Production to preproduction
- Send email, send SMS, zip file and send it over network, twitter, Facebook
- Etc.



What is the Stage Between Build and Deployment



Dev



Code



Build



Unit Test



Package



Storage



Deployment



Deploy



QA












Test



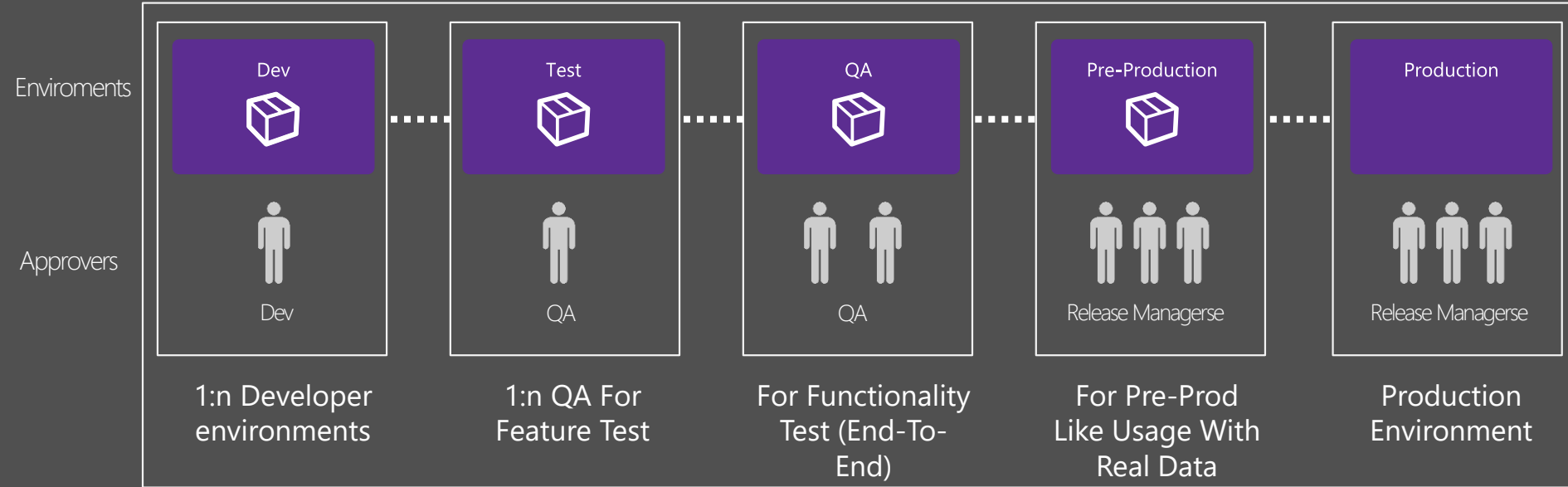
Ops

The Stage Stack

Approval		Approve Stage
		Notify Approvers
Tests		Manual Tests
		Automated Tests
		Create Test Data
App		Configure Application
		Deploy Application
Infra		Configure Environment
		Provision Environment

Manage the
full stack

Promote To Environments

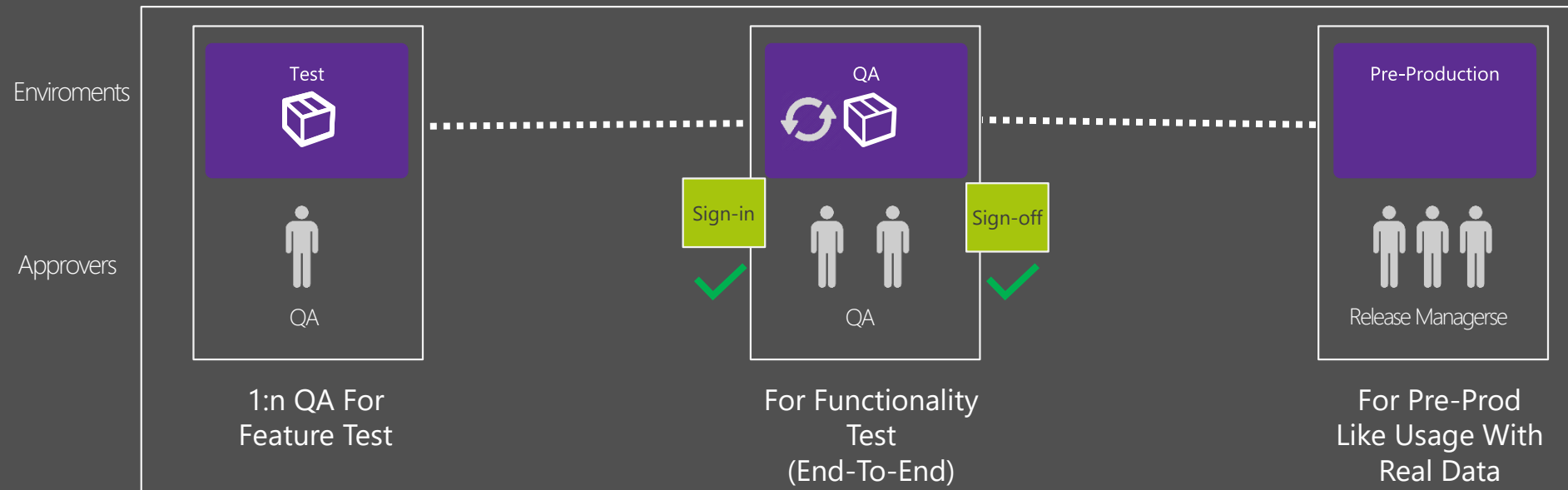


Sign-in and Sign-off process and automation

- Accept release to be deployed here
- Accepted that this release has all prerequisites DoD
- Accept to start working on this release

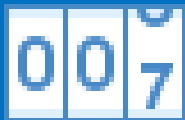
- Approved this release is completed and ready for next stage
- Next stage is ready and secure

BVT



Measuring DevOps

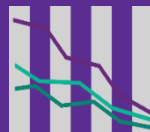
Frequency of deployment



Change lead time



Change fail rate



Mean Time To Detect (MTTD)



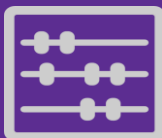
Speed of deployment



Speed of build verification (QA)



Incident/defect volumes



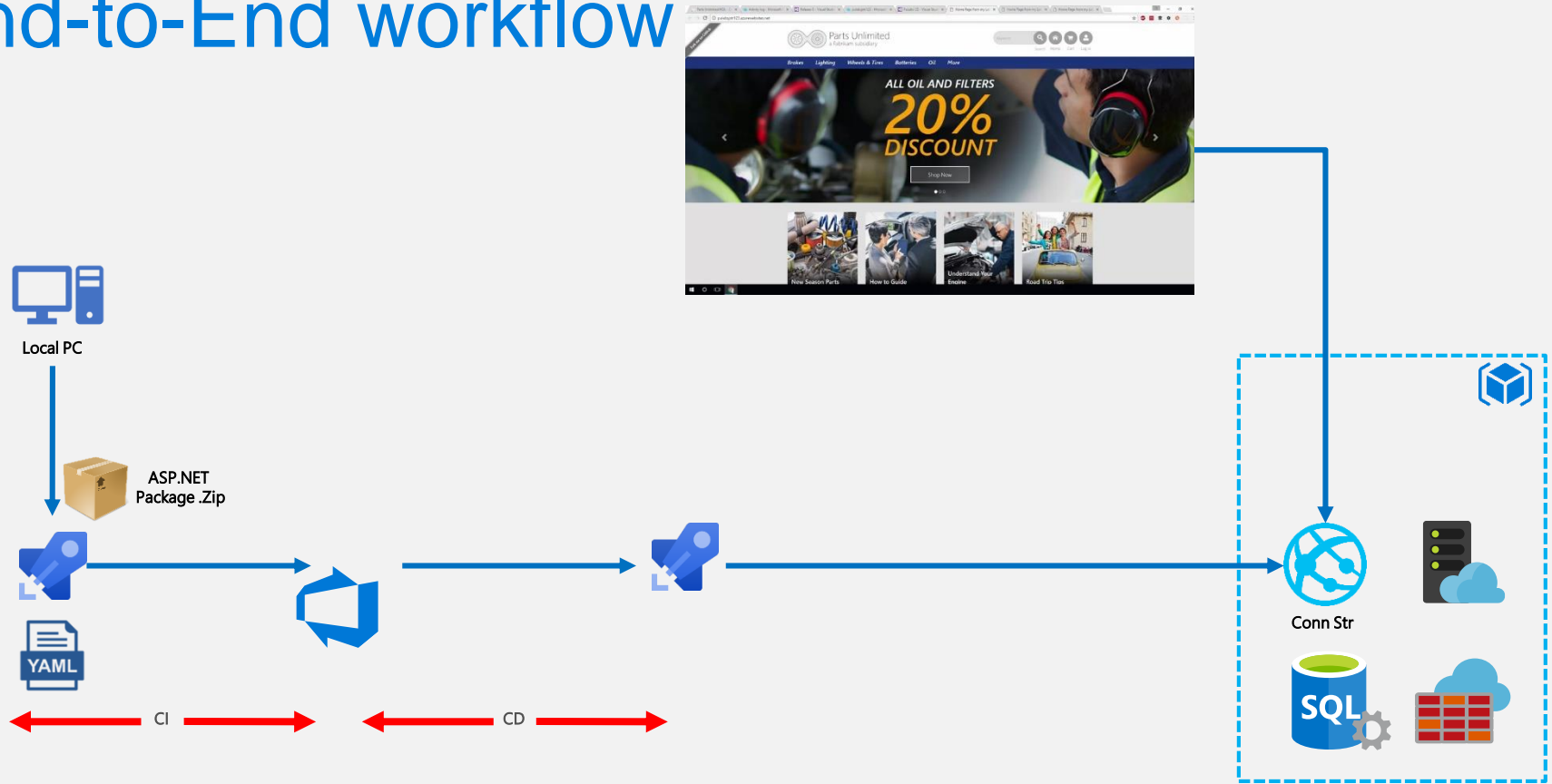
Mean Time To Repair (MTTR)



Agility performance indicators

Reliability performance indicators

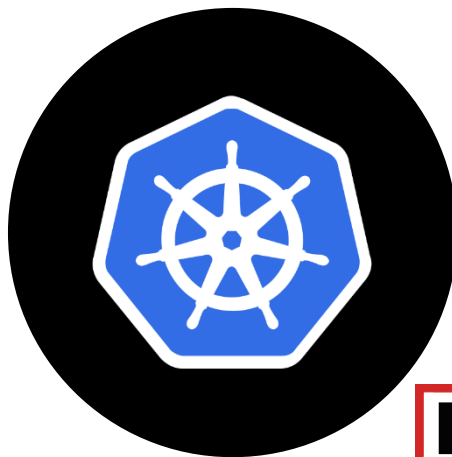
End-to-End workflow



Demo



**Upcoming
Session Alert**



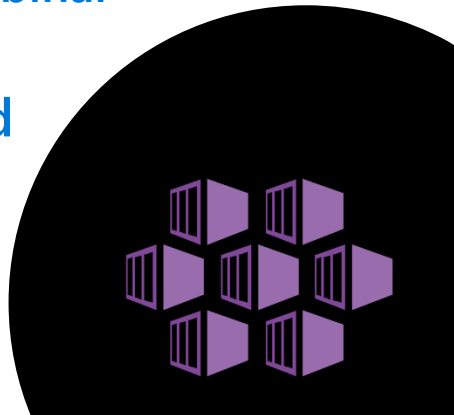
LIVE 
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CI/CD Build Test and Deploy to Kubernetes Cluster on Azure Cloud

May 30, 2020, 12:00 BST

Mohamed Radwan
Principal DevOps Consultant
Blog: mohamedradwan.com



**Repeated
2nd time**





DevOps Open Source EasyApp and Q&A

June 6, 2020 16:00 BST

Mohamed Radwan
Principal DevOps Consultant
Blog: mohamedradwan.com



What is DevOps Visions?



DevOps Visions is an open source initiative, that aims to help people all over the world to learn DevOps and Cloud.



Live Sessions/
Events



Mentoring
People



Open Source



Studying
Groups



Jobs

What is EasyApp?

Hello, Learn DevOps from DevOps Visions
Please fill all the texts in the fields.

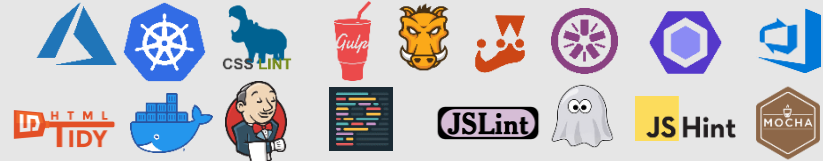
First Number :

Second Number :

Result :



<https://github.com/DevOpsVisions/EasyApp>



Learn by doing.....End-to-End

Your support really needed and appreciated!



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Q&A



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