

# DevOps

# DevOps

What is DevOps ?

Is it docker and k8s ?

Is it terraform?

is it CI CD pipelines?



# DevOps

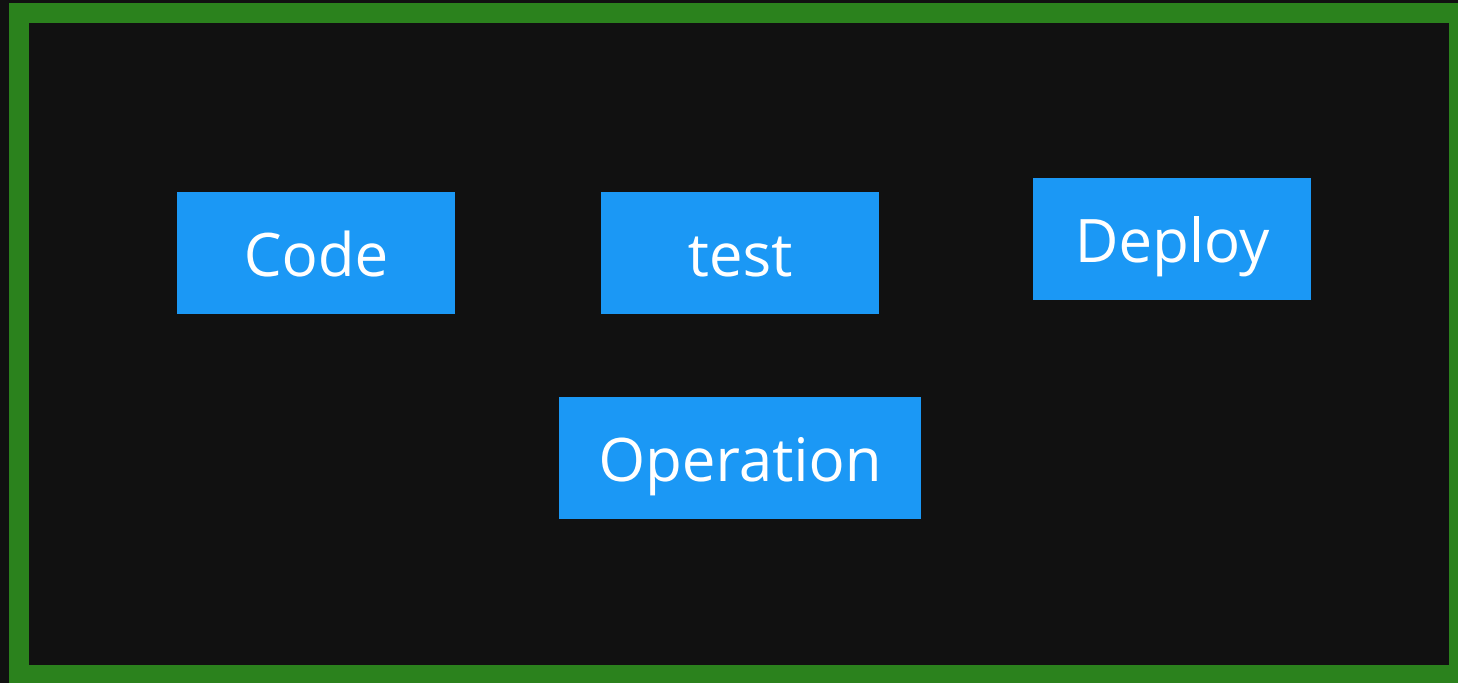
What is DevOps ?

It's a cultural practice in an organisation by development team and operations team to use each other's tool, to smooth out the process of software delivery.

- No formal definition

# DevOps

What is DevOps ?



Operation team uses a lot of dev tools

# DevOps

What is DevOps ?

If you want to implement DevOps in an organisation, you need to learn:

Core Values

Core Ideas

Methods

Practices

Tools

# DevOps

What is DevOps ?



Why should I learn DevOps ?

# DevOps

What is DevOps ?

Deploy faster - 50%

less failure

Better recovery time

Team thinks it as a  
complete process

front end, backend, QA, DB admins,  
network admins

# DevOps

DevOps CAMS

C

Culture

A

Automation

M

Measurement

S

Sharing



# DevOps

DevOps CAMS

Culture

talk to each other

people

---

process

---

tools

# DevOps

DevOps CAMS

Automation

not just chef or puppet

Thousands of servers are impossible to manage but do  
you need thousand servers ?

how much can you automate ? or should you automate ?

# DevOps

## DevOps CAMS

Measurement

measure to improve

It's not just about infra measurement.

business measure, client activity and other pointers.

Recovery time, cycle time are obvious but it's important to measure and incentivise it.

# DevOps

## DevOps CAMS

Sharing

Share the GOAL

share responsibility, share ownership and no escape goat.

feedback loop is important

# DevOps

DevOps 3 ways



`ineuron.ai`

# DevOps

DevOps 3 ways

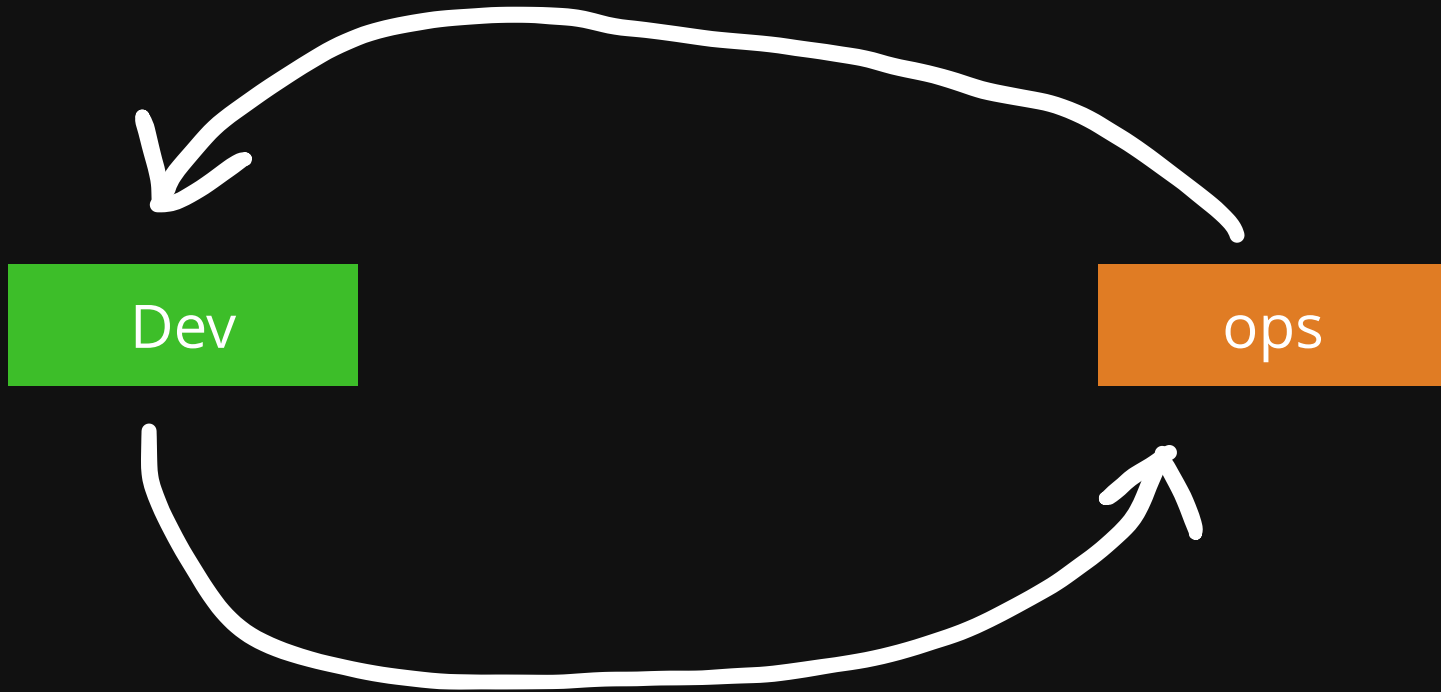
flow thinking



# DevOps

DevOps 3 ways

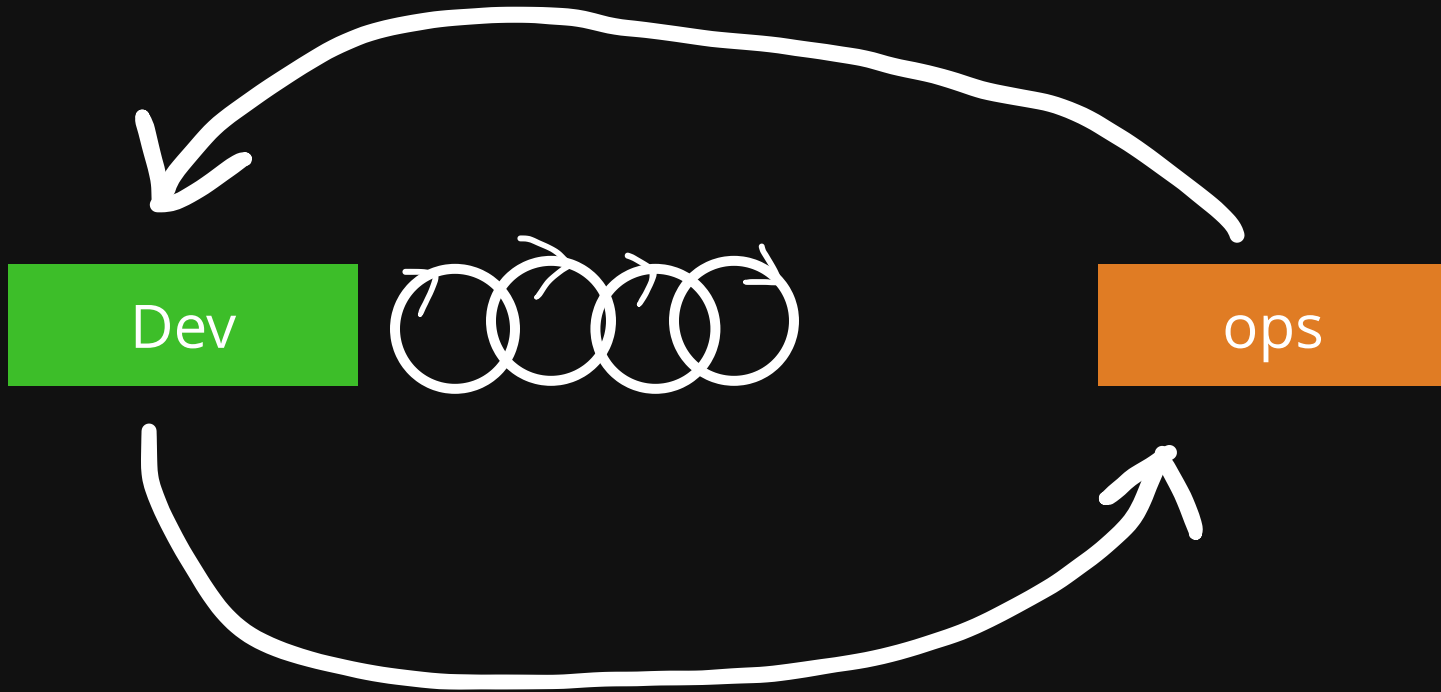
amplify feedback



# DevOps

DevOps 3 ways

experiment and learn





# DevOps

## DevOps 3 ways

analysing is good but sometimes  
trying only gives answer. what suits  
for others might not suit your  
organisation. Don't hesitate to  
experiment in work flows



# DevOps

Big overview to remember

People over process over tools

Continuous delivery

lean management

Infrastructure as code

# DevOps

# Tools

Hotstar case study

[https://www.youtube.com/watch?  
v=QjvyiyH4rr0](https://www.youtube.com/watch?v=QjvyiyH4rr0)

ineuron.ai

# DevOps

## IT Divide

Developers want to deliver features fast  
and deploy them quickly.

Ops wants system to be stable and uptime  
is most important to them.

# DevOps

Blameless Postmortems

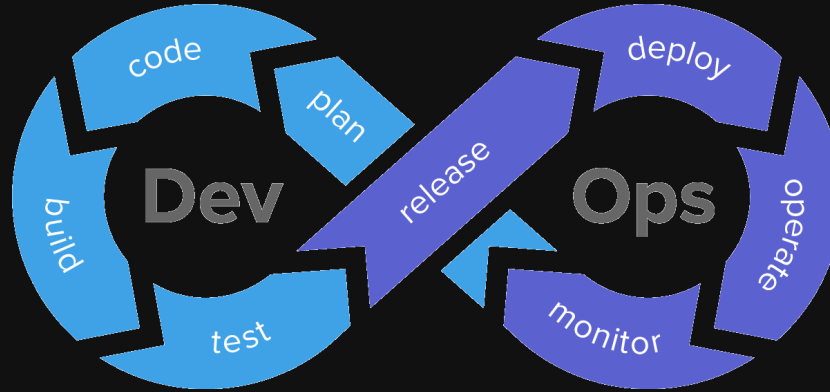
transparent downtime

Integrate team - devs and Ops

Extension of agile

IAAC - GIT for ops

# DevOps



## DevOps Lifecycle

# DevOps

## Terms

Provisioning

Server is ready with OS,  
software and networking

Deployment

adding or upgrading software  
on server

Orchestration

coordinated operations on  
multiple systems

# DevOps

## Terms

Configuration  
management

managing server  
configuration via files such as  
ram, space, dependency  
softwares etc.

Imperative  
(procedural)

commands to produce  
desired state

Declarative  
(procedural)

desired state is defined and  
tools will achieve it



# DevOps

## Terms

idempotent

repeat execution and same  
result

blue green  
deployment

Identical deployment, used as  
switch

Continuous  
Integration

Build and unit test at every  
checkin

# DevOps

## Terms

Continuous  
Delivery

deploy on production live  
environment at every checkin

Continuous  
Deployment

After unit testing, deploy  
changes to production in  
small batches