

# DevOps Journey to DevSecOps

Phase -1

# About Me

- DevOps Engineer
- Security Enthusiast



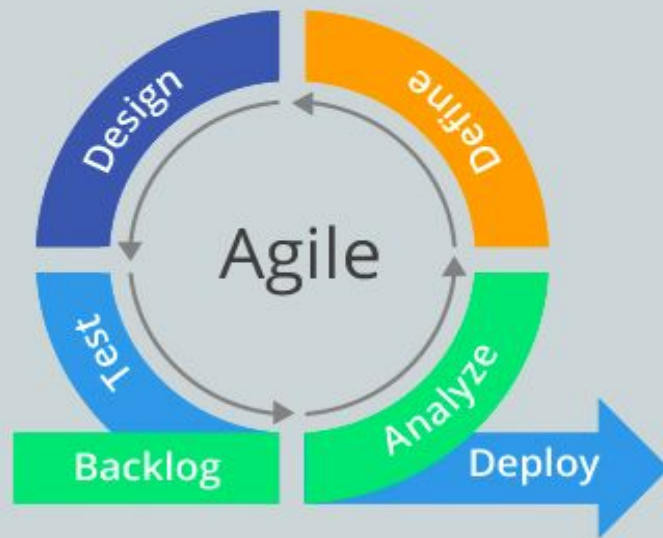
<https://github.com/shramikawale>

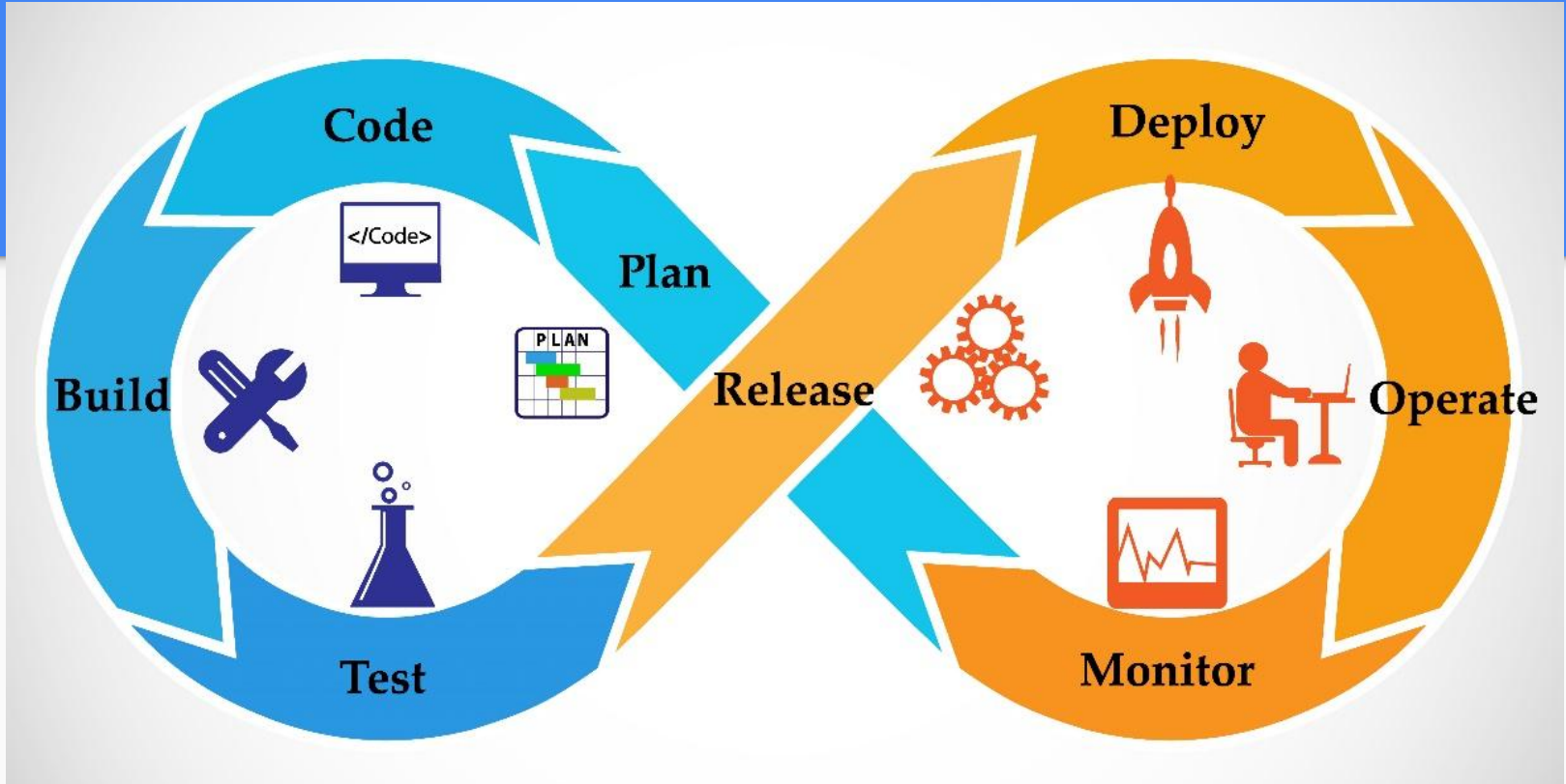
<https://www.linkedin.com/in/shramik-awale-99a460b3/>

# Content

- Brief on DevOps
- Career and Benefits on DevOps
- Why is it emerging?
- Different tools used by DevOps
- Conclusion
- References

# Waterfall vs. Agile





**DevOps**

# What is DevOps?

Combinations of cultural philosophies, practices and tools that increases organization's ability to deliver applications and services at **high velocity** and makes everyone more **collaborative and responsive to change**.

# CALMS

**C**ulture

**A**utomation

**L**ean

**M**easurements

**S**haring

# Culture

- Focus on people.
- Encourage to collaboration & communication.
- Continuous Improvement.
- Help People understand DevOps.



# Automation

- Focus on Continuous Delivery.
- Environment setup.
- Chat Bot.
- Continuous Integration and Continuous Deployment.
- Continuous Testing and Continuous Monitoring.

# Lean

- Focus on the value.
- Asking better questions to the clients.
- Lead time: Visualizing Productions metrics.
- Case studies.

# Measurements

- ❖ Provide feedback to everyone.
  - Failures in production and when it is fixed.
  - The number of defects that are found during a given unit of time.
  - Change lead time (Duration of new release in production).
  - The percentage of tickets mapped to releases.
  - The percentage of unplanned issues.

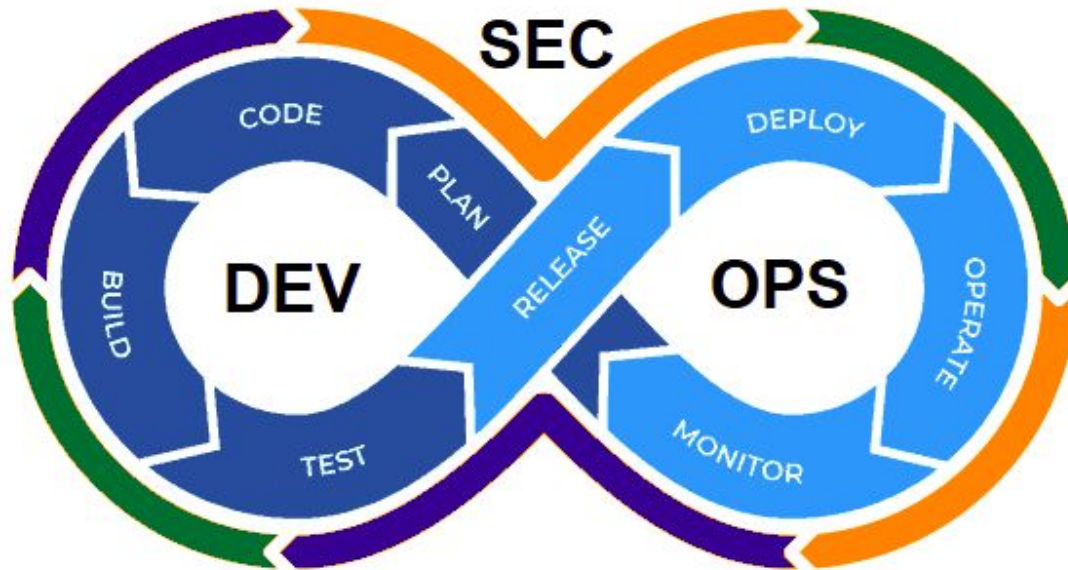
# Sharing - Soft Skill

- Collaboration



- Communication.

# DevSecOps Cycle



# DevSecOps Architecture

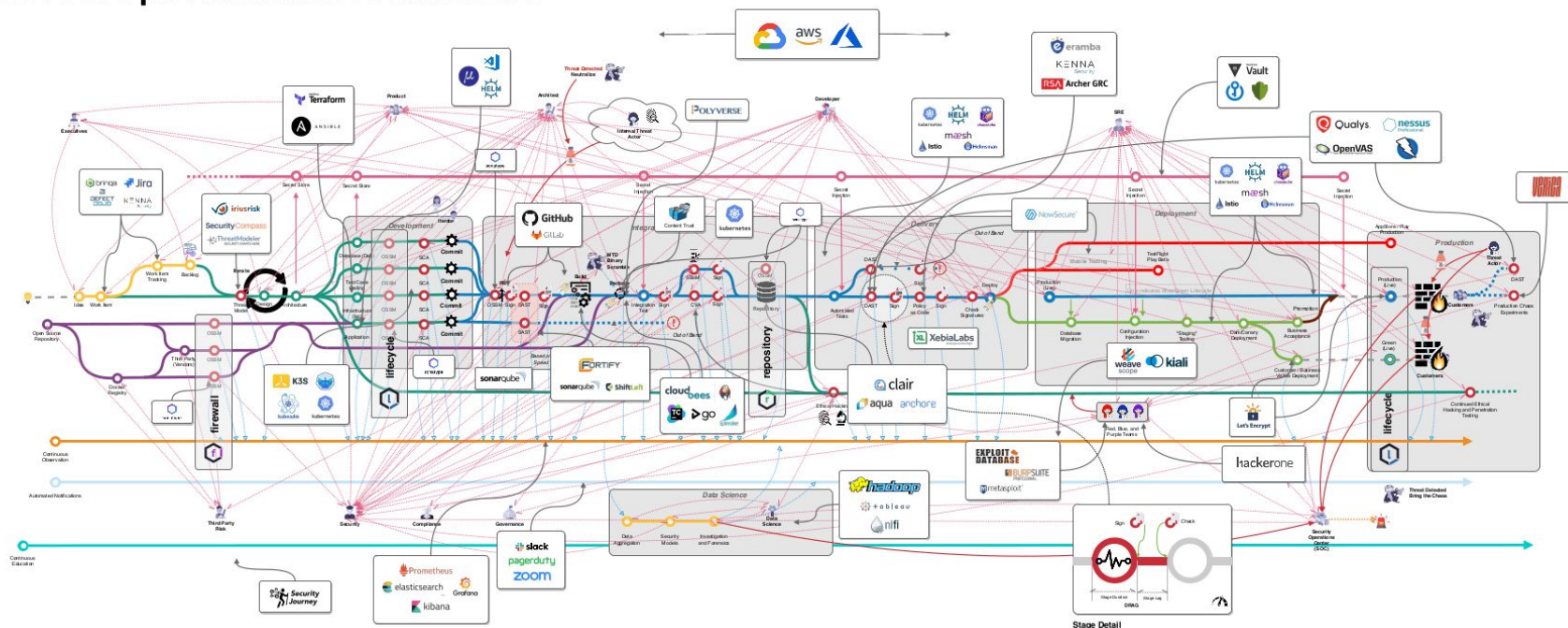
## DevSecOps Reference Architecture

### Level 5

Last Modified: January 16, 2020  
Last Modified By: D. Salami

### Legend

- Security
- Manual
- Automated
- Business
- Green Deploy Environment
- Supply Chain
- Secret Management
- Observation
- Notification
- Continuous Education
- Manage
- Alert
- Trigger
- Deployment Dashboard
- Secret Flow



# Benefits of DevSecOps

Cost Savings

Fast Recovery

Enhanced Threat Hunting

Improved Overall Security

Transparent Culture

Constant Improvement

## **Business Challenges**

Demand for Flexible, Efficient Infrastructure

Operational Complexity

Human Error

Lack of Accountability and Measurement

# Career on DevOps

- Adopt an Agile and Lean way of working
- Modernize software architecture
- Embrace Continuous Delivery
- Invest in Intelligent infrastructure
- Manage talent.



# Why is it emerging?

- Automation
- Continuous Integration and Continuous Delivery
- Everything as a Code
- Containerisation & Kubernetes
- Serverless Architecture
- AI and Data Science
- More Embedded Security - DevSecOps

## Collaborate

## Build

## Test

## Deploy

## Run

## Application Lifecycle Mgmt.



## Communication &amp; ChatOps



## Knowledge Sharing



## SCM/VCS



## CI



## Build



## Database Management



## Testing



## Load Testing



## Deployment



## Config Mgmt./Provisioning



## Artefact Management



## Cloud / IaaS / PaaS



## Orchestration &amp; Scheduling



## BI / Monitoring / Logging



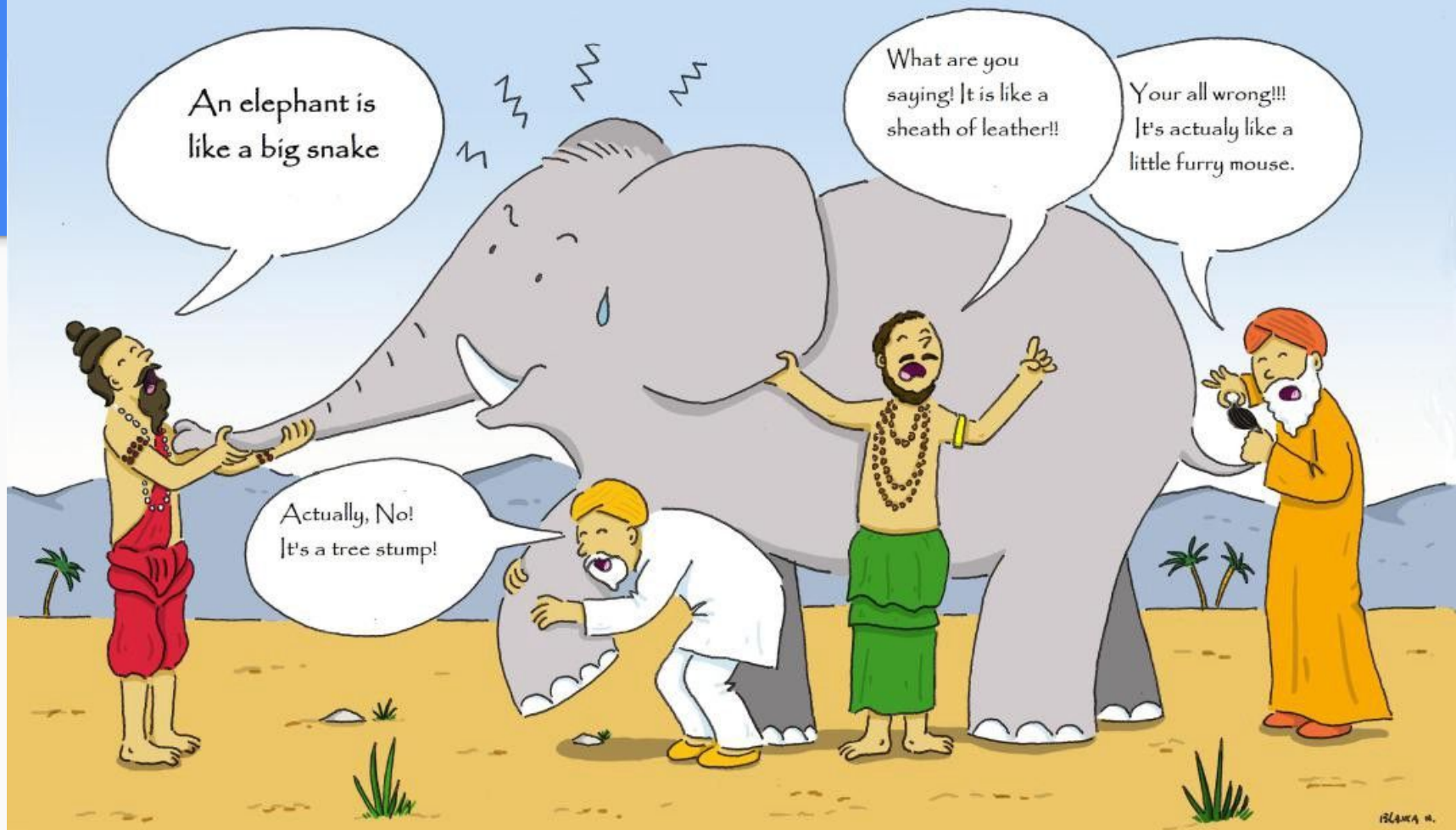
# Conclusion

DevSecOps is agile, secure, fast, reliable and collaborative way of building software for modern IT industry with growth mindset team.

So are we?

# Questions?

<https://docs.google.com/document/d/1b9nLUhgLsTOYizloZizC98Ofu-8K46Yvp5DelZ2b11M/edit?usp=sharing>



# References

1. <https://dzone.com/articles/8-devops-trends-to-know-in-2020>
2. <https://theagileadmin.com/what-is-devops/>
3. <https://github.com/kamranahmedse/developer-roadmap>
4. <https://alertops.com/guides/everything-you-need-to-know-about-devsecops>

# Thank You Note !!!

**Start today, love what you do and you will do wonders in life.**