



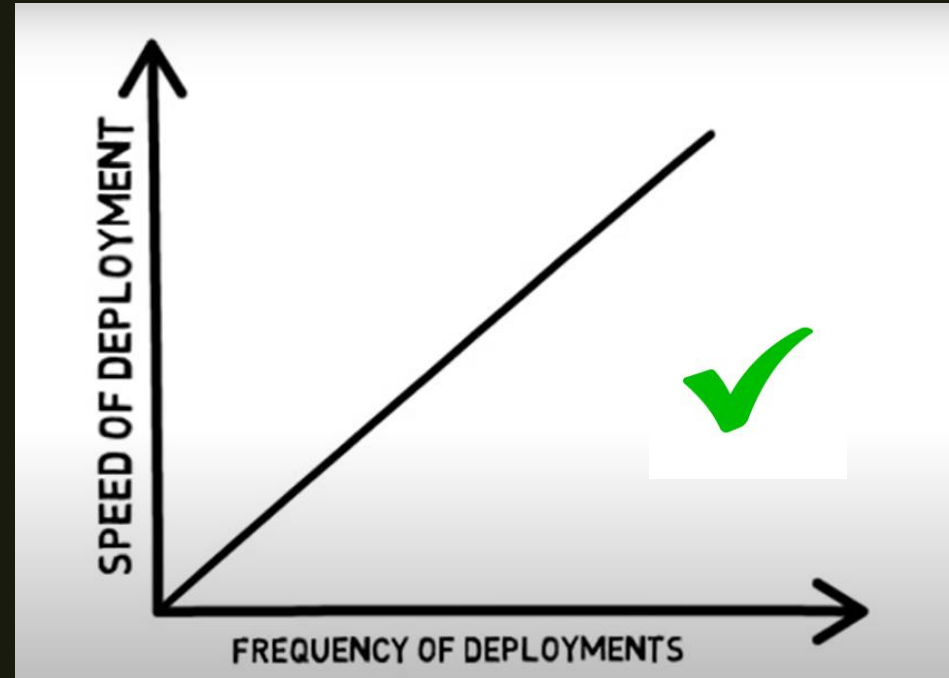
# “Feature Flags and How They Enable Continuous Deployment - DevOps Concept

By Nnamdi Ajoku

# What is DevOps ?

DevOps integrates developers and operations teams in order to improve collaboration and automation.

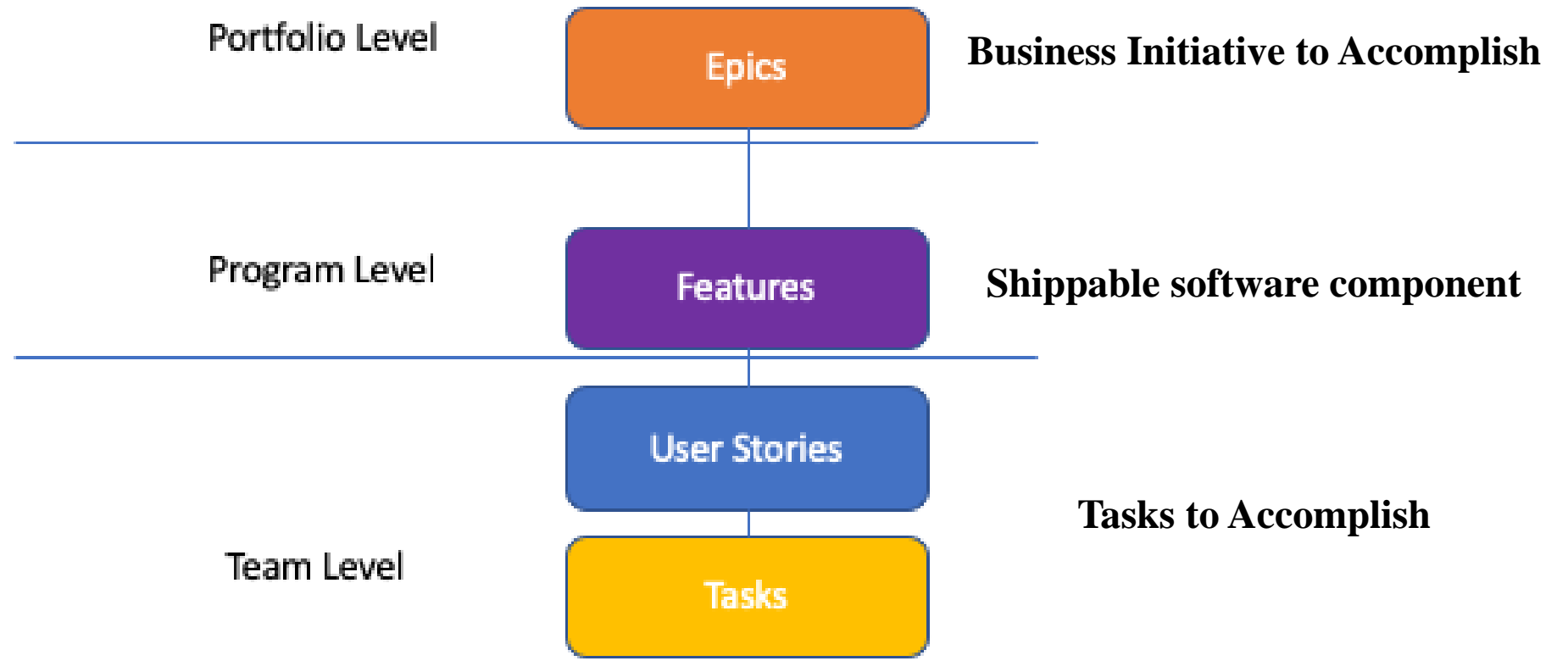
In essence, DevOps teams strive towards increase in speed of deployment and frequency of deployment.





# DEVOPS KEY TERMS

# Azure Hierarchical Structure



## online shopping cart - ... +

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Delivery Plans

Retrospectives

Repos

Project settings

## online shopping cart - Process Agile Te... ☆ 👤

Backlog

Analytics

+ New Work Item

🔄 View as Board

🔗 Column Options



...

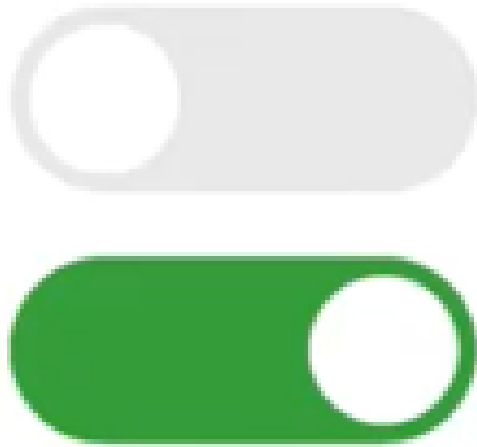
📅 Epics ▾

🔄

🔍

⚙️

 	Order	Work Item Type	Title	State	Effort	Busin...	Value Area	Tags
	1	Epic	👑 System Design	● New			Business	
		Feature	🏆 Use Case Design	● New			Business	
+		User Story	📄 Context Level Diagram	... ● New			Business	
		Task	📋 Draw diagram and prepare doc	● New				
		Task	📋 Review the Diagram	● New				
		Task	📋 Sign Off from Business	... ● New				
		User Story	📄 First Level DFD Diagram	● New			Business	
		User Story	📄 Second level DFD Diagram	● New			Business	
		User Story	📄 Implementation View	● New			Business	
		Feature	🏆 E R Diagram	● New			Business	
		Feature	> 🏆 Architecture Design	● New			Business	
		Feature	🏆 Data Base Design	● New			Business	
		Feature	> 🏆 Security	● New			Business	



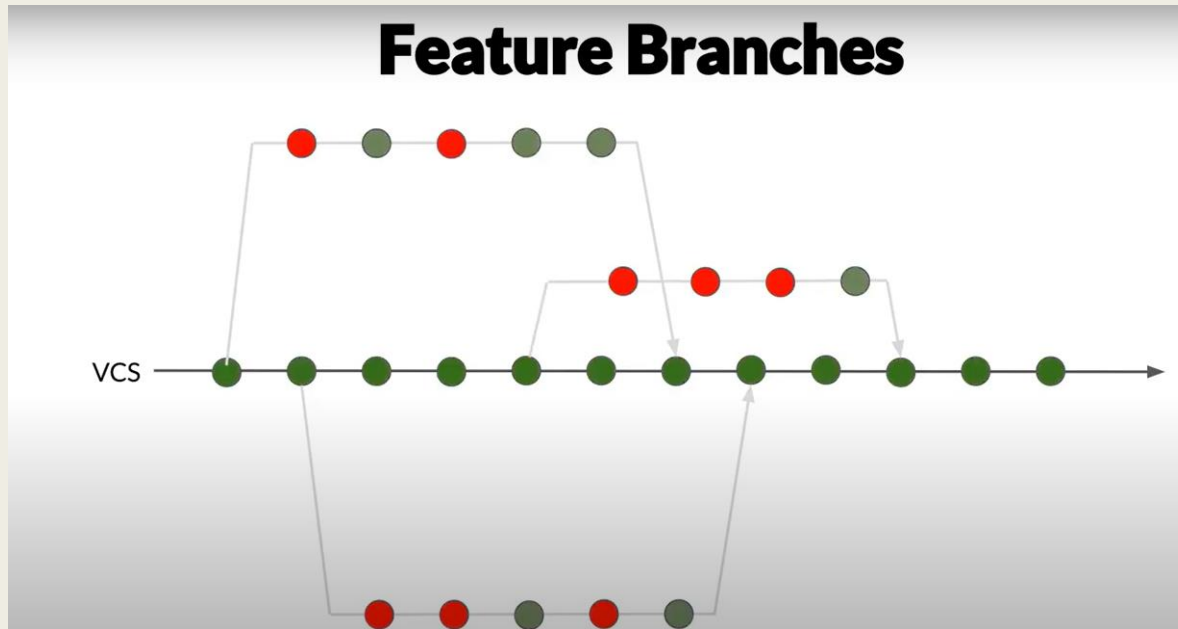
## **Continuous Deployment**

- **Is both the safe delivery of deployment and Releases.**

## **Feature Flags**

- **A software development tool (toggle) that allows developers to roll out a new feature gradually to only a subset of your users.**
- **Feature Flags basically toggle a Feature ON/OFF and take part in software delivery.**

# FEATURE BRANCHES



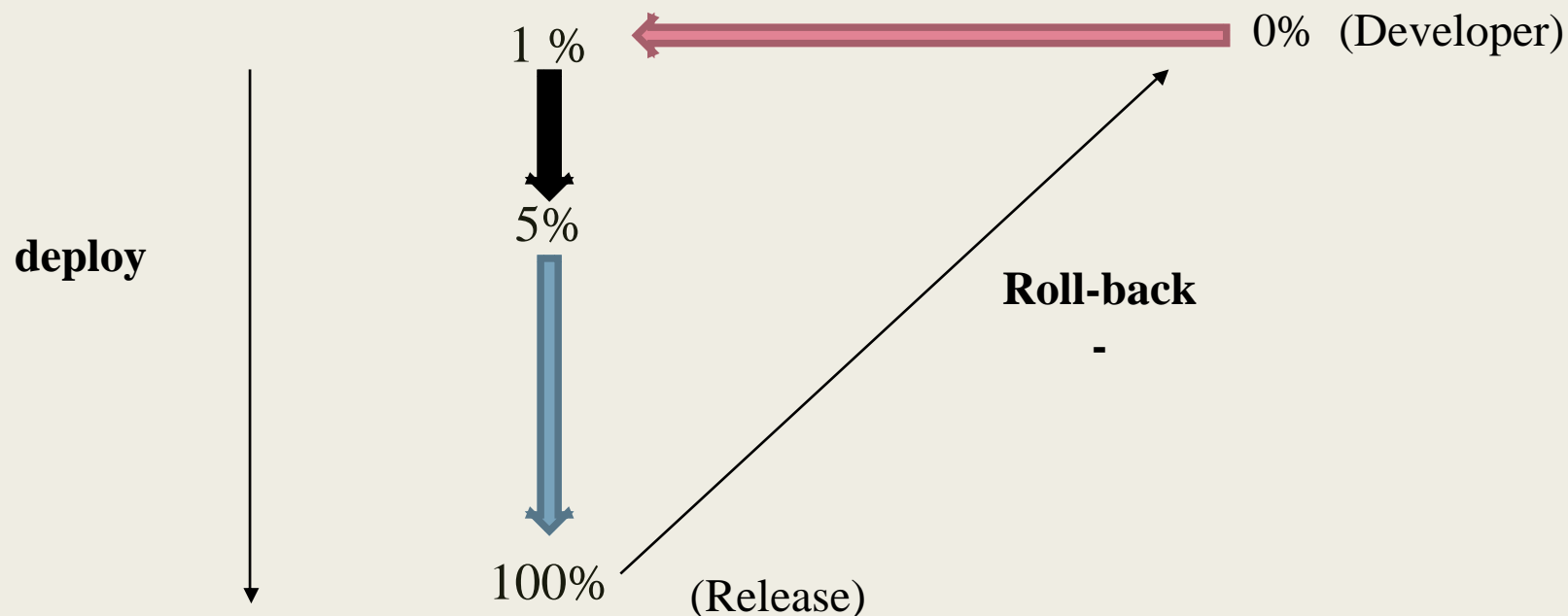
**Trunk/Main Branch contains all  
RELEASABLE features only.**



# Continuous Deployment & Feature Flags

## Canary Deployment

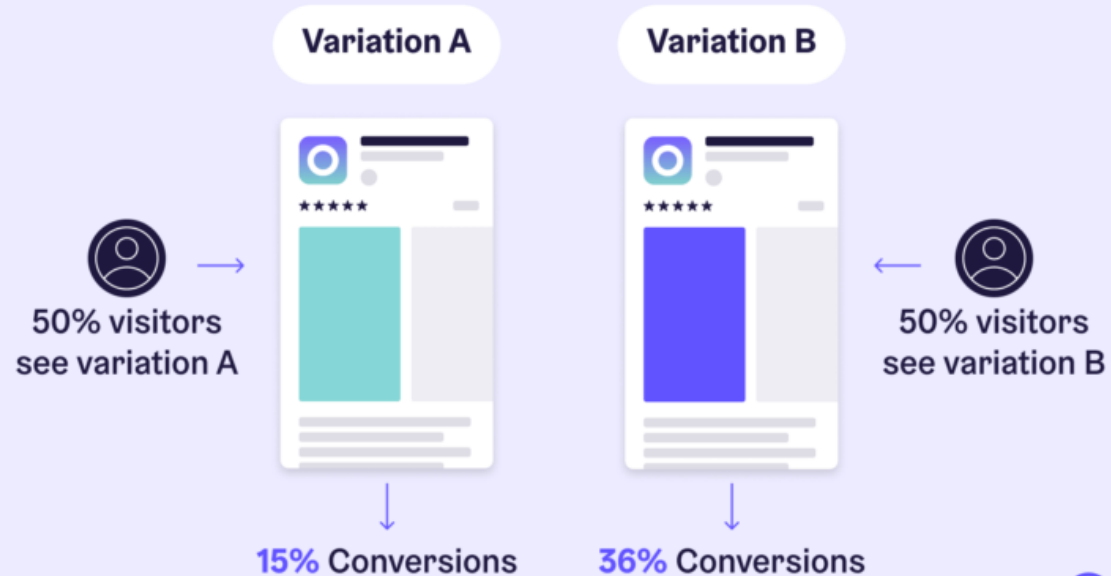
- DevOps Teams usually require gradual rollout of code:



- Deployment is done in small chunks (with constant testing/debugging)
- Rollback is done if the Ops Team encounters errors with the rollout.
  - Each stage of deployment/rollback, feature flag is toggled.



## Mobile A/B Testing



**CARRYING  
OUT A/B  
TESTING**

# Feature Flag for New Feature

```
if FeatureFlagConfig.get("new-landing-page") :  
    showNewLandingPage()  
else:  
    showOldLandingPage()
```



# How Feature Flags Enable Continuous Deployment

- Shorter Development Cycle
- Decouple the business & technical decisions
- Lower Risk for the developer
- Ship & Roll-back when Ready
- Deployment of code in small chunks leads to faster deployment
- Faster Feedback Loop

# Don't Forget the Best Practices!



**Ensure to Remove All Feature Flags  
turned on for a Long Time.**



**THANK YOU.**