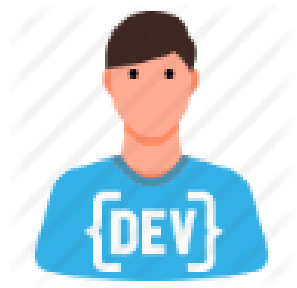


DevOps Overview

What is DevOps?



+



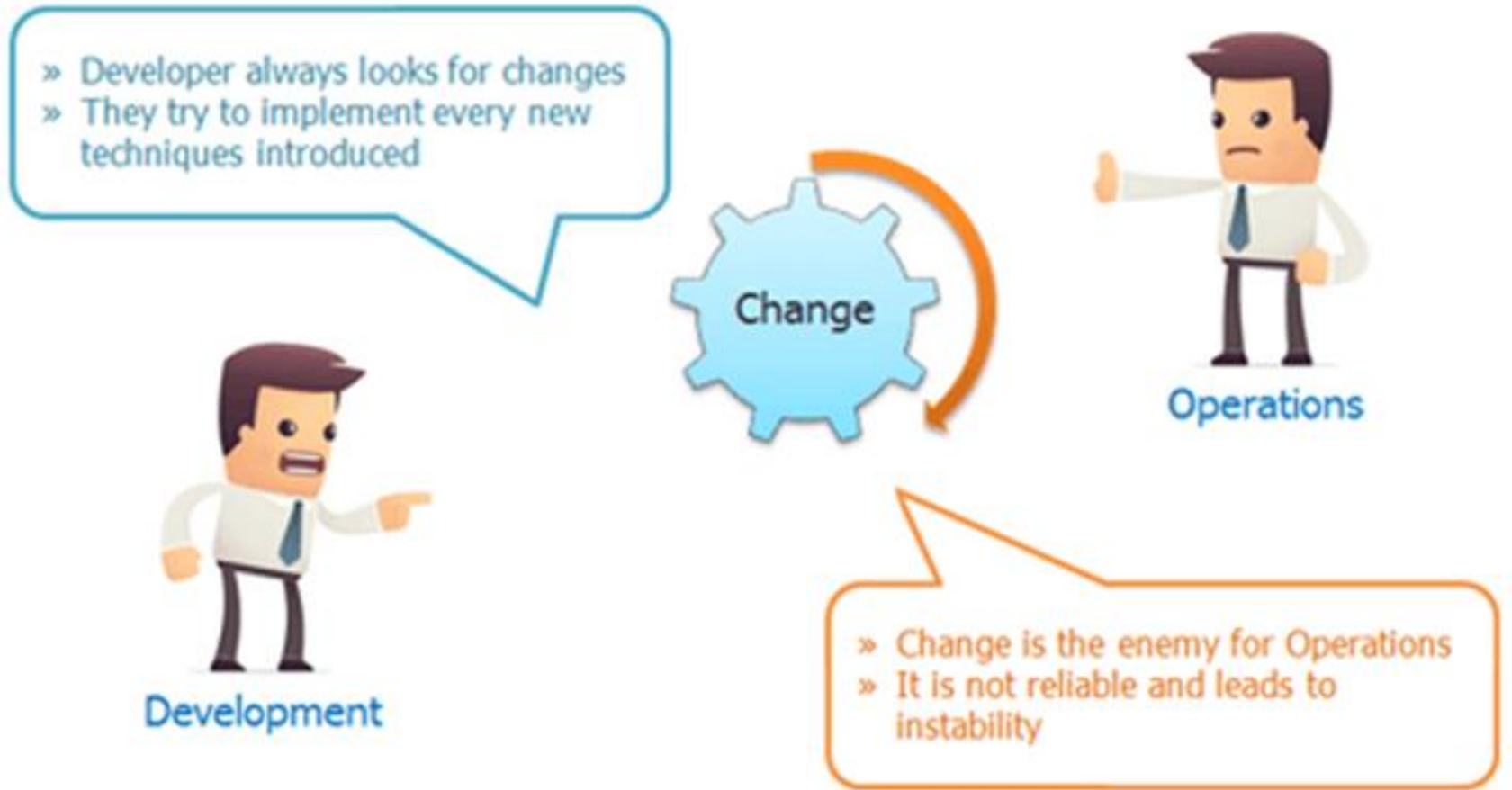
Developers & Testers

IT Operations

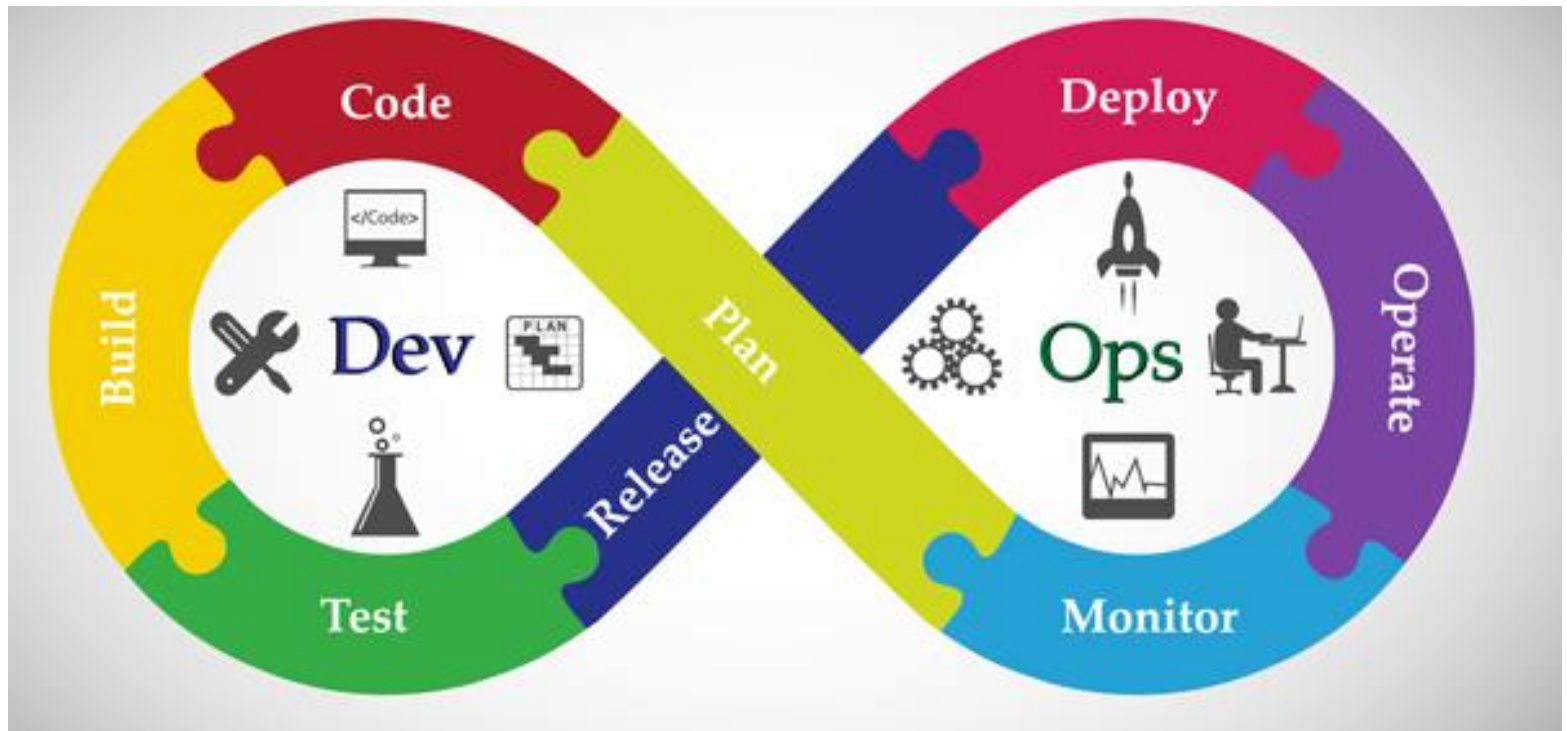
Traditional Development and Operation



Traditional Development and Operation



DevOps



The main principles of DevOps are automation, continuous delivery, and fast reaction to feedback.

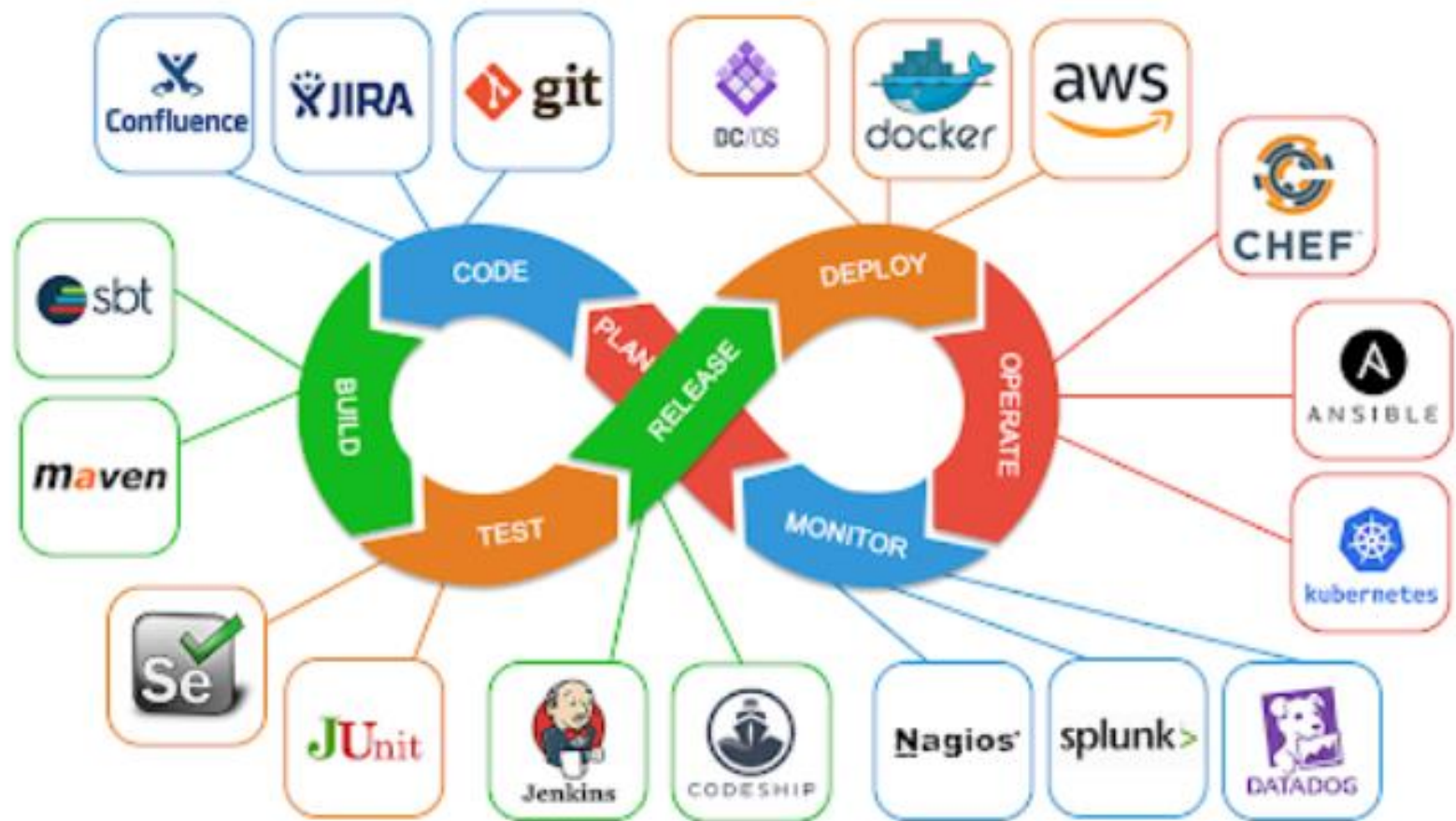
DevOps Process



DevOps Tools

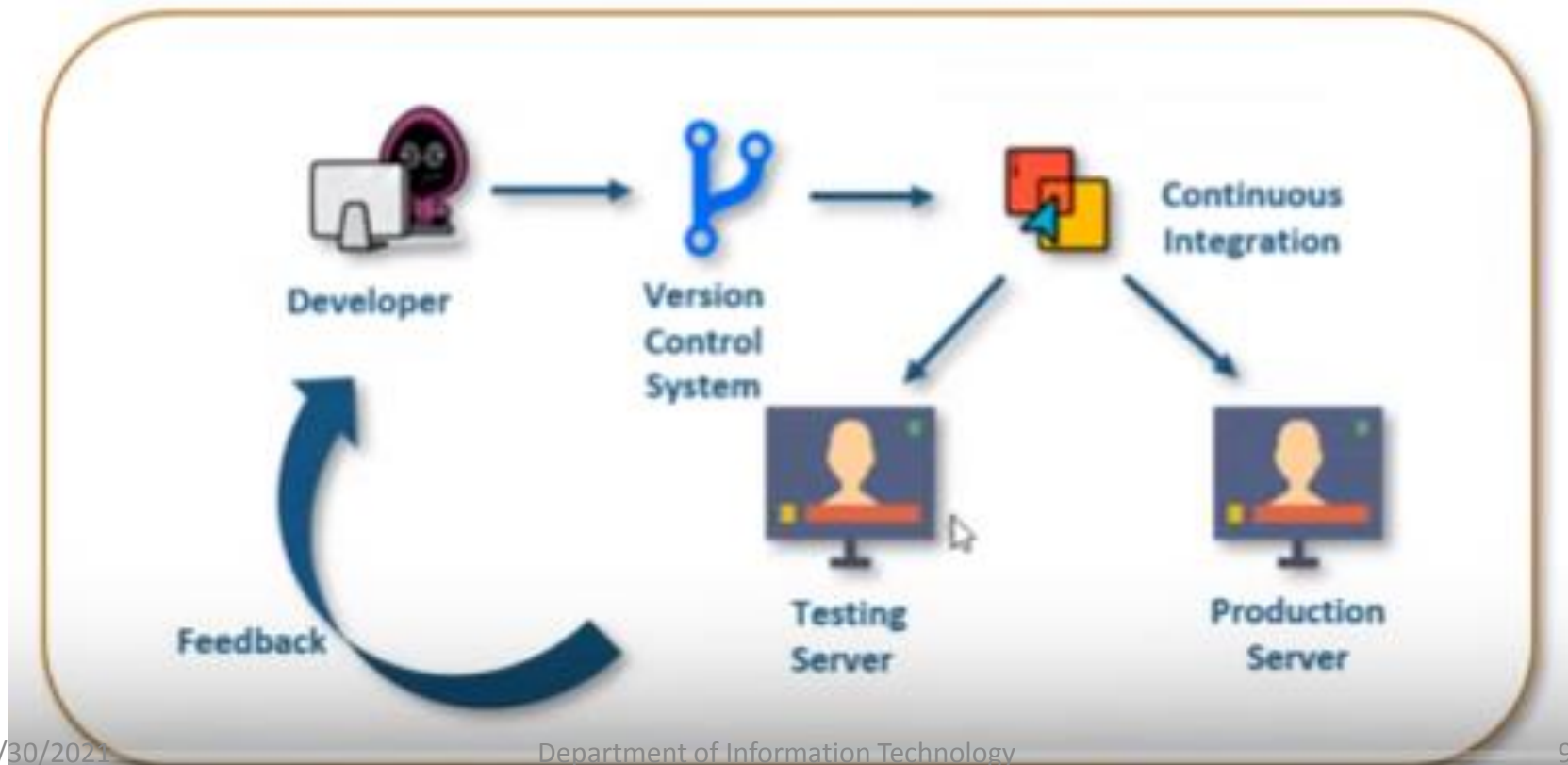


Best DevOps Tools

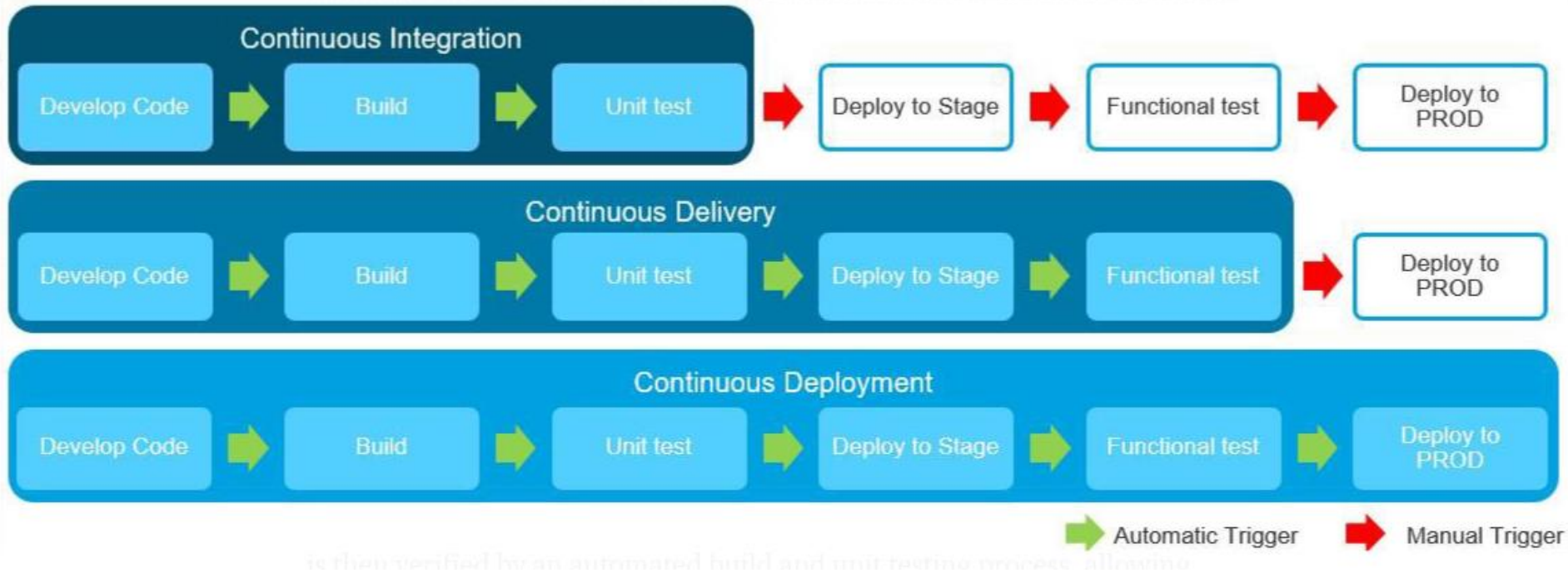


Continuous Integration

Shorter release cycles (several times in a day), creating small features and integrating them to the source code for automatic build, test and deploy for quicker feedback.

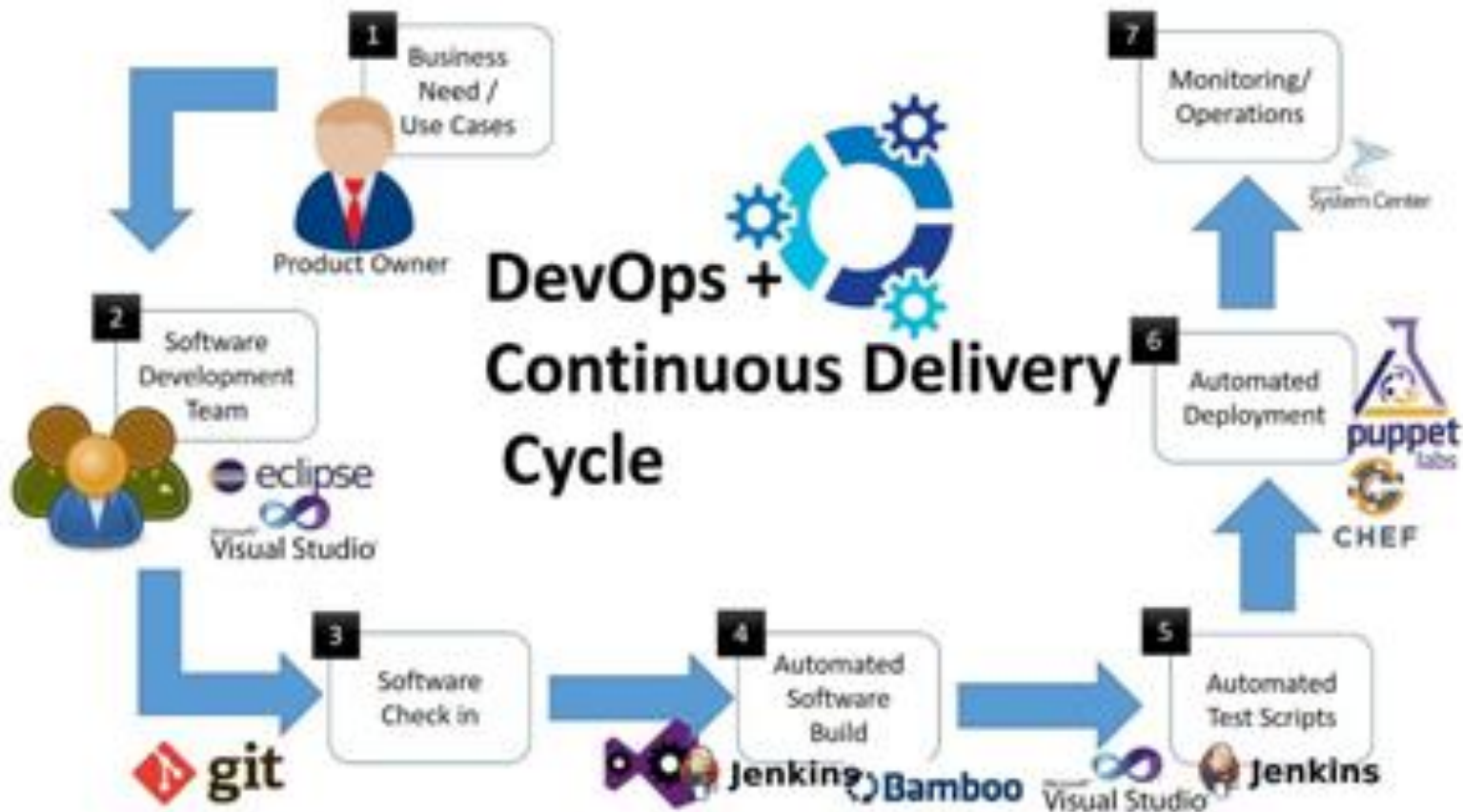


Automation

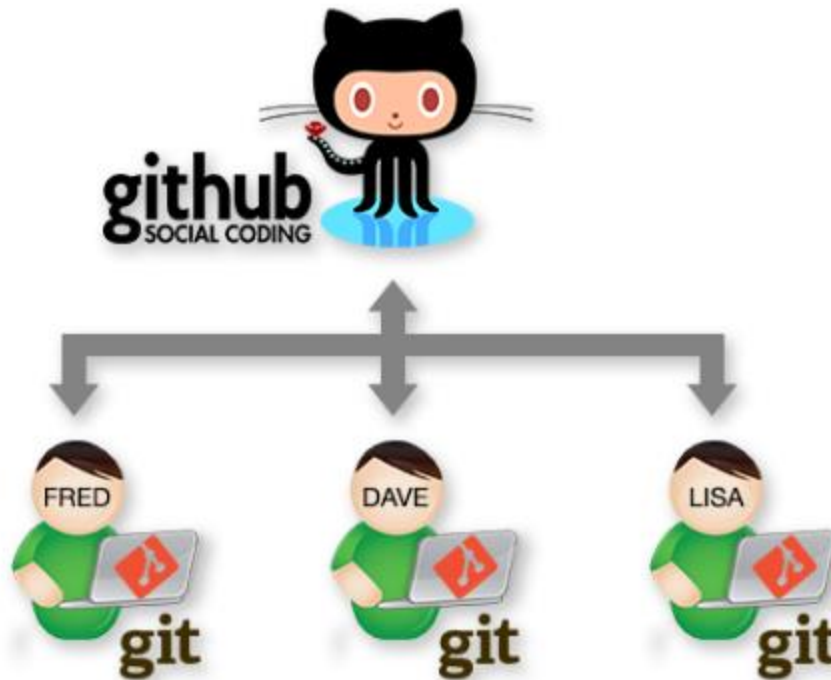


- Automation for builds, testing and deployments.
- By automating your delivery pipeline, the risk of human error can be minimized.

Automation



Git VS Github



Git is a tool a developer installs locally on their computer.
GitHub is an online service that stores code pushed to it from computers running the Git tool.

Jenkins



Adoption: Jenkins is extremely popular among the open-source community; hence, there are more than 147,000 active installations throughout the world and 1 million people are using it.



Plugins Support: With an extremely active open-source community, Jenkins has around 1000 plugins that allow it to integrate with most of the development, testing and deployment tools.



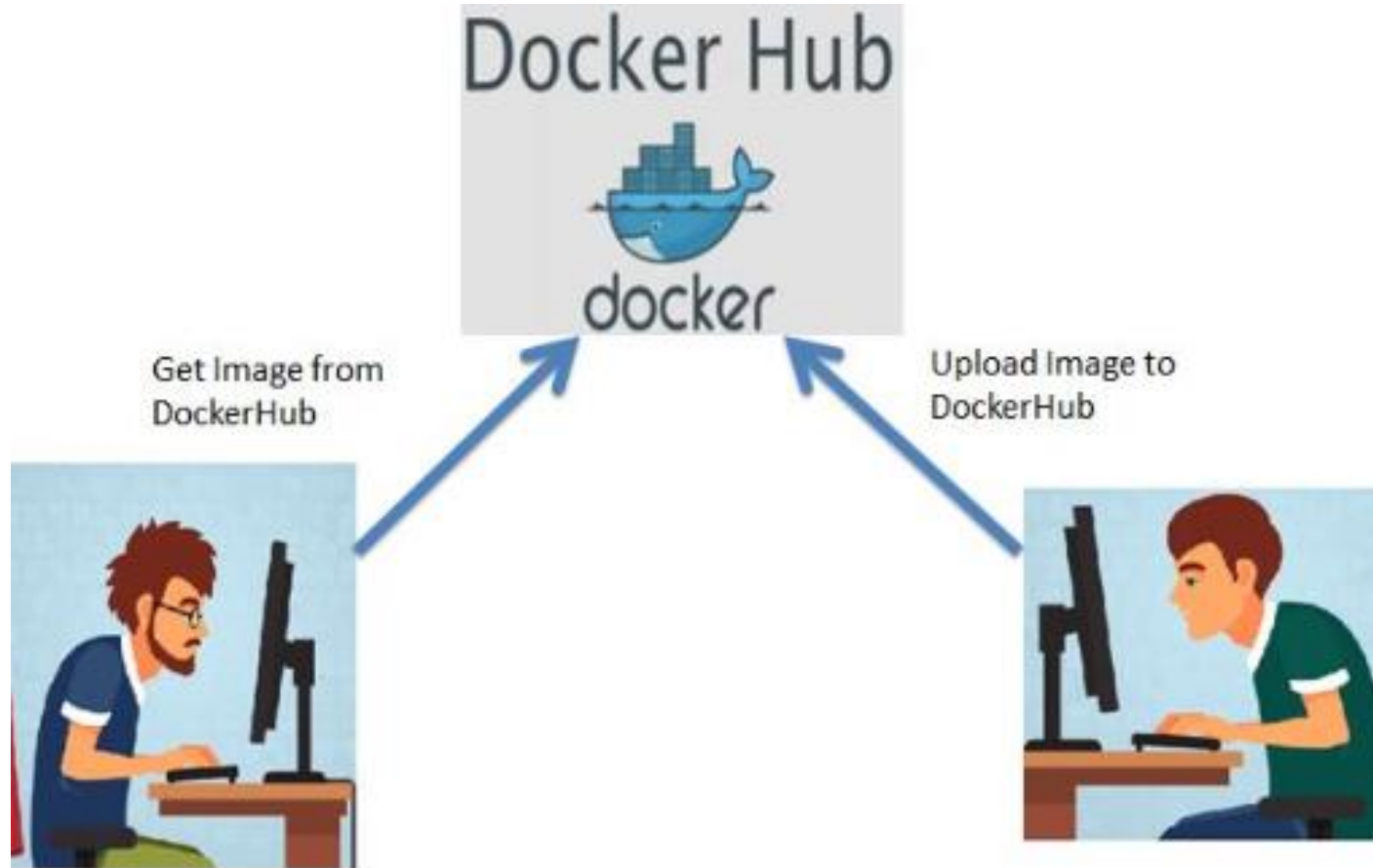
Docker



Docker

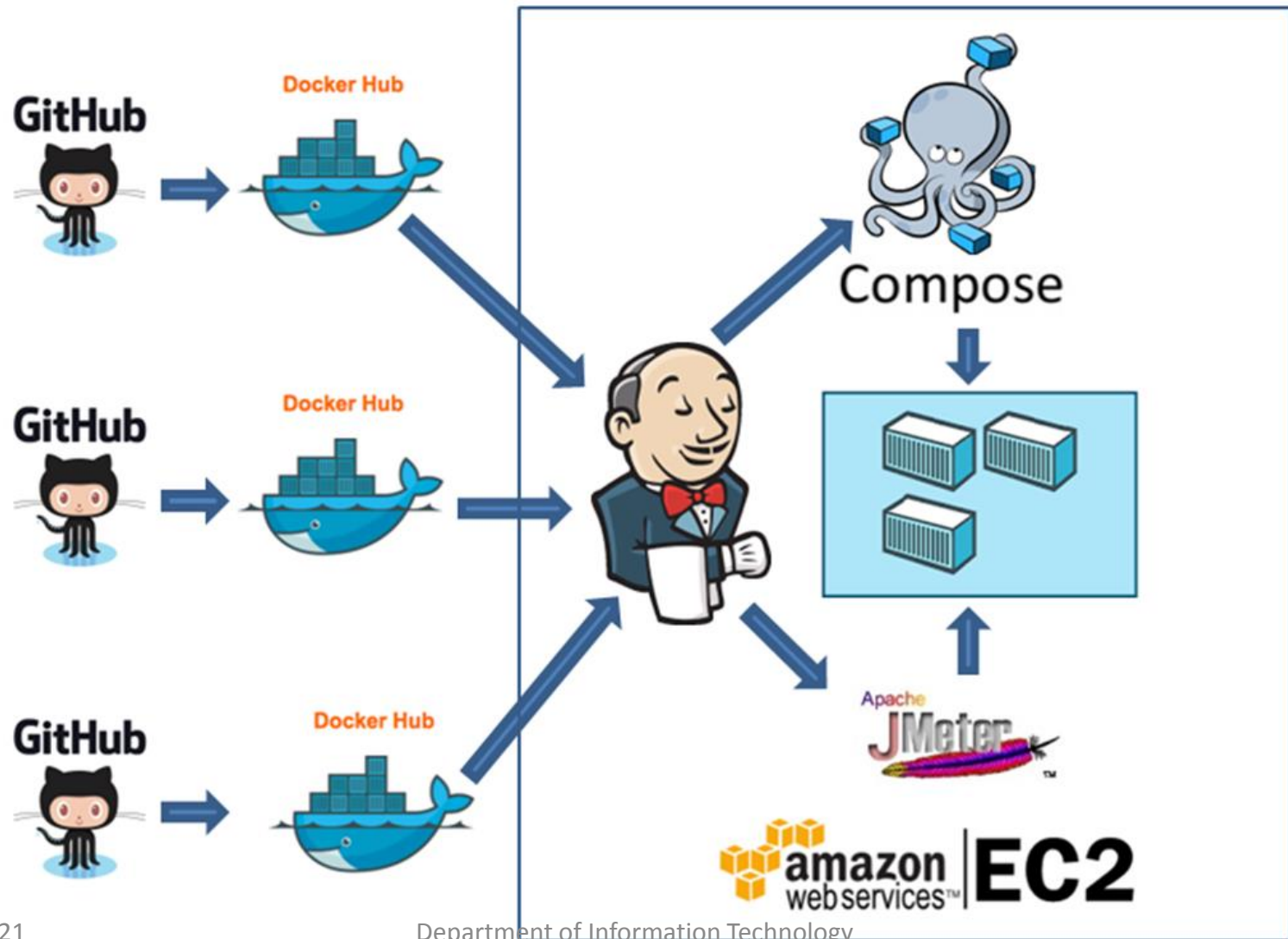


Docker Deployment



Share Work Environment using
Docker

Deployment Platform



Applications



Etsy - Shop for handmade, vintage, custom, and unique gifts.

Target- Corporation is the 8th-largest retailer in the United States

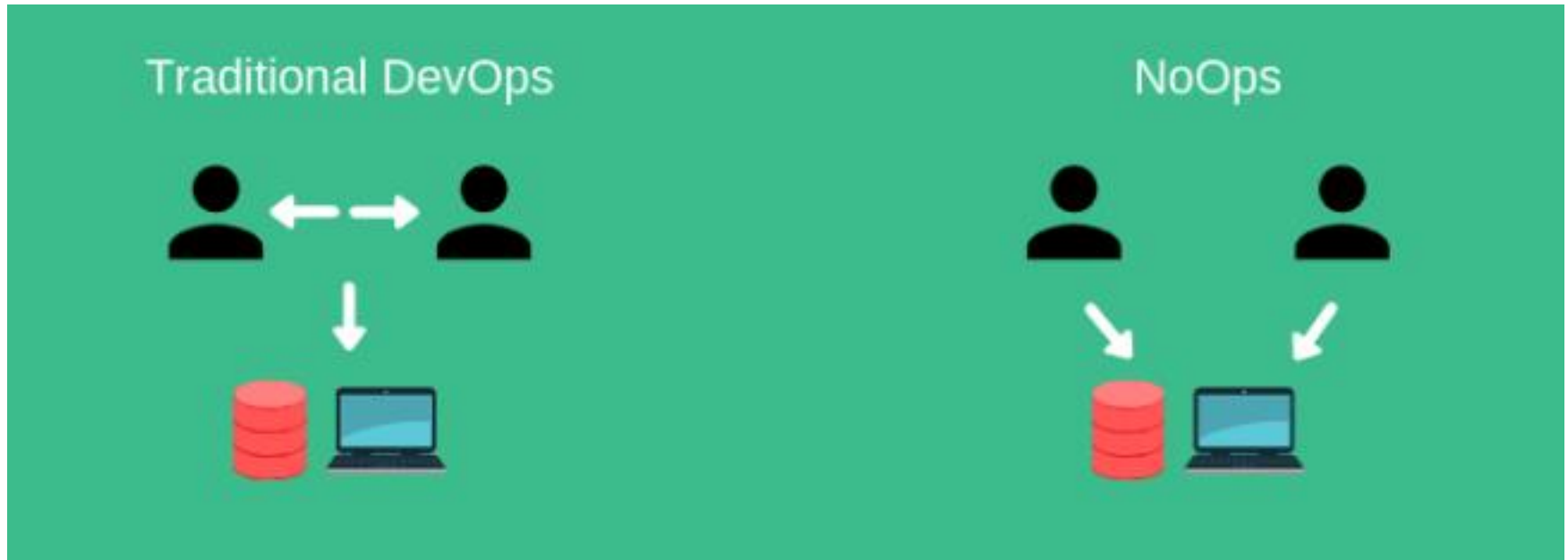
Hertz-American car rental company

Applications



What's Next ?

NoOps



NoOps



Platform-as-a-Service



Function-as-a-Service

NoOps



Google Cloud

NoOps



AWS Lambda



Azure Function



Cloud Function

MLOps

MLOps = ML + DEV + OPS



Experiment

Data Acquisition
Business Understanding
Initial Modeling

Develop

Modeling + Testing
Continuous Integration
Continuous Deployment

Operate

Continuous Delivery
Data Feedback Loop
System + Model Monitoring

DevSecOps



**INTEGRATING SECURITY INTO
PRODUCT LIFECYCLE;
DEVSECOPS**

Video