Introduction to DevOps and SRE

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Introduction to DevOps and SRE

Agenda:

- Introduction to DevOps
- DevOps LifeCycle
- SDLC
- Why DevOps ?
- Linux Intro & Commands
- Cloud Computing
- Launch EC2 instance
- Configure Web Server on AWS
- Security Group

"Jack of all trades, master of none."

Never attempt to master all the tools in one go! Take your time, understand the essentials of DevOps and learn as you become more and more comfortable as DevOps is huge in terms of the number of tools available.

What is DevOps ?

DevOps (a clipped compound of "development" and "operations") is a software

development and delivery process that emphasizes communication and

collaboration between product management, software development, and operations
professionals.

-- Wikipedia

What is SDLC ?

A wise man once said that if you fail to plan, you plan to fail. The Systems Development Life Cycle (SDLC) gives structure to the madness of getting from the beginning to the end of your project without forgetting a step. It's a type of project plan. There are a number of different SDLC methodologies used today to guide your way through projects.

Agile Model
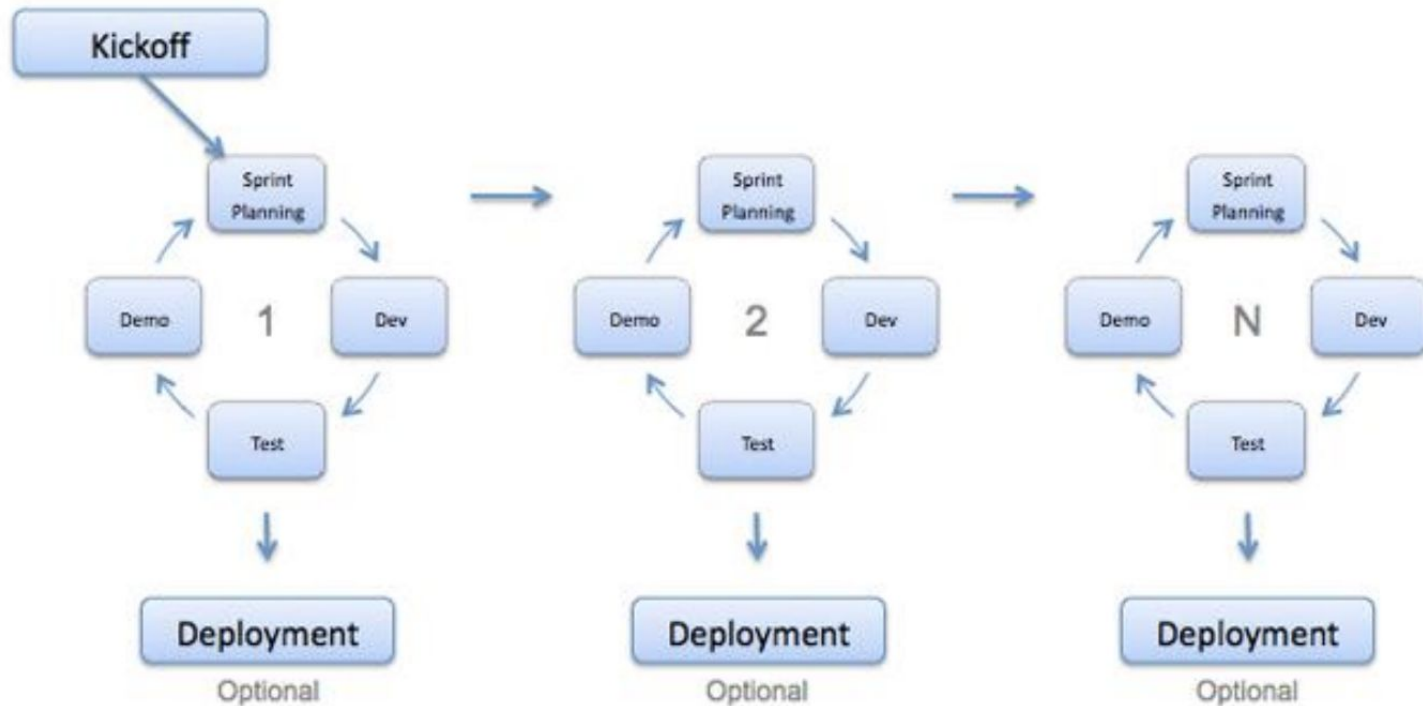
Why DevOps ?

Technical Benefits
- Continuous software delivery
- Less complexity to manage
- Faster resolution of problems

Cultural Benefits
- Happier, more productive teams
- Higher employee engagement
- Greater professional development opportunities

Business Benefits
- Faster delivery of features
- More stable operating environments
- Improved communication and collaboration
- More time to innovate (rather than fix/maintain)

DevOps & Agile
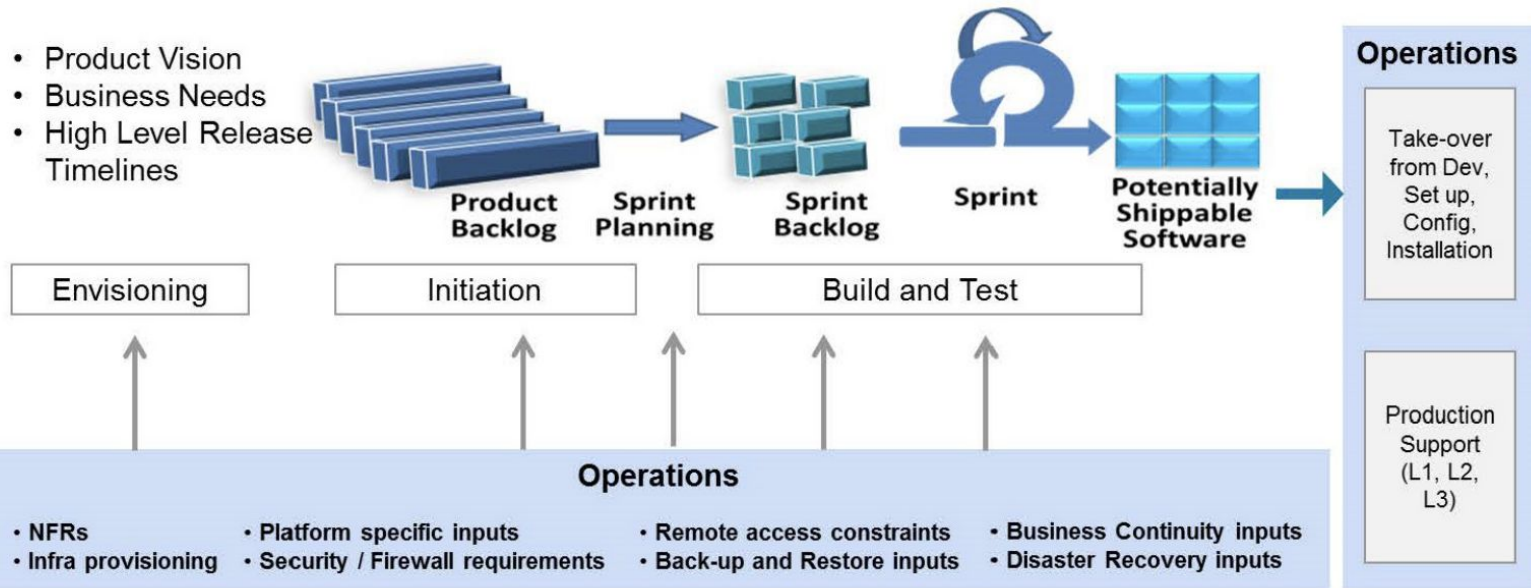
Similarities/Differences Between Agile and DevOps

- Agile emphasizes collaboration between developers and product management — DevOps includes the operations team
- Agile centers the flow of software from ideation to code completion — DevOps extends the focus to delivery and maintenance
- Agile emphasizes iterative development and small batches — DevOps focuses more on test and delivery automation
- Agile adds structure to planned work for developers — DevOps incorporates unplanned work common to operations teams
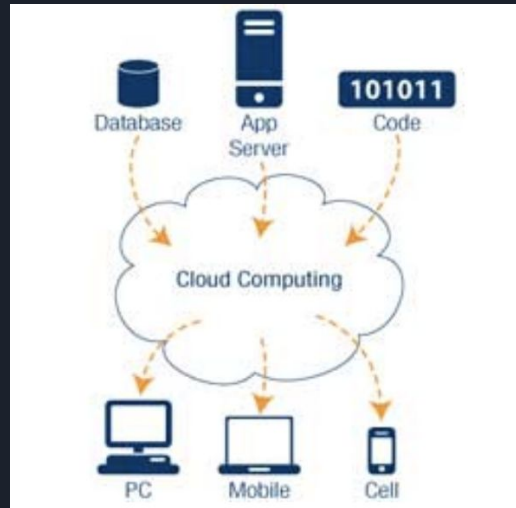
DevOps LifeCycle
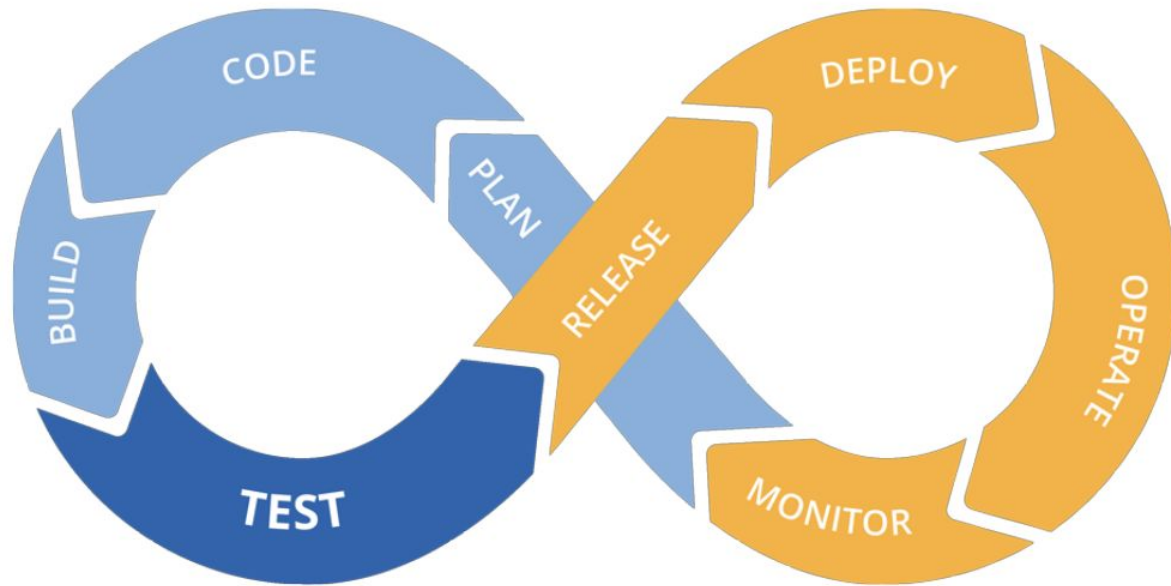
Introduction to Linux

Refer the documents

Cloud Computing

Cloud computing, often referred to as simply "the cloud," is the delivery of on-demand computing resources—everything from applications to data centers—over the internet on a pay-for-use basis.

Cloud Implementation Models

Used for a single organization; can be internally or externally hosted

Shared by several organizations; typically externally hosted, but may be can be internally hosted by one of the organizations

PRIVATE

COMMUNITY

HYBRID

PUBLIC

Composition of two or more clouds (private, community or public) that remain unique entities but are bound together, offering the benefits of multiple deployment models; is internally & externally hosted

Provisioned for open use for the public by a particular organization who also hosts the service