4/1/2022

1. Why the need for DevOps?
    a. To keep up the competition with other companies in the industry

2. What is DevOps?
    a. DevOps is a cultural change that requires trust, transparency and discipline across teams
    b. Development and operations is an extension of agile development environments that aims to enhance the process of software delivery as a whole.
    c. Development and operations engineers working together and following lean and agile principles and delivering software in a rapid and continuous manner
    d. Requires a change in culture, a new application design, leveraging automation, programmable platform
3. DevOps is not simply combining development and operations , not a separate team, not a tool, not one size fits all, not just automation

4. DevOps has three dimensions : culture, method and tools

5. DevOps essential characteristics: Cultural change, automated pipelines, infrastructure as code, microservices, containers, and immutable infrastructure

6. Waterfall > agile > DevOps are methods for software dev and delivery
   Monoliths > SOA > Microservices are architecture: ways that software is built
   Physical Services > VMS > Containers are used to create infrastructure: basic service as storage and communication

7. Technology is the enabler of innovation, not the driver of innovation. Ex, blockbuster/Netflix

8. Agile Manifesto:
    a. Individuals and interactions > processes and tools
    b. Working software > comprehensive documentation
    c. Customer collaboration > Contract negotiation
    d. Responding to change > Following a plan

Summary and Highlights

Technology is the enabler of innovation, rather than the driver of innovation. You must have an innovative business idea to leverage technology.

In 2009, John Allspaw described an innovative approach to managing development and operations that enabled Flickr to complete over ten deploys per day, when many companies were completing fewer than one deploy every six months. This was a key moment in the growth of DevOps.

DevOps is the practice of development and operation engineers working together during the entire development lifecycle, following Lean and Agile principles that allow them to deliver software in a rapid and continuous manner.

DevOps is not it is not just Dev and Ops working together. It is a cultural change and a different way to work. DevOps has three dimensions: culture, methods, and tools. Of these, culture is the most important.

The essential characteristics of DevOps include cultural change, automated pipelines, infrastructure as code, immutable infrastructure, cloud native application design, the ecosystem of containers, and how to deploy with immutable infrastructure.

DevOps started in 2007 when Patrick Debois and Andrew Clay Shafer began to gather like-minded people together at conferences to talk about common experiences.

In 2009, Allspaw delivered his now famous “10+ Deploys Per Day – Dev and Ops Cooperation at Flickr” presentation and the idea gained ground. Also in 2009, Patrick Debois started a conference called DevOpsDays that helped spread the DevOps message.

Books such as Continuous Delivery in 2011, The Phoenix Project in 2015, and The DevOps Handbook in 2016, helped practitioners understand how DevOps worked.

The major influential people of the early DevOps movement: Patrick Debois, Andrew Clay Shafer, John Allspaw, Jez Humble, Gene Kim, John Willis, Bridget Kromhout, and Nicole Forsgren, went out and made a difference, showing the results that could be achieved with DevOps.

The message spread from practitioner to practitioner until they began to realize what was possible with DevOps and that it was a better way to work.