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Assignment 1.3 – The History of DevOps

The origins of DevOps can be traced back to when the term was initially coined – 2009 by Patrick Debois. This year is generally considered the origin year of DevOps. Debois is regarded as one of the gurus of DevOps as more and more organizations integrate DevOps practices into their operating systems.

The evolution of DevOps comes from two terms – development and operations. Because of the wide area that DevOps covers, it shouldn’t be seen as a technology, a process, or some established definitive. It is rather a cultural viewpoint. It is a mindset used for optimizing and shortening software development, that utilizes numerous practices that simplify the optimize the workflow.

DevOps didn’t come to life on its own, but it was rather based on several key movements: the Lean Movement, the Agile Manifesto, and the Continuous Delivery Movement.

The Lean Movement

This movement originated in the manufacturing industry, particularly the Toyota Production System in 1940s. It laid the foundation for many principles that influenced DevOps. The Lean Movement focused on eliminating waste, optimizing processes, and delivering value to customers efficiently. In DevOps, the Lean Movement encourages the reduction of activities that don’t bring value to the customer, optimizing workflows, and increasing the automation of manual processes.

The Agile Manifesto

The software development world was in need of more efficient and overall better practices across the board, so in 2001, a group of developers called a meeting in Utah, and drafted the Agile Manifesto. It emphasized the need for flexibility, collaboration, and customer-centric development. Some of the most prominent values that were promoted were “responding to change over following a plan”, “individuals and interactions over processes and tools”, “Working software over comprehensive documentation”, and “Customer collaboration over contract negotiation”. While the items on the right have significant value, the items on the left are simply more important. The goal of Agile Manifesto is to uncover better ways of developing software by doing it and helping others do it. DevOps extends these Agile principles across the entire software delivery lifecycle, fostering a more efficient environment.

The Continuous Delivery Movement

Continuous Delivery builds on Agile and Lean principles and emphasizes the importance of automation of the software delivery process. Continuous Delivery can provide many benefits when implemented properly:

* Reduce time to deployment through automated testing and development
* Decrease the costs
* Scale software development based on project size
* Deploy code automatically

Some of the best practices that DevOps inherited from Continuous Delivery are:

* Make every change releasable
* Automate as much as possible
* Aim for no downtime
* Deliver through an automated pipeline

DevOps is a culmination of the best ideas and processes introduced by the Lean Movement, the Agile Manifesto, and the Continuous Delivery Movement. Each of the movements shaped DevOps philosophy and contributed to the culture of software development today. By embracing DevOps, companies can improve their processes and deliver a greater value to their customers

Reference List:

<https://www.knowledgehut.com/blog/devops/history-of-devops>

<https://agilemanifesto.org/>

<https://www.ibm.com/topics/continuous-delivery>

The DevOps Handbook by Gene Kim, and others.