Marlene Rodriguez

CSD-380

Module 1.3

The evolution of DevOps deals with several pivotal movements and philosophies that have shaped current practices which are particularly the Lean Movement, the Agile Manifesto, and the Continuous Delivery Movement. Each of these contributed foundational principles that post DevOps for encouraging collaboration, efficiency, and quick innovation.

The Lean Movement originating from manufacturing like Toyota’s Production System emphasizes the elimination of waste, continuous improvement, and delivering value to customers efficiently. The Lean Movement’s adaptation into software development often to Lean Software Development advocates for minimizing activities that do not add value and fosters a culture of learning and adaptation. These principles have laid groundwork for iterative development and a focus on customer-centric delivery which are both essential to DevOps practices.

The Agile Manifesto, which was formed in 2001 by a group of software practitioners, revolutionized software development by prioritizing individuals and interactions, working software, customer collaboration, and responding to change over rough processes and extensive documentation. Agile Manifesto emphasizes iterative cycles, frequent feedback, and cross-functional teams that contribute to procedural shifts seen in DevOps. It provides a framework that promotes flexibility, continuous improvement, and a shared responsibility among development and operations teams.

The Continuous Delivery Movement emerged in the late 2000s as a set of practices focused at automating and streamlining the software release process. The Continuous Delivery Movement’s goal is to allow organizations to deploy software quickly, reliably, and frequently while minimizing the risks associated with infrequent updates. Continuous Delivery practices rely heavily on automation, testing, and monitoring which are principles that are also main to DevOps.

By merging the movements, DevOps can be viewed as a growth that integrates Lean’s waste reduction, Agile’s iterative development and customer focus, and Continuous Delivery’s automation and deployment efficiency. This approach encourages collaboration, automation, and continuous feedback which provides faster delivery cycles, improved quality, and increased organization.

References:

[Culture and Methodologies Resources](https://dzone.com/culture-and-methodologies)

[History: The Agile Manifesto](https://agilemanifesto.org/history.html)

[Lean Enterprise Institute | Learn Lean Thinking & Practice](https://www.lean.org/)

[What is Continuous Delivery? - Continuous Delivery](https://www.continuousdelivery.com/)