## 1.The Lean Movement – The foundation of DevOps Thinking

The Lean Movement originated in manufacturing, especially within the Toyota Production System, which emphasized efficiency, waste reduction, and continuous improvement. In software, Lean Software Development was formalized in 2003 by Mary and Tom Poppendieck, translating core lean values-such as eliminating waste, value stream mapping, pull systems, and TDD-into the tech domain.

## 2. The Agile Manifesto – From Philosophy to Movement

In February 2001, seventeen software practitioners met at Snowbird, Utah, to seek a lighter, human centered approach to software development, pushing back against heavy, process driven methods like the waterfall model. Out of this retreat emerged the Agile Manifesto, composed of four core values:

* Individuals and interactions over processes and tools
* Working software over comprehensive documentation
* Customer collaboration over contract negotiation
* Responding to change over following a plan

These values are supported by twelve principles promoting continuous delivery, technical excellence, self-organizing teams, regular reflection, and responding to change.

Historically, agile methods-like RAD, XP, Scrum, Crystal, and FDD-grew through the 1990s and converged under the agile umbrella in 2001. Scrum itself was inspired by manufacturing thinking traced back to a 1986 Harvard Business Review article likening product development to a rugby scrum- a cross-functional, collaborative push forward.

## 3. The Start of DevOps – Bridging Dev and Ops

Though concepts fusing development and operations trace to the late 1980s and early 1990s, as per early proposals, DevOps as a term emerged as a formal movement around 2007-2009

In 2007, Belgian consultant Patrick Debois grew frustrated with disconnects between Dev Ops during a data center migration, inspiring his search for better collaboration. In 2008, an “Agile Infrastructure” birds of a feather session at the Agile Conference further spurred this dialogue. The spark came with a landmark 2009 Velocity Conference talk by John Allspaw and Paul Hammond. The talk emphasized dramatically better outcomes when dev and ops teams collaborate closely. Inspired by that, Debois organized the first DevOpsDays event in Belgium, in late 2009-marking it as the birth of the DevOps movement.

## 4. Continuous Delivery – The Technical Backbone

Continuous Delivery (CD) became a pillar of DevOps by ensuring software is always in a deployable state. Jez Humble and David Farleys 2010 book Continuous Delivery was instrumental in framing the concept and popularizing the term. CD involves automating deployments, integration, and testing to reduce risk, increase deployment speed, and improve feedback loops. The benefits include faster time to market, heightened quality, and customer satisfaction-though challenges like regulatory constraints and test automation gaps remain. The broader concept of Continuous Deployment takes CD a step further, where deployments are fully automated, happening with minimal human intervention immediately after passing tests.