It could be difficult to imagine how the software development world would be if we hadn’t made great strides in efficiency. Often it can be difficult cutting through the bureaucracy of a large business where computer monitors, elevators or even distant offices could create barriers when trying to work on major projects. Without brilliant minds working on a thoughtful process of improvement because there must be a better way to manage projects, we could still be slugging through the slow progress of some project management styles like waterfall method. Which may be fine on smaller projects but becomes difficult to work through on major projects that require many hands and an endless chain of emails. This is where in 2007 our co authors of our book Gene Kim, Patrick Debios, John Willis played a major role in driving forth a new wave of practices called DevOps.

“DevOpsis a collaborative and multidisciplinary organizational effort to automate continuous delivery of new software updates while guaranteeing their correctness and reliability” (Leite et al., 2019) DevOps actually is considered “an evolution of the agile movement” (Leite et al., 2019) by the article A Survey of DevOps Concepts and Challenges. But its more than that, it also incorporates methodologies such as LEAN and AGILE and is all about getting better at the amount of time it takes to release to the market, better satisfaction with clients/customers, improved quality, and increases the developer’s productiveness. (*Top 4 Software Development Methodologies*, 2017).

The movement behind LEAN started in the Toyota car manufacturing system during the 1980’s. But in 1997 the car manufacturing company began looking for ways to improve LEAN and bring it to other industries. (Kim et al., 2016) The focus of LEAN is focused on improving the value for clients though the terms of “creating constancy of purpose, embracing scientific thinking, creating flow and pull (versus push), assuring quality at the source”. (Kim et al., 2016)

Agile was first developed in 2001 during a “lightweight methods” event. The goal was to make “a set of values and principles that captured the advantage of these more adaptive methods”. (Kim et al., 2016) The idea behind agile methodology was the decreased risk of bugs, time delays, ballooning costs and the ever-revolving changes needed for new functions. (*Top 4 Software Development Methodologies*, 2017) The method permits software to be released at intervals and because of this it increases the effectiveness of the developers to find problems in the software. (*Top 4 Software Development Methodologies*, 2017)

According to our book, The DevOps Handbook, we should consider limiting multitasking through the “use of kanban board to manage our work” (Kim et al., 2016) and setting strict guidelines for how many projects you can have at once, called WIP or Work in progress (Kim et al., 2016). The provides a good example in where product daily tasks are rolling in only to get interrupted by urgent works. These delays could cost the company money. And starting a job when you already have a few jobs in progress may sound good, it again leads to more delays when we are starting jobs while they pile up. (Kim et al., 2016)

DevOps isn’t just about these methodologies either. In conclusion, DevOps brings many benefits to the table by a multitude of examples. If you noticed that all these methodologies are about continuous improvement of the product and the developers themselves. It’s about improving the work of developers by simplifying the daily tasks and optimizing the way teams of professionals are communicating every day, minor or major points in the software lifespan. DevOps also improves the revenue of the company by eliminating the waste and the difficult tasks of sorting out every bug during major releases.

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