Is DevOps a good career?

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Abstract: DevOps [a set of software development practices that combines software development (Dev) and information technology operations (Ops) to shorten the systems development life cycle while delivering features, fixes, and updates frequently in close alignment with business objectives] is becoming the standard way of working for Enterprises. Among the few powerful trends we had experienced in the recent times, one is undoubtedly the adoption of DevOps practices – and adoption of DevOps within the organization is rising on a broader scale, and Enterprises are trending toward it. DevOps builds upon best practices to help drive enterprise performance in modernizing environments. It offers organizations a new way to move the business forward and turn technology into a strategic advantage. An increasing number of businesses recognize the power that DevOps can bring a natural extension for Agile and continuous delivery approaches.

Keywords: DevOps; Software Development; Agile; Integration; Delivery; Code review; Documentation.

"At its essence, **DevOps** is a culture, a practice, a **philosophy**."

Introduction

DevOps expertise is in high demand. Job postings with "**DevOps**" in a title or keyword are sprouting up everywhere. DevOps is an **enterprise software development** phrase emerging from combination of IT teams, process and products to enable the continuous delivery of value to end users. It is a firm bond between **development** and **operations** that emphasizes a shift in mindset, better collaboration, and tighter integration and aims to create a culture and environment where building, testing, and releasing software can happen rapidly, often, and more reliably, so organizations can solve critical issues quickly, and better serve their customers and compete more effectively in the market.
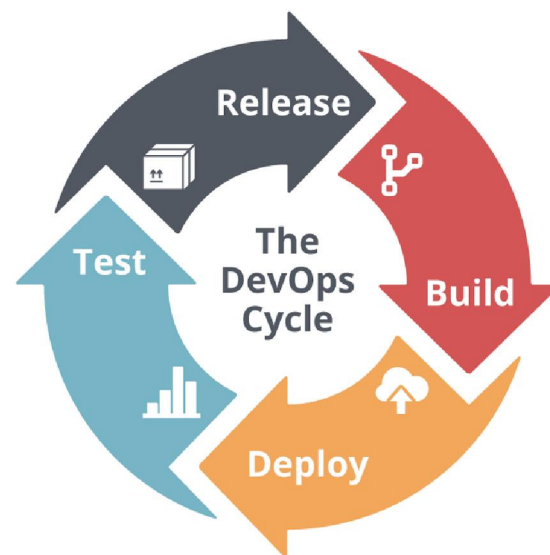
What is DevOps?

"A software development method formed out of a fundamental need that stresses communication, collaboration and integration between software developers and **IT professionals**." DevOps could be explained simply as operations working together with engineers to get things done faster in an automated and repeatable way.

History of DevOps

At the 2008 Agile Toronto conference, **Andrew Shafer** and **Patrick Debois** introduced the term in their talk on "**Agile Infrastructure**". Since 2009, the DevOps term has been steadily promoted based on a simple philosophy — business works best when efforts being coordinated and collaborative — and brought into more mainstream usage through a series of "**DevOpsDays**", which started in Belgium and has now spread into Web-enabled sphere to resolve the conflict between the software developers and the operations teams when it comes to getting great work done quickly. In recent years, more tangential DevOps initiatives have also evolved, such as **OpsDev**, **WinOps**, and **BizDevOps** to encourage the communication between software developers and IT Operations to increase the speed at which applications being delivered.

Benefits of DevOps

The technical benefits include:

- Continuous software delivery

- Less complexity to manage
- Faster resolution of problems

The cultural benefits include:
- More productive teams
- Higher employee engagement
- Greater professional development opportunities

The business benefits include:
- Faster delivery of features
- More stable operating environments
- Improved communication and collaboration
- More time to innovate (and not fix / keep up)

Features of DevOps
- **Source control:** Software developers need to safely store their code and keep track of source-code history and versions. For this reason alone, source control is of critical importance.
- **Issue tracking system:** An issue tracking system allows everyone involved to track current issues, estimates, and deadlines.
- **Build system:** The build system supports continuous integration by building the software, running unit and integration tests, deploying to the integration environment, and performing any other automated checks defined for new versions of the software.

- **Monitoring system:** Monitoring systems continuously track all autonomous systems within the DevOps environment, notifying necessary maintenance staff if a system failure occurs.
- **Communications system:** The constant exchange of information is important so email, wiki, and a real-time chat system being enabled for effective communication and collaboration among all members of the project team.
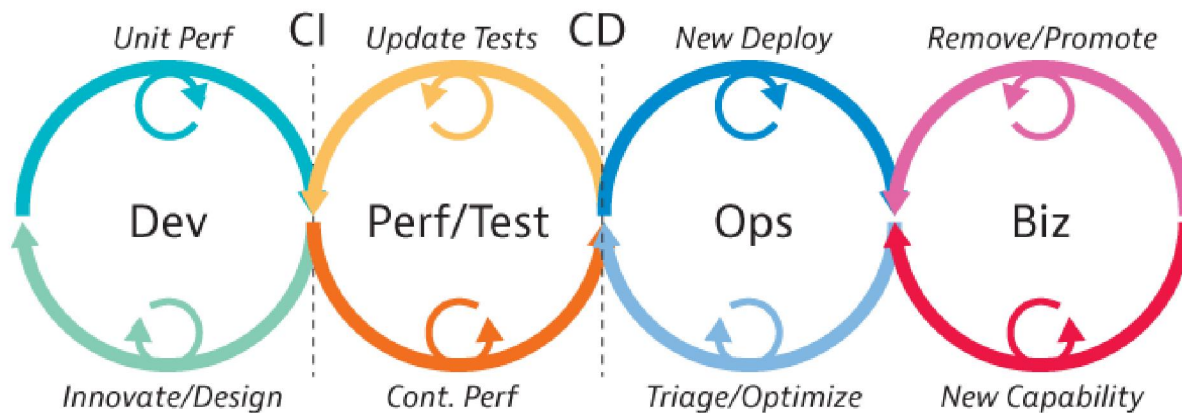- **Integration environment: The** integration environment hosts all the virtual machines that make up our DevOps environment.
- **Code review system:** To make sure software quality, every line of code being reviewed by a experienced developer. The practice of reviewing code also accelerates career growth and learning.
- **Documentation system:** Regrettably, documentation often remains an afterthought in production software projects. To ensure that documentation being written throughout the project, an automated system being developed to allow developers to write documentation easily, along with source code.

DevOps Goals
- Improved deployment frequency
- To make faster time to market
- Less failure rate to new releases
- Short lead time between fixes
- Improve mean time to recovery

Is DevOps a good career?

DevOps practitioners are among the highest paid IT professionals today, and the market demand for them is growing rapidly because organizations using DevOps practices are overwhelmingly high-functioning to deliver IT services that offer value

to the business. According to a study on the application economy and the role of DevOps, 88% of enterprise IT organizations and **LOB (line of business)** executives already have planned to adopt DevOps sometime within the next five years to accelerate delivery of apps and offer customers with

higher-quality software. In the last two years, listings for DevOps jobs at **Indeed.com** increased 75 percent. On **LinkedIn.com**, mentions of DevOps as a skill increased 50 percent. In a recent survey by **Puppetlabs**, half of their 4,000-plus respondents (in more than 90 countries) said their companies consider DevOps skills when hiring.

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