60 Days Of DevOps

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Day 1 - Basics

In this 60-day DevOps series, We will explore DevOps concepts and practices in a fun and easy-to-understand way. I will approach DevOps as if I am explaining it to a 5-year-old, breaking down complex concepts into simple, digestible parts.

What is DevOps?

DevOps is like working together as a team to build a big Lego castle. The people who design the castle (developers) and the people who make sure the castle is working well (operations) work together to build it faster and better. They use special tools to help them work together and make sure the castle is always working properly. This way, they can build more castles and everyone can enjoy them faster!

Stages Of DevOps

In DevOps, there are different parts that people work on to make sure that everything is done correctly. It's like building a big Lego castle!

First, people build different parts of the castle and make sure that each part works well on its own. This is called "Continuous Integration". It's like making sure each Lego piece is the right size and shape before putting them together.

Next, people put all the parts of the castle together and make sure it works well as a whole. This is called "Continuous Delivery". It's like putting all the Lego pieces together to make sure they create the whole castle without any problems.

After that, people put the castle in a special place where they can test it out and make sure it's perfect. This is called "Continuous Deployment". It's like putting the Lego castle on display to make sure everyone likes it.

Finally, people keep an eye on the castle and make sure it's always working properly. This is called "Continuous Monitoring". It's like making sure the Lego castle is always in good condition and no parts are missing.

Timeline Of The Origination Of DevOps

- **In the early 2000s, the agile software development methodology emerged, which focused on collaboration, iterative development, and frequent delivery of working software.**
- **In 2006, Patrick Debois organized the first DevOpsDays conference in Belgium, bringing together developers and operations professionals to discuss the need for closer collaboration between the two groups.**
- **In 2008, Jez Humble and David Farley published the book "Continuous Delivery," which introduced the concept of continuous integration and delivery (CI/CD), which emphasized automating the testing, integration, and deployment of software.**
- **By 2010, DevOps was gaining momentum as more organizations recognized the benefits of closer collaboration between development and operations teams. Many companies began to adopt DevOps practices, including Amazon, which released the first version of its Elastic Compute Cloud (EC2) in 2006 and continued to develop its infrastructure and deployment automation tools.**
- **By 2015, DevOps had become mainstream, with many organizations adopting DevOps practices and tools to improve their software delivery processes. The DevOps movement had also expanded to include a broader set of practices and tools, including containerization, microservices, and serverless computing.**

Today, DevOps is an essential part of modern software development and IT operations, with many organizations relying on DevOps practices and tools to deliver software quickly and reliably.

Waterfall vs Agile vs DevOps

Waterfall, Agile, and DevOps are different ways of making computer programs, just like different ways of making a drawing or a craft project. Let me explain:

- **Waterfall is like making a drawing step-by-step, one after another. You start with a plan, then you draw an outline, fill in the colors, and add details. Once you finish one step, you move on to the next one. Waterfall is good when you know exactly what you want to draw and how to draw it.**
- **Agile is like making a drawing with a group of friends. You all work together to draw different parts of the picture, and you keep checking with each other to make sure everything looks good. Agile is good when you want to try different ideas and make changes along the way.**
- **DevOps is like making a drawing with a group of friends, but instead of just drawing, you also make sure the drawing is ready to be shown to other people. You work together to make sure everything works correctly, and you keep checking to make sure nothing is**

broken. DevOps is good when you want to make sure the drawing is perfect and ready to be shown to other people.

Just like how different ways of making a drawing work better for different situations, different ways of making computer programs work better for different situations too. Waterfall, Agile, and DevOps are all good ways of making computer programs, but they each have their own strengths and weaknesses.

Why DevOps?

In the past, companies used to make computer programs using a method called Waterfall. This method was very slow and rigid, which meant it took a long time to make changes to the program if something went wrong. This could lead to delays and frustration for both the company and their customers.

With DevOps, companies can make changes to the program more quickly and efficiently because they have a team of people who work together to make sure everything works correctly. This means that if something goes wrong, the team can quickly fix the problem and get the program back up and running. This leads to fewer delays and less frustration for everyone involved.

In addition, DevOps helps companies deliver better quality software because the team works together to make sure everything is perfect and ready to be used by lots of people. This means that the program is less likely to have bugs or problems, which makes for a better experience for the company's customers.

So, companies consider DevOps as a way of making computer programs because it helps them deliver better quality software faster and more efficiently, which leads to fewer delays, less frustration, and a better experience for everyone involved.