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Module 2.2 DevOps

In 2011 LinkedIn faced challenges with technical debt. And they needed a way to combat the issues they were facing. At the time they were using a system called Leo and old Java and it made it difficult for them to update, crashed a lot, and made it hard for the team to fix things quickly. This led them to a complete overhaul of their system, which they called Operation Inversion. This process was meant to improve their already built system and provide continuous improvement.

In order to fix the issues at LinkedIn they decided to have the developers stop working on any new updates or changes to the system and solely focus on cleaning up the current mess. This process called “Operation Inversion” was a way for them to create the goal of getting rid of technical debt and keeping it easy to manage. They also needed a way to make the website run smoother and easier for the developers to manage.

Even though this happened shortly after LinkedIn just became a public company, they knew that it was extremely important to fix the technical debt instead of adding anything new.

Main Points

* LinkedIn had a massive amount of technical debt.
* The company put everything on hold in order to handle the technical debt.
* They took the entire system and broke it down into smaller more manageable parts.
* Changes that were made, made the system better and faster to work with.

Key lessons I’ve learned:

In the world of technology, it is quickly moving and growing and if we are not taking care of the technical debt it will continue to back up until it’s too late. Systems can be outdated and can get messy and without fixing these problems it can cause bigger issues later on. By the company halting all operations to solely focusing on these issues, it helped the teams take a breather and work on what was broken. LinkedIn paused everything to fix the problem.

The second thing I have learned is that if you take time to clean up your work, it will help in the long run. When developers or organizations are beginning to fall behind with the work they are doing, they need to stop adding new features and clean up the technical debt first. The company then saw major improvements after completing this.

The third thing I have learned is that having the right foundation for your system is very important. It’s like the saying “A house built on sand will not stand”. We need to focus on the very foundation of everything and ensure that all the building blocks are correctly done before moving forward with anything new.

And finally, the last thing I have learned is that when things are becoming to large and difficult, it’s okay to take a step back, even after becoming public. The biggest thing LinkedIn could do was to say they had weaknesses and errors and decided it was time to change that as soon as possible. Even if that meant they couldn’t meet the new feature demands for the users at the time being. It’s necessary sometimes to put a pause on things to make it right.

In conclusion Operation Inversion teaches us that the best thing to be done is the slow down and fix what is broken, and get rid of technical debt. We shouldn’t be keeping it backed up until it’s so bad it’s hard to fix. LinkedIn took a major risk halting everything to save their company. But it ended up paying off in the end and they became bigger and better as a result.

Reference:

Kim, G., Humble, J., Debois, P., Willis, J., & Allspaw, J. (2021). *The DevOps handbook: How to create world-class agility, reliability, & security in technology organizations* (2nd ed.). IT Revolution Press.