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2.2 Assignment

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LinkedIn's Operation InVersion

LinkedIn is one of the most popular professional social networking platforms. The platform is meant for employers, job seekers, and recruiters to expand their connections within their respective professional areas. A case study within case this module's reading assignment discusses how LinkedIn overcame struggles with an outdated platform, consistent deployment issues, and overwhelming technical debt through its "Operation InVersion."

At the time of its release, LinkedIn ran on Leo, a Java-based application mostly comprised of servlets and Oracle databases. However, due to increasing traffic, LinkedIn had to remove several services from Leo and implement new features using different services. Although LinkedIn attempted to adjust Leo to suit the platform's load, they still experienced significant problems with deployment, troubleshooting, and recovery. Eventually, after years of late nights spent working around these issues, they decided it was time to scrap Leo entirely.

However, putting this off for so long in favor of releasing new features and working around the issues caused LinkedIn to accrue quite a bit of technical debt. In 2011, engineering leaders at LinkedIn decided to drop everything and focus on resolving these issues. No new features would be released until the technical debt was paid. This was Operation InVersion.

Although it was a risky decision, it was very much necessary to improve the efficiency of both the application and the developers working on it. InVersion reworked LinkedIn's entire approach to development. By the end of the operation developers had access to a fresh new set of tools meant to increase the efficiency of testing and integration. InVersion not only paid LinkedIn's technical debt but also created a better work environment for its developers. Rather

than spending countless nights fixing problems on an outdated platform, LinkedIn engineers could deploy major updates up to three times a day.

In conclusion, there is an important lesson within the story of LinkedIn's operation. InVersion: manage technical debt before it piles up. Rather than resolving issues with the platform when they started, LinkedIn let the problems pile up on each other to the point where it took months of swarming to fix. If left unchecked, technical debt can become a massive obstacle within the technology value stream, delaying the delivery of value to clients. This is why it is crucial to discover and fix problems as part of daily work to ensure the stream continues flowing smoothly.

References

Kim, Gene, et al. *The DevOps Handbook : How to Create World-Class Agility, Reliability, & Security in Technology Organizations*. Portland, Or, It Revolution Press, Llc, 2021, pp. 90–93.