Caleb Stark, 1/12/2025, Module 1 Assignment 2

History of DevOps

DevOps was introduced to the field of software development in 2009 as a way to help create a better software development cycle and improve the output that a development team provides. The idea of DevOps is that you bring the IT side along with the development team. This was a change from the past when development teams stayed isolated from one another. DevOps also brings in different methodologies for development that work well together, allowing for a combination of best practices that create a strong development environment.

Agile Manifesto gets into the agile methodology for software development. The idea of Agile is that different parts of the development cycle will work together instead of having to wait for the previous step to complete. That is a general idea of Agile; the reason Agile is a big deal when thinking about DevOps is that it is part of the root of where DevOps comes from. The idea with Agile is that you are not only working within the development team but also with the client and hardware teams. The purpose of those interactions is to ensure that the work being done is reasonable for the hardware it is being developed for and that the client approves of the created software and the changes that are made. (Gupta, 2023)

Lean manufacturing was also an inspiration for DevOps, and that inspiration can be seen in small parts of the current form of DevOps. The idea of lean manufacturing is that manufacturing should look for process optimization and always be looking to make improvements. Parts of this would include keeping inventory tight to not waste space and resources, keeping orders waiting for fulfillment at a minimum, and finally, maximizing efficiency whenever possible, including the idea of implementing automation wherever it can be effectively implemented. When we look at DevOps, we can see some of these ideas come into view with automation efforts to lighten the burden on testing, especially the collaboration with teams to limit unnecessary work, and the idea that we should always be looking for what improvements we can implement in the development team. (Dobra, 2021)

A big part of DevOps is the automation ideas that come from lean manufacturing. Automation within the testing and deployment of updates is one of the most important implementations within the realm. The terms are Continuous Integration and Continuous Delivery. Continuous Integration is about the automatic building, testing, and Integration of code. Continuous delivery then looks to automate the final testing and pushing of code to production. The understanding here is that small changes and fixes are made and implemented very quickly and efficiently in ways that avoid making large changes that cause worse bugs once integrated into the production environment. With the small updates and changes implemented into production, if there are issues found with the implementation, then it should be easy to narrow down the source of the errors and implement a new fix. (Gupta, 2023)

# References

Dobra, A. (2021, March 31). *History Of Devops*. Retrieved from Bunnyshell: https://www.bunnyshell.com/blog/history-of-devops/

Gupta, A. (2023, May 21). *History Of Devops*. Retrieved from Scaler: https://www.scaler.com/topics/devops-tutorial/history-of-devops/