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DevOps

Module 6.2 Assignment

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Strangler Fig Pattern at Blackboard Learn

This case study is a good representation of how the Strangler Fig Pattern can be beneficial to an organization. It explains that Blackboard has been a leading provider for technology in Education. In 2011, developers began to face real problems with their codebase. Their chief architect noticed that the building, testing, and integration processes were becoming more complex and less productive. The lead times for development were growing, and the productivity of the development team was worsening. Commits began to minimize although code lines continued to increase.

It was decided in 2012 that Ashman (Chief Architect) was going to focus on a re-architecting project that worked to solve these issues using the Strangler Fig Pattern. This is when the creation "Building Blocks" was created. After the creation of this new codebase, developers could work in different modules, independently. This improved development and commit time by allowing developers to work without having to communicate with other teams. Developers were also able to work more freely without worrying of small mistakes or errors causing the entire system to crash.

The outcome of the creation of Building Blocks was all positive. Developers could work more safely and independently. Features and components could be isolated and worked on without the dependencies of other components and developers were able to get quick feedback on their work which led to better quality code. Updates and commits grew significantly and it led to a better workplace environment for the development team.

Lessons Learned:

-As systems and organizations begin to grow, the Strangler Fig Pattern can be a great benefit for both the development team and user satisfaction.

-Tightly coupled architecture is better for smaller systems. With continuous growth and needs for constant code commits, loosely coupled architecture can help with testing, feedback, and code quality.

-The environment and quality of the workplace can affect the amount of work being done. Slower systems and more difficulties can cause motivational decrease and can have negative effects on productivity.

-Cutting down the number of dependencies (On both files and between development teams) can help to increase the flow of work and decrease the amount of time it takes to develop and finalize.

-Changing or editing code with too many dependencies can cause entire systems to break or fail, making it difficult for developers to commit changes.

Overall, I believe that this is an important example of a good use of the Strangler Fig Pattern, and where it may be necessary for architectural change. Monolithic systems can be simple and cost less, but as businesses begin to grow, dependencies can create a lot of turmoil and headaches. Larger systems with need for continuous integration often require components to have the ability to be worked on independently. This saves time on the development process and requires less dependencies between different teams within an organization. One of the largest benefits of changing architecture from a monolithic system to a more modern and independent system is faster and better-quality products. In Blackboards case, I believe it was a great choice for them to create Building Blocks, and it helped the business expand, update, and improve their services in a quicker and simpler manner.