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Module 6 Assignment

Blackboard Inc., a leader in educational technology, faced significant challenges with its aging J2EE codebase, which dated back to 1997. I believe this legacy system introduced major complexities in development, which made it harder for teams to work efficiently. David Ashman who is Blackboard’s chief architect, noticed that the system had outdated Perl code embedded throughout, contributing to long build times and increasing difficulty in managing the software. I can understand how such a monolithic structure could slow down development and create bottlenecks, as even simple changes required lengthy integration and testing cycles, sometimes taking 24 to 36 hours just to receive feedback.

By 2012, Ashman and his team implemented the Strangler Fig Pattern to address these challenges. They introduced Building Blocks, a modular architecture that allowed developers to work in smaller, decoupled components instead of the monolithic codebase. This being one of the main approaches I have noticed throughout my time in school, I think it is great that this approach gives developers more autonomy, allowing them to work independently without constant coordination with other teams. As more code was migrated into these new modules, the size of the monolith began to shrink, and developer productivity increased. The transition also made software updates safer since failures were localized rather than affecting the entire system.

I believe the lessons from Blackboard’s transformation are clear. First, adopting a modular, service-oriented approach allows for greater developer independence and efficiency. Additionally to this, when people have independence in the work that they are doing, the end result often leads to a healthier environment since those on the team feel accomplished and possibly more valued. Second, breaking apart a monolith gradually through a structured pattern like the Strangler Fig method ensures stability while improving the software. Lastly, improving development processes through modularization and faster feedback loops leads to higher-quality outcomes.

Sources:

Kim, G., Humble, J., Debois, P., Willis, J., & Forsgren, N. (2021). *The DevOps handbook* (2nd ed.). IT Revolution Press.