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CSD 380 Module 6.2

Strangler Pattern at Blackboard Learn

Blackboard Inc. provides technology for educational institutions. The company began to struggle when faced with using a legacy monolithic architecture for its system codebase. This caused stability and scalability issues. The interface and overall user experience were inconsistent making it difficult for educators and students to navigate the platform efficiently. The root causes were the following:

* Monolithic Architecture: making it difficult to scale and maintain
* Database Performance: The underlying database architecture could not handle the increasing load, leading to slow response
* Code Complexity: Over time, the codebase had become highly complex

The chief architect noticed that the code changes were ascending while the commits were descending. To address this problem, Blackboard switched to a microservices architecture where specific software features can be modified and scaled and added to a bulk repository. This change allowed for more sufficient load balancing and database optimization. Some additional improvements were:

* Enhanced Load Testing: Blackboard introduced comprehensive load testing procedures
* User Interface Redesign: A complete redesign of the user interface aimed at improving user experience
* User Feedback Integration: Regularly integrating feedback from users helped them prioritize the most critical issues

Allowing developers to focus on specific functions of the product and work more autonomously resulted in a better product and work environment.

# References

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