Mind Overflow: A Process Proposal for Decomposing Monolithic Applications in Microservices

Abstract

Constant changes made by different developer profiles turn legacy applications into monolithic ones. Although it is a known issue, little has been done to mitigate it. This paper proposes Mind Overflow, a process to guide the decomposition of a monolithic application to a microservice architecture. With Mind Overflow, researchers and developers benefit from the use of consolidated design patterns, architectures, and technologies through a comprehensive decomposition workflow. The case study showed promising results, indicating that Mind Overflow is feasible to break down monolithic to a microservice-based architecture, including reducing cyclomatic complexity and producing highly cohesive microservices.

References


Index Terms

Computer Science
Information Sciences

Keywords

Decomposition process, software architecture