

# Study on the Adoption of DevOps Metrics for Quality Assurance for Employee Management Systems

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## Abstract

DevOps has been proven effective as a software management strategy in various real-world applications and case studies. DevOps is quickly becoming the standard application development method in the software industry due to its ability to streamline the entire process to reduce costs, ensure flexibility in the final software architecture, and speed up the development and launch processes. Data is becoming increasingly important as a strategic consideration in a DevOps process because the primary goal of a DevOps approach is to gain insights from the operation directly into the development. Therefore, efficient data management techniques are fundamental to the DevOps method. Based on the volume, variety, velocity, variability, and value of the data being managed, DevOps data management falls primarily under the BigData umbrella. As a result, BigData solutions might be used to manage the many artifacts, code, documentation, logs, etc., generated during the DevOps process. This paper's objective is to analyze the results of a program for system analysis, system design, and prototyping, specifically the website for a Python-based knowledge management system prototype that uses an SQLite database.

## Keywords

Employee Relationship Management (ERM), DevOps, Structural Equation Modelling (SEM), Unified Modeling Language (UML), International Comparative Service Delivery (ICSR), Quality Assurance, Software as a Service (SaaS)