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International Journal of Computer Applications

Volume 85 - Number 5

Year of Publication: 2014

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10.5120/14837-3099
{bibtex}pxc3893099.bib{/bibtex}

Abstract

Object-Oriented paradigm becomes pioneer and best choice while selecting language and writing software solution. In last few decades there was significant change observed in developing software solutions. Most of the application developers prefer the object oriented model to exploit its benefits. The major benefit we can obtain from Object-Orientation is of course object itself and the feature that enable us making an object persistent. Object-Persistence feature contributes a major role in designing data model. If the techniques used for Object-Persistence are designed correctly then, we can obtain major benefits in the areas of software productivity, maintainability and cost reduction. There are many ways of implementing Object-Persistence among which Gateway-based method, Object-Relational database method and Object-Oriented database method are the three major categories. In this paper, we discuss about the characteristics of various Object-Persistence techniques, the relevant areas in which those techniques can be employed efficiently and how those techniques can be used effectively on the basis of application characteristics and requirements. We also discuss about the benefits and limitations of persistence techniques. Further, our discussion continues on various challenges that come along the way of Object-Persistence and possible

solutions to handle those challenges.

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Index Terms

Computer Science Distributed Systems

Keywords

Object-Persistence; Gateway-Based Object-Persistence; Object-Oriented Database; Object-Relational Database; Data Model; Data Access; Data Sharing