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Part 7: Polymorphic table functions

Technologies de l'information — Recommandations pour l'utilisation du langage de base de données SQL —

Partie 7: Fonctions de table polymorphes

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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Introduction

The organization of this document is as follows:

1) Clause 1, "Scope", specifies the scope of this document.

2) Clause 2, "Normative references", identifies additional standards that, through reference in this document, constitute provisions of this document.

3) Clause 3, "Terms and definitions", defines the terms and definitions used in this document.

4) Clause 4, "Introduction to polymorphic table functions", provides an introduction to polymorphic table functions, the requirements leading to their incorporation into SQL, and illustrations of their use.

5) Clause 5, "PTF processing model", describes the abstract processing model for polymorphic table functions in the context of an SQL-implementation.

6) Clause 6, "Specification", describes the manner in which polymorphic table functions are specified in the SQL standard.

7) Clause 7, "Data definition language", provides the syntax and semantics of the SQL statements that create, modify, and drop polymorphic table functions.

8) Clause 8, "Implementation", guides authors of polymorphic table functions through the steps required to create all of the functions necessary to accomplish particular purposes.

9) Clause 9, "Invocation", supplies the information necessary for application writers, especially SQL query authors, to take advantage of the polymorphic table functions that are available to them.

10) Clause 10, "Compilation", is directed at the authors of polymorphic table functions and of SQL database systems to guide them in the steps required to compile polymorphic table functions in the context of a particular SQL-implementation.

11) Clause 11, "Optimization", describes the various aspects of polymorphic functions of which the authors of such functions and the authors of SQL-implementations must be aware to adequately optimize the execution of such functions.

12) Clause 12, "Execution", discusses the details of executing polymorphic table functions in the context of the processing model.

13) Clause 13, "Examples", supplies numerous examples in detail with commentaries to explain the various use cases, the requirements that relate to polymorphic table functions, and the specifics of the solutions for each use case.

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Information technology — Guidance for the use of database language SQL —

Part 7:
Polymorphic table functions

1 Scope

This document describes the definition and use of polymorphic table functions in SQL.

The Report discusses the following features of the SQL Language:

— The processing model of polymorphic table functions in the context of SQL.

— The creation and maintenance of polymorphic table functions.

— Issues related to methods of implementing polymorphic table functions.

— How polymorphic table functions are invoked by application programs.

— Issues concerning compilation, optimization, and execution of polymorphic table functions.

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2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 9075-1, *Information technology — Database languages — SQL — Part 1: Framework (SQL/Framework)*

ISO/IEC 9075-2, *Information technology — Database languages — SQL — Part 2: Foundation (SQL/Foundation)*

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