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

**Part 7:
Polymorphic table functions**

iTeh STANDARD PREVIEW
*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

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This first edition of ISO/IEC 19075-7 cancels and replaces ISO/IEC TR 19075-7:2017.

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- ISO/IEC 9075-9, fifth edition or later;
- ISO/IEC 9075-10, fifth edition or later;
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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.

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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