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

**Part 4:
Routines and types using the Java™
programming language**

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

*Partie 4: Routines et types utilisant le langage de programmation
Java™*



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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.

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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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

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This document is intended to be used in conjunction with the following editions of the parts of the ISO/IEC 9075 series:

- ISO/IEC 9075-1, sixth edition or later;
- ISO/IEC 9075-2, sixth edition or later;
- ISO/IEC 9075-3, sixth edition or later;
- ISO/IEC 9075-4, seventh edition or later;
- ISO/IEC 9075-9, fifth edition or later;
- ISO/IEC 9075-10, fifth edition or later;
- ISO/IEC 9075-11, fifth edition or later;
- ISO/IEC 9075-13, fifth edition or later;
- ISO/IEC 9075-14, sixth edition or later;
- ISO/IEC 9075-15, second edition or later;
- ISO/IEC 9075-16, first edition or later.

A list of all parts in the ISO/IEC 19075 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

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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, “Routines tutorial”**, provides a tutorial on the use of routines written in the Java™¹ programming language within SQL expressions and statements.
- 5) **Clause 5, “Types tutorial”**, provides a tutorial on the use of user-defined types written in the Java programming language within SQL expressions and statements.

¹Java™ is the trademark of a product supplied by Oracle. This information is given for the convenience of users of this document and does not constitute an endorsement by ISO or IEC of the product named.

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

Part 4:

Routines and types using the Java™ programming language**1 Scope**

This document provides a tutorial of SQL routines and types using the Java™ programming language.

This document discusses the following features of the SQL Language:

- The use of routines written in the Java programming language within SQL expressions and statements.
- The use of user-defined types written in the Java programming language within SQL expressions and statements.

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

ISO/IEC 9075-13, *Information technology — Database languages — SQL — Part 13: SQL Routines and Types Using the Java™ Programming Language (SQL/JRT)*

Java Community Process. *The Java™ Language Specification* [online]. Java SE 13 Edition. Redwood Shores, California, USA: Oracle, Available at <https://docs.oracle.com/javase/specs/jls/se13/jls13.pdf>

Java Community Process. *JDBC™ 4.3 Specification* [online]. Edition 4.3. Redwood Shores, California, USA: Oracle, Available at https://download.oracle.com/otn-pub/jcp/jdbc-4_3-mrel3-eval-spec/jdbc4.3-fr-spec.pdf