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**Information technology — Database  
languages — SQL —**

**Part 1:  
Framework (SQL/Framework)**

*Technologies de l'information — Langages de base de données — SQL —  
Partie 1: Charpente (SQL/Charpente)*  
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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.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

International Standard ISO/IEC 9075-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

ISO/IEC 9075 consists of the following parts, under the general title *Information technology — Database languages — SQL*:

- Part 1: Framework (SQL/Framework)
- Part 2: Foundation (SQL/Foundation)
- Part 3: Call-Level Interface (SQL/CLI)
- Part 4: Persistent Stored Modules (SQL/PSM)
- Part 5: Host Language Bindings (SQL/Bindings)

Annexes A, B, C, and D of this part of ISO/IEC 9075 are for information only.

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## Introduction

The organization of this part of ISO/IEC 9075 is as follows:

- 1) Clause 1, "Scope", specifies the scope of this part of ISO/IEC 9075.
- 2) Clause 2, "Normative references", identifies additional standards that, through reference in this part of International Standard, constitute provisions of ISO/IEC 9075.
- 3) Clause 3, "Definitions and use of terms", defines terms used in this and other parts of ISO/IEC 9075.
- 4) Clause 4, "Concepts", describes the concepts used in ISO/IEC 9075.
- 5) Clause 5, summarises the content of each of the parts of ISO/IEC 9075, in terms of the concepts described in Clause 4, "Concepts".
- 6) Clause 6, defines notation and conventions used in other parts of ISO/IEC 9075.
- 7) Clause 7, describes the content of annexes of other parts of ISO/IEC 9075.
- 8) Clause 8, specifies requirements that apply to claims of conformance to all or some of the parts of ISO/IEC 9075.
- 9) Annex A, is an informative Annex. It describes the formal procedures for maintenance and interpretation of ISO/IEC 9075.
- 10) Annex B, "SQL Packages", is an informative Annex. It specifies several packages of SQL language features as identified in:
  - Appendix F, "SQL feature and package taxonomy", in ISO/IEC 9075-2
  - Appendix F, "SQL Feature Taxonomy", in ISO/IEC 9075-4
  - Appendix F, "SQL feature and package taxonomy", in ISO/IEC 9075-5to which SQL-implementations may claim conformance.
- 11) Annex C, "Implementation-defined elements", is an informative Annex. It lists those features for which the body of this part of ISO/IEC 9075 states that the syntax, the meaning, the returned results, the effect on SQL-data and/or schemas, or any other behavior is partly or wholly implementation-defined.
- 12) Annex D, "Implementation-dependent elements", is an informative Annex. It lists those features for which the body of this part of ISO/IEC 9075 states that the syntax, the meaning, the returned results, the effect on SQL-data and/or schemas, or any other behavior is partly or wholly implementation-dependent.

In the text of this part of ISO/IEC 9075, Clauses begin a new odd-numbered page. Any resulting blank space is not significant.

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# Information technology — Database languages — SQL —

## Part 1:

### Framework (SQL/Framework)

## 1 Scope

This part of ISO/IEC 9075 describes the conceptual framework used in other parts of ISO/IEC 9075 to specify the grammar of SQL and the result of processing statements in that language by an SQL-implementation.

This part of ISO/IEC 9075 also defines terms and notation used in the other parts of ISO/IEC 9075.

NOTE 1 – The coordination of the development of existing and future standards for the management of persistent data in information systems is described by the Reference Model of Data Management (ISO/IEC 10032:1995).

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## 2 Normative references

The following standards contain provisions that, through reference in this text, constitute provisions of this part of ISO/IEC 9075. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9075 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

- 1) ISO 8824-1:1995, *Information technology — Specification of Abstract Syntax Notation One (ASN.1) — Part 1: Specification of basic notation*
- 2) ISO/IEC 9075-2:1999, *Information technology — Database languages — SQL — Part 2: Foundation (SQL/Foundation)*.
- 3) ISO/IEC FDIS 9075-3:1999, *Information technology — Database languages — SQL — Part 3: Call-Level Interface (SQL/CLI)*.
- 4) ISO/IEC 9075-4:1999, *Information technology — Database languages — SQL — Part 4: Persistent Stored Modules (SQL/PSM)*.
- 5) ISO/IEC 9075-5:1999, *Information technology — Database languages — SQL — Part 5: Host Language Bindings (SQL/Bindings)*.
- 6) ISO/IEC 10646-1:1993, *Information technology — Universal Multi-Octet Coded Character Set (UCS) — Part 1: Architecture and Multilingual Plane*.
- 7) ISO/IEC CD 14651, *Information technology — International String Ordering — Method for comparing Character Strings*.
- 8) The Unicode Consortium, *The Unicode Standard, Version 2.0*, 1996. ISBN 0-201-48345-9.