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First edition

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

Part 6: Support for JSON

PROOF/ÉPREUVE

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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 19075-6 cancels and replaces ISO/IEC TR 19075-6:2017. Several small technical errors have been corrected,

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.

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, "JavaScript Object Notation (JSON)", introduces what is JSON.

5) Clause 5, "The SQL/JSON data model", introduces the data model that is used by the SQL/JSON functions and the SQL/JSON path language.

6) Clause 6, "SQL/JSON functions", introduces the SQL/JSON functions to query and construct JSON.

7) Clause 7, "SQL/JSON path language", introduces the SQL/JSON path language.

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

Part 6:
Support for JSON

1 Scope

This document describes the support in SQL for JavaScript Object Notation.

This document discusses the following features of the SQL language:

— Storing JSON data.

— Publishing JSON data.

— Querying JSON data.

— SQL/JSON data model and path language.

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)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 9075-1 and the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at `http://www.electropedia.org/`

— ISO Online browsing platform: available at `http://www.iso.org/obp`

3.1
JSON text
sequence of tokens

Note 1 to entry: JSON text must be encoded in Unicode (UTF-8 by default); insignificant whitespace may be used anywhere in JSON text except within strings (where all whitespace is significant), numbers, and literals. JSON text is a single object or array

3.2
token
strings, numbers, literals, or one of six structural characters

Note 1 to entry: The six structural characters are "{", "}", "[", "]", ":", ","

3.3
value
object, array, number, string, or one of three literals

3.4
type
primitive type or structured type

3.5
primitive type
string, number, Boolean, or null

3.6
primitive value
value that is a string, number, Boolean, or null

3.7
structured type
object or array

3.8
structured value
value that is an object or an array