

DBMS_JSON_SCHEMA

The `DBMS_JSON_SCHEMA` package provides subprograms for validating and generating JavaScript Object Notation (JSON) schemas that are stored in Oracle Database.

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DBMS_JSON_SCHEMA Security Model

The `DBMS_JSON_SCHEMA` package is owned by the `SYS` account.

The `PUBLIC` account is granted the `EXECUTE` privilege on the `DBMS_JSON_SCHEMA` package.

The `DBMS_JSON_SCHEMA` package is defined with the `AUTHID CURRENT_USER` clause.

The user who invokes the `DBMS_JSON_SCHEMA.DESCRIBE()` function must have sufficient privileges on the object that is being described.

DBMS_JSON_SCHEMA Constants

The `DBMS_JSON_SCHEMA` package uses the following constants for schema validation.

Table 114-1 DBMS_JSON_SCHEMA Constants for Schema Validation

Name	Value	Description
<code>RAISE_ERROR</code>	1	Raise errors for invalid schemas.
<code>RAISE_NONE</code>	0	Do not raise errors for invalid schemas.
<code>SCHEMA_INVALID</code>	0	The schema is not valid.
<code>SCHEMA_VALID</code>	1	The schema is valid.



See Also:

JSON Developer's Guide

Summary of DBMS_JSON_SCHEMA Subprograms

This table lists the DBMS_JSON_SCHEMA subprograms and briefly describes them.

DBMS_JSON_SCHEMA Package Subprograms

Subprogram	Description
DESCRIBE Function	Creates a schema from a specified object (table, view, object type; or a synonym resolving to a table, view, duality view, object or collection type, or domain).
IS_SCHEMA_VALID Function	Check the validity of a JSON schema.
IS_VALID Function	Check the validity of JSON data for a specified schema (function).
IS_VALID Procedure	Check the validity of JSON data for a specified schema (procedure).
VALIDATE_REPORT Function	Reads the error report from the result of a schema validation.

DESCRIBE Function

This procedure creates a schema from a specified object.



See Also:

- *Oracle Database JSON Developer's Guide*

Syntax

```
FUNCTION DESCRIBE(  
    object_name IN VARCHAR2,  
    owner_name  IN VARCHAR2  DEFAULT NULL,  
    column_name IN VARCHAR2  DEFAULT NULL)  
RETURN JSON;
```

Parameters

Table 114-2 DESCRIBE Function Parameters

Parameter	Description
<code>object_name</code>	The object to use to create the schema. The object can be a table, view, object type, or a synonym resolving to a table, view, duality view, object type, collection type, or domain.
<code>owner_name</code>	The name of the user who the schema is created for. If the <code>owner_name</code> value is NULL, the table is created in the current user's schema.
<code>column_name</code>	If a column name is specified, the schema returned is only for the column in the table or view. The <code>column_name</code> argument can be used only with table or view objects.

IS_SCHEMA_VALID Function

This function checks a schema for validity.

See Also:

- *Oracle Database JSON Developer's Guide*

Syntax

```
FUNCTION IS_SCHEMA_VALID(  
    json_data    IN    JSON)  
RETURN PLS_INTEGER;
```

Parameters

Table 114-3 DESCRIBE Function Parameters

Parameter	Description
json_data	The schema to check for validity.

The function returns 0 if the schema is not valid.

IS_VALID Function

This function checks the validity of JSON data for a specified schema.

See Also:

- *Oracle Database JSON Developer's Guide*

Syntax

```
FUNCTION IS_VALID(  
    json_data    IN    JSON,  
    json_schema  IN    JSON,  
    raise_err    IN    PLS_INTEGER  
    DEFAULT DBMS_JSON_SCHEMA.RAISE_NONE)  
RETURN PLS_INTEGER;
```

Parameters

Table 114-4 IS_VALID Function Parameters

Parameter	Description
json_data	The JSON data to validate.
json_schema	The schema to use to validate the data.
raise_err	<ul style="list-style-type: none">RAISE_NONE — Do not raise an error for invalid schemas.RAISE_ERROR — Raise an error for invalid schemas.

If the schema is valid, the `SCHEMA_VALID` constant, 1, is returned. If the schema is not valid, the `SCHEMA_INVALID` constant, 0, is returned, unless the `raise_err` value is `RAISE_ERROR`, in which case an error is raised.

IS_VALID Procedure

This procedure checks the validity of JSON data for a specified schema.



See Also:

- Oracle Database JSON Developer's Guide*

Syntax

```
PROCEDURE IS_VALID(  
    json_data    IN  JSON,  
    json_schema  IN  JSON,  
    result       OUT BOOLEAN,  
    errors       OUT JSON);
```

Parameters

Table 114-5 IS_VALID Procedure Parameters

Parameter	Description
json_data	The JSON data to validate.
json_schema	The schema to use to validate the data.
result	The result of the validation, which is <code>TRUE</code> if the JSON data is valid and <code>FALSE</code> if not.
errors	A list of error messages that indicate why the JSON data was found invalid when validated against the specified schema.

VALIDATE_REPORT Function

This function reads the error report from the result of a schema validation.



See Also:

- *Oracle Database JSON Developer's Guide*

Syntax

```
FUNCTION VALIDATE_REPORT (  
    json_data    IN    VARCHAR2,  
    json_schema IN    VARCHAR2)  
RETURN JSON;
```

Parameters

Table 114-6 VALIDATE_REPORT Function Parameters

Parameter	Description
json_data	The JSON data to validate.
json_schema	The schema to use to validate the data.