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Oracle REST Data Services FAQ

Frequently Asked Questions   Close all

What is Oracle REST Data Services (ORDS)?   —

ORDS is a Java application that enables developers with SQL and database skills to develop REST APIs for the Oracle Database, the Oracle Database 12c JSON Document store, and the Oracle NoSQL Database. Any application developer can use these APIs from any language environment, without installing and maintaining

How can I get started with ORDS?   —

Download the Oracle Database Application Development VirtualBox Appliance. Our Hands-on Labs are included on this free resource, which also contais an Oracle

How is ORDS licensed?   —

ORDS is included (and for no additional cost) with any Oracle Database license. For ORDS use with Weblogic the following paragraph was added at the end of the Weblogic licensing documentation here : "A license to WebLogic Management Framework includes a restricted-use license to Oracle WebLogic Server Standard

How does ORDS run on the Oracle Public Cloud?

ORDS runs the same on the Oracle Public Cloud as it does on-p
to go about creating an account on the Oracle Exadata Express

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How does ORDS pass parameters in and out to SQL and PL/SQL handlers in REST calls like GET and POST?

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How does ORDS pass parameters in and out to SQL and PL/SQL handlers in REST calls like GET and POST?
ORDS enables both in and out parameters to be passed within the body of some REST calls such as POST and PUT, in the URIs as query strings or route patterns,

Can ORDS create RESTful Services that execute PL/SQL stored procedures?

—

Absolutely. RESTful Service modules can execute any valid SQL or PL/SQL block. If you wish to simply create an endpoint for executing a stored procedure, the APIs must be created manually. See blog post "ORDS Mechanisms for Passing

How can I document and publish my RESTful APIs I create with ORDS?

—

A very good way to publish RESTful APIs is to use the OpenAPI Initiative standard (formerly known as Swagger). This is a very popular API frameworks and used by the Oracle Cloud PaaS API Catalog Cloud Service. APIs can be published for both easy human and computer consumption. A nice feature is that code stubs can be generated in nearly any programming language for making the API calls.

Why am I getting a 404 Not Found error message when I first do a GET on ORDS using the URI https://<hostname><:port>/ords ?

—

This is expected behavior and not an error. You need to specify a resource you have defined in ORDS in the URI as well, e.g., https://<hostname>

What application server should I use with ORDS?

ORDS is supported on three application servers: Oracle Weblog
Tomcat, and GlassFish (deprecated). Glassfish support will be c

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What is Standalone mode and when should I use it?   —

ORDS can also be ran as a standalone Java process. In this configuration, it employs an embedded Jetty webserver which is purpose-built to serve ORDS REST and Application Express (APEX) applications.
Standalone is supported for production use, but it lacks 'out-of-the-box' features

How can I tell what version of ORDS I am running?   —

For on premise deployments use java -jar ords.war version

You can also query the ORDS metadata catalog in a database serviced by that particular instance of ORDS, e.g.

Copy

```
select 'ORDS is ' || version "Version of ORDS" from ords_meta
```

Does ORDS Support RAC Fast Connection Failover?   —

Yes. ORDS runs with the UCP (Universal Connection Pool) in all the Application Server environments it supports, e.g., Oracle Weblogic Server, Tomcat, Glassfish,

How do you do performance tuning if ORDS appears to be running slow?   —

A common problem users may experience when they start running ORDS in production environments or under load in test mode is to have poor performance because there are too few database connections. ORDS uses th
Connection Pool (UCP). The ORDS defaults for initial number o

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Where can I find actual worked examples of impler security with ORDS?

There are four excellent worked examples available:

1) The documentation chapter "Getting Started with RESTful Services" which walks you through the basics of setting up RESTful APIs using ORDS culminating with setting up OAuth2 security to protect the APIs.

2) The documentation chapter "Configuring Secure Access to RESTful Services" which provides more in-depth examples of configuring the different security options that ORDS supports including First Party Cookie-Based Authentication and both two-legged and three-legged OAuth2 security.

3) The documentation chapter "Development Tutorial: Creating an Image Gallery" which provides an example of setting up more complex application for storing and retrieving picture images that includes setting up OAuth2 security.

Where can I find examples of creating RESTful APIs using the ORDS PL/SQL API.   —

Where can I find examples of creating RESTful APIs using the ORDS PL/SQL API. In addition to the documentation chapter ORDS PL/SQL Package Reference which provides some examples there is this blog post "Create an ORDS RESTful Service Using PL/SQL" which walks you through the steps needed to create RESTful services using the ORDS PL/SQL API from beginning to end. Also, look at the blog

How does ORDS handle Date data types? The Oracle Database supports date data types but JSON does not.   —

ORDS uses the ISO 8601, or more precisely the RFC3339, standard for encoding dates in strings. Generally, the format is dd-mmm-yyyy, e.g., 15-Jan-2017. ORDS automatically converts JSON strings in this format to Oracle Da

How can JSON objects containing nested arrays b multiple, hierarchical tables in the Oracle Database

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A very good way to do this is to use the SQL/JSON functions like json_table that are available in Oracle Database 12c. For details on how to do this see blog post

How can I generate nested JSON objects from multiple, hierarchical tables in the Oracle Database, e.g., a JSON purchase order containing a nested array of purchase order items from purchase order and purchase order items tables?   —

A very good way to do this is to use the SQL/JSON functions, like json_object and json_arrayagg, that are available in Oracle Database 12c Release 2. For details on

How can I turn off pagination so that GETs that return arrays of JSON Objects are processed correctly?   —

Set pagination to zero in either the module or individual template definitions.

How can I store and retrieve JSON in a column of a relational table using REST and ORDS?   —

To store the JSON you need to update the column using JSON contained in the body of a PUT or POST call. To retrieve or GET the JSON back you use the resource

How can I get answers to other technical questions I may have about ORDS?   —

A very good way is to go to Forum for ORDS, SODA, and JSON in the Database

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