

# How to generate an entity-relationship (ER) diagram using Oracle SQL Developer

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335

I want to use Oracle SQL Developer to generate an ER diagram for my DB tables but I am new to Oracle and this tool.



What is the process for creating an ER diagram in SQL Developer?



111

[oracle](#)[oracle-sqldeveloper](#)[entity-relationship](#)[erd](#)

edited Sep 19 '14 at 16:49

[Air](#)

5,474 2 38 69

asked Jul 5 '11 at 9:30

[Breezescut](#)

1,776 3 10 4

You also can do it using [ER Diagram Tool](#) in dbForge Studio for Oracle. Try free Express edition. – [Devart](#) Dec 22 '16 at 8:54

## 8 Answers



Create a diagram for existing database schema or its

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1. Click **File** → **Data Modeler** → **Import** → **Data Dictionary**.
2. Select a DB connection (add one if none).
3. Click **Next**.
4. Check one or more schema names.
5. Click **Next**.
6. Check one or more objects to import.
7. Click **Next**.
8. Click **Finish**.

The ERD is displayed.

Export the diagram as follows:

1. Click **File** → **Data Modeler** → **Print Diagram** → **To Image File**.
2. Browse to and select the export file location.
3. Click **Save**.

The diagram is exported. To export in a vector format, use **To PDF File**, instead. This allows for simplified editing using [Inkscape](#) (or other vector image editor).

These instructions may work for SQL Developer 3.2.09.23 to 4.1.3.20.

edited Mar 5 '18 at 19:49



Dave Jarvis

21.4k 30 133 260

answered Aug 24 '12 at 0:30



Sergei Mardiyants

4,399 1 8 3

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any issues : [DiligentKarma](#) Oct 20 '17 at 10:12

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- 1 [@sataniccrow](#) : agree, sql developer tool in general is not easy to use and buggy, makes any job painful. but has many functions, in the other hand. – [tbraun](#) Mar 4 '14 at 16:47

I had a problem creating a new database connection while creating the ER model. On selecting TNS to be the Connection Type, the Network Alias drop down did not show the expected entries in my tnsnames.ora file. To get around, I selected the Connection Type to be Basic, and entered the desired Hostname, Port and Service Name values from the tnsnames.ora file that works otherwise. May be there is a place where we can specify the tnsnames.ora file for the SQL Modeler, but I could not find any such place through SQL Developer (Tools->Preferences-> Data Modeler). Things were simple afterwards. – [DiligentKarma](#) Apr 21 '14 at 22:47

- 1 Side note: You must be inside the Data Modeler tool otherwise "Data Modeler" will not be available on the "File" menu. – [Necreaux](#) Mar 17 '15 at 13:19

Suppose I generate the diagram and then update one of the source tables. How do I "refresh" the diagram to show the change I made to the source table? – [takanuva15](#) Oct 16 '17 at 0:22



Since SQL Developer 3, it's pretty straightforward (they could've made it easier).

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1. Go to «*View* → *Data Modeler* → *Browser*». The browser will show up as one of the tabs along the left-hand side.
2. Click on the «*Browser*» tab, expand the design (probably called `Untitled_1`), right-click «*Relational Models*» and select «*New Relational Model*».
3. Right click on the newly created relational model (probably `Relational_1`) and select «*Show*».

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click on the first table in the Connections tab, SQLDeveloper opens that table in the right: select all the tables from the left, then ensure the `Relational_1` tab (or whatever name) is the active one in the rhs before you drag them over, because it has probably switched to one of the tables you clicked in the lhs.

edited Sep 19 '14 at 12:16



Cloink

3 1

answered Aug 20 '12 at 22:31



lintmouse

3,869 6 28 51

- 
- 2 That sound easy - but so sad - drag and drop does not work for me (WinXP/SQLDesigner 3.2.09). Suggestions? – [Bastian Ebeling](#) Aug 22 '12 at 12:38
- 

Are you using SQL Designer or SQL Developer? – [lintmouse](#) Nov 27 '12 at 15:56

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I used [Oracle SQL Developer](#) sorry, that was a typo up above writing SQLDesigner. – [Bastian Ebeling](#) Nov 29 '12 at 9:05

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Just dropping a comment here because I just spent half an hour figuring out how to export the diagram to png or pdf. And I'd hate to do that again the next time I need this (...this is not the first time). Anyhow the procedure is as stated in @Sergei's answer above: Click File → Data Modeler → Print Diagram → To Image File (or To PDF File) – [Superole](#) Feb 20 at 17:07

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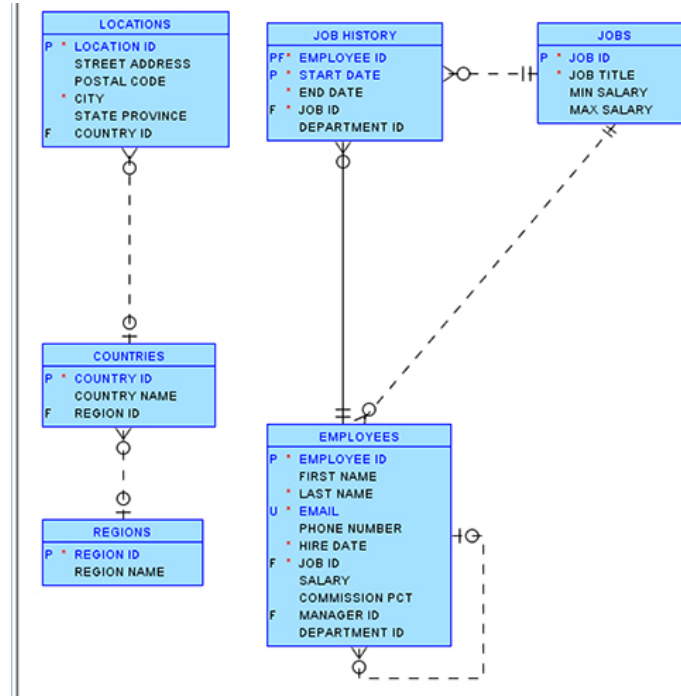


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The process of generating Entity-Relationship diagram in Oracle SQL Developer has been described in **Oracle Magazine** by **Jeff Smith** ([link](#)).

Excerpt:

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*Entity relationship diagram*

## Getting Started

To work through the example, you need an Oracle Database instance with the sample HR schema that's available in the default database installation. You also need version 4.0 of Oracle SQL Developer, in which you access Oracle SQL Developer Data Modeler through the Data Modeler submenu [...]. Alternatively, you can use the standalone Oracle SQL Developer Data Modeler. The modeling functionality is identical in the two implementations, and both are available as free downloads from Oracle Technology Network.

In Oracle SQL Developer, select View -> Data Modeler -> Browser. In the Browser panel, select the Relational

now starting at the same place as someone who's using the standalone Oracle SQL Developer Data Modeler. Importing Your Data Dictionary

## Importing Your Data Dictionary

A design in Oracle SQL Developer Data Modeler consists of one logical model and one or more relational and physical models. To begin the process of creating your design, you must import the schema information from your existing database. Select File -> Data Modeler -> Import -> Data Dictionary to open the Data Dictionary Import wizard.

Click Add to open the New -> Select Database Connection dialog box, and connect as the HR user. (For detailed information on creating a connection from Oracle SQL Developer, see "Making Database Connections," in the May/June 2008 issue of Oracle Magazine.)

Select your connection, and click Next. You see a list of schemas from which you can import. Type HR in the Filter box to narrow the selection list. Select the checkbox next to HR, and click Next.

[Read more...](#)

edited May 20 '15 at 22:34

answered Sep 23 '14 at 6:46



**Dariusz Woźniak**

**5,875** 3 40 62

34 File → Data Modeler → Import → Data Dictionary → select DB connection → Next → select database->select labels -> Finish

answered Nov 25 '14 at 10:23



Swati Pisal

393 3 5

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Good for specifying concretely what I am selecting –  
[Gab是好人](#) Dec 5 '16 at 12:53

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22 There is a companion tool called [Oracle Data Modeler](#) that you could take a look at. There are [online demos available](#) at the site that will get you started. It used to be an added cost item, but I noticed that once again it's free.

From the Data Modeler overview page:

SQL Developer Data Modeler is a free data modeling and design tool, proving a full spectrum of data and database modeling tools and utilities, including modeling for Entity Relationship Diagrams (ERD), Relational (database design), Data Type and Multi-dimensional modeling, with forward and reverse engineering and DDL code generation. The Data Modeler imports from and exports to a variety of sources and targets, provides a variety of formatting options and validates the models through a predefined set of design rules.

edited Jul 5 '11 at 17:18

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35.6k 11 65 82

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- 6 SQL Developer version 3 includes Data Modeler but the standalone version is easier to use as you don't have to dig down into the menus to find the items relevant to the modeler – Gary Myers Jul 5 '11 at 23:11
- 



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Oracle used to have a component in SQL Developer called Data Modeler . It no longer exists in the product since at least 3.2.20.10.



It's now a separate download that you can find here:

<http://www.oracle.com/technetwork/developer-tools/datamodeler/overview/index.html>

edited Oct 6 '16 at 13:56

answered Jul 13 '16 at 15:49



BIBD

10.7k 22 70 116

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- 1 thanks bro, that was the best answer ever about SQL developer :) – Erdinc Ay Sep 22 '16 at 8:23
- 



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Its easy go to File - Data Modeler - Import - Data Dictionary - DB connection - OK



answered Jun 4 '14 at 14:10



Douglas Marques

113 12

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I'm running SQL Developer 17.2.0.188 build 188.1159 which does indeed contain data modeling capability. I just created a relational model diagram via the menu: **File->Data Modeler->Import->Data Dictionary....**

I also have the stand-alone Data Modeler, which does the same thing.

As the [Data Modeler tutorial](#) states:

*Figure 4: Relational model and diagram for HR*

*The diagram you've generated is not an ERD. Logical models are higher abstractions. An ERD represents entities and their attributes and relations, whereas a relational or physical model represents tables, columns, and foreign keys."*

answered Sep 21 '17 at 21:17



J Slick

696 9 17

protected by [Community](#) ♦ Apr 21 '16 at 14:19

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