Using SQL Developer

Copyright © 2008, Oracle. All rights reserved.

Objectives

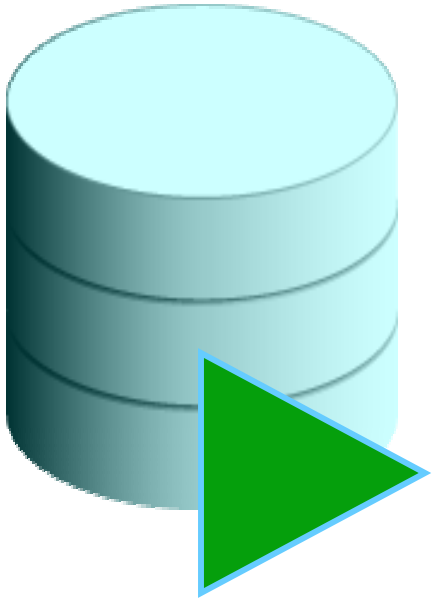
After completing this appendix, you should be able to do the following:

- List the key features of Oracle SQL Developer
- Install Oracle SQL Developer
- Identify menu items of Oracle SQL Developer
- Create a database connection
- Manage database objects
- Use SQL worksheet
- Save and run SQL scripts
- Create and save reports

Copyright © 2008, Oracle. All rights reserved.

What Is Oracle SQL Developer?

- Oracle SQL Developer is a graphical tool that enhances productivity and simplifies database development tasks.
- You can connect to any target Oracle database schema by using standard Oracle database authentication.



SQL Developer

Copyright © 2008, Oracle. All rights reserved.

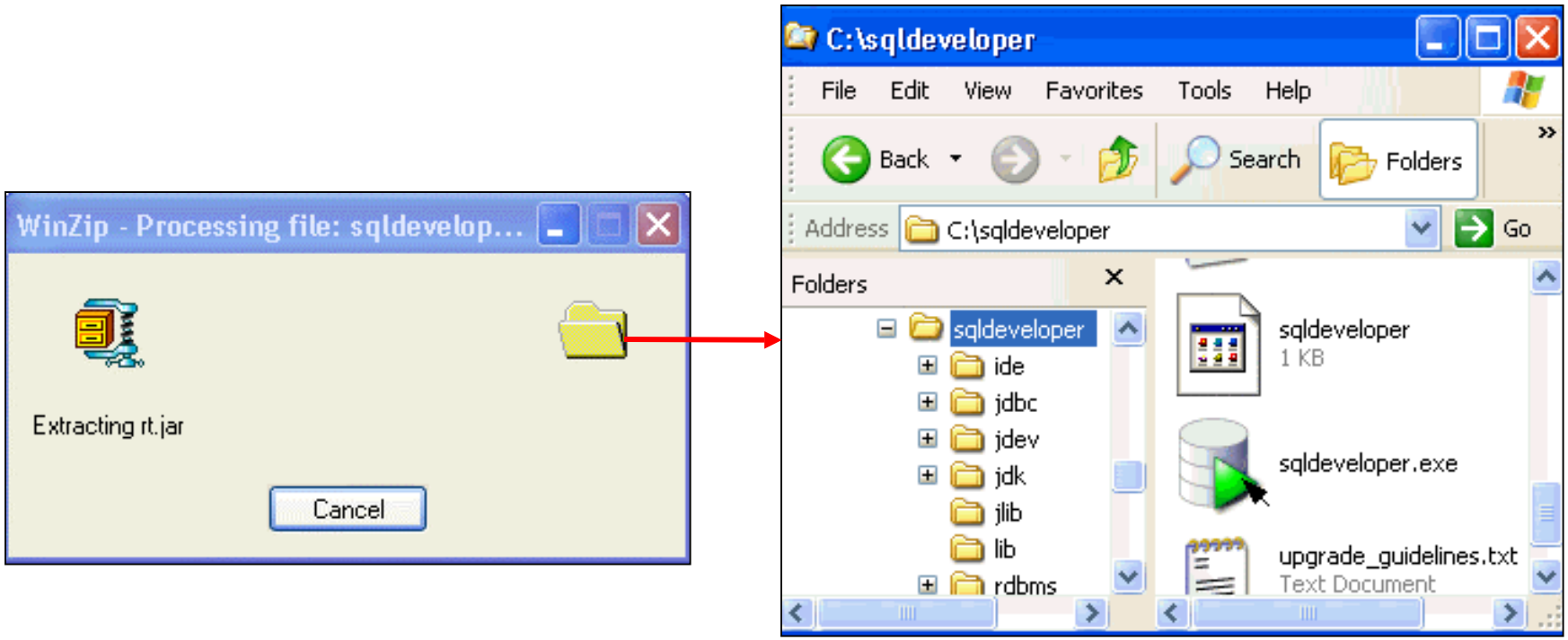
Specifications of SQL Developer

- Developed in Java
- Supports Windows, Linux, and Mac OS X platforms
- Default connectivity by using the JDBC Thin driver
- Does not require an installer
  - Unzip the downloaded SQL Developer kit and double-click `sqldeveloper.exe` to start SQL Developer.
- Connects to any Oracle Database version 9.2.0.1 and later
- Freely downloadable from the following link:
  - http://www.oracle.com/technology/software/products/sql/index.html
- Needs JDK 1.5 to be installed on your system. It can be downloaded from the following link:
  - http://java.sun.com/javase/downloads/index_jdk5.jsp

Copyright © 2008, Oracle. All rights reserved.

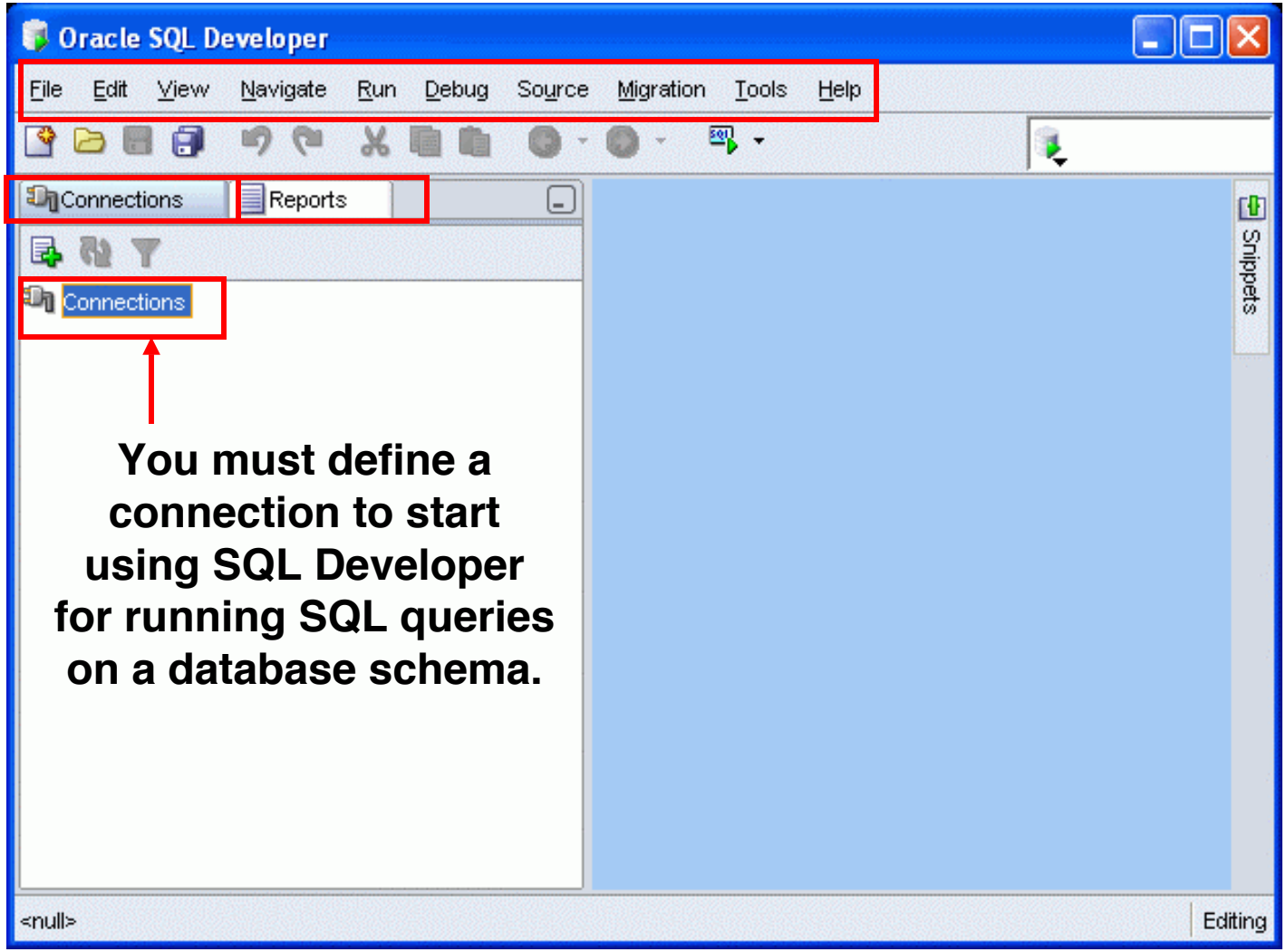
Installing SQL Developer

Download the Oracle SQL Developer kit and unzip into any directory on your machine.



Copyright © 2008, Oracle. All rights reserved.

SQL Developer Interface



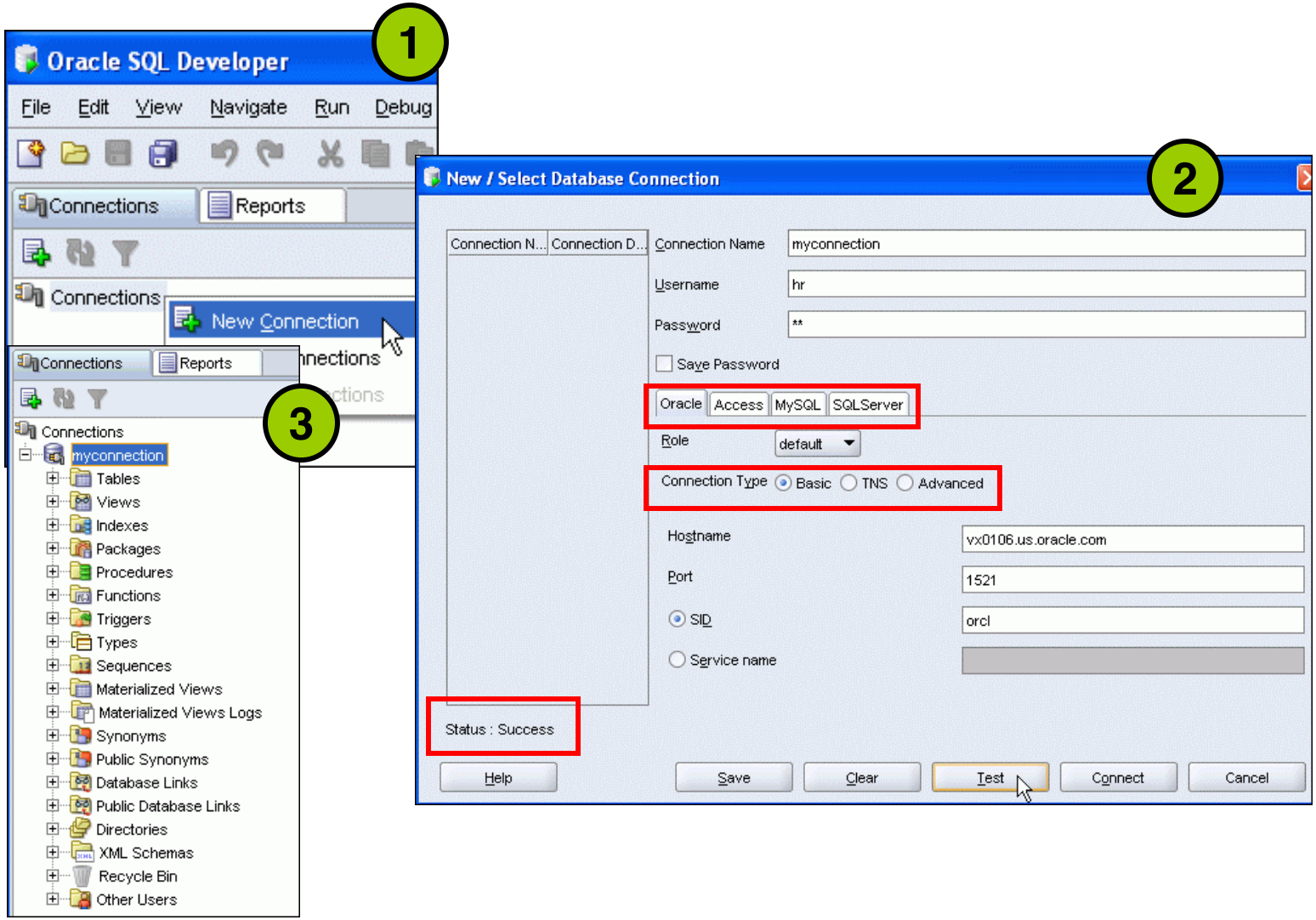
Copyright © 2008, Oracle. All rights reserved.

Creating a Database Connection

- You must have at least one database connection to use SQL Developer.
- You can create and test connections:
  - For multiple databases
  - For multiple schemas
- SQL Developer automatically imports connections defined in the `tnsnames.ora` file on your system.
- You can export connections to an XML file.
- Each additional database connection that is created is listed in the Connections navigator hierarchy.

Copyright © 2008, Oracle. All rights reserved.

Creating a Database Connection

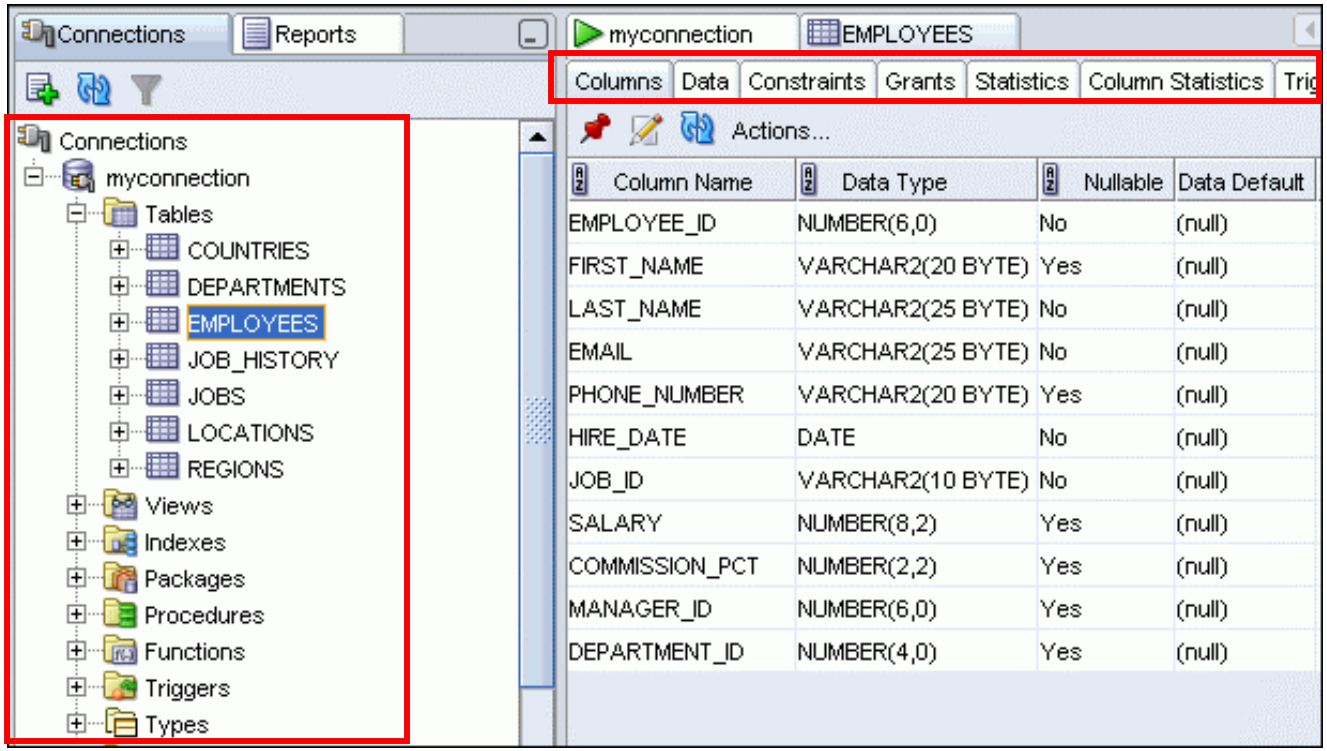


Copyright © 2008, Oracle. All rights reserved.

Browsing Database Objects

Use the Connections navigator to:

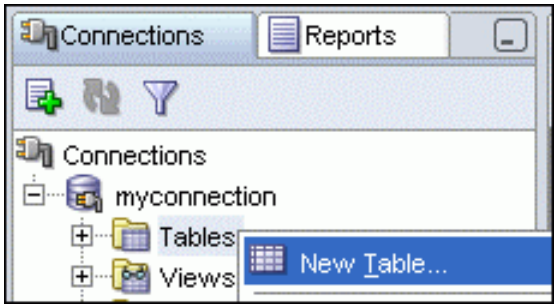
- Browse through many objects in a database schema
- Review the definitions of objects at a glance



Copyright © 2008, Oracle. All rights reserved.

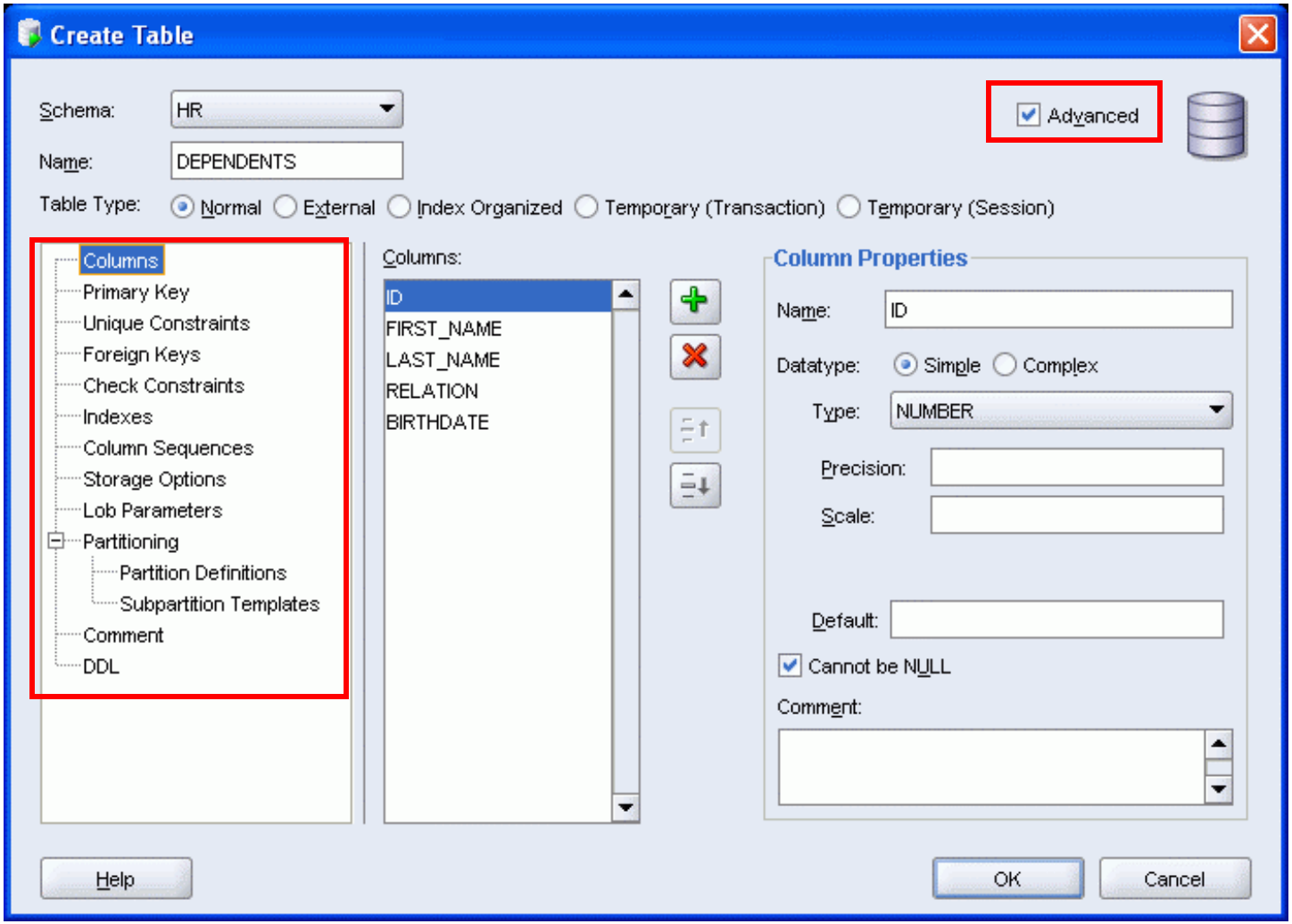
Creating a Schema Object

- SQL Developer supports the creation of any schema object by:
  - Executing a SQL statement in SQL worksheet
  - Using the context menu
- Edit the objects by using an edit dialog or one of the many context-sensitive menus.
- View the DDL for adjustments, such as creating a new object or editing an existing schema object.



Copyright © 2008, Oracle. All rights reserved.

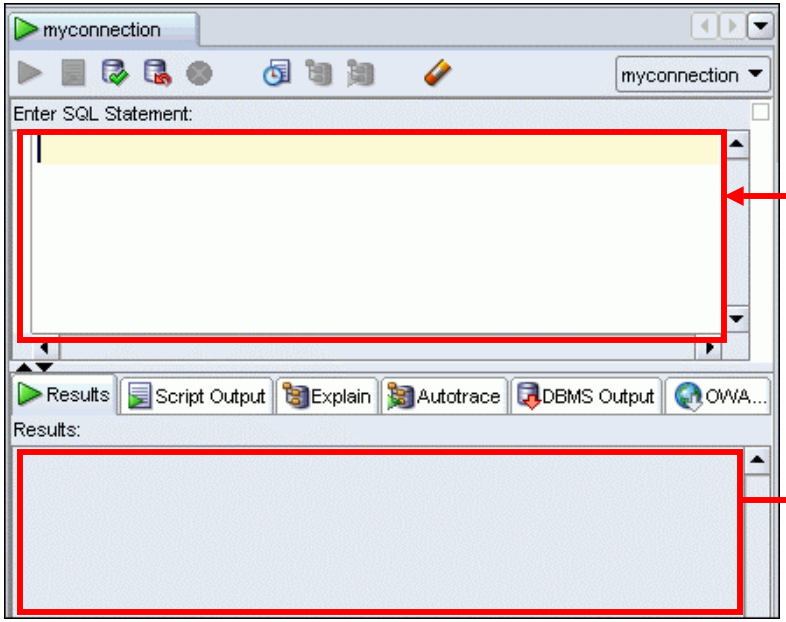
Creating a Table: Example



Copyright © 2008, Oracle. All rights reserved.

Using the SQL Worksheet

- Use the SQL worksheet to enter and execute SQL, PL/SQL, and SQL*Plus statements.
- Specify actions that can be processed by the database connection associated with the worksheet.

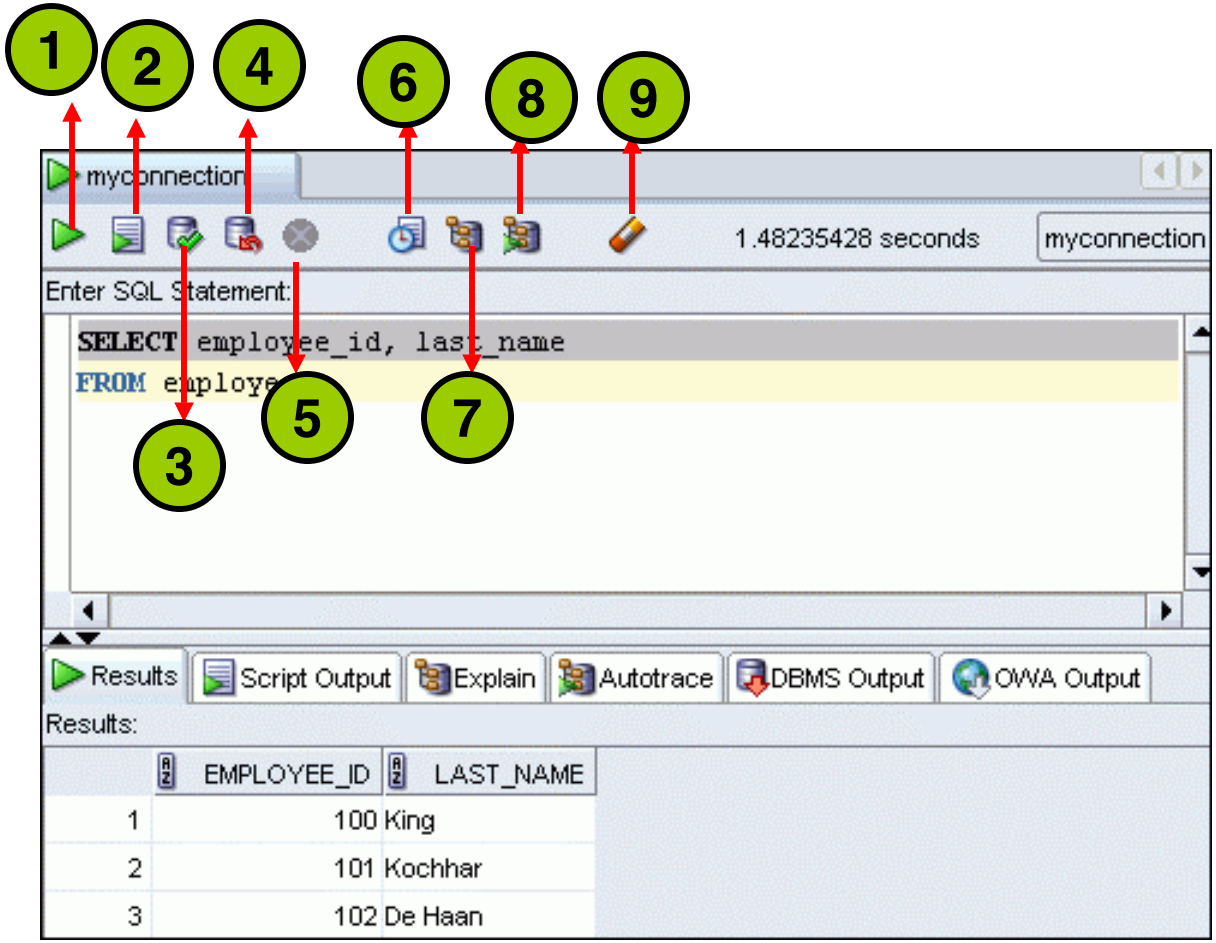


Enter SQL statements.

Results are shown here.

Copyright © 2008, Oracle. All rights reserved.

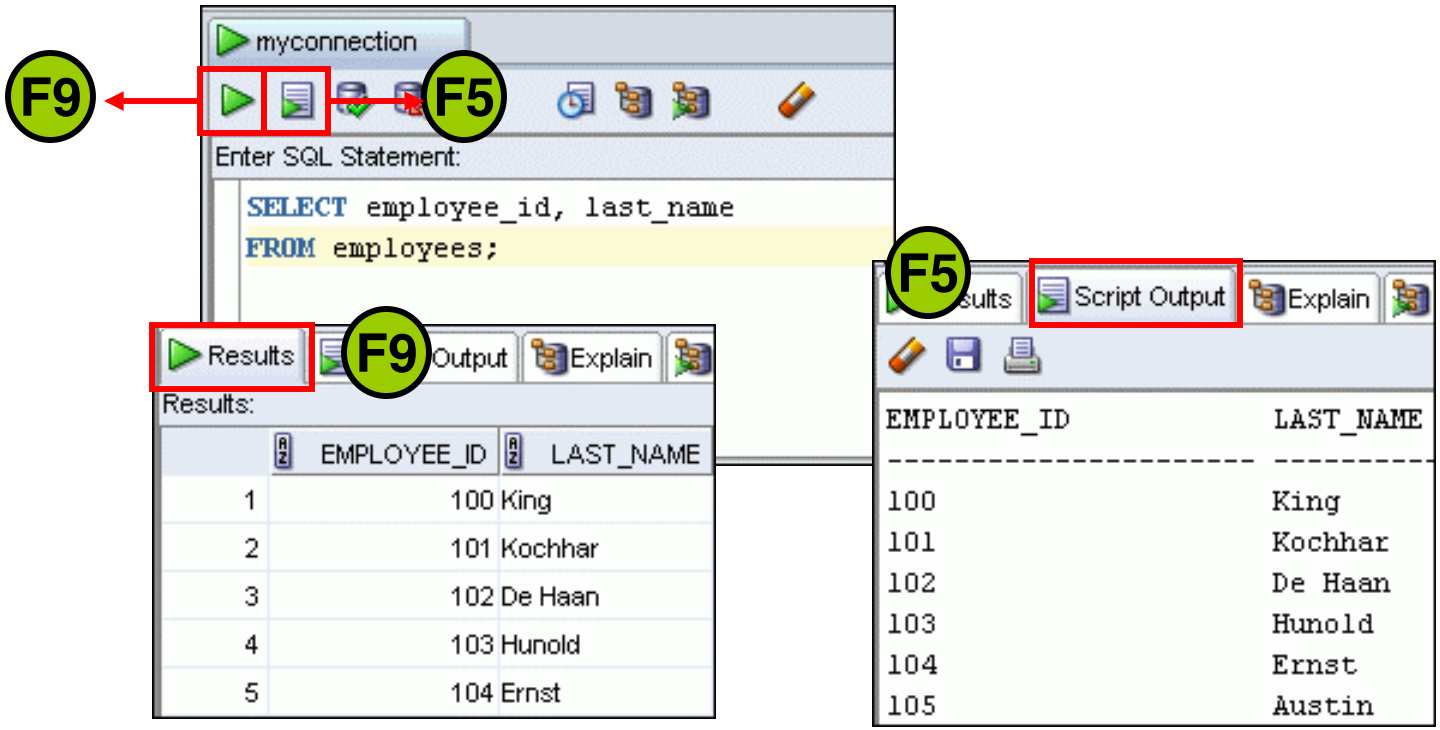
Using the SQL Worksheet



Copyright © 2008, Oracle. All rights reserved.

Executing SQL Statements

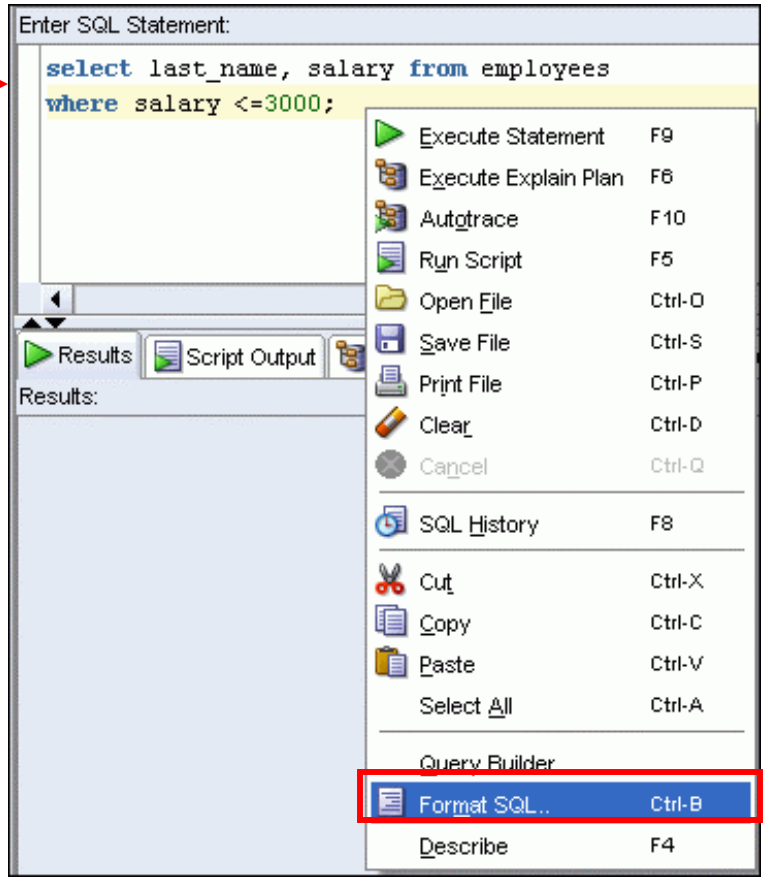
Use the Enter SQL Statement box to enter single or multiple SQL statements.



Copyright © 2008, Oracle. All rights reserved.

Formatting the SQL Code

Before formatting

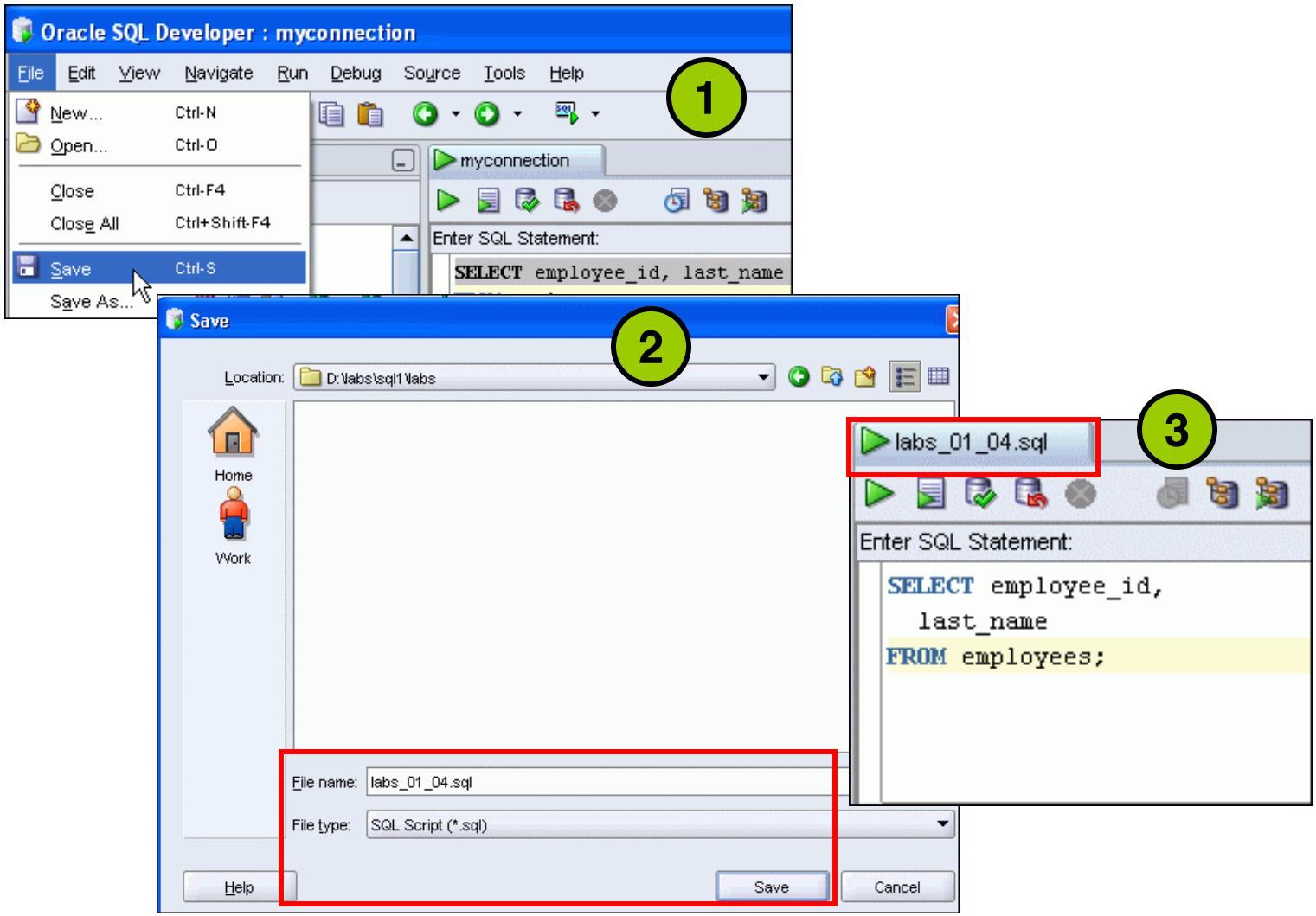


After formatting

```
SELECT last_name,
  salary
FROM employees
WHERE salary <= 3000;
```

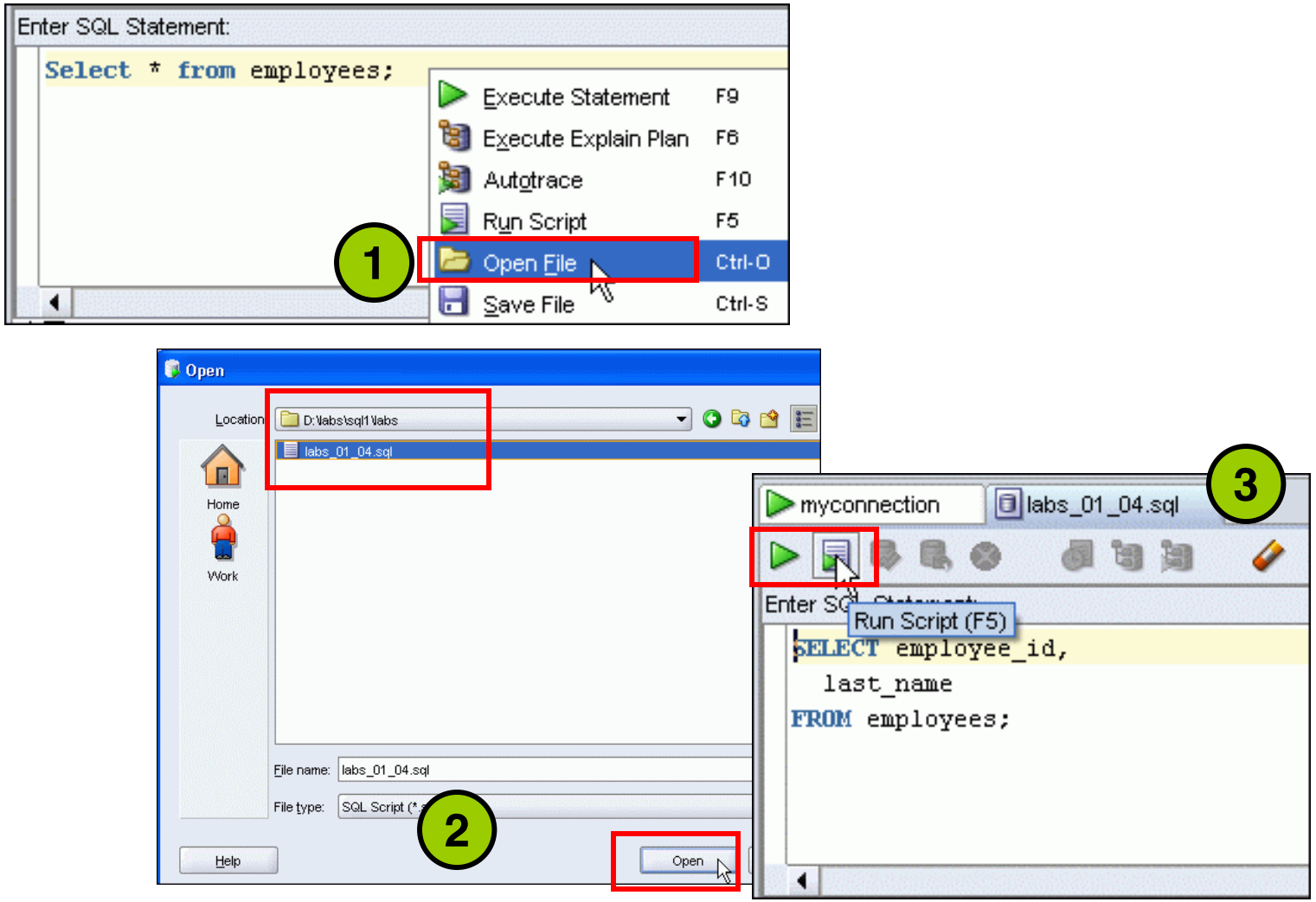

Copyright © 2008, Oracle. All rights reserved.

Saving SQL Statements



Copyright © 2008, Oracle. All rights reserved.

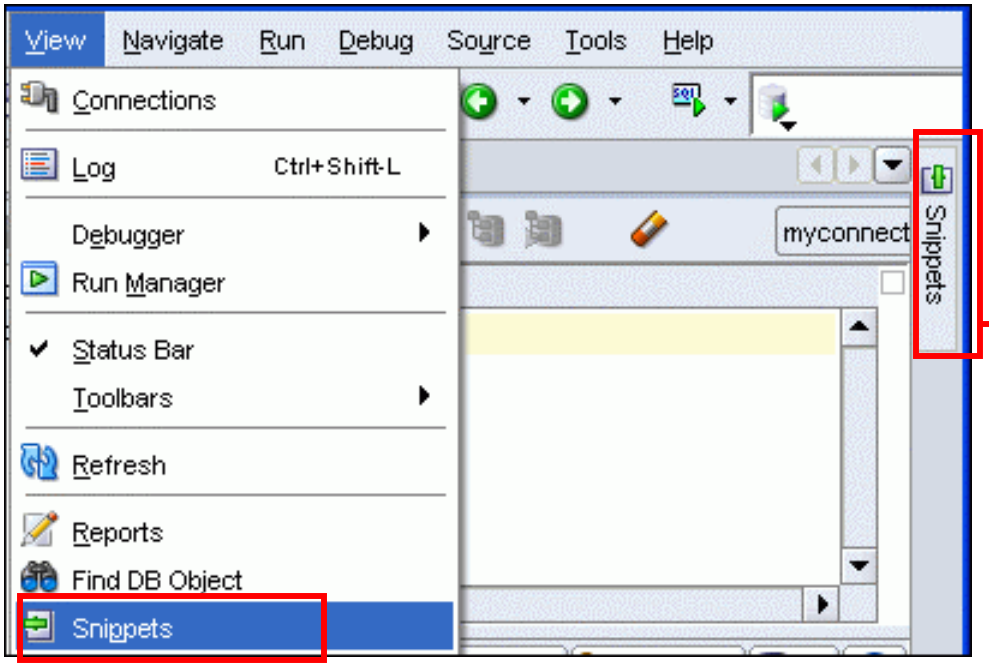
Running Script Files



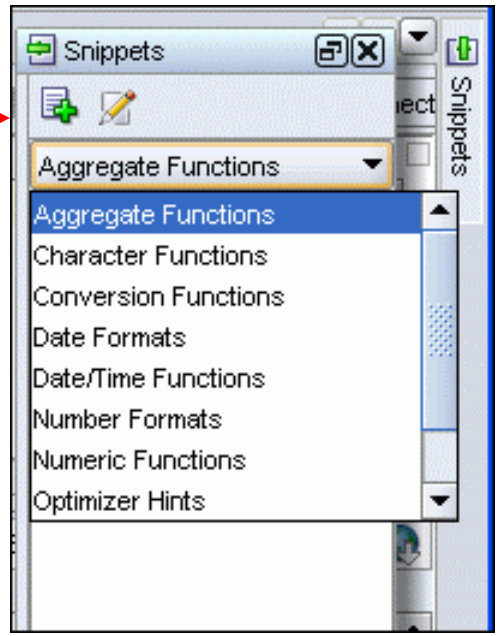
Copyright © 2008, Oracle. All rights reserved.

Using Snippets

Snippets are code fragments that may be just syntax or examples.



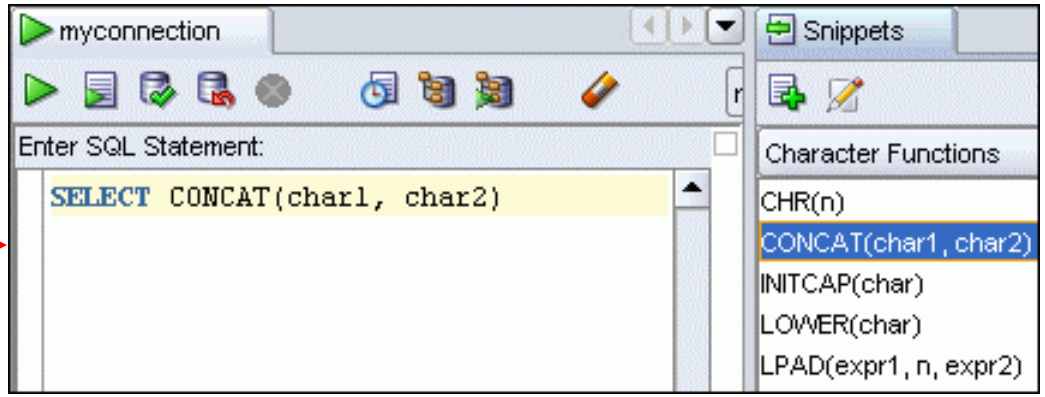
When you place your cursor here, it shows the Snippets window. From the drop-down list, you can select the functions category.



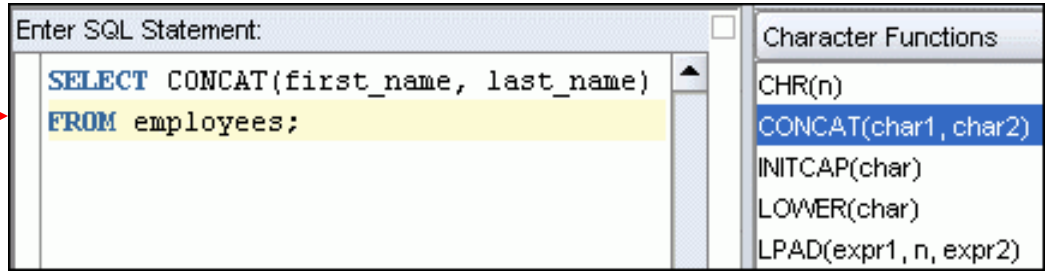
Copyright © 2008, Oracle. All rights reserved.

Using Snippets: Example

Inserting a snippet



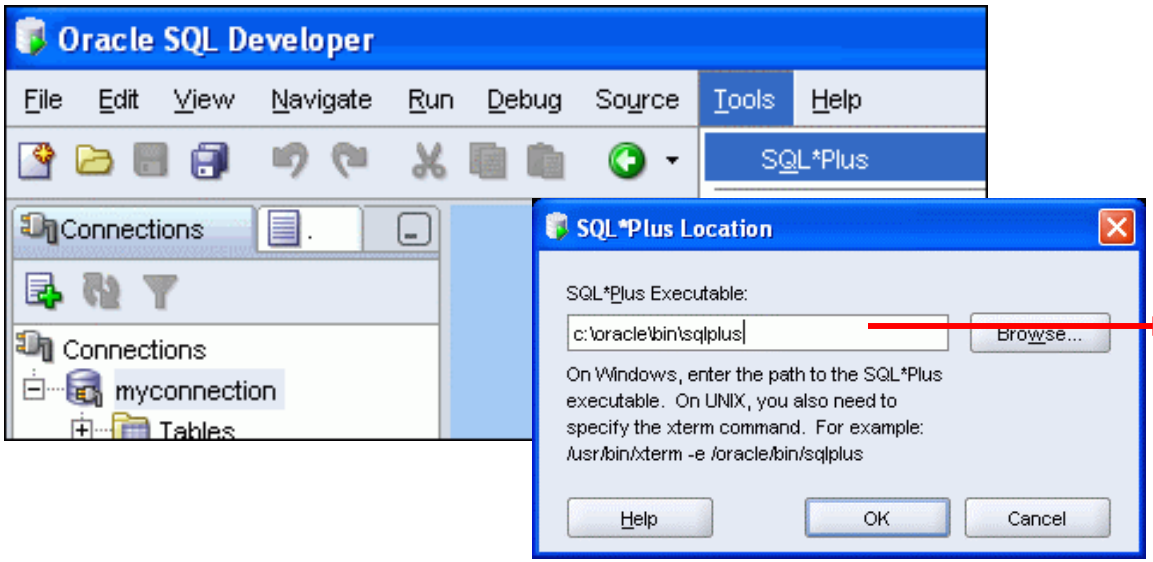
Editing the snippet



Copyright © 2008, Oracle. All rights reserved.

Using SQL*Plus

- You can invoke the SQL*Plus command-line interface from SQL Developer.
- Close all SQL worksheets to enable the SQL*Plus menu option.

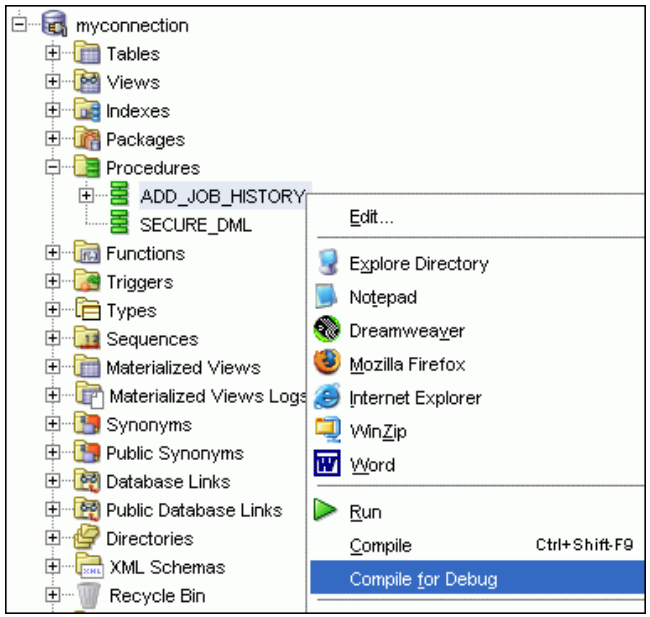


Provide the location of the `sqlplus.exe` file only the first time you invoke SQL*Plus.

Copyright © 2008, Oracle. All rights reserved.

Debugging Procedures and Functions

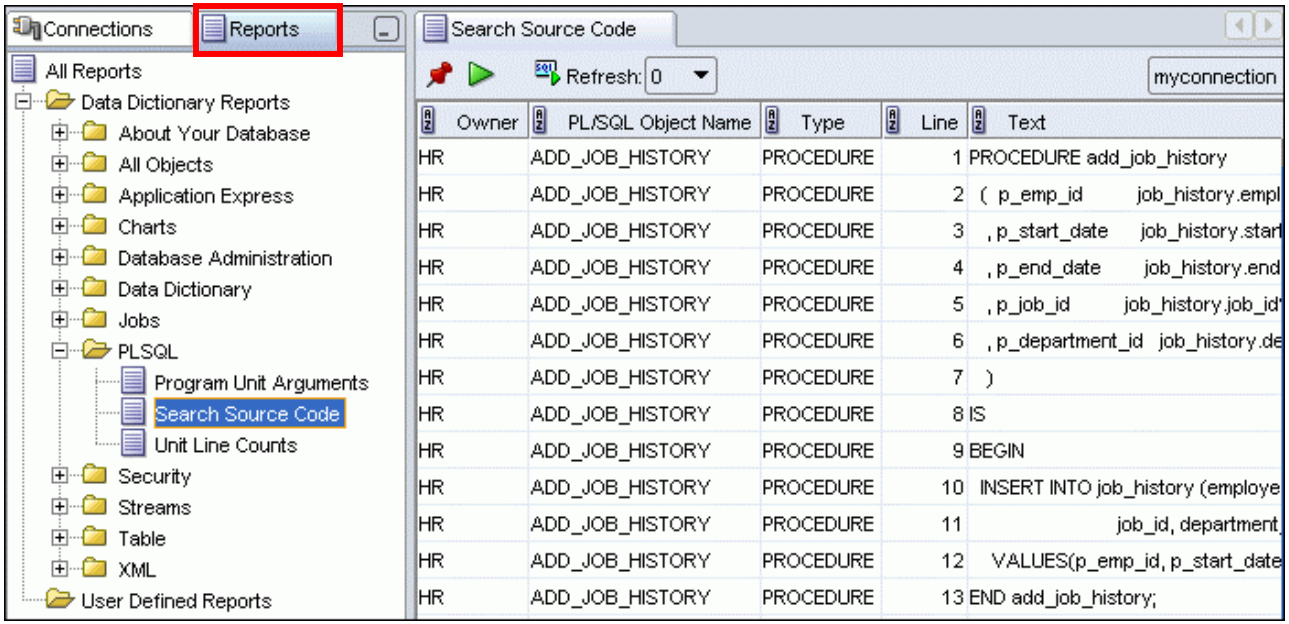
- Use SQL Developer to debug PL/SQL functions and procedures.
- Use the Compile for Debug option to perform a PL/SQL compilation so that the procedure can be debugged.
- Use the Debug menu options to set breakpoints and to perform step into, step over tasks.



Copyright © 2008, Oracle. All rights reserved.

Database Reporting

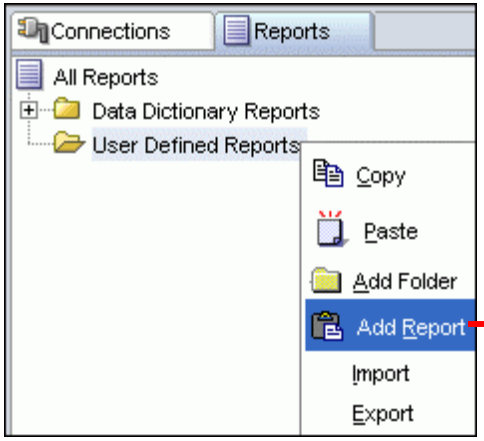
SQL Developer provides a number of predefined reports about the database and its objects.

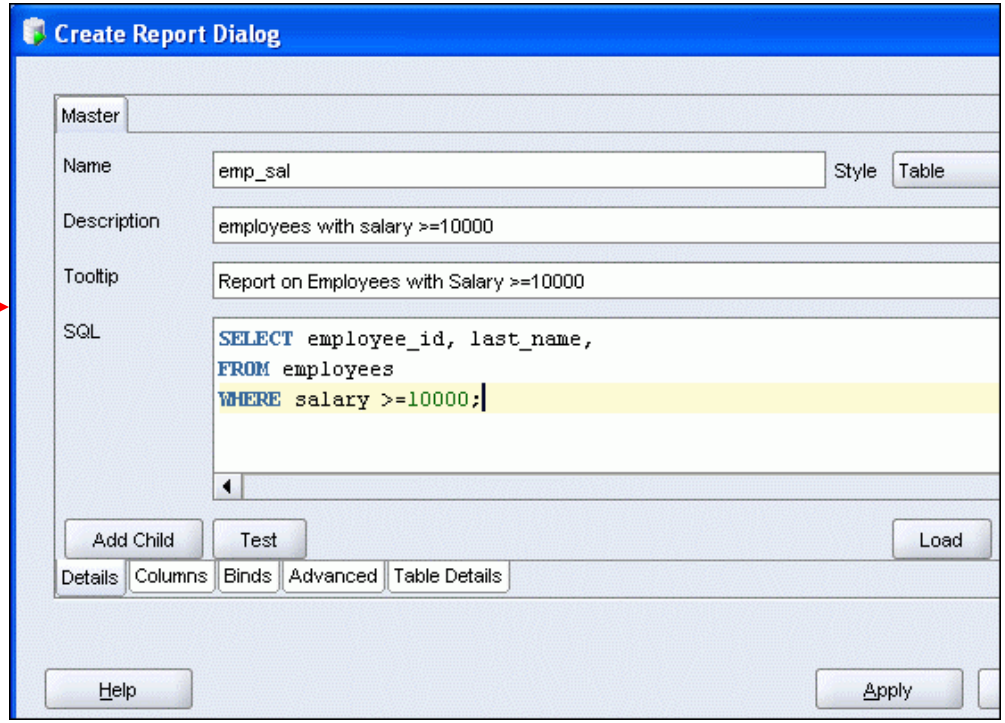


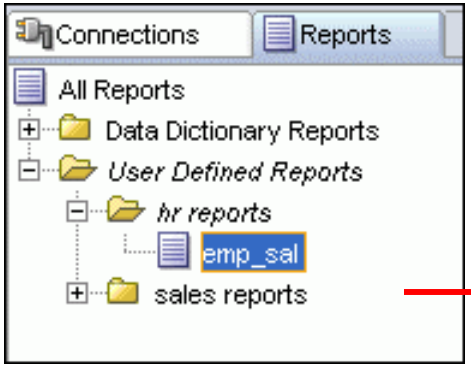
Copyright © 2008, Oracle. All rights reserved.

Creating a User-Defined Report

Create and save user-defined reports for repeated use.



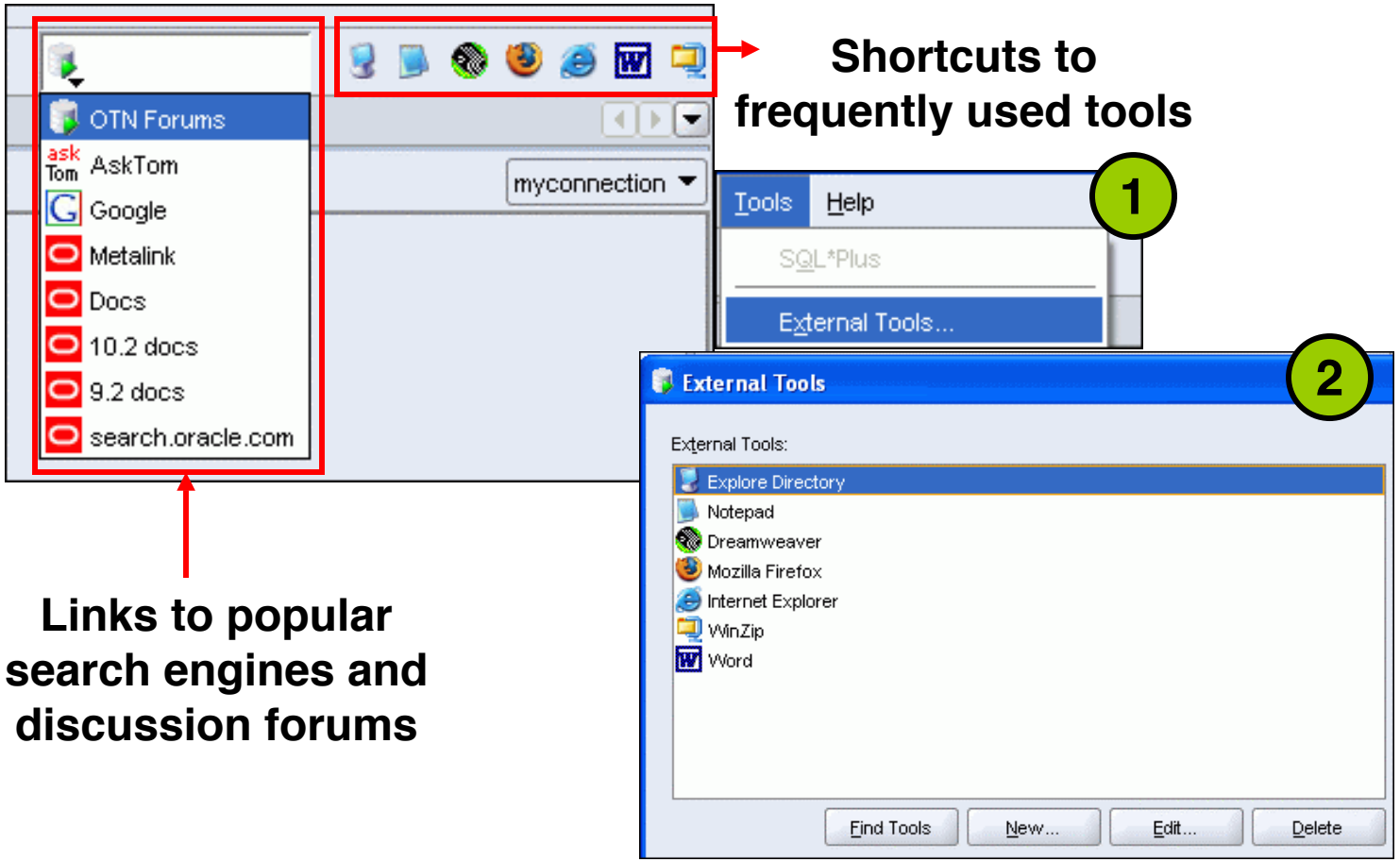




Organize reports in folders

Copyright © 2008, Oracle. All rights reserved.

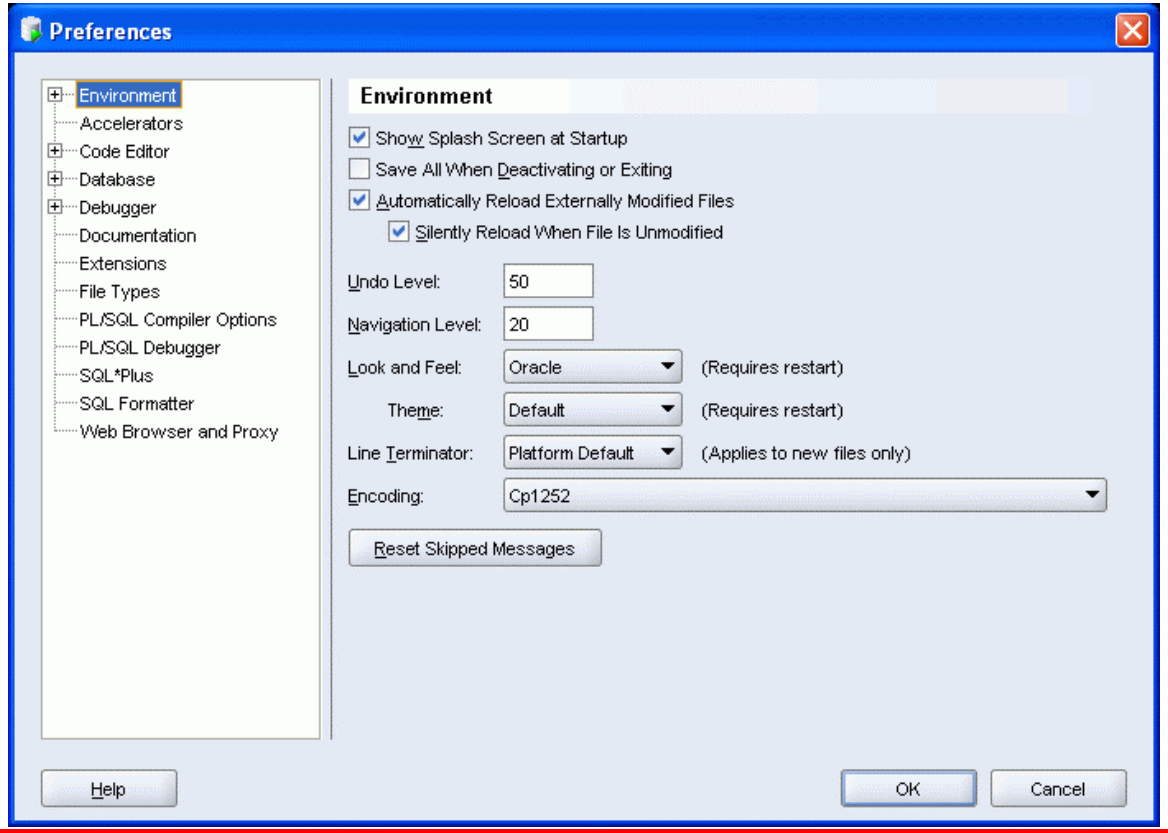
Search Engines and External Tools



Copyright © 2008, Oracle. All rights reserved.

Setting Preferences

- Customize the SQL Developer interface and environment.
- From the Tools menu, select Preferences.



Copyright © 2008, Oracle. All rights reserved.

Summary

In this appendix, you should have learned how to use SQL Developer to do the following:

- Browse, create, and edit database objects
- Execute SQL statements and scripts in SQL worksheet
- Create and save custom reports

Copyright © 2008, Oracle. All rights reserved.