

# 1

## Introduction

### Lesson Objectives

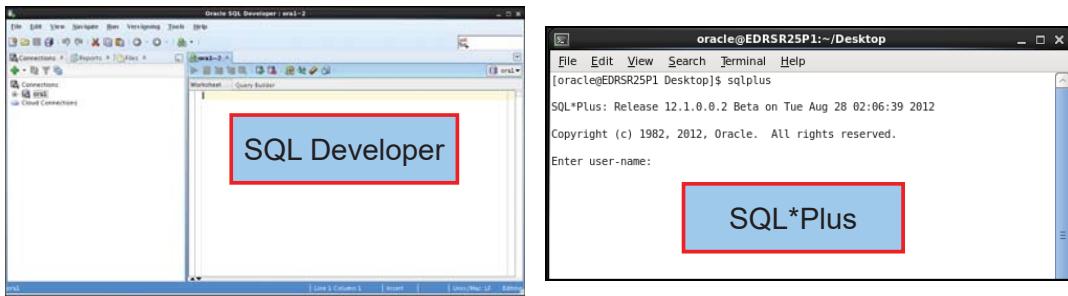
After completing this lesson, you should be able to:

- Discuss the goals of the course
- Describe the database schema and tables that are used in the course
- Identify the available environments that can be used in the course
- Review some of the basic concepts of SQL

# Oracle DB Development Environments

There are two development environments for Oracle Database:

- Oracle SQL Developer.
- SQL\*Plus command-line interface.



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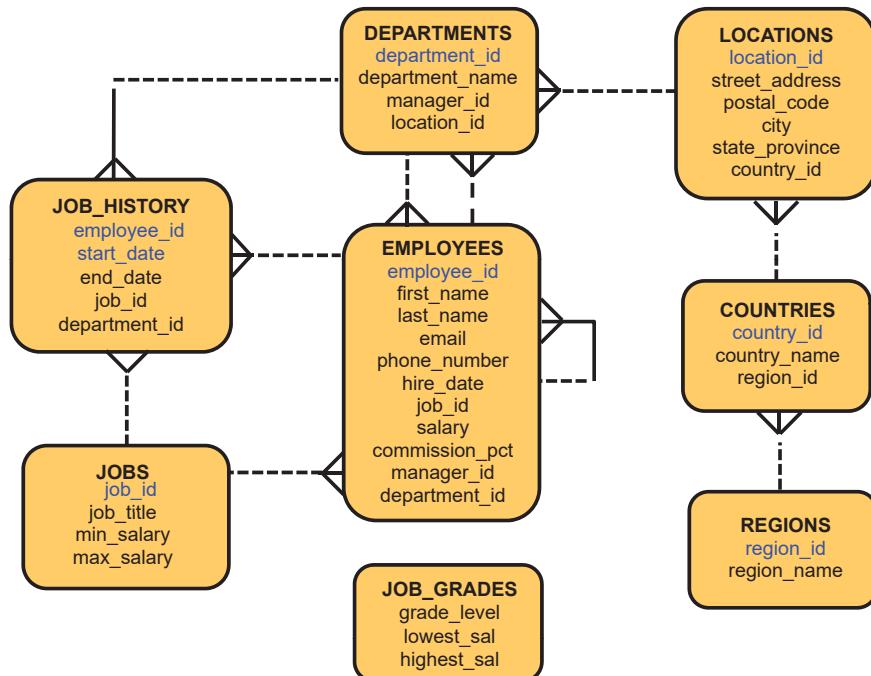
## Development Environments



This screenshot of the Navicat Premium interface illustrates a complex database environment. The left sidebar shows multiple database connections, including 'Navicat Cloud', 'Project MH-0015 (manybrown)', 'Project DT-0052', 'SQL Server 2016' (selected), 'MySQL', 'SQLite', 'PostgreSQL', 'MariaDB', 'Amazon Redshift', and 'Amazon Aurora'. The central workspace displays a hierarchical tree of objects under 'SQL Server 2016' for the 'AdventureWorks' database, specifically navigating into the 'Production' schema. A large data grid on the right shows the 'Product' table with numerous rows of data. A detailed view pane on the right provides specific information for the selected row, such as the OID (1429580131), Rows (504), Created Date (2010-06-11 12:21:42), and Modified Date (2010-06-11 12:21:42). The status bar at the bottom indicates '1 Object(s) selected' and 'Project DT-0052 | SQL Server 2016 Database: AdventureWorks Schema: Production'.

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## Tables Used in This Course



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## Review of SELECT Statement

```
SELECT  * | {[DISTINCT] column [alias]}, ...  
FROM    table;
```

- SELECT identifies the columns to be displayed.
- FROM identifies the table containing those columns.

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## Review of Restricting Data

- Restrict the rows that are returned by using the WHERE clause.
- Use comparison conditions to compare one expression with another value or expression.

Operator	Meaning
BETWEEN ...AND...	Between two values (inclusive)
IN (set)	Match any of a list of values
LIKE	Match a character pattern

- Use logical conditions to combine the result of two component conditions and produce a single result based on those conditions.

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## Review of Sorting Data

- Sort retrieved rows with the ORDER BY clause:
  - ASC: Ascending order, default
  - DESC: Descending order
- The ORDER BY clause comes last in the SELECT statement:

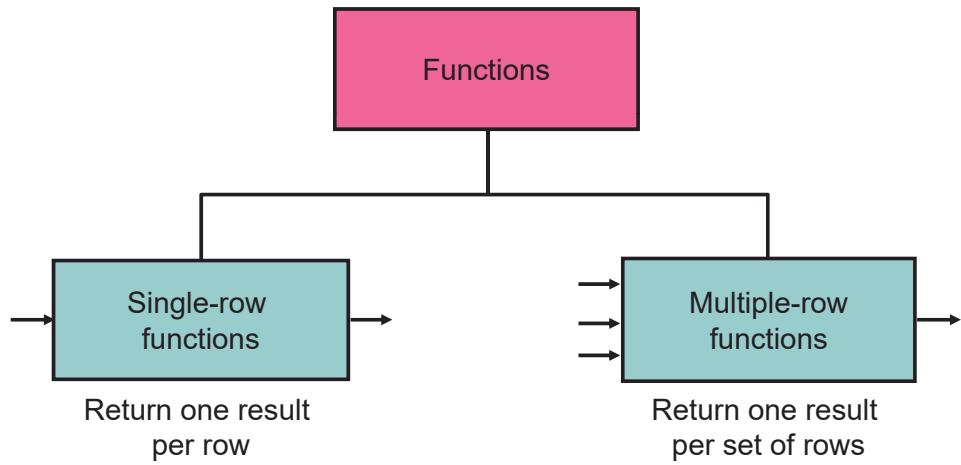
```
SELECT    last_name, job_id, department_id, hire_date
FROM      employees
ORDER BY  hire_date ;
```

#	LAST_NAME	JOB_ID	DEPARTMENT_ID	HIRE_DATE
1	De Haan	AD_VP	90	13-JAN-01
2	Gietz	AC_ACCOUNT	110	07-JUN-02
3	Baer	PR_REP	70	07-JUN-02
4	Mavris	HR REP	40	07-JUN-02
5	Higgins	AC_MGR	110	07-JUN-02
6	Faviet	FI_ACCOUNT	100	16-AUG-02
7	Greenberg	FI_MGR	100	17-AUG-02

...

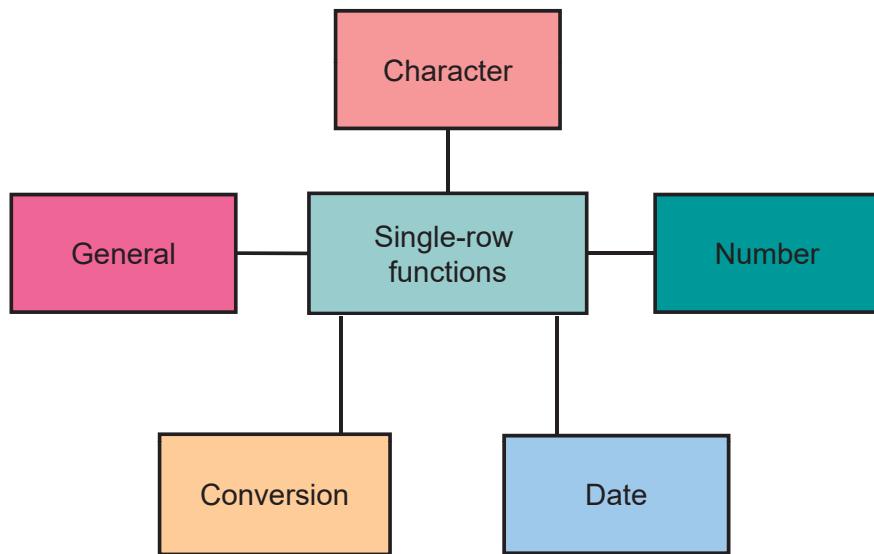
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## Review of SQL Functions



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## Review of Single-Row Functions



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## **Summary**

In this lesson, you should have learned how to:

- Discuss the goals of the course
- Describe the database schema and tables that are used in the course
- Identify the available environments that can be used in the course
- Recall some of the basic concepts of SQL