

CHAPTER 1

INTRODUCTION TO SQL

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What is Relational Database?

- A relational database is a collection of tables that are related to each other
- The concept was introduced by E. F. Codd (IBM,1970).
- The tables are consist of data items that can be accessed or reassembled by users using Structured Query Language (SQL)
- SQL statements used for:
 - doing queries to the database
 - manipulating data to display reports.



Example of Relational Database

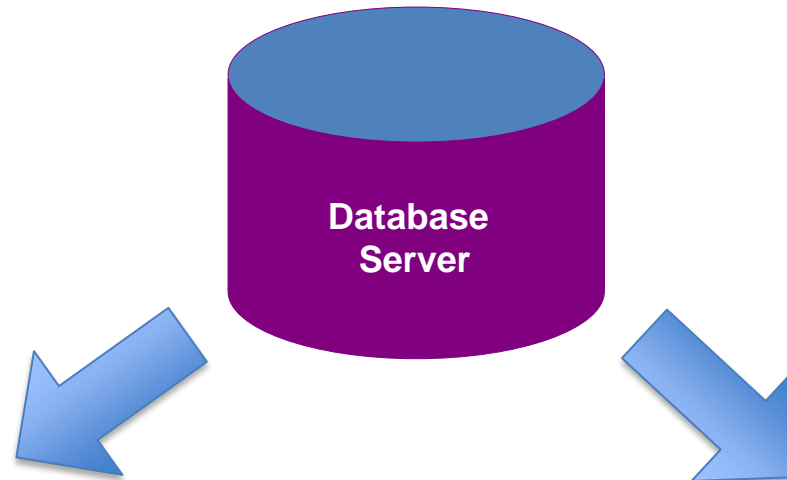


Table name: STAFF

StaffID	StaffName	Address	City	DeptID
1	Ahmad Razali	24 jln Meriah	Kuala Lumpur	20
2	Ana Khamis	Lot34, Jn Abiad	Johor	10
3	Maria Taque	Kg Alur, Alor Gajah	Melaka	10

Table name: DEPARTMENT

DeptID	DeptName
10	Finance
20	Graphics
30	Software



What is Structured Query Language (SQL)?

- A standard language for relational databases established by American Standard National Institute (ANSI[®]).
- Language use to communicate with Relational Database to define, retrieve, and manipulate data in the database tables.



SQL Statements

The followings are list of SQL statements that can be used in ORACLE database:

SELECT
INSERT
UPDATE
DELETE
MERGE

Data Manipulation Language (DML)

CREATE
ALTER
DROP
RENAME
TRUNCATE
COMMENT

Data definition language (DDL)

GRANT
REVOKE

Data control language (DCL)

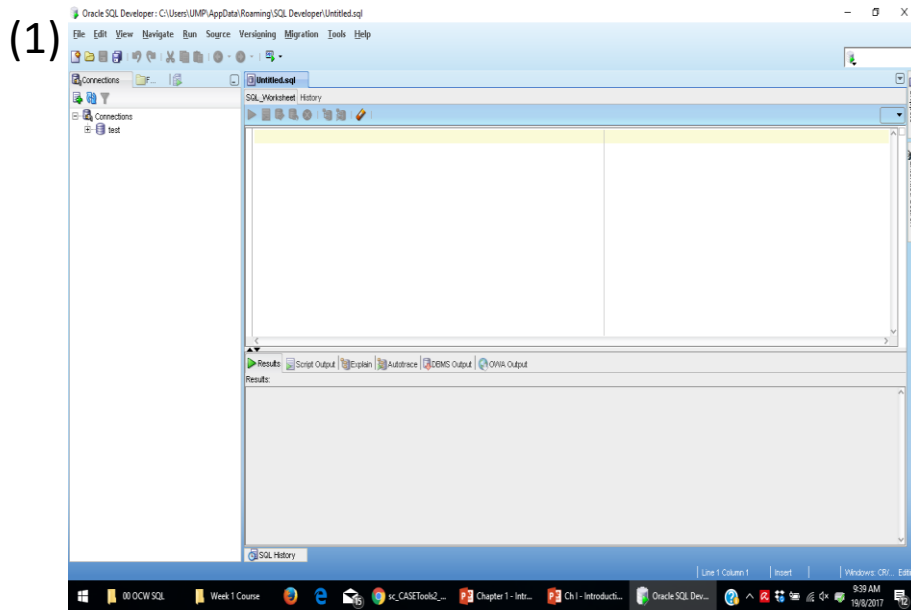
COMMIT
ROLLBACK
SAVEPOINT

Transaction control

Development Environments for SQL in ORACLE

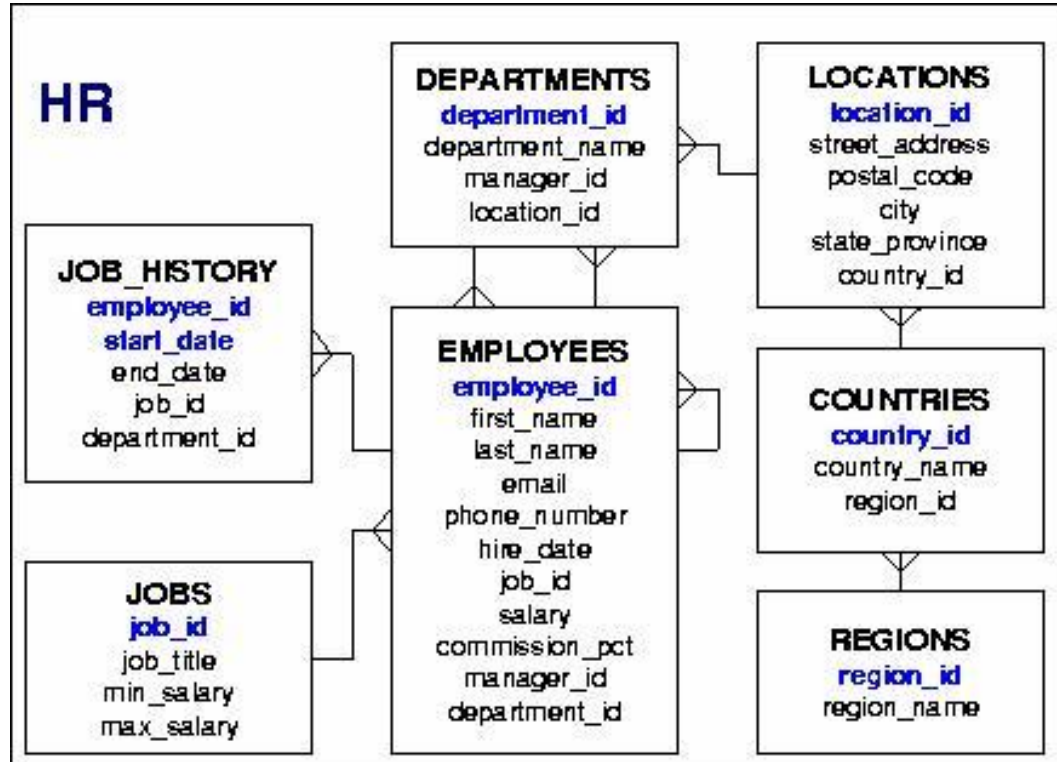
There are two development environments if you are using ORACLE product:

- Oracle SQL Developer - (1)
- SQL*Plus - (2)



The *Human Resources (HR)* Schema

Source: http://www.databasejournal.com/img/sc_CASETools2_image004.jpg



This database sample is available in Oracle Database software. The software can be downloaded via Oracle University for educational purpose ONLY

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References

Oracle Database 11g: SQL Fundamentals I, Oracle University at:
<http://education.oracle.com>



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