

Session 4-1 Introduction to SQL

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Relational DBMS

Database

- Collection of data

Database management systems (DBMS)

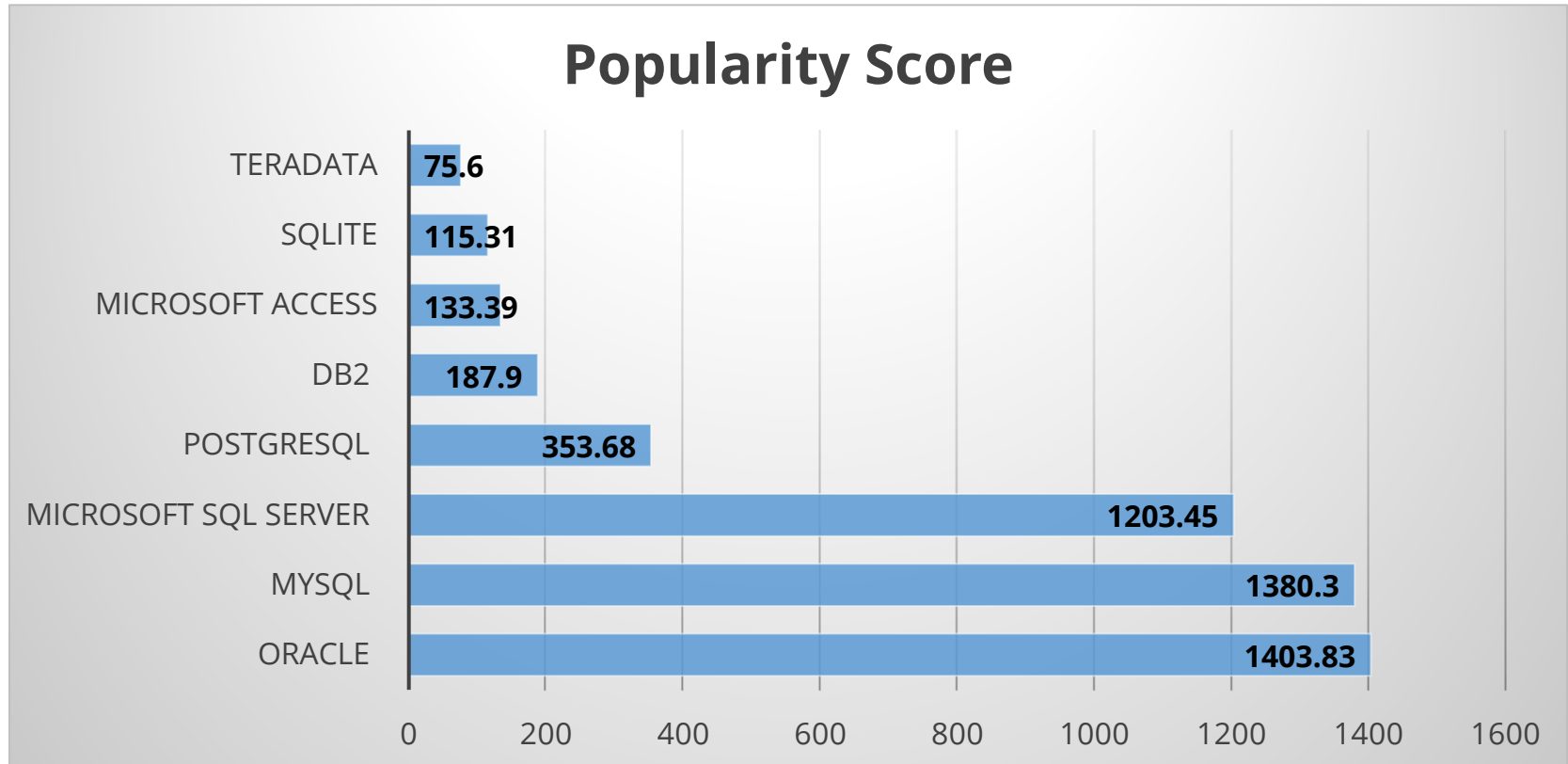
- Controlling application between database and end-users

Relational DBMS

- DBMS for relational database model

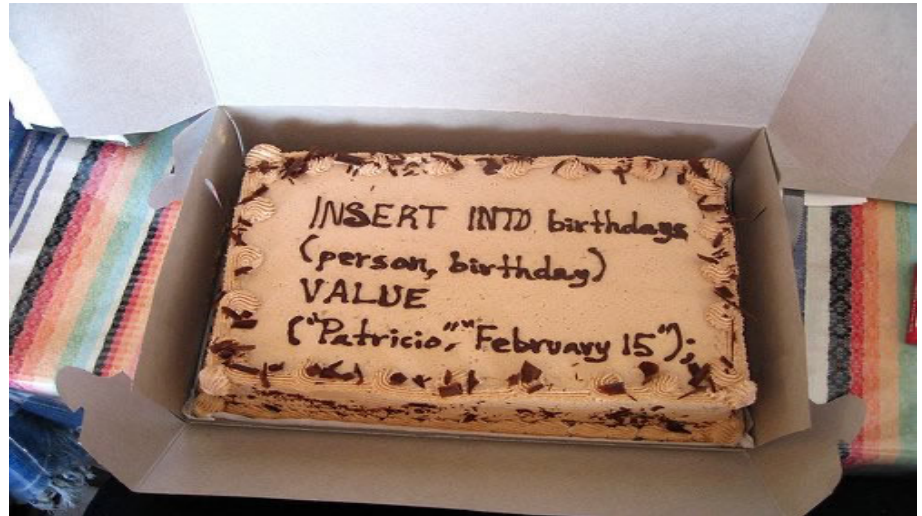


Popular RDBMSs



Structured Query Language (SQL)

- Language designed for managing data in RDBMS
- Different syntax and functionality across RDBMS, but mostly similar
- Intuitive language



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SQL Subgroups

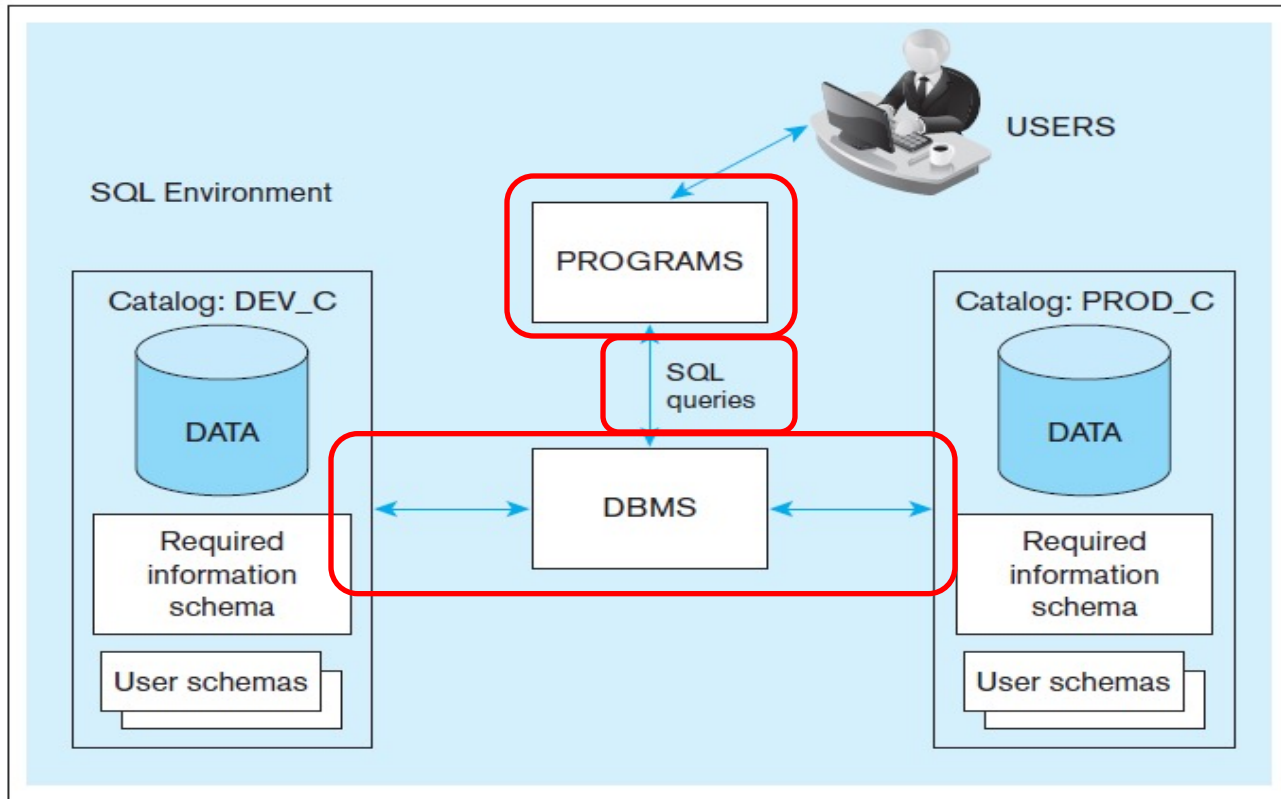
- Data Manipulation Language (DML)
 - insert/update records in a database
 - delete records from a database
 - retrieve data from a database
- Data Definition Language (DDL)
 - create new databases
 - create new tables in a database
- Data Control Language (DCL)
 - Manage users
 - grant or revoke permissions on elements of a database
 - Backup and restore a database



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Simplified Schematic of Typical SQL Environment



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Oracle Client Program

- SQL Developer Web (SDW)
 - Web-based client (no installation)
 - Cloud server
 - Individual server space and account



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Wrap-Up

- What is SQL
- Oracle DB client program

