



Database tools

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Agenda

- Who am i?
- What is SpikeSource?
- Introduction to DBMS
- FOSS based DBMS
- Brief introduction to FOSS DBMS
- MySQL and PostgreSQL

Introduction to DBMS

- Handle huge data
- Cross platform
- Compatible with various programming languages
- ACID properties
 - Atomicity
 - Consistency
 - Isolation
 - Durability

Types of DBMS

- Navigational
- Relational
- SQL

FOSS based DBMS

- MySQL
- PostgreSQL
- Firebird
- Apache Derby
- SQLite
- Much more...

MySQL

- Popular and best known
- Cross platform
- Popular due to its speed
- Lagging behind in terms of ACID properties
- Drivers available for different languages
- Both JDBC and ODBC compliant

PostgreSQL

- ACID compliant and robust
- Older versions were slow
- Latest versions are fast and more scalable
- Cross platform
- Available even to MacOS through Darwin ports
- Drivers available for all languages
- Both JDBC and ODBC compliant

Apache Derby

- Database entirely in Java
- Has a small foot-print
- Easily embedded in other Java projects
- Comes with a scripting language
- Interpreter – ij – command line
- JDBC available

SQLite

- Small foot-print
- C library that implements ACID
- Has command line tool
- Accessible through C, C++ and Tcl
- Completely free license

Working with MySQL

- Installing
- Configuration files
- Creating user
- Creating database
- Creating tables

Working with PostgreSQL

- Installing
- Configuration files
- Creating user
- Creating database
- Creating tables

GUI based clients

- MySQL Administrator
- Pgaccess

Useful Links

- MySQL - <http://www.mysql.com>
- PostgreSQL - <http://www.postgresql.org>
- Apache Derby - <http://db.apache.org/derby/>
- Firebird - <http://www.firebirdsql.org>
- SQLite - <http://www.sqlite.org>



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