

Databases: Hit the Ground, Running?

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What?

- An organized body of information
- Sometimes as a Relational Database
- Insert, update, select (retrieve)
- Easy access, defined interface
- Ubiquitous – we need to use and support

Why?

- Functionality – locking, access controls, tools
- Ease of use – libraries and interfaces
- Abstraction – functional separation
- Sharing data between applications
- Scalable – more or less

Concepts and Ideas

- RDBMS – Relational DB Management System
- Transaction – All or nothing update
- Tables – rows of data, in columns
- Keys – identifies a row
- ACID Compliance
 - Atomic, Consistent, Isolatable, Durable

Issues

- Start, stop, recover
- Backups and coherency
- Access control
- Database Coherency

Talk SQL to Me

- Structured Query Language
- Standards are great, there's so many to choose from
- Declarative – no ifs, whiles, branching, etc.
- Comprehensive, but relatively simple
- Select, insert, update, delete, etc.

The Usual Suspects

- MySQL and PostgreSQL
- Which is better?
- How to choose?

All in One (File)

- Berkeley DB – not just a file
- SQLite
- Functionality high
- Overhead low

cat don't cut it

- Language libraries and bindings
- Web management interfaces
- ShellSQL

