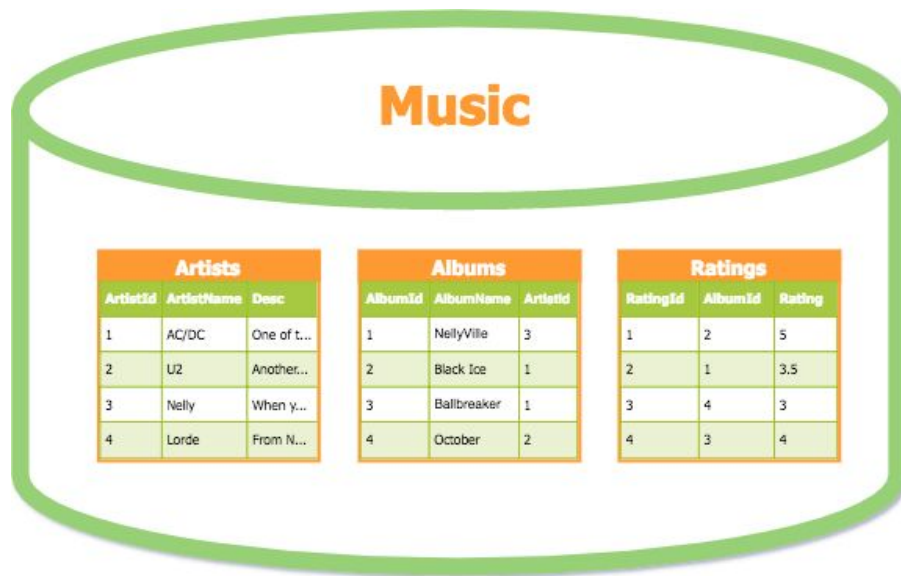# Lab 2: SQL

Databases

- Structure
- Retrieval
- Integrity

SQLite

Zero Configuration
Easy to Use
Single Database File

Notebook

Revision

- **Establish connection:** sqlite3.connect('example.db')
- Create table: CREATE TABLE users
- Read data: SELECT * from WHERE
- Aggregations: GROUP BY org ORDER BY 1
- Advanced Concepts
    - **Transactions:** Atomicity (smallest complete action)
    - **Concurrency:** Ticket booking system
    - **Indexing:** B-Trees (tenth of a second vs thousandth of a second)