

Project #5: Databases

For Project #5, you get to build your own database application with SQLite and JDBC.

For this assignment, the first step is to brainstorm what kind of data you want to store. Here are ten ideas from Claude AI :-)

1. **Personal Media Library** - A system to catalog books, movies, music, or video games with details like title, creator, genre, release date, rating, and completion status.
2. **Recipe Collection** - Database for storing recipes with ingredients, preparation steps, cooking time, dietary categories, and meal types.
3. **Fitness Tracker** - Application to log workouts, track progress, and store exercise details, sets, repetitions, and personal records.
4. **Plant Care System** - Database for tracking houseplants or garden plants with watering schedules, sunlight needs, growth progress, and care history.
5. **Inventory Management** - Simple system for tracking personal belongings, collectibles, or classroom supplies with location, condition, and quantity.
6. **Event Planner** - Application to manage events with dates, locations, attendees, tasks, and budgets.
7. **Contact Directory** - Enhanced contact management system with relationship categories, interaction history, and reminder dates.
8. **Travel Journal** - Database to document trips with destinations, activities, accommodations, expenses, and photos/memories.
9. **Course Management System** - Application for students to track assignments, due dates, grades, and study materials across different courses.
10. **Personal Finance Tracker** - System to record income, expenses, savings goals, and budget categories with visualization capabilities.

You can pick any of the above or dream up your own idea.

Once you have your idea, you minimally need to:

- Create your database and tables in SQLite.
- Create a command line tool to load data into your application; for this, you can read data from a text file or prompt the user for data.
- Create a second command line tool that queries data from your database, and creates a useful summary.

Notes:

- You must use SQLite and the SQLite JDBC Driver.
- Please include your .db file.
- You must organize your code and dependencies via Maven.
- Please include a README.txt file that describes your application and includes the SQL create TABLE statement(s) for your database.

- As usual, all classes and methods must have docstrings, methods should be relatively short, and make sure that all code is properly indented.

Good luck!