

Querying basics

SQL Reference

SELECT and FROM

A database 数据库 keeps data in tables 表. A query 查询 reads data with SELECT. SELECT * returns every column; FROM names the table.

```
CREATE TABLE student (id INTEGER, name TEXT, score INTEGER);
INSERT INTO student VALUES (1, 'Mei', 88), (2, 'Sam', 71);
SELECT * FROM student;
```

- Each row 行 is one record 记录. SQL keywords are written in UPPERCASE by habit.
- A statement ends with a semicolon ;.

Choosing columns

List the columns 列 you want, separated by commas. Use AS to rename a column in the result (an alias 别名).

```
CREATE TABLE student (id INTEGER, name TEXT, score INTEGER);
INSERT INTO student VALUES (1, 'Mei', 88), (2, 'Sam', 71);
SELECT name, score AS mark FROM student;
```

- SELECT DISTINCT col removes duplicate values from the result.

Filtering with WHERE

WHERE keeps only the rows that match a condition 条件. Compare with =, <> (not equal), <, >, <=, >=. Put text in single quotes.

```
CREATE TABLE student (id INTEGER, name TEXT, score INTEGER);
INSERT INTO student VALUES (1, 'Mei', 88), (2, 'Sam', 71), (3, 'Ana', 95);
SELECT name, score FROM student WHERE score >= 80;
```

- SQL runs the parts in this order: FROM → WHERE → SELECT.