

9 Databases – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)		
database	数据库	_____	_____	_____
record	记录	_____	_____	_____
field	字段	_____	_____	_____
primary key	主键	_____	_____	_____
Validation	验证	_____	_____	_____

Recall

A **database** 数据库 stores data in an organised way, usually as a table.

New ideas

Read these first, then do the Practice.

■ 1 Records and fields

ID	name	age
1	Ana	16
2	Ben	15
3	Cara	17

row = a record

column = a field

ID = primary key

- a **record** 记录 is one row (all the data about one thing);
- a **field** 字段 is one column (one piece of data);
- a **primary key** 主键 is a field with a **unique** value that identifies each record (e.g. an ID).

■ 2 Validation

Validation 验证 checks that data entered makes sense—for example a range check:

age field: range check 0–120

enter 16 → accepted

enter 200 → rejected

Watch out: in a table, a **record** is a *row* (everything about one thing) and a **field** is a *column* (one piece of data)—don't swap them. A **primary key** is a field with a *unique* value, so no two records share it.

Practice

Try these in order.

9.1 What is a *database*? [1]

9.2 In a table, what is a record? [1]

9.3 In a table, what is a field? [1]

9.4 What is a *primary key*? [1]

9.5 Why must a primary key be unique? [1]

9.6 Challenge. A school stores data about students. Suggest a suitable primary key field, and explain why "surname" would be a poor choice. [2]