30 Original SQL Practice Challenges

Notes for SHS | Topic 64 | Fully fictional Global Student Learning Resources Database

01. List all subject names alphabetically.

Write a SQLite query using the provided database. Identify what each returned row represents.

02. Show student codes and study levels for the first five student IDs.

Write a SQLite query using the provided database. Identify what each returned row represents.

03. Find resources labelled Beginner.

Write a SQLite query using the provided database. Identify what each returned row represents.

04. List distinct resource types.

Write a SQLite query using the provided database. Identify what each returned row represents.

05. Find the five longest estimated resource durations.

Write a SQLite query using the provided database. Identify what each returned row represents.

06. Find resources with 30–45 estimated minutes inclusive.

Write a SQLite query using the provided database. Identify what each returned row represents.

07. List resources whose titles contain “data” (SQLite default LIKE).

Write a SQLite query using the provided database. Identify what each returned row represents.

08. Count recorded usage events without a measured duration.

Write a SQLite query using the provided database. Identify what each returned row represents.

09. List the first four usage IDs with nonmissing durations.

Write a SQLite query using the provided database. Identify what each returned row represents.

10. Find the minimum, maximum and average estimated resource length.

Write a SQLite query using the provided database. Identify what each returned row represents.

11. Count resources by difficulty level.

Write a SQLite query using the provided database. Identify what each returned row represents.

12. Find subjects with at least four resources.

Write a SQLite query using the provided database. Identify what each returned row represents.

13. Match the first six resources with subject names.

Write a SQLite query using the provided database. Identify what each returned row represents.

14. Retain every subject, including one with no resource.

Write a SQLite query using the provided database. Identify what each returned row represents.

15. Count how many distinct students used each resource, top five.

Write a SQLite query using the provided database. Identify what each returned row represents.

16. Count completed sessions per student; show top five.

Write a SQLite query using the provided database. Identify what each returned row represents.

17. Show average measured duration by subject, excluding missing durations.

Write a SQLite query using the provided database. Identify what each returned row represents.

18. Find students who accessed at least four distinct resources.

Write a SQLite query using the provided database. Identify what each returned row represents.

19. Count all events versus distinct learners.

Write a SQLite query using the provided database. Identify what each returned row represents.

20. Count completed and incomplete events by month.

Write a SQLite query using the provided database. Identify what each returned row represents.

21. List resources longer than the overall average estimated length.

Write a SQLite query using the provided database. Identify what each returned row represents.

22. Use a CTE to show five most accessed subjects.

Write a SQLite query using the provided database. Identify what each returned row represents.

23. Rank resources within each subject by access count, show three rows.

Write a SQLite query using the provided database. Identify what each returned row represents.

24. Find resources with zero access events.

Write a SQLite query using the provided database. Identify what each returned row represents.

25. List total accesses by month.

Write a SQLite query using the provided database. Identify what each returned row represents.

26. Check duplicate student codes.

Write a SQLite query using the provided database. Identify what each returned row represents.

27. Check invalid negative or missing recorded minutes.

Write a SQLite query using the provided database. Identify what each returned row represents.

28. Show top resource in each subject using ROW_NUMBER.

Write a SQLite query using the provided database. Identify what each returned row represents.

29. Count how many distinct students completed sessions in each subject.

Write a SQLite query using the provided database. Identify what each returned row represents.

30. Report each subject with resources, usage events and average measured duration.

Write a SQLite query using the provided database. Identify what each returned row represents.