SQL Quiz

COMP1048: Databases and Interfaces (2024-2025)

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1 Key Details

- **Date**: 11 November 2024
- **Time**: Attend the lab session assigned in your timetable:
  - **Group A**: 13:00 - 15:00
  - **Group B**: 15:00 - 17:00
- **Duration**: 90 minutes minutes
- **Location**: IAMET 406
  - All students must attend in person; remote attendance is not allowed.
  - Attendance will be recorded manually on the day.
  - Please bring your student ID card.
- **Weighting**: 15% of the overall module mark
- **Materials**: This is an open-book quiz. You may use lecture slides on Moodle and bring printed notes or textbooks.
  - **Note**: Tablets/iPads are not permitted; only printed materials are allowed.
  - Internet or other electronic resources are prohibited during the quiz.
  - Communication with other students is not allowed.
- **Submission**: Submit your solutions via the Moodle quiz during the lab session.

2 Checklist

Below is a checklist to help you prepare for the quiz:

- ☐ Review the quiz instructions and ensure you understand the rules.
- ☐ Download the Chinook database from Moodle and practise writing queries.
- ☐ Review previous weeks' lab content to refresh your SQL skills and familiarise yourself with the quiz system.
- ☐ Familiarise yourself with the lab environment, including the code editor and SQLite executable.
- ☐ Prepare permitted materials: printed notes, lecture slides, or textbooks (no electronic materials).
- ☐ Review common mistakes from previous years to avoid them in your answers.
- ☐ Attend the lab session assigned in your timetable.
- ☐ Arrive on time, as latecomers may be denied entry.
- ☐ Bring your student ID card to the lab.
- ☐ Leave your tablet/iPad, laptops, phones, and other electronic devices in your bag; only printed materials are allowed during the quiz.

3 Instructions

During the lab sessions on 11 November 2024, you will complete a quiz on Moodle, which will become available 15 minutes after the lab session begins. Please arrive on time, as latecomers will not receive extra time and may be denied entry to ensure fairness.

You will have 90 minutes to complete the quiz.

Attend the lab session as scheduled in your timetable. Group A will take the quiz from 13:00 - 15:00, and Group B from 15:00 - 17:00. If you're uncertain of your group, please check your timetable. Attendance will be recorded on paper on the day. The quiz cannot be completed remotely. Please bring your student ID card to the lab.

Each group will have a different quiz, but both quizzes will cover the same content and use the same database, with equal difficulty. The quiz is open book; you may use lecture slides on Moodle, along with any written or printed notes, and a textbook. However, no internet or electronic resources are allowed. Communication with other students during the quiz is prohibited.

The quiz will be conducted similarly to the final exams at the semester's end, with similar regulations. If you use any unauthorised materials, you will receive a mark of zero for the quiz.

3.1   What will the quiz cover?

The quiz will assess your understanding of the SQL content covered in labs and lectures. You will answer 10 questions, each worth 1.5 marks marks, for a total of 15 marks. All responses must be submitted as SQL queries.

You will **not** need to:

- `CREATE` tables or `INSERT` data, unless specifically directed by the question.
- Specify output formatting with commands like `.headers ON` or `.mode column`; this will be handled automatically by the quiz system. Including such commands may lead to incorrect marking, which cannot be appealed, as this requirement is clearly outlined here.

You **will** need to:

- Submit each answer as a single SQL query.

If time runs out, the system will automatically submit your current answers. Once submitted, answers cannot be edited.

3.2   How will the quiz be marked?

The quiz will be marked automatically by the Moodle quiz system, which will run your query against the database. If your query returns the correct result, you will receive full marks for the question; if it returns an incorrect result, you will receive zero marks for that question.

During the quiz, no feedback will be provided on whether your query is correct. Feedback will be available within 15 working days, in line with university policy. During this period, module conveners will review incorrect answers to ensure accurate marking.

3.3 What database will the quiz use?

The quiz is designed to assess the skills you have learned in labs and lectures up to this point in the module, and will use SQLite as the DBMS, specifically version 3.37.2, the same version used by the Moodle quiz system. This version of SQLite is installed on the lab computers and is the only version you should use to test your queries before submitting them.

For this quiz, we will be using the Chinook database[1], which represents a digital media store and is widely used for teaching SQL. Only the following tables from the Chinook database will be used in the quiz:

- `Album`
- `Artist`
- `Genre`
- `Playlist`
- `PlaylistTrack`
- `Track`

A copy of the database will be available on Moodle one week before the quiz. Please download it and practise writing queries to ensure you are fully prepared. The database will be the same for both groups, although the questions will differ. You are expected to familiarise yourself with the database prior to the quiz to enable effective querying.

Note that the data in the database is fictional and solely for the purposes of this quiz.

3.4 What computing environment will the quiz use?

To ensure fairness, you must develop and submit your quiz answers using the desktop computers in the lab. Personal laptops or other devices are not permitted for the quiz. A suitable code editor and SQLite executable are installed on lab computers:

- **Code Editor**: Visual Studio Code, accessible from the desktop or start menu.
- **SQLite Executable**: Available at `C:\sqlite\sqlite3.exe`, using SQLite version 3.37.2 — the same version used by the Moodle quiz system.

Please note that the Moodle quiz system, administered by the UK campus, uses an older version of SQLite (3.37.2). While all lab and lecture content is compatible with this version, some newer SQLite features will not work. Ensure you test your solution on the lab's installed SQLite version before submitting.

If you are unfamiliar with using Windows or the Windows command line interface, please take time in the week prior to the quiz to familiarise yourself with the environment.

3.5 What if I have a problem during the quiz?

Module conveners and teaching assistants will be present in the lab during the quiz. If you encounter any issues, please raise your hand, and we will assist you. While we cannot help with quiz content, we can address any technical problems you may experience.

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[1]The Chinook database - https://github.com/lerocha/chinook-database

4 Preparing for the Quiz

4.1 How should I prepare for the quiz?

The best way to prepare is to practise writing queries using the quiz database, which you can download from Moodle. Use lecture slides and lab exercises to guide your preparation.

4.2 What were common mistakes in previous years?

Below are common mistakes made in previous years. Please review this list to avoid these errors in your quiz answers:

- **Output Format**: Many students did not match the specified output format exactly. For example:
    - Specified Format: `OfficeNo`
    - Common Errors:
        * `officeNo` — incorrect due to lack of capitalisation.
        * `OfficeNo<space>` — incorrect due to extra space at the end.
        * `OfficeNo` — correct.

- **Dot Commands**: Some students included dot commands, like `.headers  ON` or `.mode column`. These are unnecessary and may lead to incorrect marking.

- **Unnecessary SQL Statements**: Some solutions included `CREATE  TABLE` or `INSERT INTO` statements. These are not required and will result in an incorrect answer.

- **Non-Standard ASCII Characters**: Some answers used non-standard ASCII characters, often due to Chinese character input. This mode is incompatible with the quiz system, so please disable it before the quiz.

- **Misinterpretation of Questions**: Many students did not answer the question as asked. Ensure you read each question carefully and address the requirements directly.