

3. GAC017 Computing III: Data Science and Web Apps

Starter Quiz ·

GAC Computing

Name: _____ Score: _____

- Where should a private database password used by the application be kept?
 - ☐ In a public screenshot
 - ☐ In the page source
 - ☐ In a downloadable browser script
 - ☐ In protected server configuration
- Which lookup keeps a submitted name separate from SQL syntax?
 - ☐ A fixed SELECT with a bound name value
 - ☐ A query trusted because the name came from a form
 - ☐ A SELECT built by pasting the name
 - ☐ A string with untrusted quotes removed only
- Which design represents students taking many courses and courses having many students?
 - ☐ Students, courses and an enrolments relationship table
 - ☐ One table holding each student and course name in a single row
 - ☐ Students and courses joined by a student ID stored in each course
 - ☐ Students and courses with a course-list field in each student row
- Which clause filters groups to those with at least two enrolled students?
 - ☐ HAVING COUNT(e.student_id) >= 2
 - ☐ SELECT title only
 - ☐ ORDER BY title
 - ☐ WHERE COUNT(e.student_id) >= 2
- Under this route contract, a permitted student exists but has no courses. Which response is appropriate?
 - ☐ A fabricated course
 - ☐ 200 with []
 - ☐ Always 400
 - ☐ A raw database exception
- Deleting every row with any blank field is always a neutral cleaning decision.
 - ☐ True
 - ☐ False
- The server needs independent input checks even when the form validates input.
 - ☐ True
 - ☐ False
- Which external inputs need appropriate server checks? Select all that apply.
 - ☐ Only fields that look suspicious
 - ☐ URL parameters
 - ☐ Form values
 - ☐ Uploaded file contents

Tick every correct option.

- Repeating the same course ID in several enrolment rows is always a normalisation error.

☐ True ☐ False

- Complete the clause that groups by course identity and title: _____ c.id, c.title

3. GAC017 Computing III: Data Science and Web Apps

Answers ·

GAC Computing

1. In protected server configuration

Downloadable code can be inspected. Keep private service credentials on the server.

2. A fixed SELECT with a bound name value

Binding values keeps them separate from the fixed statement.

3. Students, courses and an enrolments relationship table

Each enrolment records one student–course pair.

4. HAVING COUNT(e.student_id) >= 2

HAVING applies a condition to groups; WHERE filters input rows.

5. 200 with []

A successful empty list is a defined outcome, not a database failure.

6. False

Useful fields may remain, and missingness can bias which observations are retained.

7. True

A caller can bypass the form and send a request directly.

8. URL parameters; Form values; Uploaded file contents

Ordinary-looking external values can still have wrong types, lengths or permissions.

9. False

Repeated references are expected. Copying the course title into each relationship row creates the update problem here.

10. GROUP BY

GROUP BY defines the groups. Including the ID keeps different same-title courses separate.