Guevarra, John Michael Advance Database System

BSIT – 2B

Exercise 1 & 2

Tables

A screenshot of a computer

AI-generated content may be incorrect.

Student Table

A screenshot of a computer

AI-generated content may be incorrect.

Attendance\_Log Table

A screenshot of a computer

AI-generated content may be incorrect.

Updated Attendance Table  
A screenshot of a computer

AI-generated content may be incorrect.

Updated Attendance Log Table  
A screenshot of a computer

AI-generated content may be incorrect.

**Problem-Solving & Critical Thinking**

1. How would you modify the system to allow students to check their own attendance records?

I would add a student login so they can see their attendance. A new page would show their records based on their ID. This makes sure they only see their own records.

2. How can you optimize the stored procedure if a school wants to mark attendance for multiple students at once?

I would change the stored procedure to accept many student IDs at once. A loop or batch process would update all at the same time. This makes it faster.

3. If attendance status includes an additional category like ‘Excused,’ what changes would you need to make in the trigger and procedure?

I would add an ‘Excused’ option in the attendance table. The trigger and procedure would check for this new category. This ensures it is recorded correctly.

4. How can you ensure that no duplicate attendance records exist for the same student on the same date?

I would set a rule to stop duplicate records for the same student and date. The system would check before adding a new record. This prevents mistakes.

5. What security measures can be added to prevent unauthorized changes to attendance records?

I would allow only teachers or admins to change attendance. A log would track changes for security. Passwords and encryption would keep data safe.