ACCRA TECHNICAL UNIVERSITY, GHANA
FACULTY OF APPLIED SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
BTECH TOP-UP COMPUTER SCIENCE - YEAR III (WEEKEND)
END-OF-FIRST-SEMESTER EXAMINATION, 2024/2025
BCS 403 - ENTERPRISE APPLICATION DEVELOPMENT

SECTION B - PRACTICAL PROJECT
INSTRUCTION: Answer all the questions and SUBMIT deliverables. [50 MARKS]

PROJECT
Objective:
Develop a JavaFX application that helps local farmers in Ghana (**identify a farming community**) manage their produce, sales, and inventory. The application will use JDBC for database connectivity and an API for real-time market price updates.

Description:
The Farmers' Market Management Application is designed to assist farmers in tracking their produce, managing inventory, and monitoring sales. The application will also provide real-time updates on market prices for various crops, helping farmers make informed decisions about pricing and sales.

Features:
1. User Authentication:
   - Implement user login and registration functionality.
   - Use JDBC to store and retrieve user credentials from a database.
2. Produce Management:
   - Allow farmers to add, update, and delete produce items.
   - Store produce details (name, quantity, price, etc.) in a database using JDBC.
3. Sales Tracking:
   - Record sales transactions, including the date, produce sold, quantity, and total amount.
   - Use JDBC to store and retrieve sales data from a database.
4. Inventory Management:
   - Track the current inventory levels of each produce item.
   - Automatically update inventory levels based on sales transactions.
   - Use JDBC to manage inventory data in a database.
5. Market Price Updates:
   - Integrate with an external API to fetch real-time market prices for various crops.
   - Display the latest market prices in the application.

Deliverables:
1. Source code of the application. **(20 Marks)**
2. Database schema and scripts. **(10 Marks)**
3. Documentation. **(10 Marks)**
4. A demo video showcasing the application's features. **(10 Marks)**