

PHP Machine Test: Implementing a Multi-level Affiliate Payout System

Objective: Develop a PHP application that manages a 5-level affiliate payout system. This application should track sales made by users and distribute commission payouts up to the 5th level of the affiliate hierarchy when a sale is made by a user at the 6th level or below.

Requirements:

1. User Hierarchy: Implement a user system where each user can have multiple affiliate users under them, creating up to 5 levels of hierarchy. Beyond the 5th level, users can still exist and make sales, but the commission will only be distributed up to the 5th level.

2. Affiliate Payouts: When a user at the 6th level (or below) makes a sale, the system should distribute affiliate commissions as follows:

- Level 1 (Direct Parent): 10%
- Level 2: 5%
- Level 3: 3%
- Level 4: 2%
- Level 5: 1%

3. Database Structure: Design a MySQL database to store users, their hierarchy, and sales transactions. Ensure the structure supports efficient querying for the payout calculations.

4. PHP Code:

- Add new users to the hierarchy.
- Record a sale and calculate the corresponding affiliate payouts.

5. Security & Validation: Implement basic input validation and security measures to protect against common vulnerabilities.

Output Required:

- PHP code that implements the user hierarchy management, sales recording, and affiliate payout calculation.
- MySQL database schema for the required structure, including tables for users, sales, and any other necessary entities.
- Instructions on how to set up and test the application.

Evaluation Criteria:

- Correctness of the affiliate payout calculations.
- Efficiency and design of the MySQL database structure.
- Quality and readability of the PHP code.
- Implementation of security and validation measures.