

PHP: Introduction to Server-side scripting Language

Episode 3: PHP Database Handling

Lesson Outcomes: At the end of this lesson, you should be able

- to use PHP to handle the Databases including the CRUD operations.
- Implement the AJAX technique with using the PHP and JS.

PART A

Use your prior knowledge to answer the following questions.

- I. List few of different database systems that you know.
- II. As you think what is the most popular DB that used with PHP?
- III. Is there any way to run a PHP script without reloading the page? If Yes what are they?

PART B

Answer all by using examples as necessary.

- I. Section 1: Using PhpMyAdmin
 - a. How to create a DB?
 - b. How to create a new Table?
 - c. How to add a PRIMARY Key for a table?
 - d. How to add a composite Primary Key for a table?
 - e. How to add a foreign key relationship for a table?
 - f. How to insert records for a table?
 - g. How to delete records from a table?
 - h. How to update records in a table?
 - i. How to work with SELECT operations?
 - j. How to Back up the DB?
 - k. How to restore the DB?
- II. Section 2: Using PHP Scripts
 - a. How to open a connection to MySQL DB?
 - b. How to close the opened connection?
 - c. If there are any error on opened connection, then how do you identify the error?
 - d. How to create a new Table?
 - e. How to add a PRIMARY Key for a table?
 - f. How to add a composite Primary Key for a table?
 - g. How to add a foreign key relationship for a table?
 - h. How to insert records for a table?
 - i. How to delete records from a table?
 - j. How to update records in a table?
 - k. How to work with SELECT operations?
- III. Section 3: AJAX technique
 - a. What is meant by AJAX?
 - b. How to request the data from the server?
 - c. How to receive the data from the server?

- d. What are the available status codes?
- e. How to interact with DB using AJAX?

PART D

- I. What is the different between MySQLi and PDO?
- II. Is there any way to back up the DB using PHP scripts? If yes, How? If No, how you are going to back up the DB?
- III. Without re-writing the code, find a best way to write PHP code to handle the DB.

PART E

Now you are required to develop a system by studying the following case study.

Amal is a mathematics teacher who conducts small group classes for grade 10 & 11 students. He teaches for five groups where each group has around 30 students. Once a month he gives small class tests for his students and he struggled to analyze those marks because it takes much of his time. You are recommended by one of his friends to help to develop a system to analyze his students' performance in exams. Amal should be able to

- Save all data in a DB including past years
- Check the marks of students individually
- Check the minimum, maximum, average marks of the student of a year
- Check the marks of students group wise
- Check the minimum, maximum, average marks of each group