DATABASE & MYSQL 101

MODULE 4: PHP

WHAT IS A DATABASE

- A database is an organized collection of information

DATABASE ELEMENTS

- Table - is composed of records and fields that hold data. Tables are also called datasheets. Each table in a database holds data about a different, but related, subject.

- Record - data is stored in records. A record is composed of fields

- Field - is part of a record and contains a single piece of data for the subject of the record. In the database table illustrated in Figure 4, each record contains four fields:

RELATIONAL DATABASE

- Relational Database is the most common of all the different types of databases.

- This is a digital database whose organization is based on the relational model of data

- The various software systems used to maintain relational databases are known as a relational database management system (RDBMS):

  - Oracle, Sybase, Microsoft SQL Server, Mysql, PostgreSQL, SQLite, MariaDB

- Virtually all relational database systems use SQL (Structured Query Language) as the language for querying and maintaining the database.

NoSQL

- originally referring to "non SQL" or "non relational”
- is a class of database management systems (DBMS) that do not follow all of the rules of a relational DBMS and cannot use traditional SQL to query data.

SQL

- SQL is a standard language for accessing databases.

- http://www.w3schools.com/sql/

MYSQL

- It is an open source relational database management system (RDBMS) based on Structured Query Language (SQL).

- virtually all platforms, including Linux, UNIX, and Windows.

PHP DATA OBJECTS (PDO)

- a lightweight, consistent interface for accessing databases in PHP

- provides a data-access abstraction layer, which means that, regardless of which database you're using, you use the same functions to issue queries and fetch data

- provides a uniform method of access to multiple databases

- ships with PHP 5.1

http://code.tutsplus.com/tutorials/why-you-should-be-using-phps-pdo-for-database-access--net-12059

TOOLS

- phpmyadmin via XAMPP / WAMP / MAMP
- is a free and open source tool written in PHP intended to handle the administration of MySQL with the use of a web browser

RESOURCE

- https://www.udemy.com/database-design/
- https://www.udemy.com/calebthevideomaker2-database-and-mysql-classes/
- http://www.opsschool.org/en/latest/databases_101.html