

MIT WORLD PEACE UNIVERSITY

Full Stack Development
Third Year B.Tech, Semester 1

CRUD using MySQL and PHP

ASSIGNMENT 4

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Batch A

Aim:

Write server-side script in PHP to perform form validation and create database application using PHP and MySQL to perform insert, update, delete and search operations.

Objectives:

1. To understand Server-side Scripting.
2. To learn database connectivity using PHP-MySQL.
3. To perform insert, update, delete and search operations on database.

Theory:**1] PHP Architecture.**

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PHP (Hypertext Preprocessor) is a widely-used open-source server-side scripting language primarily designed for web development. Its architecture generally consists of the following components:

1. Web Server: PHP works as a server-side language, meaning it's executed on the web server. Popular web servers for PHP include Apache, Nginx, and Microsoft IIS.
2. PHP Parser: When a PHP script is requested by a client's browser, the web server passes the request to the PHP parser. The parser reads and processes the PHP code, generating HTML output.
3. PHP Core: This includes various libraries, core functions, and built-in modules that handle various tasks such as handling HTTP requests, file operations, database access, etc.
4. Database Connectivity: PHP supports various databases like MySQL, PostgreSQL, SQLite, etc., allowing interaction with these databases to store and retrieve data for web applications.
5. Output: After processing the PHP code, the parser generates HTML, CSS, JavaScript, or any other content to be sent back to the client's browser for display.

2] Steps for Database connectivity in PHP.

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Here are the steps to connect PHP with a MySQL database as an example:

1. Install a Database: Ensure MySQL is installed on your server or use a web hosting service that offers MySQL databases.
2. PHP Database Extension: Enable the appropriate PHP database extension. For MySQL, it's usually the mysqli extension or the PDO (PHP Data Objects) extension.
3. Connect to the Database: Use PHP code to establish a connection to the MySQL database using mysqli or PDO. Here's an example using mysqli:

```
php

<?php
$servername = "localhost";
$username = "your_username";
$password = "your_password";
$dbname = "your_database_name";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
echo "Connected successfully";
?>
```

4. Perform Database Operations: Once connected, you can execute SQL queries to perform operations like inserting data, retrieving data, updating records, etc.
5. Close the Connection: After completing database operations, it's important to close the connection to free up server resources. These steps demonstrate a basic outline for establishing a connection to a MySQL database using PHP.

FAQ:

1. What are the advantages of Server-side Scripting?

=>Server-side scripting languages like PHP offer several advantages:

- **Dynamic Content Generation:** Server-side scripting allows the creation of dynamic web pages. It enables the generation of content on-the-fly based on user requests, database queries, or other external data sources.
- **Database Interaction:** Server-side scripting languages facilitate interaction with databases, allowing for data storage, retrieval, and manipulation. This enhances the ability to create dynamic and data-driven websites or web applications.
- **Enhanced Security:** Server-side scripting helps in better security management. Sensitive operations, such as database access or file system interactions, can be secured on the server, reducing the risk of exposing sensitive code or data to clients.
- **Scalability:** Server-side scripting allows for scalable web applications by handling complex tasks on the server, reducing the workload on the client-side and providing better performance for users.
- **Cross-platform Compatibility:** Server-side scripting languages are platform-independent, making them compatible with various operating systems and web servers.

2. What is XAMPP and phpMyAdmin?

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- **XAMPP:** XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends. It includes Apache HTTP Server, MariaDB/MySQL database, PHP, and Perl. XAMPP is designed to facilitate web development and testing on a local machine by providing an environment similar to a live server setup.
- **phpMyAdmin:** phpMyAdmin is a web-based application used for managing MySQL or MariaDB databases. It allows users to perform various database operations like creating, modifying, or deleting databases, tables, executing SQL queries, managing user permissions, and more, using a graphical user interface (GUI) accessible via a web browser.

3. What are the two ways to connect to a database in PHP?

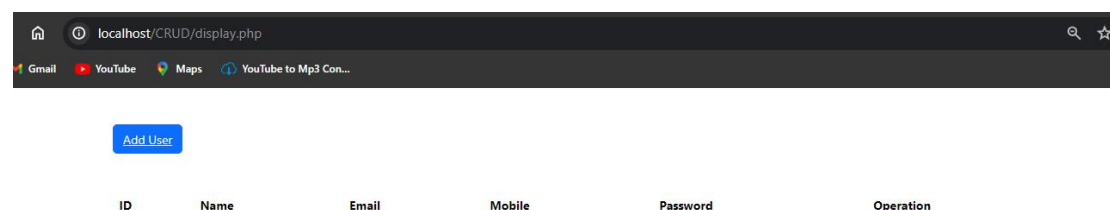
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- MySQLi (MySQL Improved): MySQLi is an extension in PHP used for interfacing with the MySQL database. It provides an object-oriented interface as well as a procedural interface for interacting with MySQL databases in PHP. It offers enhanced features compared to the original MySQL extension and supports prepared statements, transactions, etc.
- PDO (PHP Data Objects): PDO is a database access layer in PHP that provides a uniform method of accessing various databases. It's not specific to any one database, enabling developers to write portable code for database connectivity. PDO supports multiple database drivers, making it versatile and offering features like prepared statements and secure parameterized queries.

OUTPUT:

Created a Password manager DB using MySql and PHPMyAdmin:

1 . Display page Displays Data I.e all columns



2. User.php is used to Create user

localhost/CRUD/user.php

New Tab Gmail YouTube Maps YouTube to Mp3 Con...

Data inserted successfully. ID: 8

Name

Enter Name

Email

Enter Email

Mobile

Enter Contact

Password

Enter Password

Submit

3. User is Created and visible on Page .

localhost/CRUD/display.php

Gmail YouTube Maps YouTube to Mp3 Con...

Add User

ID	Name	Email	Mobile	Password	Operation
8	Mayur Behere	mayurbere7432@gmail.com	2147483647	123456789	Update Delete

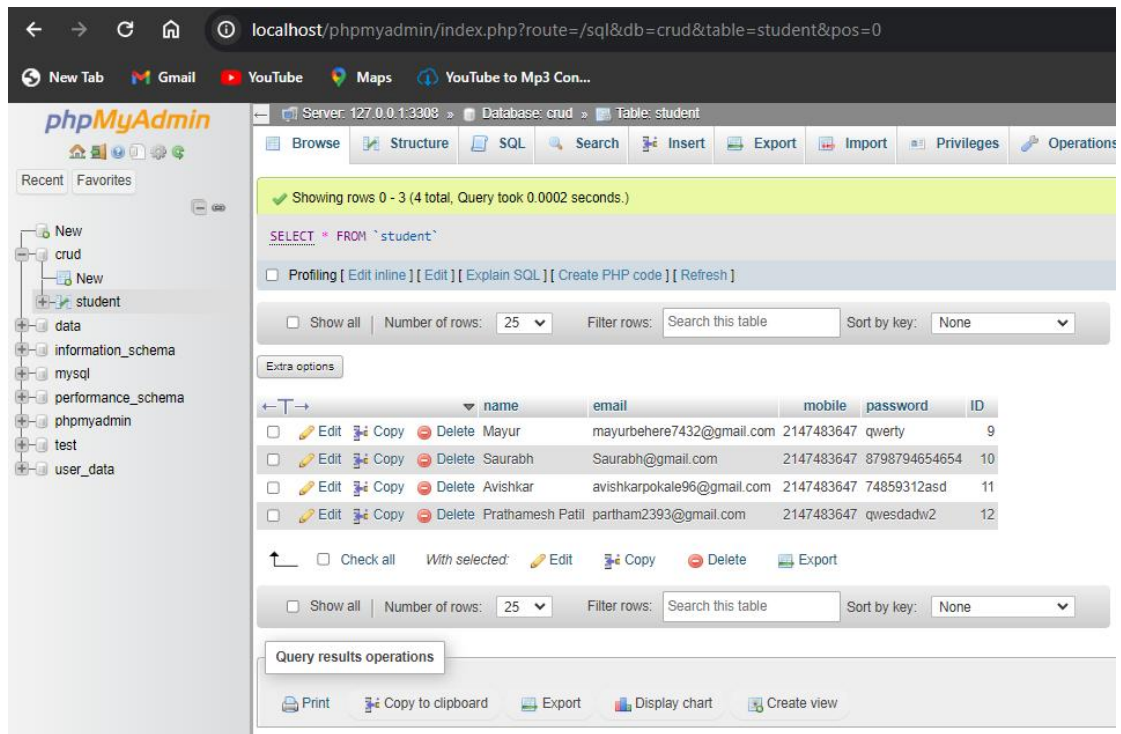
4. Using Update Function we can update the data in table according to ID allotted.

localhost/CRUD/display.php

New Tab Gmail YouTube Maps YouTube to Mp3 Con...

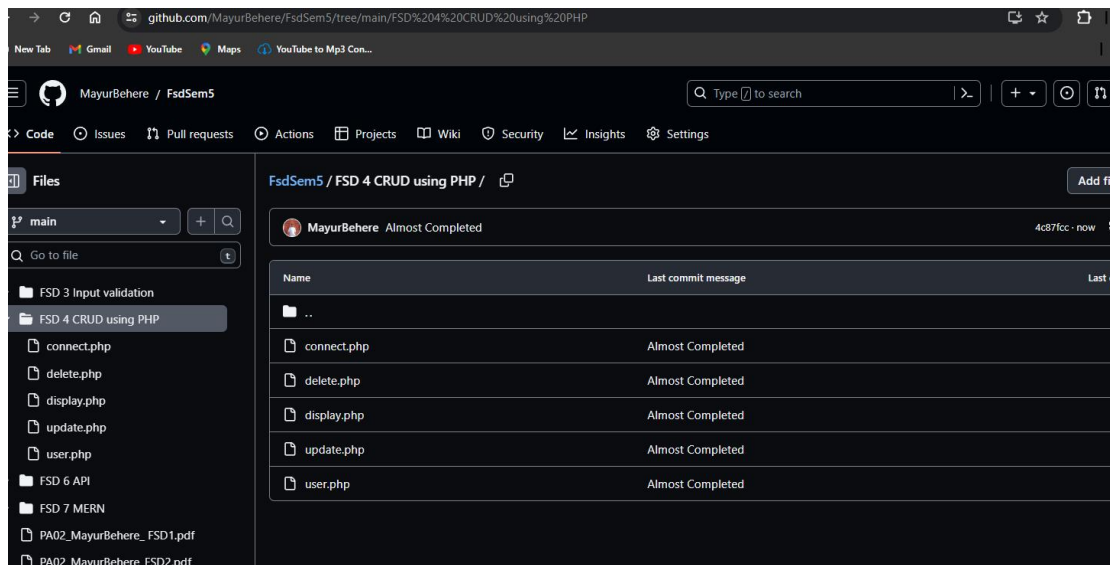
Add User

ID	Name	Email	Mobile	Password	Operation
8	Ram	ram@ayodyhya.com	2147483647	JayShreeRam	Update Delete



Github Repo:

<https://github.com/MayurBehere/FsdSem5/tree/main/FSD%204%20CRUD%20using%20PHP>



Conclusion :

Performed CRUD Operation using phpmyadmin and mysql and wrote server side code for it.