



MySQL for Web Programmer

Web Programming and Development

September 19, 2017



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คณะบริหารธุรกิจและเทคโนโลยีสารสนเทศ
มหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิ



การเชื่อมต่อฐานข้อมูล (MySQL Connect)

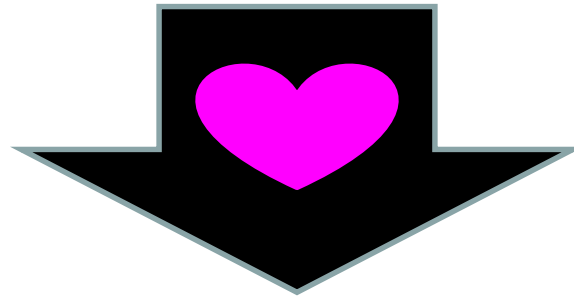


ในการใช้ภาษา PHP เชื่อมต่อฐานข้อมูล MySQL มีรูปแบบการเชื่อมต่ออยู่ 3 รูปแบบ คือ

- MySQLi (object-oriented)
- MySQLi (procedural)
- PDO



PHP Connect to the MySQL Server



Add

Delete

Search

Edit

การเขียน PHP เชื่อมต่อฐานข้อมูล MySQL

รูปแบบ

```
mysqli_connect(host,username,password,dbname);
```

- host ชื่อโฮสต์ฐานข้อมูล เช่น localhost
- username ชื่อผู้ดูแลฐานข้อมูล เช่น user01
- password รหัสผ่านฐานข้อมูล เช่น lovebit
- dbname ชื่อฐานข้อมูลที่ใช้ เช่น bit_db01

connectdb.php

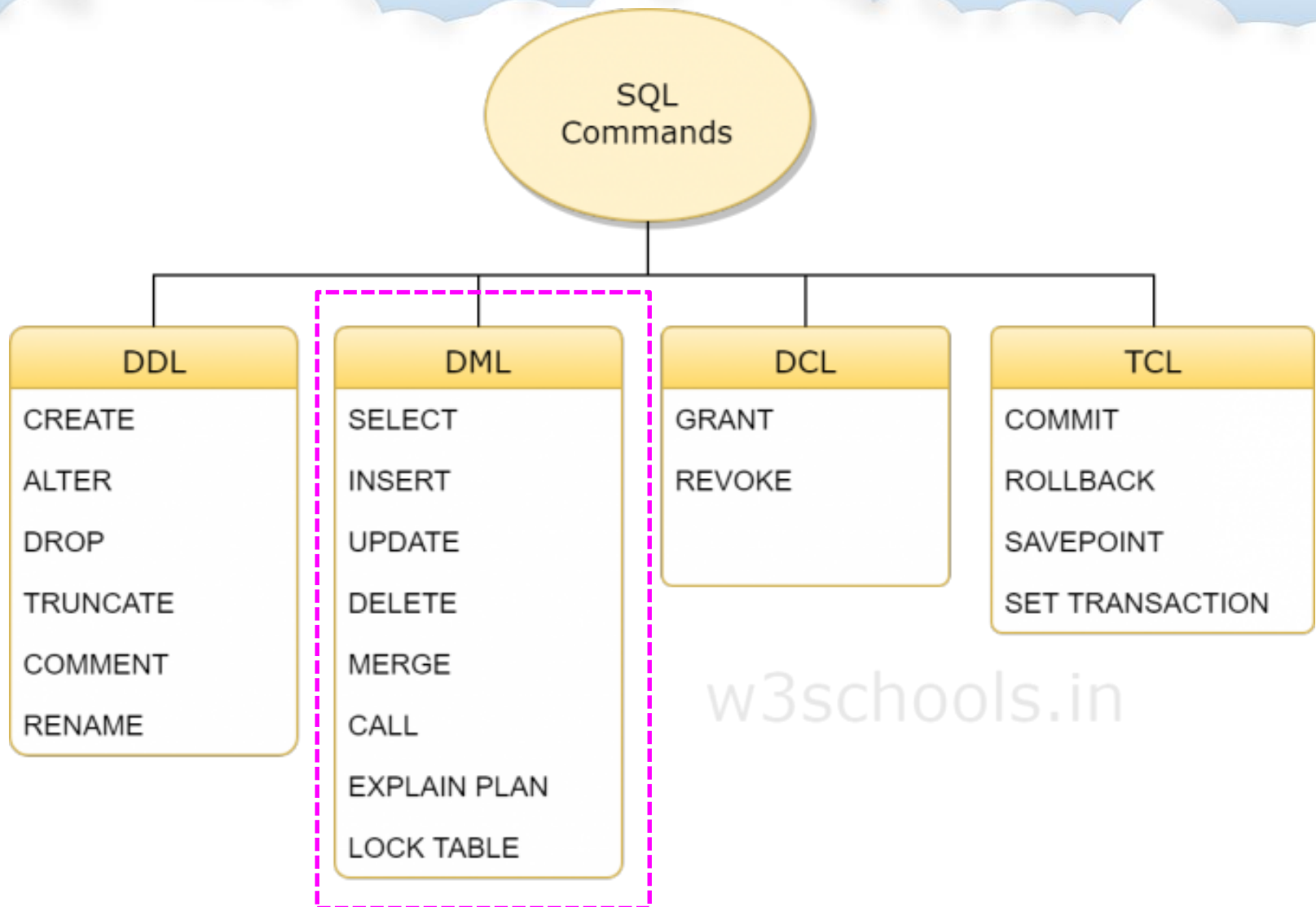


```
<?php
//--mysqlcon.php
$con=mysqli_connect("localhost","user01","lovebit","bit_db01");

// Check connection
if (mysqli_connect_errno()) {
    echo "Failed to connect to MySQL: " .mysqli_connect_error();
}

// Close Connection
mysqli_close($con);
```

SQL Command



w3schools.in

DDL

DDL is short name of Data Definition Language, which deals with database schemas and descriptions, of how the data should reside in the database.

- CREATE – to create database and its objects like (table, index, views, store procedure, function and triggers)
- ALTER – alters the structure of the existing database
- DROP – delete objects from the database
- TRUNCATE – remove all records from a table, including all spaces allocated for the records are removed
- COMMENT – add comments to the data dictionary
- RENAME – rename an object



DML



DML is short name of Data Manipulation Language which deals with data manipulation, and includes most common SQL statements such SELECT, INSERT, UPDATE, DELETE etc, and it is used to store, modify, retrieve, delete and update data in database.

- SELECT – retrieve data from the a database
- INSERT – insert data into a table
- UPDATE – updates existing data within a table
- DELETE – Delete all records from a database table
- MERGE – UPSERT operation (insert or update)
- CALL – call a PL/SQL or Java subprogram
- EXPLAIN PLAN – interpretation of the data access path
- LOCK TABLE – concurrency Control

DCL

DCL is short name of Data Control Language which includes commands such as GRANT, and mostly concerned with rights, permissions and other controls of the database system.

- GRANT – allow users access privileges to database
- REVOKE – withdraw users access privileges given by using the GRANT command



TCL



TCL is short name of Transaction Control Language which deals with transaction within a database.

- COMMIT – commits a Transaction
- ROLLBACK – rollback a transaction in case of any error occurs
- SAVEPOINT – to rollback the transaction making points within groups
- SET TRANSACTION – specify characteristics for the transaction



การสร้างฐานข้อมูล DATABASE

การสร้างฐานข้อมูล

รูปแบบ

```
CREATE DATABASE my_database
```





```
<?php
```

```
// -- create_database.php
```

```
// Database connection establishment
```

```
$con=mysqli_connect("localhost","user01","love123","db_name");
```

```
// Check connection
```

```
if (mysqli_connect_errno($con)) {
```

```
echo "MySQL database connection failed: " . mysqli_connect_error();
```

```
}
```

```
// Create database
```

```
if (mysqli_query($con,"CREATE DATABASE my_database")) {
```

```
echo "Database created successfully";
```

```
}else {
```

```
echo "Error in creating database: " . mysqli_error($con);
```

```
}
```

```
?>
```



การสร้างตารางข้อมูล

TABLE



การสร้างตารางข้อมูล

รูปแบบ

```
CREATE TABLE users (  
  id          INT NOT NULL AUTO_INCREMENT PRIMARY KEY ,  
  name        VARCHAR( 25 ) NOT NULL ,  
  last_name   VARCHAR( 25 ) NOT NULL ,  
  age         INT NOT NULL  
);
```



```
<?php
```

```
//-- create_table.php
```

```
// Database connection establishment
```

```
$con=mysqli_connect("localhost","user01","love123","db_name");
```

```
// Check connection
```

```
if (mysqli_connect_errno($con)) {
```

```
echo "MySQL database connection failed: " . mysqli_connect_error();
```

```
}
```

```
// Create table query
```

```
$query = "CREATE TABLE users (
```

```
id INT NOT NULL AUTO_INCREMENT PRIMARY KEY ,
```

```
name VARCHAR( 25 ) NOT NULL ,
```

```
last_name VARCHAR( 25 ) NOT NULL ,
```

```
age INT NOT NULL
```

```
);
```

```
// Execute query
```

```
if (mysqli_query($con,$query)) {
```

```
echo "Table created successfully";
```

```
}else {
```

```
echo "Error in creating table: " . mysqli_error($con);
```

```
}
```

```
?>
```




การเพิ่มข้อมูลลงตาราง

INSERT

Add

การเพิ่มข้อมูลลงตาราง



รูปแบบ

```
INSERT INTO table_name (column, column1, column2,  
column3, ...) VALUES (value, value1, value2, value3 ...)
```



```
<?php
```

```
//-- mysql_insert.php
```

```
// Database connection establishment
```

```
$con=mysqli_connect("localhost","user01","love123","db_name");
```

```
// Check connection
```

```
if (mysqli_connect_errno($con)) {
```

```
echo "MySQL database connection failed: " . mysqli_connect_error();
```

```
}
```

```
// Insert
```

```
mysqli_query($con,"INSERT INTO member (name,email,message)  
VALUES (Piti, 'piti@gmail.com', 'test bit')")
```

```
?>
```



การสร้างแบบฟอร์มเพิ่มข้อมูล

FirstName:

Email:

Message:

Submit



```
<!-- mysql_insert_form.html -->
```

```
<html>
```

```
<body>
```

```
<form action="mysql_insert2.php" method="post">
```

```
<table>
```

```
<tr>
```

```
<td>FirstName:</td>
```

```
<td><input type="text" name="name" id="name" ></td>
```

```
</tr>
```

```
<tr>
```

```
<td>Email:</td>
```

```
<td><input type="text" name="email" id="email" ></td>
```

```
</tr>
```

```
<tr>
```

```
<td>Message:</td>
```

```
<td><textarea name="message" cols="40" rows="5" id="message"></textarea></td>
```

```
</tr>
```

```
<tr>
```

```
<td><input name="submitBtn" type="submit" id="submitBtn"
```

```
value="Submit"></td>
```

```
</tr>
```

```
</table> </form>
```



```
<?php
```

```
//-- mysql_insert2.php
```

```
// Database connection establishment
```

```
$con=mysqli_connect("localhost","user01","love123","db_name");
```

```
// Check connection
```

```
if (mysqli_connect_errno($con)) {  
    echo "MySQL database connection failed: " . mysqli_connect_error();  
}
```

```
// CHECKING SUBMIT BUTTON PRESS or NOT.
```

```
if(isset($_POST["submitBtn"]) && $_POST["submitBtn"]!=""){  
    $name=$_POST["name"];  
    $email=$_POST["email"];  
    $message=$_POST["message"];
```

```
//INSERT QUERY
```

```
if(mysqli_query("INSERT INTO member (name, email, message)  
VALUES ($name,$email,$message)")){  
    echo "Record inserted successfully";  
}
```

```
?>
```



การดึงข้อมูลในตารางมาแสดง

SELECT

Search

การดึงข้อมูลในตารางมาแสดง



รูปแบบ

```
SELECT column_name(s) FROM table_name
```


การดึงข้อมูลในตารางมาแสดง

```
<?php
//-- mysql_show.php
// Create connection
$con=mysqli_connect("localhost","user01","love123","mydb");

// Check connection
if (mysqli_connect_errno($con)) {
    echo "Failed to connect to MySQL: " .
mysqli_connect_error();
}

$query=mysqli_query($con, "SELECT * FROM member");
$data = mysqli_fetch_array($query);
echo $data["name"];
?>
```



We can also use PHP while() for selecting multiple rows data.



```
<?php
//-- mysql_show2.php
// Create connection
$con=mysqli_connect("localhost","user01","love123","mydb");

// Check connection
if (mysqli_connect_errno($con)) {
    echo "Failed to connect to MySQL: " . mysqli_connect_error();
}

$query=mysqli_query($con, "SELECT * FROM membrer");
while($data = mysqli_fetch_array($query)){
    echo $data["name"]."<br>";
}
?>
```



Display the results in an HTML table

```
<?php
//-- mysql_show3.php
// Create connection
$con=mysqli_connect("localhost","user01","love123","db_name");

// Check connection
if (mysqli_connect_errno($con)) {
    echo "Failed to connect to MySQL: " . mysqli_connect_error();
}

$query=mysqli_query($con, "SELECT * FROM member");
?>

<table border='1'><tr>
    <th>Firstname</th>
    <th>Lastname</th>
</tr>

<?php while($data = mysqli_fetch_array($query)){ ?>
<tr>
    <td><?php echo $data["name"]; ?></td>
    <td><?php echo $data["email"]; ?></td>
    <td><?php echo $data["message"]; ?></td>
</tr>
<?php } ?>

</table>
```



การแสดงผลแบบมีเงื่อนไข where

Search

การแสดงผลข้อมูลแบบมีเงื่อนไข



รูปแบบ

```
SELECT [*] FROM [TableName] WHERE  
[condition1] [AND [OR]] [condition2]...
```

- WHERE clause can be used to apply various comma separated condition, in one or more tables.
- Using the WHERE clause to select the specified condition.
- Specific conditions using AND or OR operators.
- A WHERE clause can be used with DELETE or UPDATE



การแสดงผลแบบมีเงื่อนไข

```
<?php
//-- mysql-where.php
// Create connection
$con=mysqli_connect("localhost","user01","love123","db_name");

// Check connection
if (mysqli_connect_errno($con)) {
    echo "Failed to connect to MySQL: " . mysqli_connect_error();
}

$query=mysqli_query($con, "SELECT * FROM member WHERE name='piti' ");
while($data = mysqli_fetch_array($query)){
    echo $data["name"]."<br>";
}
?>
```



การแสดงผลแบบเรียงลำดับ

ORDER BY

Search



การแสดงผลแบบเรียงลำดับ

รูปแบบ

```
SELECT column_name() FROM table_name ORDER  
BY column_name() ASC or DESC
```

The following example selects all the data stored in the “employee” table, and sorts the result by the “salary” column:



การแสดงผลข้อมูลแบบเรียงลำดับ

FirstName	LastName	Salary
Rakdee	Rakkanrean	9500
Piti	Nahuntra	7000

- The ORDER BY keyword sort the records in ascending order by default.
- If you want to sort the records in a descending order, you can use the DESC keyword.
- It is also possible to order by more than one column.



การแสดงผลแบบเรียงลำดับ

```
<?php
// -- mysql_orderby.php
// Database connection establishment
$con=mysqli_connect("localhost","user01","love123","db_name");

// Check connection
if (mysqli_connect_errno($con)) {
    echo "MySQL database connection failed: " . mysqli_connect_error();
}

$query = mysqli_query($con,"SELECT * FROM member ORDER BY salary");

while($row = mysqli_fetch_array($query)) {
    echo $row["FirstName"]." ".$row["LastName"]." ".$row["salary"]."<br>";
}
?>
```



การแก้ไขข้อมูล UPDATE

Edit

การแก้ไขข้อมูล



รูปแบบ

```
UPDATE table_name SET column=value,  
column1=value1,... WHERE someColumn=someValue
```

ตัวอย่าง

- Earlier in the tutorial we created a table named “**member**”. Here is how it looks:

FirstName	LastName	Salary
Rakdee	Rakkanrean	9500
Piti	Nahuntra	7000



FirstName	LastName	Salary
Rakdee	Rakkanrean	12000
Piti	Nahuntra	10000



<?php

// -- mysql_update.php

// Database connection establishment

```
$con=mysqli_connect("localhost","user01","love123","db_name");
```

// Check connection

```
if (mysqli_connect_errno($con)) {  
    echo "MySQL database connection failed: " . mysqli_connect_error();  
}
```

```
mysqli_query($con,"UPDATE member SET salary = `12000`  
    WHERE FirstName = `Rakdee` AND LastName = `Rakkanrean`");
```

?>





การลบข้อมูล

DELETE

Delete



การลบข้อมูล

รูปแบบ

```
DELETE FROM tableName  
WHERE someColumn = someValue
```


ตัวอย่าง

- Earlier in the tutorial we created a table named “**member**”. Here is how it looks:


FirstName	LastName	Salary
Rakdee	Rakkanrean	9500
Piti	Nahuntra	7000

The following example delete the records in the “member” table where LastName=**Nahantra**:



FirstName	LastName	Salary
Rakdee	Rakkanrean	12000





```
<?php
```

```
// -- mysql_delete.php
```

```
// Database connection establishment
```

```
$con=mysqli_connect("localhost","user01","love123","db_name");
```

```
// Check connection
```

```
if (mysqli_connect_errno($con)) {
```

```
    echo "MySQL database connection failed: " .
```

```
    mysqli_connect_error();
```

```
}
```

```
    mysqli_query($con, "DELETE FROM member WHERE  
    LastName=`Nahuntra` ");
```

```
?>
```