- PHP provides **mysql_connect** function to open a database connection. This function takes five parameters and returns a MySQL link identifier on success, or FALSE on failure.
- connection mysql_connect(server,user,passwd,new_link,client_flag);

Parameter & Description
server Optional − The host name running database server. If not specified then default value is **localhost:3306**.
user Optional − The username accessing the database. If not specified then default is the name of the user that owns the server process.
passwd Optional − The password of the user accessing the database. If not specified then default is an empty password.
new_link Optional − If a second call is made to mysql_connect() with the same arguments, no new connection will be established; instead, the identifier of the already opened connection will be returned.
client_flags Optional − A combination of the following constants − •**MYSQL_CLIENT_SSL** − Use SSL encryption •**MYSQL_CLIENT_COMPRESS** − Use compression protocol •**MYSQL_CLIENT_IGNORE_SPACE** − Allow space after function names •**MYSQL_CLIENT_INTERACTIVE** − Allow interactive timeout seconds of inactivity before closing the connection

```
<?php
   $dbhost = 'localhost:3036';
   $dbuser = 'guest';
   $dbpass = 'guest123';
   $conn = mysql_connect($dbhost, $dbuser, $dbpass);
   if(! $conn ) {
      die('Could not connect: ' . mysql_error());
   }
   echo 'Connected successfully';
   mysql_close($conn);
?>
```

- Using MySQLi object-oriented procedure: We can use the MySQLi object-oriented procedure to establish a connection to MySQL database from a PHP script.
- Syntax:
- <?php
- $servername = "localhost";
- $username = "username";
- $password = "password";
- // Creating connection
- $conn = new mysqli($servername, $username, $password);
- // Checking connection
- if ($conn->connect_error) {
- die("Connection failed: " . $conn->connect_error);
- }
- echo "Connected successfully";
- $conn->close();
- ?>

- PHP uses **mysql_query** function to create a MySQL database. This function takes two parameters and returns TRUE on success or FALSE on failure.
- bool mysql_query(sql, connection);

Sr.No	Parameter & Description
1	**sql** Required - SQL query to create a database
2	**connection** Optional - if not specified then last opend connection by mysql_connect will be used.

```
<?php
   $dbhost = 'localhost:3036';
   $dbuser = 'root';
   $dbpass = 'rootpassword';
   $conn = mysql_connect($dbhost, $dbuser, $dbpass);
   if(! $conn ) {
      die('Could not connect: ' . mysql_error());
   }
   echo 'Connected successfully';
   $sql = 'CREATE Database test_db';
   $retval = mysql_query( $sql, $conn );
   if(! $retval ) {
      die('Could not create database: ' . mysql_error());
   }
   echo "Database test_db created successfully\n";
   mysql_close($conn);
?>
```

```
// Creating a database named newDB
$sql = "CREATE DATABASE newDB";
if ($conn->query($sql) === TRUE) {
    echo "Database created successfully with the name newDB";
} else {
    echo "Error creating database: " . $conn->error;
}
```

- PHP provides function **mysql_select_db** to select a database. It returns TRUE on success or FALSE on failure.
- bool mysql_select_db(db_name, connection);

Sr.No	Parameter & Description
1	**db_name** Required - Database name to be selected
2	**connection** Optional - if not specified then last opend connection by mysql_connect will be used.

```
<?php
   $dbhost = 'localhost:3036';
   $dbuser = 'guest';
   $dbpass = 'guest123';
   $conn = mysql_connect($dbhost, $dbuser, $dbpass);
   if(! $conn ) {
      die('Could not connect: ' . mysql_error());
   }
   echo 'Connected successfully';
   mysql_select_db( 'test_db' );
   mysql_close($conn);

?>
```

```
<?php
  $dbhost = 'localhost:3036'; $dbuser = 'root';$dbpass = 'rootpassword';
  $conn = mysql_connect($dbhost, $dbuser, $dbpass);
  if(! $conn ) {
    die('Could not connect: ' . mysql_error());
  }
  echo 'Connected successfully';
  $sql = 'CREATE TABLE employee( '.
    'emp_id INT NOT NULL AUTO_INCREMENT, '.
    'emp_name VARCHAR(20) NOT NULL, '.
    'emp_address  VARCHAR(20) NOT NULL, '.
    'emp_salary   INT NOT NULL, '.
    'join_date    timestamp(14) NOT NULL, '.
    'primary key ( emp_id ))';
  mysql_select_db('test_db');
  $retval = mysql_query( $sql, $conn );
  if(! $retval ) {
    die('Could not create table: ' . mysql_error());
  }
  echo "Table employee created successfully\n";
  mysql_close($conn);
?>
```

```
// sql code to create table
$sql = "CREATE TABLE employees(
        id INT(2)  PRIMARY KEY,
        firstname VARCHAR(30) NOT NULL,
        lastname VARCHAR(30) NOT NULL,
        email VARCHAR(50)
        )";
if ($conn->query($sql) === TRUE) {
    echo "Table employees created successfully";
} else {
    echo "Error creating table: " . $conn->error;
}
```

```
<?php
   $dbhost = 'localhost:3036';
   $dbuser = 'root';
   $dbpass = 'rootpassword';
   $conn = mysql_connect($dbhost, $dbuser, $dbpass);
   if(! $conn ) {
      die('Could not connect: ' . mysql_error());
   }
   $sql = 'INSERT INTO employee '.
      '(emp_name,emp_address, emp_salary, join_date) '.
      'VALUES ( "guest", "XYZ", 2000, NOW() )';
   mysql_select_db('test_db');
   $retval = mysql_query( $sql, $conn );
   if(! $retval ) {
      die('Could not enter data: ' . mysql_error());
   }
   echo "Entered data successfully\n";
   mysql_close($conn);
?>
```

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";
// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Doe', 'john@example.com')";
if ($conn->query($sql) === TRUE) {
    echo "New record created successfully";
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}
$conn->close();
?>
```

```
$emp_name = $_POST['emp_name'];
          $emp_address = $_POST['emp_address'];
        $emp_salary = $_POST['emp_salary'];
        $sql = "INSERT INTO employee (emp_name,emp_address, emp_salary,
          join_date) VALUES('$emp_name','$emp_address',$emp_salary, NOW())";
        mysql_select_db('test_db');
        $retval = mysql_query( $sql, $conn );
        if(! $retval ) {
          die('Could not enter data: ' . mysql_error());
        }
```

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";
// Create connection
$conn = new mysqli($servername, $username,
$password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
$sql = "UPDATE MyGuests SET lastname='Doe' WHERE
id=2";

if ($conn->query($sql) === TRUE) {
    echo "Record updated successfully";
} else {
    echo "Error updating record: " . $conn->error;
}
$conn->close();
?>
```

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";
// Create connection
$conn = mysqli_connect($servername, $username,
$password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
$sql = "UPDATE MyGuests SET lastname='Doe' WHERE id=2";
if (mysqli_query($conn, $sql)) {
    echo "Record updated successfully";
} else {
    echo "Error updating record: " . mysqli_error($conn);
}
mysqli_close($conn);
?>
```

```
$emp_id = $_POST['emp_id'];
        $sql = "DELETE FROM employee WHERE emp_id = $emp_id" ;
        mysql_select_db('test_db');
        $retval = mysql_query( $sql, $conn );
        if(! $retval ) {
          die('Could not delete data: ' . mysql_error());
        }
        echo "Deleted data successfully\n";
        mysql_close($conn);
```

PHP mysql_fetch_row() Function

- mysql_fetch_row() fetches one row of data from the result associated with the specified result identifier. The row is returned as an array. Each result column is stored in an array offset, starting at offset 0.
- <?php
  $result = mysql_query("SELECT id,email FROM people W
  HERE id = '42'");
  if (!$result) {
  echo 'Could not run query: ' . mysql_error();
  exit;
  }
  $row = mysql_fetch_row($result);
  echo $row[0]; // 42
  echo $row[1]; // the email value
  ?>

```
<?php
$con = mysqli_connect("localhost","my_user","my_password","my_db");
if (mysqli_connect_errno()) {
  echo "Failed to connect to MySQL: " . mysqli_connect_error();
  exit();
}
$sql = "SELECT Lastname, Age FROM Persons ORDER BY Lastname";
if ($result = mysqli_query($con, $sql)) {
  // Fetch one and one row
  while ($row = mysqli_fetch_row($result)) {
    echo “Last name: “+$row[0]+”Age: ”+ $row[1];
  }
  mysqli_free_result($result);
}
mysqli_close($con);
?>
```

```
<?php
$sql = "SELECT Lastname, Age FROM Persons
ORDER BY Lastname";
if ($result = $mysqli -> query($sql)) {
  while ($row = $result -> fetch_row()) {
    echo “Last name: “+$row[0]+”Age: ”+ $row[1];
  }
  $result -> free_result();
}
$mysqli -> close();
?>
```

- **Mysqli_fetch_assoc()**
- Fetch a result row as an associative array.This function will return a row as an associative array where the column names will be the keys storing corresponding value.
- **PHP mysql_fetch_array() Function**
- Fetch a result row as an associative array, a numeric array and also it fetches by both associative & numeric array.

```
<?php
$con = mysqli_connect("localhost","root","","test");
// Check connection
if (mysqli_connect_errno())
{
 echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
$result = mysqli_query($con,"select  * from user");
while ($rows = mysqli_fetch_assoc($result))
{
echo $rows['id'];echo "<br>";
echo $rows['name']; echo "<br>";
echo $rows['email']; echo "<br>";
echo $rows['contactno']; echo "<br>";
echo $rows['addrss']; echo "<br>";
echo $rows['posting_date']; echo "<br>";
}
?>
```

```
<?php
$con = mysqli_connect("localhost","root","","test");
// Check connection
if (mysqli_connect_errno())
{
 echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
$result = mysqli_query($con,"select  * from user");
while ($rows = mysqli_fetch_arrayc($result))
{
echo $rows['id']; echo "<br>";
echo $rows['name']; echo "<br>";
echo $rows['email']; echo "<br>";
echo $rows['contactno']; echo "<br>";
echo $rows['addrss']; echo "<br>";
echo $rows['posting_date']; echo "<br>";
/* Now here both associative array and numeric array will work. */
echo $rows[0]; echo "<br>"; echo $rows[1]; echo "<br>";
echo $rows[2]; echo "<br>"; echo $rows[3]; echo "<br>";
echo $rows[4]; echo "<br>"; echo $rows[5]; echo "<br>";
}
?>
```

mysql_result()

- mysql_result (resource $result , int $row [, mixed $field = 0])
- Retrieves the contents of one cell from a MySQL result set.
- <?php
- $link = mysql_connect('localhost', 'mysql_user', 'mysql_password');
- if (!$link) {
- die('Could not connect: ' . mysql_error());
- }
- if (!mysql_select_db('database_name')) {
- die('Could not select database: ' . mysql_error());
- }
- $result = mysql_query('SELECT name FROM work.employee');
- if (!$result) {
- die('Could not query:' . mysql_error());
- }
- echo mysql_result($result, 2); // outputs third employee's name
- mysql_close($link);
- ?>

- mysql_list_fields():- call this function to get information on table fields. It makes three arguments (a database name, a table name, and an optional link identifier) and returns a result pointer that refers to a list of all the fields in the specified database.
- mysql_num_fields():- this takes a result pointer (as returned by the preceding function) and returns the total number of fields from the result set to which it points.

- ```
  <?php
  $result = mysql_query("SELECT id,email FROM peo
  ple WHERE id = '42'");
  if (!$result) {
      echo 'Could not run query: ' . mysql_error();
      exit;
  }

  /* returns 2 because id,email === two fields */
  echo mysql_num_fields($result);
  ?>
  ```
  ```