UT 3: Acceso a datos desde PHP
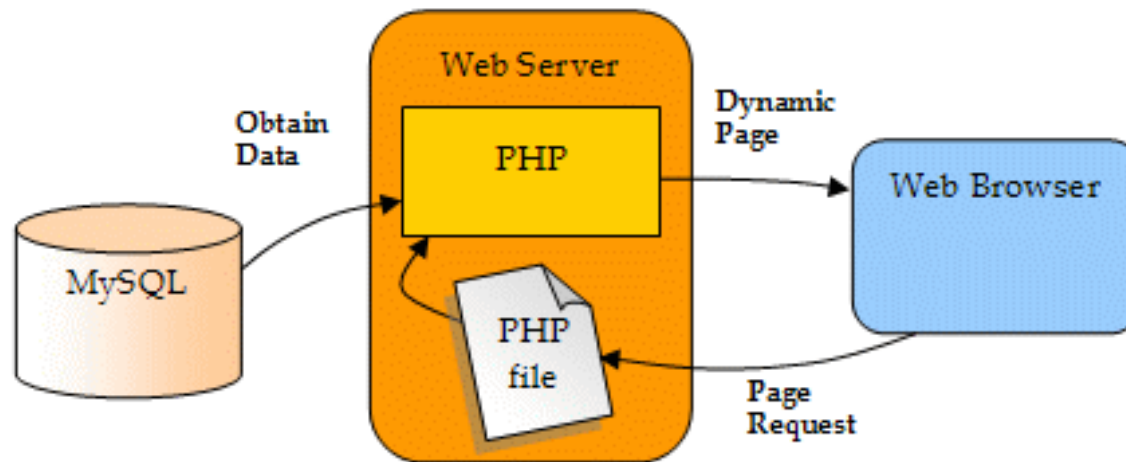
2ºDAW – Desarrollo Entorno Servidor

PHP - MySQL

PHP permite conexión a múltiples Bases Datos

MySQL es la Base Datos más utilizada con PHP

Al desarrollar una aplicación PHP, se creará una conexión a Base Datos

PHP - MySQL

A partir PHP 5 podemos trabajar con MySQL de dos formas:

- **MySQLi** extension ("i"→ improved)
- **PDO** (PHP Data Objects)

¿Qué usamos **MySQLi** or **PDO**?

- PDO funciona con 12 bases datos diferentes, mientras MySQLi solo funciona con MySQL databases

- Ambas son object-oriented, aunque MySQLi dispone también de un API procedural

Por tanto 3 opciones:

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

PHP - MySQL

Ejemplo de conexión MySQLi (procedural)

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = mysqli_connect($servername, $username, $password);

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

PHP - MySQL

Ejemplo de conexión MySQLi (object-oriented)

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";

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

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

PHP - MySQL

Ejemplo de conexión PDO

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";

try {
    $conn = new PDO("mysql:host=$servername;dbname=myDB",
        $username, $password);
    // set the PDO error mode to exception
  $conn->setAttribute(PDO::ATTR_ERRMODE,PDO::ERRMODE_EXCEPTION);
   echo "Connected successfully";
    }
catch(PDOException $e)
    {
    echo "Connection failed: " . $e->getMessage();
    }
?>
```

PHP – MySQL Create Database

```php
<?php
##MySQLi Procedural
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = mysqli_connect($servername, $username, $password);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

// Create database
$sql = "CREATE DATABASE db1";
if (mysqli_query($conn, $sql)) {
    echo "Database created successfully";
} else {
    echo "Error creating database: " . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

PHP – MySQL Create Database

```php
<?php
##MySQLi Object-Oriented
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = new mysqli($servername, $username, $password);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

// Create database
$sql = "CREATE DATABASE bd1";
if ($conn->query($sql) === TRUE) {
    echo "Database created successfully";
} else {
    echo "Error creating database: " . $conn->error;
}

$conn->close();
?>
```

PHP – MySQL Create Database

```php
<?php
##MySQLi PDO
$servername = "localhost";
$username = "username";
$password = "password";

try {
    $conn = new PDO("mysql:host=$servername",$username,$password);
   // set the PDO error mode to exception
   $conn->setAttribute(PDO::ATTR_ERRMODE,PDO::ERRMODE_EXCEPTION);
   $sql = "CREATE DATABASE myDBPDO";
    // use exec() because no results are returned
    $conn->exec($sql);
    echo "Database created successfully<br>";
    }
catch(PDOException $e)
    {
    echo $sql . "<br>" . $e->getMessage();
    }

$conn = null;
?>
```

PHP – MySQL Create Table

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "db1";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

// sql to create table
$sql = "CREATE TABLE clientes(id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
nombre VARCHAR(30) NOT NULL,
apellido VARCHAR(30) NOT NULL,
email VARCHAR(50),
fecha_alta TIMESTAMP
)";

if (mysqli_query($conn, $sql)) {
    echo "Table MyGuests created successfully";
} else {
    echo "Error creating table: " . mysqli_error($conn);
}
mysqli_close($conn);
?>
```

PHP – MySQL Insert Data

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "db1";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "INSERT INTO clientes(nombre, apellido, email)
VALUES ('John', 'Smith', 'j.smith@example.com')";

if (mysqli_query($conn, $sql)) {
    echo "New record created successfully";
} else {
    echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

PHP – MySQL Insert Data

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "db1";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Wayne', 'j.wayne@example.com')";

if (mysqli_query($conn, $sql)) {
    $last_id = mysqli_insert_id($conn);
    echo "New record created successfully. Last inserted ID is: " . $last_id;
} else {
    echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}
mysqli_close($conn);
?>
```

PHP – MySQL Insert Data

```php
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "db1";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Dos Passos', 'j.dospassos@example.com');";
$sql .= "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('Mary', 'Moe', 'm.moe@example.com');";
$sql .= "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('Julia', 'Roberts', 'j.roberts@example.com')";

if (mysqli_multi_query($conn, $sql)) {
    echo "New records created successfully";
} else {
    echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}

mysqli_close($conn);
?>
```

PHP – MySQL Prepared Statements

https://www.w3schools.com/php/php_mysql_prepared_statements.asp