

Connecting to Database(MySQL) in PHP

Create a Connection with DB:

- By using PHP, we can able to connect with database(MySQL).
- In order to connect with database, we need three parameters
 - **Hostname(ServerName)** (By default "localhost")
 - **Username** (By default "root")
 - **Password** (By default "No Password")
- In PHP, we have one inbuilt function to create connection with database(MySQL)
.i.e.,
 - **mysqli_connect(hostname,username,password)**
- This function creates a successful connection with DB if you provide valid information.
- When the connection is not well we can kill that connection by using
 - **die("Can't create connection");**
- **mysqli_close()** function is used to disconnect with MySQL database.

Example:

```
<?php
$host = 'localhost';
$user = 'root';
$pass = '';
$conn = mysqli_connect($host, $user, $pass);
if(! $conn )
{
    die('Could not connect: ' . mysqli_error());
}
echo 'Connected successfully';
mysqli_close($conn);
?>
```

Execute Queries:

Create a Database:

- After creating connection we need to create a database .
- PHP has one in built function to perform different operations (create (db &table),insert,update and delete) on database.i.e.,
 - `mysqli_query(connection,query)`
- It has two parameters, those are
 - **Connection** :name of the connection
 - **Query**: specifies the query

Example:

```
<?php
$host = 'localhost';
$user = 'root';
$pass = '';
$conn = mysqli_connect($host, $user, $pass);
if(! $conn )
{
    die('Could not connect: ' . mysqli_error());
}
$sql = 'CREATE DATABASE CollegeDb';
if(mysqli_query( $conn,$sql))
{
    echo "Database created successfully.";
}
else
{
    echo "Sorry, database creation failed ".mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Creating a Table

- After creating database, we need to create table.
- In PHP, `mysqli_query()` function is used to create a table.

Example

```
<?php
$host = 'localhost';
$user = 'root';
$pass = '';
$dbname='CollegeDb';
$conn = mysqli_connect($host, $user, $pass,$dbname);
if(! $conn )
{
    die('Could not connect: ' . mysqli_error());
}
echo "Connected successfully <br/>";
$sql = "create table students(Sid INT,Sname VARCHAR(20),Age INT)";
if(mysqli_query($conn, $sql)){
    echo "Table students created successfully";
}else{
    echo "Could not create table: ". mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Insert Record into Table

- After creating table, we need to insert data(records) into table.
- In PHP, `mysqli_query()` function is used to insert record into table.

Example

```
<?php
$host = 'localhost';
$user = 'root';
$pass = '';
$dbname='CollegeDb';
$conn = mysqli_connect($host, $user, $pass,$dbname);
if(! $conn )
{
    die('Could not connect: ' . mysqli_error());
}
echo 'Connected successfully';
$sql = 'INSERT INTO students VALUES (521,"Madhu", 30)';
if(mysqli_query($conn, $sql)){
    echo "Record inserted successfully";
}else{
    echo "Could not insert record: ". mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Delete Record

```
<?php
$host = 'localhost';
$user = 'root';
$pass = '';
$dbname='CollegeDb';
$conn = mysqli_connect($host, $user, $pass,$dbname);
if(! $conn )
{
    die('Could not connect: ' . mysqli_error());
}
echo 'Connected successfully';
$id=521;
$sql = "delete from students where sid=$id" ;
if(mysqli_query($conn, $sql)){
    echo "Record inserted successfully";
}else{
    echo "Could not insert record: ". mysqli_error($conn);
}
mysqli_close($conn);
?>
```

Select data from Table

- In PHP, `mysqli_query()` function is used to retrieve data from table.
- There are two other MySQLi functions used in select query.
 - **`mysqli_num_rows(mysqli_result $result)`**: returns number of rows.
 - **`mysqli_fetch_assoc(mysqli_result $result)`**: returns row as an associative array. Each key of the array represents the column name of the table. It return NULL if there are no more rows.

Example:

```
$sql = 'SELECT * FROM students';
$retval=mysqli_query($conn, $sql);

if(mysqli_num_rows($retval) > 0)
{
    while($row = mysqli_fetch_assoc($retval))
    {
        echo "Student ID :".$row['sid']."<br> ";
        echo "Student NAME :". $row['sname']."<br> ";
        echo "Student Age :". $row['age']." <br> ";
        echo "-----<br>";
    } //end of while
}
else
{
    echo "0 results";
}
mysqli_close($conn);
```