

How to Make Simple CRUD in PHP and MySQL



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Execute Insert, Select and Update in MySQL with PHP



In the previous installment of this MySQL series, I provided an overview of table manipulation in MySQL (https://www.cloudways.com/blog/how-to-create-alter-and-drop-table-in-mysql/). In this part of the tutorial series, I will teach you how to create CRUD in PHP and MySQL by executing *insert*, *update* and *delete* queries. These queries can be executed in the following ways.

How To Create CRUD in PHP and MySQL

1. Single Query Execution
2. Multi Queries Execution
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Single Query Execution

It executes a single query at a time. Let's start by inserting data into our database which we have created previously on our hosting for PHP MySQL (https://www.cloudways.com/en/php-cloud-hosting.php). Create a new PHP file in the folder "practice" that we have previously created and name it **crud.php**. CRUD is the abbreviation for Create, Read, Update and Delete queries. Now in the new file, add this line at the top **require_once** 'db_connection.php' and create this new function:

CRUD

```
1. require_once 'db_connection.php';
2.
3. function SingleQuery($query)
4. {
5.     $conn = OpenCon();
6.
7.
8.     if($conn->query($query) === TRUE)
9.     {
10.         CloseCon($conn);
11.         return true;
```

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```

12.     }
13.     else
14.     {
15.         return $conn->error;
16.     }
17.
18. }

```

The function takes a single parameter as your required query and executes it. Now, create a new file, index2.php in the same folder and at top add this line **require_once 'crud.php'**. Now add these lines in your index2.php:

```

1. include 'crud.php';
2.
3. $sql = "INSERT INTO myguests(firstname,lastname,email,subject) VALUES ('w','w','t@gmail.com','First Insert Using Single Query')";
4.
5. $result = SingleQuery($sql);
6.
7. if($result === true)
8. {
9.     echo 'success';
10.
11. }
12. else
13. {
14.     echo $result;
15. }

```

Then open your browser and locate to localhost/practice/index2.php and you will find success if you have typed the right query.

Multi Queries Execution

Using this method, you can execute more than one *insert*, *select* or *update* query. Let's start by writing a function for *Multi Insert* or *Update* queries. Write this new function in your crud.php file

```

1. function MultiQuery($queries)
2. {
3.     $conn = OpenCon();
4.
5.
6.     if($conn->multi_query($queries) === true)
7.     {
8.         CloseCon($conn);
9.         return true;
10.    }
11.    else
12.    {
13.        return $conn->error;
14.    }
15. }


```

The function takes a single parameter as your required query and executes it. Now, call this function in your index2.php:

```

1. include 'crud.php';
2.
3. $sql = "INSERT INTO myguests(firstname,lastname,email,subject) VALUES ('a','a','a@gmail.com','First Insert Using Multiple Queries')";
4. $sql .= "INSERT INTO myguests(firstname,lastname,email,subject) VALUES ('b','b','b@gmail.com','First Insert Using Multiple Queries')";
5. $sql .= "INSERT INTO myguests(firstname,lastname,email,subject) VALUES ('c','c','c@gmail.com','First Insert Using Multiple Queries')";
6.
7. $result = MultiQuery($sql);
8.
9. if($result === true)
10. {
11.     echo 'success';
12.
13. }
14. else
15. {
16.     echo $result;
17. }

```



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Now, open your browser and locate to localhost/practice/index2.php and you will find success if you have typed the right query.

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CRUD in PHP and MySQL With Prepared Statements

Prepared statements are used to execute same query multiple times with high efficiency. Now write this new function in your crud.php file:

```
1. function PreQuery($fname,$lname,$email,$subj)
2. {
3.     $conn = OpenCon();
4.     $query = $conn->prepare("INSERT INTO myguests(firstname, lastname, email, subject) VALUES (?, ?, ?, ?)");
5.     $query->bind_param("ssss", $fname,$lname,$email,$subj);
6.
7.     if($query->execute())
8.     {
9.         CloseCon($conn);
10.        return true;
11.    }
12.    else
13.    {
14.        return $conn->error;
15.    }
16.
17. }
```

We will be selecting data using prepared statements. Let's see how prepared statement works:

1. First, you prepare your statement like INSERT INTO myguests(firstname, lastname, email, subject) VALUES (?, ?, ?, ?). We left ? where we want to insert the values.
2. Second, we will bind those values. The first parameter takes the data types of the value and after that, the values. The data type argument can be of four types.
 1. i – integer
 2. s – string
 3. d – double
 4. b – blob
3. We will execute it.

The function takes four parameters as your required value and executes it. Now, call this function in your index2.php:

```
1. include 'crud.php';
2.
3. $firstn = "Ahmed";
4. $lastn = "Khan";
5. $email = "ahmed.khan@cloudways.com";
6. $subject = "Inserting Data using prepared Query";
7. $result = PreQuery($firstn,$lastn,$email,$subject);
8.
9. if($result === true)
10. {
11.     echo 'success';
12. }
13.
14. else
15. {
16.     echo $result;
17. }
```



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Now, open your browser and locate to localhost/practice/index2.php and you will be successful if you have typed the right query.

Select Query Execution

Now, let us select the data from our MySQL database using single query execution. Write a new function in your crud.php written below:

```
1. function selectdata($sql)
2. {
3.     $conn = OpenCon();
4.
5.     $result = $conn->query($sql);
6.     if($result)
7.     {
8.         if($result->num_rows > 0)
9.         {
10.            return $result;
11.        }
12.    }
13. }
```

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```

12.     else
13.     {
14.         return "zero";
15.     }
16. }
17. else
18. {
19.     return $result->error;
20. }
21. }

```

The function first checks that the query is executed successfully. If not, it sends an error. Second, it checks whether number of rows is greater than 0 or not. If so, it sends "Zero results found". Now, call this function in index2.php write the following code:

```

1. <table>
2. <tr>
3. <td> Name</td>
4. <td> Email</td>
5. <td> Message</td>
6. </tr>
7. <?php
8. include 'crud.php';
9.
10. $sql = "SELECT * FROM `myguests`";
11.
12. $result = selectdata($sql);
13.
14. if($result != "zero")
15. {
16.
17.     while($row = $result->fetch_assoc())
18.     {
19.         echo "<tr>";
20.         echo "<td>" . $row['firstname'] . ' ' . $row['lastname'] . "</td>";
21.         echo "<td>" . $row['email'] . "</td>";
22.         echo "<td>" . $row['subject'] . "</td>";
23.         echo "</tr>";
24.     }
25. }
26.
27. }
28. }
29. else
30. {
31.     echo $result;
32. }
33. ?>
34. </table>

```

After this, open your browser and locate to localhost/practice/index2.php and you will find all the data store in your database in your index2.php page.

Update Query Using Prepared Statement

Let us write a new function in your crud.php file to execute update statement:

```

1. function UpdateQuery($column,$value,$id)
2. {
3.     $conn = OpenCon();
4.     $query = $conn->prepare("UPDATE myguests SET $column = ? WHERE id = ?");
5.     $query->bind_param("si",$value,$id);
6.
7.     if($query->execute())
8.     {
9.         CloseCon($conn);
10.        return true;
11.    }
12.    else
13.    {
14.        return $conn->error;
15.    }
16. }

```

The update parameter takes three parameters. One is the column name which needs to be updated, second is the value which will be replaced by the previous value and third is the ID of the row in which it will be changed. Now, execute this function in index2.php :

```

1. include 'crud.php';
2.
3.
4. $result = UpdateQuery("firstname","David",1);
5.
6. if($result === true)

```

When you've done that, open your browser and locate to `localhost/practice/index2.php` and you will be successful if there is no error.

Delete Query Using Prepared Statement

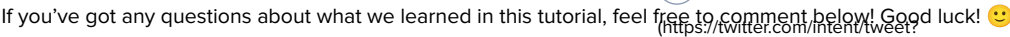
Let us write a new function in your crud.php file to execute a delete statement:

The delete parameter takes one parameter which will be the ID of the row which needs to be deleted from the table. Now, execute this function in index2.php:

After that, open your browser and locate to localhost/practice/index2.php and you will find success if there is no error.

Conclusion

In this tutorial, we have learned how to execute CRUD in PHP and MySQL using three different ways. In the next installment of this MySQL series, I will discuss MySQL data fetch clauses. (<https://www.cloudways.com/blog/how-to-use-mysql-clauses-to-fetch-data/>) Here is a short introduction and list of major topics in this MySQL series (<https://www.cloudways.com/blog/setup-mysql-database-localhost/>).



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Ahmed was a PHP community expert at Cloudways - A Managed PHP Hosting (<https://www.cloudways.com/en/php-cloud-hosting.php>) Cloud Platform. He is a software engineer with extensive knowledge in PHP and SEO. He loves watching Game of Thrones in his free time. Follow Ahmed on Twitter to stay updated with his works. You can email him at ahmed.khan@cloudways.com

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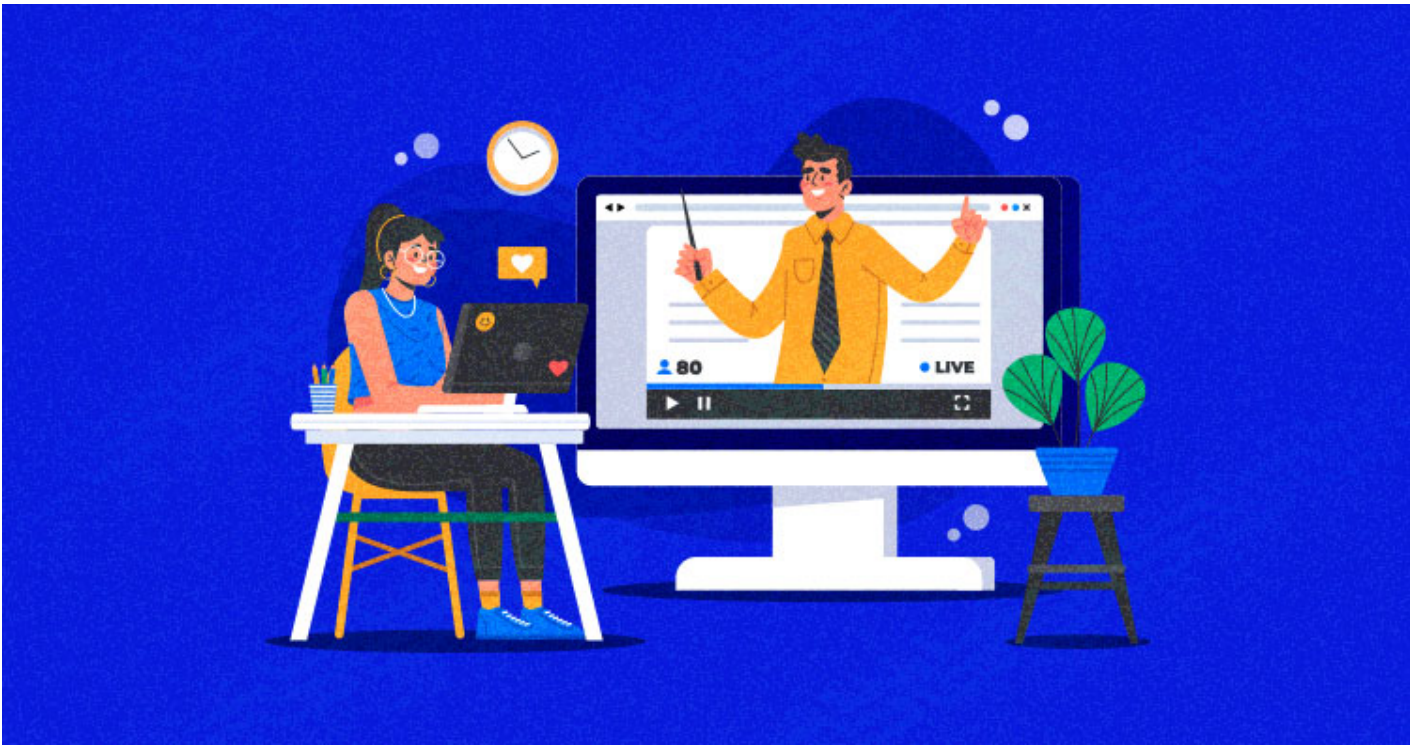


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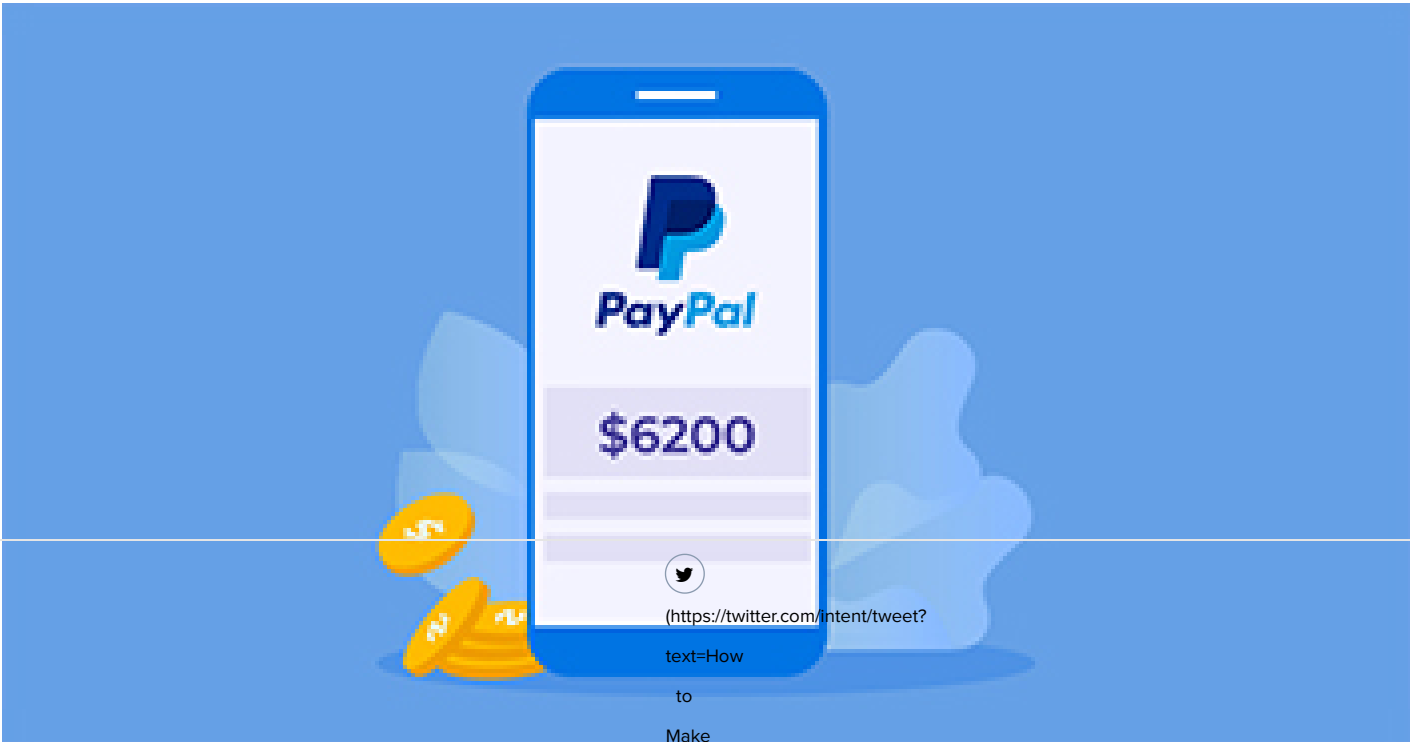




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