



DEPARTMENT OF  
COMPUTER SCIENCE AND ENGINEERING

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**Title: PHP – CRUD Operations**

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WEB PROGRAMMING LAB  
CSE 302



GREEN UNIVERSITY OF BANGLADESH

# 1 Objective(s)

- To be familiar with CRUD (create, read, update, and delete) Operations using PHP.

## 2 Problem analysis

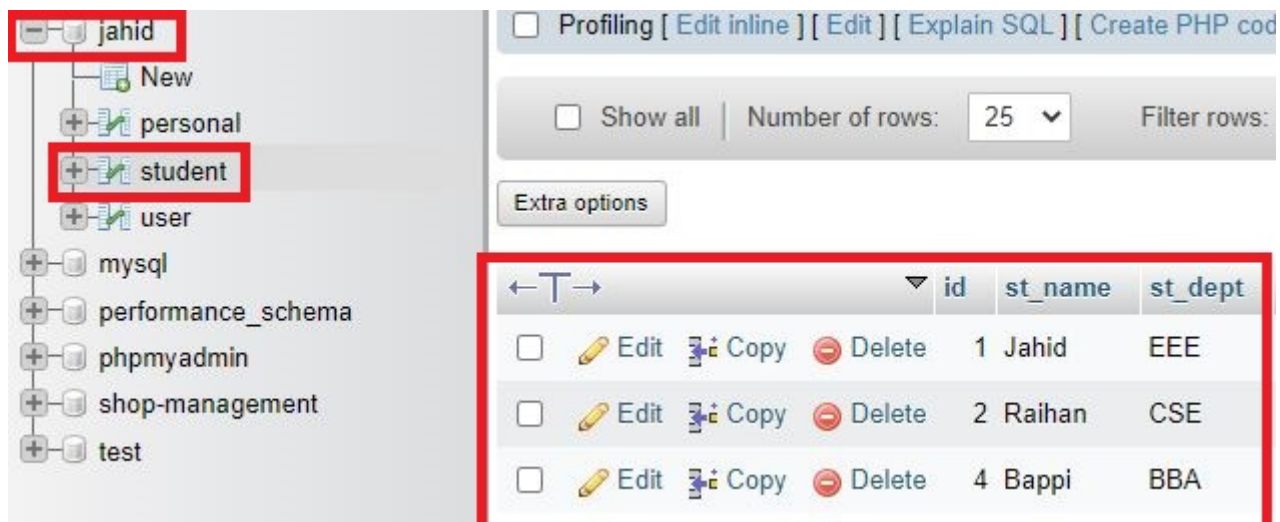
CRUD Operations are typically performed on databases, hence, in this PHP CRUD Operations tutorial, you will implement CRUD techniques on MySQL databases with the help of PHP.

The CRUD acronym comprises all the major operations that are performed on a relational database. It stands for:

- C = Create
- R = Read
- U = Update
- D = Delete

## 3 CRUD Operations in PHP

### 3.1 PHP Create a MySQL Database



The screenshot shows the phpMyAdmin interface. On the left, the database 'jahid' is selected, and the table 'student' is highlighted. On the right, the table structure is shown with columns 'id', 'st\_name', and 'st\_dept'. The table contains three rows of data:

	id	st_name	st_dept
<input type="checkbox"/> Edit Copy Delete	1	Jahid	EEE
<input type="checkbox"/> Edit Copy Delete	2	Raihan	CSE
<input type="checkbox"/> Edit Copy Delete	4	Bappi	BBA

### 3.2 PHP Connect to MySQL

```
1 //connect.php
2
3 <?php
4 $username = "root";
5 $password = "";
6 $database = "jahid";
7
8 // Create connection
9 $mysqli = new mysqli("localhost", $username, $password, $database);
10
11 // Check connection
12 if ($mysqli->connect_error) {
13     die("Connection failed: " . $mysqli->connect_error);
14 }
15 echo "Connected successfully";
16 ?>
```

```

1  <?php
2  $username = "root";
3  $password = "";
4  $database = "jahid";
5
6  // Create connection
7  $mysqli = new mysqli("localhost", $username, $password, $database);
8
9  // Check connection
10 if ($mysqli->connect_error) {
11     die("Connection failed: " . $mysqli->connect_error);
12 }
13 echo "Connected successfully";
14 ?>

```

### 3.3 PHP MySQL Insert Data

```

1  //data_insert.php
2
3  <?php
4  session_start();
5  include_once('connection.php');
6  ?>
7
8
9  <form action="" method="post">
10     <div> Student Name: <input type="text" name="st_name" value="" /> </br>
11         Department: <input type="text" name="st_dept" value="" /></br>
12         <input type="submit" name="submit" value="Insert" /></div>
13 </form>
14
15
16 <?php
17 if(isset($_POST['submit']))
18 {
19     if(!empty($_POST['st_name']) && !empty($_POST['st_dept'])) {
20         $name= $_POST['st_name'];
21         $Dept= $_POST['st_dept'];
22
23         $sql = "INSERT INTO student(st_name, st_dept) VALUES('$name','$Dept')";
24         $run =mysqli_multi_query($mysqli,$sql) or die(mysqli_query());
25
26         if($run){
27             echo "<h1>Submitted Successfully..</h1>";
28         }
29         else{
30             echo "<h1> Not Submitted </h1>";
31         }
32     }
33     else{
34         echo "<h2> All Fields are required </h2>";
35     }
36 }

```

```

30 <form action="" method="post">
31     <div> Student Name: <input type="text" name="st_name" value="" /> </br>
32     Department: <input type="text" name="st_dept" value="" /></br>
33     <input type="submit" name="submit" value="Insert" /></div>
34 </form>
35
36
37 <?php
38 if(isset($_POST['submit']))
39 {
40     if(!empty($_POST['st_name']) && !empty($_POST['st_dept'])) {
41         $name= $_POST['st_name'];
42         $Dept= $_POST['st_dept'];
43
44         $sql = "INSERT INTO student(st_name, st_dept) VALUES('$name','$Dept')";
45         $run =mysqli_multi_query($mysqli,$sql) or die(mysqli_query());
46
47         if($run){
48             echo "<h1>Submitted Successfully..</h1>";
49         }
50         else{
51             echo "<h1> Not Submitted </h1>";
52         }
53     }
54     else{
55         echo "<h2> All Fields are required </h2>";
56     }
57 }
58 ?>

```

```

1 //data_insert.php
2
3 <?php
4 $sql = "SELECT id, st_name, st_dept FROM student";
5 echo '<table style="width:60%" border="2" >
6     <tr>
7         <th>ID</font> </th>
8         <th> Student Name</font> </th>
9         <th> Student Dept.</font> </th>
10        <th><font color="green">Edit</font></th>
11        <th><font color="Red">Delete</font></th>
12    </tr>';
13
14 if ($result = $mysqli->query($sql)) {
15     while ($row = $result->fetch_assoc()) {
16         $ID = $row["id"];
17         $Name = $row["st_name"];
18         $Dept = $row["st_dept"];
19
20         echo '<tr>
21             <td>' . $ID . '</td>
22             <td>' . $Name . '</td>
23             <td>' . $Dept . '</td>
24             <td>

```

```

25         <button class="btn btn-primary"> <a href="single_edit.php?
           updateid='.$ID.'" >Update</a></button>
26     </td>
27     <td>
28         <button class="btn btn-primary"> <a href="single_delete.php?
           deleteid='.$ID.'">Delete</a></button>
29     </td>
30 </tr>';
31 }
32 $result->free();
33 }
34 $mysqli ->close();
35 ?>

```

```

61 <?php
62 $sql = "SELECT id, st_name, st_dept FROM student";
63 echo ' <table style="width:60%" border="2" >
64     <tr>
65         <th>ID</font> </th>
66         <th> Student Name</font> </th>
67         <th> Student Dept.</font> </th>
68         <th><font color="green">Edit</font></th>
69         <th><font color="Red">Delete</font></th>
70     </tr>';
71
72 if ($result = $mysqli->query($sql)) {
73     while ($row = $result->fetch_assoc()) {
74         $ID = $row["id"];
75         $Name = $row["st_name"];
76         $Dept = $row["st_dept"];
77
78         echo ' <tr>
79             <td>' . $ID . '</td>
80             <td>' . $Name . '</td>
81             <td>' . $Dept . '</td>
82             <td>
83                 <button class="btn btn-primary"> <a href="single_edit.php?updateid=' . $ID . '" >Update</a></button>
84             </td>
85             <td>
86                 <button class="btn btn-primary"> <a href="single_delete.php?deleteid=' . $ID . '">Delete</a></button>
87             </td>
88         </tr>';
89     }
90     $result->free();
91 }
92 $mysqli ->close();
93 ?>

```

## 4 Sample Input/Output (Compilation, Debugging & Testing)

Output:

Student Name:

Department:

ID	Student Name	Student Dept.	Edit	Delete
1	Jahid	EEE	<a href="#" style="color: blue; text-decoration: underline;">Update</a>	<a href="#" style="color: blue; text-decoration: underline;">Delete</a>
2	Raihan	CSE	<a href="#" style="color: blue; text-decoration: underline;">Update</a>	<a href="#" style="color: blue; text-decoration: underline;">Delete</a>
4	Bappi	BBA	<a href="#" style="color: blue; text-decoration: underline;">Update</a>	<a href="#" style="color: blue; text-decoration: underline;">Delete</a>

## 5 Discussion & Conclusion

Based on the focused objective(s) to understand the PHP, the additional lab exercise made me more confident in the fulfillment of the objectives(s).

## 6 Lab Task (Please implement yourself and show the output to the instructor)

## 7 Lab Exercise (Submit as a report)

- Edit Operation using PHP.

```

1 //single_edit.php.
2
3 <?php
4 include_once('connection.php');
5 ?>
6
7 <?php
8     $id= $_GET['updateid'];
9     $sql= "SELECT * FROM student WHERE id=$id";
10    $result=mysqli_query($mysqli,$sql);
11    $row = mysqli_fetch_assoc($result);
12    $st_name= $row['st_name'];
13    $st_dept= $row['st_dept'];
14
15
16    if(isset($_POST['edit'])){
17        $st_name= $_POST['st_name'];
18        $st_dept= $_POST['st_dept'];
19

```

```

20     $sql = "UPDATE student SET id=$id, st_name='$st_name', st_dept='
        $st_dept' where id=$id ";
21     $run =mysqli_query($mysqli,$sql) or die(mysqli_query());
22     if($run){
23         echo "<h1>Data Edited</h1>";
24         header("location:home.php");
25     }
26     else{
27         echo "<h1> Data not Edited  </h1>";
28     }
29
30 }
31
32 ?>
33
34 <form action="#" method="post">
35     ID: <input type="hidden" name="id"/> </br>
36     Student Name: <input type="text" name="st_name" value=?php echo
        $st_name;?> /> </br>
37     Department: <input type="text" name="st_dept" value=?php echo
        $st_dept;?> /></br>
38     <input type="submit" name="edit" value="Updated Data" />
39 </form>

```

- Delete Operation using PHP.

```

1
2 //single_delete.php
3
4 <?php
5 include_once('connection.php');
6 ?>
7
8 <?php
9 if(isset($_GET['deleteid']))
10 {
11     $id= $_GET['deleteid'];
12
13     $sql = "DELETE FROM student WHERE id='$id'";
14     $run =mysqli_query($mysqli,$sql) or die(mysqli_query());
15     if($run){
16         echo "<h1>Data Deleted</h1>";
17         header("location:home.php");
18     }
19     else{
20         echo "<h1> Data not Deleted  </h1>";
21     }
22 }
23 }
24 $mysqli ->close();
25 ?>

```

## 8 Policy

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