How to Use MySQL Stored Procedure with PHP

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November 23, 2008
1. Create MySQL stored procedure
2. Connect MySQL server using mysqli
3. Pass values and retrieve results
1. Create MySQL Stored Procedure

mysql> delimiter |
mysql> create procedure test_select (NAME VARCHAR(10))
   -> begin
   ->   select * from Student where Fname=NAME;
   -> end
   -> |
Query OK, 0 rows affected (0.02 sec)

mysql> delimiter ;
mysql> call test_select('Eric');
+-+-----+-----+-----+-----+-----+----------+---------+---------+
<table>
<thead>
<tr>
<th>StuID</th>
<th>LName</th>
<th>Fname</th>
<th>Age</th>
<th>Sex</th>
<th>Major</th>
<th>Advisor</th>
<th>city_code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1009</td>
<td>Tai</td>
<td>Eric</td>
<td>19</td>
<td>M</td>
<td>600</td>
<td>2192</td>
<td>YYZ</td>
</tr>
<tr>
<td>1026</td>
<td>Pang</td>
<td>Eric</td>
<td>19</td>
<td>M</td>
<td>520</td>
<td>7134</td>
<td>HKG</td>
</tr>
<tr>
<td>1028</td>
<td>Rugh</td>
<td>Eric</td>
<td>20</td>
<td>M</td>
<td>550</td>
<td>2311</td>
<td>ROC</td>
</tr>
<tr>
<td>1032</td>
<td>Brown</td>
<td>Eric</td>
<td>20</td>
<td>M</td>
<td>550</td>
<td>8772</td>
<td>ATL</td>
</tr>
<tr>
<td>1034</td>
<td>Epp</td>
<td>Eric</td>
<td>18</td>
<td>M</td>
<td>50</td>
<td>5718</td>
<td>BOS</td>
</tr>
</tbody>
</table>
+-------+-------+-------+------|-----|-------|---------|-----------+
5 rows in set (0.01 sec)

Query OK, 0 rows affected (0.01 sec)

mysql>
To use stored procedure in MySQL with PHP, you need to use `mysqli` instead of `mysql`.

- 23.4.14: Can MySQL 5.0 stored routines return result sets?
- Stored procedures can, but stored functions cannot. If you perform an ordinary `SELECT` inside a stored procedure, the result set is returned directly to the client. You need to use the MySQL 4.1 (or above) client-server protocol for this to work. This means that — for instance — in PHP, you need to use the `mysqli` extension rather than the old `mysql` extension. (From MySQL.com)
2. Connect MySQL Server

```php
$mysqli = new mysqli("dbase.cs.jhu.edu","your id","your password","your dbname");

/* check connection */
if (mysqli_connect_errno()) {
    printf("Connect failed: %s<br>", mysqli_connect_error());
    exit();
}
```
3. Pass Values and Retrieve Results

$name = 'Eric';  // You can set this with the one passed from web-interface
if ($mysqli->multi_query("CALL test_select('".$name."');") ) {
    do {
        if ($result = $mysqli->store_result()) {
            while ($row = $result->fetch_row()) {
                printf("%s, %s, %s<br>", $row[0], $row[1], $row[2]);
            }
            $result->close();
        }
    }
    if ($mysqli->more_results()) {
        printf("-----------------
");
    }
} while ($mysqli->next_result());
} else {
    printf("<br>Error: %s\n", $mysqli->error);
}
3. Pass Values and Retrieve Results

- Running examples with name = ‘Eric’

- It is possible to combine MySQL stored procedure with web–interfaces.
  - Please refer the manual and the demo page that was already provided.
  - [http://ugrad.cs.jhu.edu/~minyang](http://ugrad.cs.jhu.edu/~minyang)
Some References

- MySQL FAQ: Stored Procedures and Functions
- Introduction – MySQL Stored Procedures from databasejournal.com

If you have any questions on how to use MySQL stored procedures with PHP, please send me an email. (myj@jhu.edu)