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Authorware to Database and Back
(Authorware – PHP – MySQL)

presented by:
Julia Belinski
PRYORity Training & Development
julia@prioritytraining.com

SAMPLE CALL FROM AUTHORWARE TO PHP

```
varToSend := "nID="^ nID
```

```
varToSend := varToSend^"&nocache
```

```
varToSend:=Replace(" ", "%20", varToSend) --replace all spaces with %20
```

```
--EXAMPLE: phpResult :=ReadURL("http://localhost/chRec.php?" ^varToSend)
```

```
phpResult := ReadURL/phpPath^"chRec.php?" ^varToSend)
```

FOR EXAMPLE: If nID = "A Admin1234"

```
varToSend value would = "nID=A%20Admin1234&nocache=29520.369"
```

SAMPLE SQL CODE TO USE IN A PHP SCRIPT:**Connect to a database**

Format:

```
<?php
```

```
$hostVariable = "localhost"; //or could use 127.0.0.1 which is the root server address
```

```
$databaseVariable = "databaseName";
```

```
$usernameVariable = "userName"; //user that was granted permissions to database
```

```
$passwordVariable = "userPassword";
```

```
$connectorVariable = mysql_connect(hostVariable, usernameVariable, $passwordVariable) or
```

```
die(mysql_error());
```

```
?>
```

Example:

```
<?php
```

```
$hostname_conn = "localhost";
```

```
$database_conn = "win";
```

```
$username_conn = "root";
```

```
$password_conn = "";
```

```
$conn = mysql_pconnect($hostname_conn, $username_conn, $password_conn) or die(mysql_error());
```

```
?>
```

Include a external file (i.e.import the script from an external file)

PHP code format:

```
<?php require_once('filename'); ?>
```

```
<?php
```

Example:

```
<?php require_once('Connections/conn.php'); ?> //conn.php is find in subfolder called 'Connections'
```

```
<?php
```

Query record(s)*Format:*

```
SELECT *orFields FROM tablename WHERE searchOption; //searchOption is optional
```

Example:

```
SELECT firstN,lastN FROM studentdata WHERE class='class 101' and area='area 99';
```

```
Select ____ from ____ where ____ = ____
Update record
Update ____ set ____ = ____ where ____ = ____
Delete record(s)
```

Update record(s)*Format:*

```
UPDATE table SET field=value, field=value, field=value WHERE field=criteria ";
//WHERE criteria is optional but recommended otherwise all records are updated
```

Examples:

```
UPDATE studentdata SET mgr1='manager1', mgr2='manager2' WHERE nID='AAdmin1234";
UPDATE studentdata SET mgr1=$mgr1, mgr2=$mgr2 WHERE nID=$nID";
```

Insert Record*Format:* INSERT INTO **table** VALUES (*valueField1,valueField2,...,valueFieldx*);*Example (includes creating the table first then inserting a record:*

```
CREATE TABLE activity (
  nID varchar(31) NOT NULL default "",
  sessionRec double(16,0) NOT NULL default '0',
  iTitle char(2) NOT NULL default "",
  iLevel varchar(6) NOT NULL default "",
  inDate date NOT NULL default '0000-00-00',
  inTime time NOT NULL default '00:00:00',
  outDate date default '0000-00-00',
  outTime time default '00:00:00',
  totalTime decimal(7,6) default '0.000000',
  inDateJulian int(8) NOT NULL default '0',
  outDateJulian int(8) default '0',
  PRIMARY KEY (nID,sessionRec)
) TYPE=MyISAM;
```

```
INSERT INTO activity VALUES ('RBrnham5089',20031220090103,'am','place','2003-12-20','09:01:03','2003-12-20','09:14:37',0.226226,37974,37974);
```

DELETE record(s)*Format:*DELETE FROM **table** WHERE **criteria**;*Examples:*DELETE FROM **studentdata** WHERE **class** = 'class1' AND **area**='area1';DELETE FROM **studentdata** WHERE **nID** = \$colnID_Recordset1;**Execute the Query***Format:***variable** = *mysql_query(sqlstringORvar, database) or die(mysql_error());**Example:*

//FIRST: set up a SQL statement to query. This deletes all records with 'admin' in nID field

\$query = "DELETE FROM **studentdata** WHERE **nID** LIKE 'admin%'";*--execute the query***\$recordset1** = *mysql_query(\$query, \$connVar) or die(mysql_error());**--retrieve the records (recordset) from query***\$row_Recordset1** = *mysql_fetch_assoc(\$recordset1);***Retrieve a recordset (if wanting more than 1 field)***Format:***arrayVar** = *mysql_fetch_assoc(queryResult);**Example:**--FIRST execute the query***\$recordset1** = *mysql_query(\$query, \$connVar) or die(mysql_error());**--THEN 'fetch' the recordset***\$row_Recordset1** = *mysql_fetch_assoc(\$recordset1);***Send a result back (i.e. to Authorware)***Format:*

Echo _____;

*Example 1 (returns a simple result of the query – usually just when want to pass success/failure*Echo **\$result**;

Example 2 (formats the result such as when returning specific fields)

```
//first fetch the recordset
$row_Recordset1 = mysql_fetch_assoc($recordset1);

//get total number of rows(records) returned in query
$totalRows_Recordset1 = mysql_num_rows($recordset1);

//on line 1, return the total rows/records (to Authorware)
echo $totalRows_Recordset1."r";

//then use a repeat loop (PHP script) to get all the records returned in the query
//line 2 - x starts the actual records retrieved.
if ($totalRows_Recordset1 > 0) //only if there were any records found in query
{do
    {
        echo $row_Recordset1['nLast'] ."\t"; //11
        echo $row_Recordset1['nFirst'] ."\t"; //12
        echo $row_Recordset1['nPIN'] ."\t"; //13
        echo $row_Recordset1['nClass'] ."\t"."r";

    } while ($row_Recordset1 = mysql_fetch_assoc($Recordset1));
}

// the elements inside the [ ] are field names.
```

LIMIT the number of records in a QUERY

```
//selects the first 6 records starting with the 1st record
SELECT firstN,lastN
FROM studentdata
LIMIT 0, 5
```

Or use variables for start and end record

```
SELECT firstN,lastN
FROM studentdata
LIMIT $startRec,$numRec
```

Tips for speeding up database access:

- Format your queries for faster access:
 - Don't ask for all fields (i.e. don't use *) when you only need a selected few.
 - Format your database so that any field that is used as a search option (i.e. as part of the WHERE) or sort option (i.e. ORDER BY) should usually be a key field in the database.
 - Remember which part of the query is executed first:
 1. search option WHERE ____
 2. table name FROM ____
 3. Fields to query Select ____
- Have enough memory for the type of database you are using. Especially if it is a InnoDB database which uses cache for processing.

VERSIONS:

MySQL: version 4.0.3. Defaults to MyISAM databases (variable length)
 version 5 is in beta. Defaults to InnoDB databases (cache)

PHP: version 4 (recommended because it supports MySQL)
 version 5 does not contain MySQL files

RESOURCES:*GUI's for MySQL:***These help create and maintain databases:**

MySQL Control Center *(free, but doesn't work with version 5)*
 MySQLyog (WINDOWS and UNIX)

These help in the administration of the MySQL Server

MySQL Administrator *(free)*
 NAVICAT (WINDOWS,LINUX,MAC)
 MySQL-FRONT (WINDOWS,LINUX,MAC)

RAD (Rapid Development Tool): For PHP: www.codecharge.com

WEBSITES:

<http://www.mysql.com>

<http://phpbuilder.com/> search for PHP commands

<http://www.php.net>

INSTALLERS:

WAMP (WINDOWS Apache MySQL PHP)

tutorial at: <http://www.tinkertech.net/tutor/wamp/index.html>

LAMP (LINUX Apache MySQL PHP)