Inserting and displaying images in MySQL using PHP

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Well working with images is quite easy task in MySQL using php code. Some years back managing images in relational database is quite complex task as at those times relational databases are able to store only textual data so file path to the images are stored in database and images are stored and retrieved externally. Also special file functions are necessary for retrieving images this way and this approach is system dependent (because of path names used). Nowadays, almost all major DBMS support storing of images directly in database by storing images in the form of binary data. Here, I am explaining the method of storing and retrieving images in MySQL database using PHP code.

Inserting images in mysql-:

MySQL has a blob data type which can used to store binary data. A blob is a collection of binary data stored as a single entity in a database management system. Blobs are typically images, audio or other multimedia blob objects. MySQL has four BLOB types:

TINYBLOB

BLOB

MEDIUMBLOB

LONGBLOB

All these types differ only in their sizes.

For my demonstration, lets us create a test table named test\_image in MySQL having 3 columns show below-:

Id (INT) -Act as primary key for table.

Name (VARCHAR) – Used to store image name.

Image (BLOB) – Used to store actual image data.

You can use phpMyAdmin tool to create the above table else use the following MySQL query-:

create table test\_image (

id int(10) not null AUTO\_INCREMENT PRIMARY KEY,

name varchar(25) not null default '',

image blob not null

);

PHP code to upload image and store in database-:

To upload the image file from client to server and then store image in MySQL database on server, I am posting here the PHP code for our test/sample table (test\_image).

Please change the values of variables in file\_constants.php file according to your system. Save the following scripts with names as shown in your web directory.

file\_constants.php

<?php

$host="your\_hostname";

$user="your\_databaseuser";

$pass="your\_database\_password";

$db="database\_name\_to\_use";

?>

file\_insert.php

<html>

<head><title>File Insert</title></head>

<body>

<h3>Please Choose a File and click Submit</h3>

<form enctype="multipart/form-data" action=

"<?php echo $\_SERVER['PHP\_SELF']; ?>" method="post">

<input type="hidden" name="MAX\_FILE\_SIZE" value="10000000" />

<input name="userfile" type="file" />

<input type="submit" value="Submit" />

</form>

<?php

// check if a file was submitted

if(!isset($\_FILES['userfile']))

{

echo '<p>Please select a file</p>';

}

else

{

try {

$msg= upload(); //this will upload your image

echo $msg; //Message showing success or failure.

}

catch(Exception $e) {

echo $e->getMessage();

echo 'Sorry, could not upload file';

}

}

// the upload function

function upload() {

include "file\_constants.php";

$maxsize = 10000000; //set to approx 10 MB

//check associated error code

if($\_FILES['userfile']['error']==UPLOAD\_ERR\_OK) {

//check whether file is uploaded with HTTP POST

if(is\_uploaded\_file($\_FILES['userfile']['tmp\_name'])) {

//checks size of uploaded image on server side

if( $\_FILES['userfile']['size'] < $maxsize) {

//checks whether uploaded file is of image type

//if(strpos(mime\_content\_type($\_FILES['userfile']['tmp\_name']),"image")===0) {

$finfo = finfo\_open(FILEINFO\_MIME\_TYPE);

if(strpos(finfo\_file($finfo, $\_FILES['userfile']['tmp\_name']),"image")===0) {

// prepare the image for insertion

$imgData =addslashes (file\_get\_contents($\_FILES['userfile']['tmp\_name']));

// put the image in the db...

// database connection

mysql\_connect($host, $user, $pass) OR DIE (mysql\_error());

// select the db

mysql\_select\_db ($db) OR DIE ("Unable to select db".mysql\_error());

// our sql query

$sql = "INSERT INTO test\_image

(image, name)

VALUES

('{$imgData}', '{$\_FILES['userfile']['name']}');";

// insert the image

mysql\_query($sql) or die("Error in Query: " . mysql\_error());

$msg='<p>Image successfully saved in database with id ='. mysql\_insert\_id().' </p>';

}

else

$msg="<p>Uploaded file is not an image.</p>";

}

else {

// if the file is not less than the maximum allowed, print an error

$msg='<div>File exceeds the Maximum File limit</div>

<div>Maximum File limit is '.$maxsize.' bytes</div>

<div>File '.$\_FILES['userfile']['name'].' is '.$\_FILES['userfile']['size'].

' bytes</div><hr />';

}

}

else

$msg="File not uploaded successfully.";

}

else {

$msg= file\_upload\_error\_message($\_FILES['userfile']['error']);

}

return $msg;

}

// Function to return error message based on error code

function file\_upload\_error\_message($error\_code) {

switch ($error\_code) {

case UPLOAD\_ERR\_INI\_SIZE:

return 'The uploaded file exceeds the upload\_max\_filesize directive in php.ini';

case UPLOAD\_ERR\_FORM\_SIZE:

return 'The uploaded file exceeds the MAX\_FILE\_SIZE directive that was specified in the HTML form';

case UPLOAD\_ERR\_PARTIAL:

return 'The uploaded file was only partially uploaded';

case UPLOAD\_ERR\_NO\_FILE:

return 'No file was uploaded';

case UPLOAD\_ERR\_NO\_TMP\_DIR:

return 'Missing a temporary folder';

case UPLOAD\_ERR\_CANT\_WRITE:

return 'Failed to write file to disk';

case UPLOAD\_ERR\_EXTENSION:

return 'File upload stopped by extension';

default:

return 'Unknown upload error';

}

}

?>

</body>

</html>

Below is screenshot of above web page when executed by browser-:

With this you will be able to upload and store images in MySQL database. Also check for the presence of file in the database using phpMyAdmin or any other tool.

Displaying images stored in MySQL-:

Now we are in a position to write PHP code to see images stored by the above script. For that firstly save the script below with name file\_display.php in your web directory.

file\_display.php

<?php

include "file\_constants.php";

// just so we know it is broken

error\_reporting(E\_ALL);

// some basic sanity checks

if(isset($\_GET['id']) && is\_numeric($\_GET['id'])) {

//connect to the db

$link = mysql\_connect("$host", "$user", "$pass")

or die("Could not connect: " . mysql\_error());

// select our database

mysql\_select\_db("$db") or die(mysql\_error());

// get the image from the db

$sql = "SELECT image FROM test\_image WHERE id=" .$\_GET['id'] . ";";

// the result of the query

$result = mysql\_query("$sql") or die("Invalid query: " . mysql\_error());

// set the header for the image

header("Content-type: image/jpeg");

echo mysql\_result($result, 0);

// close the db link

mysql\_close($link);

}

else {

echo 'Please use a real id number';

}

?>

Now you can see the images stored in the database using the following query string-:

[http://{path\_to\_your\_web\_directory}/file\_display.php?id=1](http://%7Bpath_to_your_web_directory%7D/file_display.php?id=1)