



PHP – part 2 - MySQL

By Ned Lowe

ned.lowe@ic.ac.uk

<http://www.iesoc.com/>

Column Types

- `varchar(255)` – Can hold up to 255 characters
- `text` – Can hold up to 65,535 characters
- `integer / int`

- Many more types than this available

Additional Properties

- unsigned
 - use for integers to specify sign or not
- auto_increment
 - integer increments automatically for each entry
- not null
 - tells MySQL that the field cannot be empty
- primary key
 - the data is unique to this entry
 - can use to reference this entry

Creating a table

- create table *name*
(*column1 type*,
 column2 type,
 etc
);
- create table people
(entry_id int unsigned not null auto_increment primary key,
 name varchar(255),
 email varchar(255),
 description text
);

SQL – adding data to table

- insert into *table_name* (*column1*,*column2*) values ('value1','value2');
- insert into people (name,email) values ('Joe','j.bloggs@ic.ac.uk');
- Very often we are inserting variables from PHP

insert into people (name,email) values ('\$name','\$email');

Linking PHP to MySQL

- Connect to database

```
$db = mysql_pconnect("localhost","username","password");  
mysql_select_db("databasename",$db);
```

- `$db` is the link identifier
 - whenever you need to refer to the connection use `$db`

```
mysql_query("query here",$db);  
mysql_query("insert into people (name,email) values ('$name','$email')",$db
```

- No semi-colon at the end of the SQL statement

Selecting data from a table

- `select * from table;`
- `$result = mysql_query("select * from people", $db);`
 - `$result` contains all entries in table
 - don't have to use `$result`, but it has become a convention
- `$num = mysql_num_rows($result);`
 - `$num` will become equal to the number of entries in `$result`
 - `if (mysql_num_rows($result) == 1) { }`

Accessing results

- Accessing specific rows (entries) in \$result
- `mysql_result($result, pos, "field_name");`
 - `pos` starts from '0'
- `mysql_result($result, 0, "name");`
 - returns the 'name' field of the first entry in the table
- `echo "Name: ".mysql_result($result, 0, "name");`

```
<?php
```

```
$db = mysql_pconnect("localhost","username","password");
```

```
mysql_select_db("mytable",$db);
```

```
$result = mysql_query("select * from people",$db);
```

```
$num = mysql_num_rows($result);
```

```
while ($num > 0) {
```

```
$num--;
```

```
echo "Name: ".mysql_result($result,$num,"name")."<br>";
```

```
echo "E-mail: ".mysql_result($result,$num,"email")."<br>";
```

```
}
```

```
?>
```

Conditions

- Sometimes we don't want to return all results
- `select * from table where field=value;`
- `select * from people where name='Joe';`
 - not case-sensitive
- `select * from catalogue where price < 50;`
- `$result = mysql_query("select * from people where name='Joe'", $db);`

Like condition

- Use 'like' if you aren't exactly sure in your condition
 - allows wildcards
- Wildcards
 - '%' - matches any number of characters (including zero)
 - '_' (underscore) – matches a single character
- select * from people where name like 'Jo%'
- matches
 - 'Jo'
 - 'jo'
 - 'Joe'
 - 'Joe Bloggs'

Updating records

- update *table* set *column* = '*value*' where *condition*;
- update people set name='Joe' where name='Jo';
- update people set name='Joe' where entry_id='10';

update people set name='Joe', email='joe@mail.com' where entry_id='10';

Deleting records

- Deleting all records
 - delete from *table*;
 - delete from people;
- Deleting specific records
 - delete from *table* where *condition*;
 - delete from people where name='Joe';

Using PHP variables with SQL

- `mysql_query("update people set name='$name',email='$email' where entry_id='$id'", $db);`

`mysql_query("insert into people(name,email) values ('$name','$email')", $db);`

- `mysql_query("delete from people where entry_id='$id'", $db);`

```
<form method='post' action='./committeescript.php'>
  Login Name: <input type='textbox' name='userid'><br>
  Name: <input type='textbox' name='name'><br>
  Department: <input type='textbox' name='dep'><br>
  Position: <input type='textbox' name='pos'><br>
  E-mail: <input type='textbox' name='emailme'><br>
  Job Code: <input type='textbox' name='codejob'><br>
  Statement<br>
  <textarea name='aboutme' rows='30' cols='30'>I have not
  filled this in yet</textarea><br>
  <input type='hidden' name='type' value='new'>
  <input type='submit' value='Create'>
</form>
```

```
<?php
$db = mysql_pconnect("localhost","username","password");
mysql_select_db("tablename",$db);

if ($type=="new") {

mysql_query("insert into
committee(login_name,email,name,department,position,jobcode,statement) values
('$userid','$emailme','$name','$dep','$pos','$codejob','$aboutme')",$db);
}

if ($type=="update"){
mysql_query("update committee set
name='$name',department='$dep',position='$pos',statement='$aboutme',jobcode='$codejob',email='$emailme' where
login_name='$userid'",$db);
}
?>
```