Multimedia im Netz
(Online Multimedia)
Wintersemester 2014/15

Übung 04 (Nebenfach)
Today’s Agenda

• Assignment 3
• MySQLi with PHP
MySQL at the CIP-Pool

• Access “Datenbank Management” here: https://tools.rz.ifi.lmu.de/
• Create a new account (required)
• Create a new database (required)
• Connect to db2.cip.ifi.lmu.de
PHP and MySQL

• There are multiple interfaces for PHP to access databases:
  – mysql
  – mysqli
  – PDO (PHP Data Objects)

• In the tutorials we are only going to use mysqli
Test Connection

```php
<?php
$c = mysql_connect("localhost", "user", "password");

if($c){
  echo "Connection to database established.";
} else {
  echo "Could not connect to database.";
}
?>
```
**MySQLi**

- Establish connection
  
  ```php
  $c = mysqli_connect("localhost", "user", "password", "mydb");
  ```

- Select database
  
  `mysqli_select_db($c, "mydb");`

- Close connection
  
  `mysqli_close($c);`

- PHP statement for MySQL query
  
  ```php
  $results = mysqli_query($c, $query);
  ```

- Process the results:
  
  ```php
  mysqli_fetch_array($result);
  mysqli_fetch_array($result, MYSQLI_NUM);
  mysqli_fetch_array($result, MYSQLI_ASSOC);
  ```
Example

Table: Contacts

<table>
<thead>
<tr>
<th>PersonID</th>
<th>FirstName</th>
<th>LastName</th>
<th>PhoneNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Max</td>
<td>Mustermann</td>
<td>089455544431</td>
</tr>
<tr>
<td>2</td>
<td>Laura</td>
<td>Stern</td>
<td>070815643593</td>
</tr>
<tr>
<td>3</td>
<td>Tanja</td>
<td>Baumann</td>
<td>0895673138</td>
</tr>
<tr>
<td>4</td>
<td>Felix</td>
<td>Maurer</td>
<td>0894562897</td>
</tr>
</tbody>
</table>
Establish Connection with MySQLi

```php
<?php
$c = mysqli_connect("localhost", "root", "");

if($c){
    echo "Connection has been successfully established.";
} else {
    echo "Connection could not be established. ";
}
?>
```
Create Database (not possible at CIP-Pool!)

```php
<?php
$query = "CREATE DATABASE Uebung04";
$result = mysqli_query($c, $query);

if(!$result){
    echo mysqli_error($c);
} else {
    echo "DB has been created.";
}
?>
```
Select a specific database

- Either at connection (DB has to be there already):

```
$c = mysqli_connect("localhost", "username", "password", "Uebung04");
```

- Or with mysqli_select_db():

```
mysqli_select_db($c, "Uebung04");
```
Create a table

```php
<?php
// Create table
$query = "CREATE TABLE Contacts
  (PersonID int NOT NULL PRIMARY KEY AUTO_INCREMENT,
   FirstName varchar(255) NOT NULL,
   LastName varchar(255) NOT NULL,
   PhoneNumber int NOT NULL)";

$result = mysqli_query($c, $query);

?>
```
Add an entry

```php
<?php
$query = "INSERT INTO Contacts
(FirstName, LastName, PhoneNumber) VALUES
('Max', 'Müllermann', 098776557)";

mysqli_query($c, $query);
?>
```
Read entries

```php
<?php
$query = "SELECT * FROM Kontakte";
$result = mysqli_query($c, $query);

while ($row = mysqli_fetch_array($result)) {
    echo $row[0] . " ";
    echo $row[1] . " ";
    echo $row[3];
    echo "<br/>"
}
?>
```
Thanks!

What are your questions?