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PHP and MySQL Programming

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References: w3schools.com

striving for **excellence**

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MySQL

- Without database, we cannot save the inputs.
  - All will gone after you move from page
- With database, we can keep user input to be shown/process later
- MySQL:
  - Free
  - Most popular database in web based programming
  - Available on XAMPP

MySQL

- First:
  - Design your data structure:
  - Table name: guest_book
  - Fields:
    - nama: varchar (200)
    - komentar: varchar (400)
- Second:
  - Open localhost/phpmyadmin
  - Create new database
  - Create table

MySQL

MySQL localhost

Create new database

web_design_nim | Collation ▼ | Create

MySQL connection collation: utf8_general_ci ▼

✔ Database web_design_nim has been created.

CREATE DATABASE `web_design_nim` ;

[Edit] [Create PHP Code]

No tables found in database.

Create new table on database **web_design_nim**

Name: guest_book   Number of fields: 2

Go

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MySQL

- Create your table and fields

PHP + MySQL

- To connect PHP and MySQL, you need a connection string. Place this in the top of your php page or include file

```php
<?php
// database connection config
$dbHost = 'localhost';   //host IP/domain, localhost if local
$dbUser = 'root';   //database username
$dbPass = '';     //database password
$dbName = 'atib_nim';   //database name

//connecting to database
$dbConn = mysql_connect ($dbHost, $dbUser, $dbPass) or die
  ('MySQL connect failed. ' . mysql_error());
mysql_select_db($dbName) or die('Cannot select database. ' .
  mysql_error());
?>
```

PHP + MySQL

- To Process the input from PHP form:

```php
<?php
  //get all input
  $nama=$_POST['nama'];
  $komentar=$_POST['komentar'];

  If ($_POST['Submit']!="") {
      $sql = "insert into guest_book (nama, komentar) values
  ('$nama','$komentar')";
      $result = mysql_query($sql);
  }
?>
```

PHP + MySQL

- To Show the database content:

```php
<?php

    $sql = "select nama, komentar from guest_book";
    $result = mysql_query($sql);
    if ($result) {
        echo "<table>";
        echo "<tr><td>Nama</td><td>Komentar</td></tr>";
        while ($row = mysql_fetch_array($result)) {
            echo "<tr>";
            echo "<td>".$row['nama']."</td><td>".
$row['komentar']."</td>";
            echo "</tr>";
        }
        echo "</table>";
    }
?>
```

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```
<html>
<head><title>My show page</title></head>
<body>
<?php
// database connection config
$dbHost = 'localhost';   //host IP/domain, localhost if local
$dbUser = 'root';   //database username
$dbPass = '';       //database password
$dbName = 'atib_nim';   //database name

//connecting to database
$dbConn = mysql_connect ($dbHost, $dbUser, $dbPass) or die ('MySQL connect failed. ' . mysql_error());
mysql_select_db($dbName) or die('Cannot select database. ' . mysql_error());

    //get all input
    $nama=$_POST['nama'];
    $komentar=$_POST['komentar'];

    If ($_POST['Submit']!="") {
        $sql = "insert into guest_book (nama, komentar) values ('$nama','$komentar')";
        $result = mysql_query($sql);
    }

    //show database content
    $sql = "select nama, komentar from guest_book";
    $result = mysql_query($sql);
    if ($result) {
        echo "<table>";
        echo "<tr><td>Nama</td><td>Komentar</td></tr>";
        while ($row = mysql_fetch_array($result)) {
                echo "<tr>";
                echo "<td>".$row['nama']."</td><td>".$row['komentar']."</td>";
                echo "</tr>";
        }
        echo "</table>";
    }
?>
</body>
</html>
```

show.php

Three Pillars of Programming

- Three Pillars of Programming
  - Statement
  - IF Then Else
  - Looping
- Not only in PHP, but almost all programming techniques.

Three Pillars of Programming

- Statement
  - One line code.
  - End with semicolon (";")
  - You have mastered it
  - Example:

```
$myVar = 20;          //assignment
$myVar = $a * $b;     //operation
echo $myVar;          //general statement
```

Three Pillars of Programming

- IF Then Else
  - When you need to test a "CONDITION"
  - If (True/False) Then what...
  - True/False must be Condition
    - The result of condition must be True or False
    - Can be comparison, value checking, etc
  - Operator:

    == → Equals
    != → Not Equals
    <= → Smaller or Equal
    >= → Bigger or Equal
    < → Smaller
    > → Bigger

Three Pillars of Programming

- IF Then Else
  - Format:

```php
<?php
    $a = 10;
    if ($a<20) {
        //Your statement here
    } else {
        //Statement for else condition
    }
?>
```

Three Pillars of Programming

- IF Then Else
  - Format:

```php
<?php
    $a = 10;
    if ($a<20) {
        //Your statement here
    } else {
        //Statement for else condition
    }
?>
```

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Three Pillars of Programming

- IF Then Else
  - Multiple if:

```php
<?php
    $a = 10;
    if ($a<5) {
        //Your statement here
    } else if ($a>20) {
        //Statement here
    } else if ($a==10) {
        //Statement here
    } else {
        //statement here
    }
?>
```

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Three Pillars of Programming

- Looping
  - Do some statement multiple times
  - Two forms:
    - The number of loop is certain:
      - do something 10 times
      - We know that the loop is only ten times
      - Syntax:

        ```
        for ($i=1;$i<=10;$i++) {
            Statement
        }
        ```

    - The number of loop is uncertain:
      - do something until $a < 10
      - Number of loops cannot be fixed. Depends on condition

        ```
        while ($a >= 10) {
            $a--;
        }
        ```

Three Pillars of Programming

- Back to your forms (Php and Mysql)
- See if you can find IF Then Else and Looping
- Test:
  - Add some input checking
  - If the name and comment are empty, do not process with input to database, but say: "Nama dan Komentar tidak boleh kosong"

Three Pillars of Programming

- **Adjust those php files for your project**
- **Don't hesitate to contact me if there is any problem!**