Web Programming

Materi Pertemuan 6

Koneksi Database MySQL
Create Database, Create table
Create, Read, Update, Delete (CRUD) Data

Database Mysql

Pengolahan database dalam PHP:
1. **Data Defination**
2. **Data Manipulation**

Fungsi PHP dalam pengelolaan database mysql dengan 2 metode:
1. Metode procedural
2. Metode object oriented

Selain itu juga bisa dilakukan dengan metode PDO

Koneksi Database Mysql

Membuka koneksi ke database MySQL:
1. Metode prosedural
2. Metode object oriented

```php
<?php
    //konfigurasi
    define("DBNAME","datamhs");
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");
    define("DBPORT","3306");

    //koneksi ke database metode prosedural
    $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
    if (!$cnn) {
        die("Connection failed: " . mysqli_connect_error());
    }
    echo "Connected successfully";
```

```php
1   <?php
2       //konfigurasi
3       define("DBNAME","datamhs");
4       define("DBUSER","root");
5       define("DBPWD","");
6       define("DBSERVER","localhost");
7       define("DBPORT","3306");
8
9       //koneksi ke database metode object oriented
10      $cnn = new mysqli(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12      if ($cnn->connect_error) {
13          die("Connection failed: " . $cnn->connect_error);
14      }
15      echo "Connected successfully";
```

Create Database

```php
<?php
    //konfigurasi
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");

    //koneksi ke database metode prosedural
    $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD);

    //membuat database dengan nama datamhs
    $sql = "CREATE DATABASE datamhs;";

    if (mysqli_query($cnn, $sql)) {
        echo "Database created successfully";
    } else {
        echo "Error creating database: " . mysqli_error($cnn);
    }
    mysqli_close($cnn);
```

Create Database

```php
<?php
    //konfigurasi
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");

    //koneksi ke database metode object oriented
    $cnn = new mysqli(DBSERVER,DBUSER,DBPWD);

    if ($cnn->connect_error) {
        die("Connection failed: " . $cnn->connect_error);
    }
    //membuat database dengan nama datamhs
    $sql = "CREATE DATABASE datamhs;";
    if ($cnn->query($sql) === TRUE) {
      echo "Database created successfully";
    } else {
      echo "Error creating database: " . $cnn->error;
      }

    $cnn->close();
```

Create Table

```php
1  <?php
2      //konfigurasi
3      define("DBNAME","datamhs");
4      define("DBUSER","root");
5      define("DBPWD","");
6      define("DBSERVER","localhost");
7      define("DBPORT","3306");
8
9      //koneksi ke database metode prosedural
10     $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12     //membuat database dengan nama mydata
13     $table = "mhs1";
14     $sql = "CREATE TABLE $table(
15         NIM varchar(8) PRIMARY KEY,
16         NAMA varchar(30) NOT NULL,
17         ALAMAT varchar(50) NOT NULL,
18         KOTA varchar(50),
19         JK varchar(1),
20         tgl_lahir date
21     );";
22
23     if (mysqli_query($cnn, $sql)) {
24         echo "Table $table created successfully";
25       } else {
26         echo "Error Created Table $table: " . mysqli_error($cnn);
27     }
28
29     mysqli_close($cnn);
```

Create Table

```php
<?php
    //konfigurasi
    define("DBNAME","datamhs");
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");
    define("DBPORT","3306");

    //koneksi ke database metode object oriented
    $cnn = new mysqli(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);

    if ($cnn->connect_error) {
        die("Connection failed: " . $cnn->connect_error);
    }
    //membuat database dengan nama mydata
    $table = "mhs";
    $sql = "CREATE TABLE $table(
        NIM varchar(8) PRIMARY KEY,
        NAMA varchar(30) NOT NULL,
        ALAMAT varchar(50) NOT NULL,
        KOTA varchar(50),
        JK varchar(1),
        tgl_lahir date
    );";

    if ($cnn->query($sql) === TRUE) {
        echo "Table $table created successfully";
      } else {
        echo "Error Created Table $table: " . $cnn->error;
      }

    $cnn->close();
```

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CURD Database Mysql

PHP database MySQL Manipulation Data (CURD):

Create **U**pdate **R**ead **D**elete

Create Data

```php
1  <?php
2      //konfigurasi
3      define("DBNAME","datamhs");
4      define("DBUSER","root");
5      define("DBPWD","");
6      define("DBSERVER","localhost");
7      define("DBPORT","3306");
8
9      //koneksi ke database metode prosedural
10     $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12     $sql = "INSERT INTO mhs(NIM,NAMA,ALAMAT,KOTA,JK) VALUES('12345678','Budiman','Jl. Kemuning','Denpasar','L');";
13     if (mysqli_query($cnn, $sql)) {
14         echo "New record created successfully";
15     } else {
16         echo "Error: " . $sql . "<br>" . mysqli_error($cnn);
17     }
18     mysqli_close($cnn);
```

```php
1   <?php
2       //konfigurasi
3       define("DBNAME","datamhs");
4       define("DBUSER","root");
5       define("DBPWD","");
6       define("DBSERVER","localhost");
7       define("DBPORT","3306");
8
9       //koneksi ke database metode object oriented
10      $cnn = new mysqli(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12      if ($cnn->connect_error) {
13          die("Connection failed: " . $cnn->connect_error);
14      }
15      //Create Data INSERT INTO
16      $sql = "INSERT INTO mhs(NIM,NAMA,ALAMAT,KOTA,JK) VALUES('12345678','Budiman','Jl. Kemuning','Denpasar','L');";
17
18      $hsl = $cnn->query($sql);
19      if($hsl){
20          echo "New record created successfully";
21      } else {
22          echo "Error: " . $sql . "<br>" . $conn->error;
23      }
24
25      $cnn->close();
```

Update Data

```php
1  <?php
2      //konfigurasi
3      define("DBNAME","datamhs");
4      define("DBUSER","root");
5      define("DBPWD","");
6      define("DBSERVER","localhost");
7      define("DBPORT","3306");
8
9      //koneksi ke database metode prosedural
10     $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12     //Update Data
13     $sql = "UPDATE mhs SET NAMA='Buemareko' WHERE NIM='12345678';";
14     if (mysqli_query($cnn, $sql)) {
15         echo "Record Updated successfully";
16     } else {
17         echo "Error: " . $sql . "<br>" . mysqli_error($cnn);
18     }
19     mysqli_close($cnn);
```

```php
<?php
    //konfigurasi
    define("DBNAME","datamhs");
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");
    define("DBPORT","3306");

    //koneksi ke database metode object oriented
    $cnn = new mysqli(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);

    if ($cnn->connect_error) {
        die("Connection failed: " . $cnn->connect_error);
    }
    //Update Data
    $sql = "UPDATE mhs SET NAMA='Supardiyasa' WHERE NIM='12345679';";

    $hsl = $cnn->query($sql);
    if($hsl){
        echo "Record Updated successfully";
    } else {
        echo "Error: " . $sql . "<br>" . $conn->error;
    }

    $cnn->close();
```

Read Data

```php
1   <?php
2       //konfigurasi
3       define("DBNAME","datamhs");
4       define("DBUSER","root");
5       define("DBPWD","");
6       define("DBSERVER","localhost");
7       define("DBPORT","3306");
8
9       //koneksi ke database metode prosedural
10      $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12      //Read Data
13      $sql = "SELECT NIM, NAMA FROM mhs;";
14      $result = mysqli_query($cnn, $sql);
15
16      if (mysqli_num_rows($result) > 0) {
17          while($row = mysqli_fetch_assoc($result)) {
18              echo "NIM: " . $row["NIM"]. " - Nama: " . $row["NAMA"]. "<br>";
19          }
20      }else{
21          echo "0 results";
22      }
23      mysqli_close($cnn);
```

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```php
<?php
    //konfigurasi
    define("DBNAME","datamhs");
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");
    define("DBPORT","3306");

    //koneksi ke database metode object oriented
    $cnn = new mysqli(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);

    if ($cnn->connect_error) {
        die("Connection failed: " . $cnn->connect_error);
    }
    //Read Data
    $sql = "SELECT NIM, NAMA FROM mhs;";

    $result = $cnn->query($sql);

    if ($result->num_rows > 0) {
        while($row = $result->fetch_assoc()) {
            echo "NIM: " . $row["NIM"]. " - Nama: " . $row["NAMA"]. "<br>";
        }
    } else {
        echo "0 results";
    }

    $cnn->close();
```

Delete Data

```php
1   <?php
2       //konfigurasi
3       define("DBNAME","datamhs");
4       define("DBUSER","root");
5       define("DBPWD","");
6       define("DBSERVER","localhost");
7       define("DBPORT","3306");
8
9       //koneksi ke database metode prosedural
10      $cnn = mysqli_connect(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);
11
12      //Delete Data
13      $sql = "DELETE FROM mhs WHERE NIM='12345678';";
14
15      if (mysqli_query($cnn, $sql)) {
16          echo "Record deleted successfully";
17      } else {
18          echo "Error deleting record: " . mysqli_error($cnn);
19      }
20
21      mysqli_close($cnn);
```

```php
<?php
    //konfigurasi
    define("DBNAME","datamhs");
    define("DBUSER","root");
    define("DBPWD","");
    define("DBSERVER","localhost");
    define("DBPORT","3306");

    //koneksi ke database metode object oriented
    $cnn = new mysqli(DBSERVER,DBUSER,DBPWD,DBNAME,DBPORT);

    if ($cnn->connect_error) {
        die("Connection failed: " . $cnn->connect_error);
    }
    //Delete Data
    $sql = "DELETE FROM mhs WHERE NIM='12345678';";

    if ($cnn->query($sql) === TRUE) {
        echo "Record deleted successfully";
    } else {
        echo "Error deleting record: " . $cnn->error;
    }

    $cnn->close();
```