

Tugas Teori Pemrograman Berbasis Web



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Pemrograman Berbasis Web - A

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/config/Database.php

```
<?php
class Database {
    private $host = "localhost";
    private $db_name = "perpustakaan";
    private $username = "root";
    private $password = "";
    public $conn;

    public function getConnection() {
        $this->conn = null;

        try {
            $this->conn = new PDO("mysql:host=" . $this->host . ";dbname=" . $this->db_name,
$this->username, $this->password);
            $this->conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
        } catch(PDOException $exception) {
            echo "Connection error: " . $exception->getMessage();
        }

        return $this->conn;
    }
}
```

```
<?php
include_once './config/Database.php';
include_once './models/Buku.php';

class BukuController {
    private $buku;

    public function __construct() {
        $database = new Database();
        $db = $database->getConnection();
        $this->buku = new Buku($db);
    }

    public function create($judul, $pengarang, $tahun_terbit, $jumlah) {
        $this->buku->judul = $judul;
        $this->buku->pengarang = $pengarang;
        $this->buku->tahun_terbit = $tahun_terbit;
        $this->buku->jumlah = $jumlah;
        return $this->buku->create();
    }

    public function readAll() {
        return $this->buku->readAll();
    }

    public function delete($id) {
        $this->buku->id = $id;
        return $this->buku->delete();
    }

    public function update($id, $judul, $pengarang, $tahun_terbit, $isbn, $jumlah) {
        $this->buku->id = $id;
        $this->buku->judul = $judul;
        $this->buku->pengarang = $pengarang;
        $this->buku->tahun_terbit = $tahun_terbit;
        $this->buku->isbn = $isbn;
        $this->buku->jumlah = $jumlah;
        return $this->buku->update();
    }
}
```

```
<?php
include_once './config/Database.php';
include_once './models/Peminjaman.php';

class PeminjamanController {
    private $peminjaman;

    public function __construct() {
        $database = new Database();
        $db = $database->getConnection();
        $this->peminjaman = new Peminjaman($db);
    }

    public function create($id_buku, $id_user, $tanggal_pinjam, $tanggal_kembali) {
        $this->peminjaman->id_buku = $id_buku;
        $this->peminjaman->id_user = $id_user;
        $this->peminjaman->tanggal_pinjam = $tanggal_pinjam;
        $this->peminjaman->tanggal_kembali = $tanggal_kembali;
        return $this->peminjaman->create();
    }

    public function readAll() {
        return $this->peminjaman->readAll();
    }

    public function updateStatus($id, $status) {
        return $this->peminjaman->updateStatus($id, $status);
    }
}
```

```
<?php
include_once './config/Database.php';
include_once './models/User.php';

class UserController {
    private $user;

    public function __construct() {
        $database = new Database();
        $db = $database->getConnection();
        $this->user = new User($db);
    }

    public function create($nama, $email) { // Hapus password dari parameter
        $this->user->nama = $nama;
        $this->user->email = $email;
        return $this->user->create();
    }

    public function readAll() {
        return $this->user->readAll();
    }

    public function delete($id) {
        $this->user->id = $id;
        return $this->user->delete();
    }
}
```

```
<?php
class Buku {
    private $conn;
    private $table_name = "buku";

    public $id;
    public $judul;
    public $pengarang;
    public $tahun_terbit;
    public $isbn;
    public $jumlah;
    public $created_at;

    public function __construct($db) {
        $this->conn = $db;
    }

    public function create() {
        $query = "INSERT INTO " . $this->table_name . " SET judul=:judul, pengarang=:pengarang,
tahun_terbit=:tahun_terbit, isbn=:isbn, jumlah=:jumlah";
        $stmt = $this->conn->prepare($query);

        $this->judul = htmlspecialchars(strip_tags($this->judul));
        $this->pengarang = htmlspecialchars(strip_tags($this->pengarang));
        $this->tahun_terbit = htmlspecialchars(strip_tags($this->tahun_terbit));
        $this->isbn = htmlspecialchars(strip_tags($this->isbn));
        $this->jumlah = htmlspecialchars(strip_tags($this->jumlah));

        $stmt->bindParam(":judul", $this->judul);
        $stmt->bindParam(":pengarang", $this->pengarang);
        $stmt->bindParam(":tahun_terbit", $this->tahun_terbit);
        $stmt->bindParam(":isbn", $this->isbn);
        $stmt->bindParam(":jumlah", $this->jumlah);

        if ($stmt->execute()) {
            return true;
        }
        return false;
    }

    public function readAll() {
        $query = "SELECT * FROM " . $this->table_name . " ORDER BY created_at DESC";
```

```

$stmt = $this->conn->prepare($query);
$stmt->execute();
return $stmt;
}

public function delete() {
    $query = "DELETE FROM " . $this->table_name . " WHERE id = ?";
    $stmt = $this->conn->prepare($query);
    $stmt->bindParam(1, $this->id);

    if ($stmt->execute()) {
        return true;
    }
    return false;
}

public function update() {
    $query = "UPDATE " . $this->table_name . " SET judul=:judul, pengarang=:pengarang,
tahun_terbit=:tahun_terbit, isbn=:isbn, jumlah=:jumlah WHERE id=:id";
    $stmt = $this->conn->prepare($query);

    $this->judul = htmlspecialchars(strip_tags($this->judul));
    $this->pengarang = htmlspecialchars(strip_tags($this->pengarang));
    $this->tahun_terbit = htmlspecialchars(strip_tags($this->tahun_terbit));
    $this->isbn = htmlspecialchars(strip_tags($this->isbn));
    $this->jumlah = htmlspecialchars(strip_tags($this->jumlah));
    $this->id = htmlspecialchars(strip_tags($this->id));

    $stmt->bindParam(":judul", $this->judul);
    $stmt->bindParam(":pengarang", $this->pengarang);
    $stmt->bindParam(":tahun_terbit", $this->tahun_terbit);
    $stmt->bindParam(":isbn", $this->isbn);
    $stmt->bindParam(":jumlah", $this->jumlah);
    $stmt->bindParam(":id", $this->id);

    if ($stmt->execute()) {
        return true;
    }
    return false;
}
}

```

```
<?php
class Peminjaman {
    private $conn;
    private $table_name = "peminjaman";

    public $id;
    public $id_buku;
    public $id_user;
    public $tanggal_pinjam;
    public $tanggal_kembali;
    public $status_peminjaman;
    public $created_at;

    public function __construct($db) {
        $this->conn = $db;
    }

    public function create() {
        $query = "INSERT INTO " . $this->table_name . " SET id_user=:id_user, id_buku=:id_buku,
tanggal_pinjam=:tanggal_pinjam, tanggal_kembali=:tanggal_kembali,
status_peminjaman=:status_peminjaman";
        $stmt = $this->conn->prepare($query);

        // Mengikat parameter
        $stmt->bindParam(":id_user", $this->id_user);
        $stmt->bindParam(":id_buku", $this->id_buku);
        $stmt->bindParam(":tanggal_pinjam", $this->tanggal_pinjam);
        $stmt->bindParam(":tanggal_kembali", $this->tanggal_kembali);
        $stmt->bindParam(":status_peminjaman", $this->status_peminjaman);

        if ($stmt->execute()) {
            return true;
        }
        return false;
    }

    public function readAll() {
        $query = "SELECT * FROM " . $this->table_name . " ORDER BY created_at DESC";
        $stmt = $this->conn->prepare($query);
        $stmt->execute();
        return $stmt;
    }
}
```



```

public function updateStatus($id, $status) {
    $query = "UPDATE " . $this->table_name . " SET status_peminjaman=:status WHERE id=:id";
    $stmt = $this->conn->prepare($query);

    $stmt->bindParam(":status", $status);
    $stmt->bindParam(":id", $id);

    if ($stmt->execute()) {
        return true;
    }
    return false;
}
}

```

/models/User.php

```

<?php
class User {
    private $conn;
    private $table_name = "users"; // Pastikan nama tabelnya sesuai

    public $id;
    public $nama;
    public $email;

    public function __construct($db) {
        $this->conn = $db;
    }

    public function create() {
        $query = "INSERT INTO " . $this->table_name . " SET nama=:nama, email=:email";
        $stmt = $this->conn->prepare($query);

        $this->nama = htmlspecialchars(strip_tags($this->nama));
        $this->email = htmlspecialchars(strip_tags($this->email));

        $stmt->bindParam(":nama", $this->nama);
        $stmt->bindParam(":email", $this->email);

        if ($stmt->execute()) {
            return true;
        }
        return false;
    }
}

```

```

    }

    public function readAll() {
        $query = "SELECT * FROM " . $this->table_name;
        $stmt = $this->conn->prepare($query);
        $stmt->execute();
        return $stmt;
    }

    public function delete() {
        $query = "DELETE FROM " . $this->table_name . " WHERE id = ?";
        $stmt = $this->conn->prepare($query);
        $stmt->bindParam(1, $this->id);

        if ($stmt->execute()) {
            return true;
        }
        return false;
    }
}

```

/style/style.css

```

/* General Styles */
body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    margin: 0;
    padding: 20px;
}

/* Form Styles */
form {
    background-color: #fff;
    padding: 20px;
    border: 1px solid #ccc;
    border-radius: 8px;
    max-width: 400px;
    margin: 0 auto;
    box-shadow: 0px 4px 6px rgba(0, 0, 0, 0.1);
}

form h2 {
    margin-bottom: 15px;
    color: #333;
    text-align: center;
}

label {
    display: block;

```

```
margin-bottom: 8px;
color: #555;
}

input[type="text"],
input[type="email"] {
  width: 100%;
  padding: 10px;
  margin-bottom: 15px;
  border: 1px solid #ccc;
  border-radius: 4px;
  box-sizing: border-box;
}

input[type="submit"] {
  background-color: #28a745;
  color: white;
  padding: 10px;
  border: none;
  border-radius: 4px;
  cursor: pointer;
  width: 100%;
  font-size: 16px;
}

input[type="submit"]:hover {
  background-color: #218838;
}

/* Table Styles */
table {
  width: 100%;
  margin-top: 20px;
  border-collapse: collapse;
  background-color: #fff;
  box-shadow: 0px 4px 6px rgba(0, 0, 0, 0.1);
}

th, td {
  padding: 12px;
  text-align: left;
  border-bottom: 1px solid #ddd;
}

th {
  background-color: #4CAF50;
  color: white;
}

tr:hover {
  background-color: #f1f1f1;
}

tr:nth-child(even) {
  background-color: #f9f9f9;
}
```

/views/buku_form.php

```
<form action="index.php" method="POST">
    <h2>Tambah Buku</h2>
    <label for="judul">Judul:</label>
    <input type="text" id="judul" name="judul" required>

    <label for="pengarang">Pengarang:</label>
    <input type="text" id="pengarang" name="pengarang" required>

    <label for="tahun_terbit">Tahun Terbit:</label>
    <input type="text" id="tahun_terbit" name="tahun_terbit"
required>

    <label for="jumlah">Jumlah:</label>
    <input type="number" id="jumlah" name="jumlah" required>

    <input type="submit" value="Tambah Buku">
</form>
```

/views/bukulist.php

```
<h2>Daftar Buku</h2>
<table border="1" cellpadding="5" cellspacing="0">
    <tr>
        <th>Judul</th>
        <th>Pengarang</th>
        <th>Tahun Terbit</th>
        <th>Jumlah</th>
    </tr>
    <?php while ($row =
$BukuController->readAll()->fetch(PDO::FETCH_ASSOC)) { ?>
        <tr>
            <td><?php echo htmlspecialchars($row['judul']); ?></td>
            <td><?php echo htmlspecialchars($row['pengarang']);
?></td>
            <td><?php echo htmlspecialchars($row['tahun_terbit']);
?></td>
            <td><?php echo htmlspecialchars($row['jumlah']); ?></td>
        </tr>
    <?php } ?>
</table>
```

/views/peminjaman_form.php

```
<form action="index.php" method="POST">
    <h2>Peminjaman Buku</h2>
    <label for="id_buku">ID Buku:</label>
    <input type="text" id="id_buku" name="id_buku" required>

    <label for="id_user">ID Pengguna:</label>
    <input type="text" id="id_user" name="id_user" required>

    <label for="tanggal_pinjam">Tanggal Pinjam:</label>
    <input type="date" id="tanggal_pinjam" name="tanggal_pinjam"
required>

    <label for="tanggal_kembali">Tanggal Kembali:</label>
    <input type="date" id="tanggal_kembali" name="tanggal_kembali"
required>

    <input type="submit" value="Pinjam Buku">
</form>
```

/views/peminjamanlist.php

```
<h2>Daftar Peminjaman Buku</h2>
<table border="1" cellpadding="5" cellspacing="0">
    <tr>
        <th>ID Buku</th>
        <th>ID Pengguna</th>
        <th>Tanggal Pinjam</th>
        <th>Tanggal Kembali</th>
        <th>Status</th>
    </tr>
    <?php while ($row =
$PeminjamanController->readAll()->fetch(PDO::FETCH_ASSOC)) { ?>
        <tr>
            <td><?php echo htmlspecialchars($row['id_buku']); ?></td>
            <td><?php echo htmlspecialchars($row['id_user']); ?></td>
            <td><?php echo htmlspecialchars($row['tanggal_pinjam']);
?></td>
            <td><?php echo htmlspecialchars($row['tanggal_kembali']);
?></td>
            <td><?php echo htmlspecialchars($row['status_peminjaman']);
?></td>
        </tr>
    <?php } ?>
</table>
```

/views/user_form.php

```
<form action="index.php" method="POST">
    <h2>Tambah Pengguna</h2>
    <label for="nama">Nama:</label>
    <input type="text" id="nama" name="nama" required>

    <label for="email">Email:</label>
    <input type="email" id="email" name="email" required>

    <input type="submit" value="Tambah Pengguna">
</form>
```

/views/userlist.php

```
</style>
<h2>Daftar Pengguna</h2>
<table border="1" cellpadding="5" cellspacing="0">
    <tr>
        <th>Nama</th>
        <th>Email</th>
    </tr>
    <?php while ($row =
UserController->readAll()->fetch(PDO::FETCH_ASSOC)) { ?>
        <tr>
            <td><?php echo htmlspecialchars($row['nama']); ?></td>
            <td><?php echo htmlspecialchars($row['email']); ?></td>
        </tr>
    <?php } ?>
</table>
```

Database

The screenshot shows the phpMyAdmin interface for the 'perpustakaan' database. The left sidebar displays a tree view of databases, with 'perpustakaan' selected. The main panel shows the 'Structure' tab for the 'perpustakaan' database. A table with 3 columns (Table, Action, Rows, Type, Collation, Size, Overhead) lists the tables: 'buku', 'peminjaman', and 'users'. The 'buku' table is highlighted. Below the table list, there are options to 'Check all' and 'With selected:'.

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> buku	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> peminjaman	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	48.0 KiB	-
<input type="checkbox"/> users	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
3 tables	Sum	0	InnoDB	utf8mb4_general_ci	96.0 KiB	0 B

The screenshot shows the phpMyAdmin interface for the 'perpustakaan' database, specifically the 'buku' table. The 'SQL' tab is selected, and a query is executed: `SELECT * FROM `buku``. The result is a green message: 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds)'. Below the message, there are links for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', 'Create PHP code', and 'Refresh'. The table structure is shown with columns: id, judul, penulis, tahun_terbit, created_at, and pengarang. A 'Query results operations' button is also visible.

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds)

```
SELECT * FROM `buku`
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

id	judul	penulis	tahun_terbit	created_at	pengarang
----	-------	---------	--------------	------------	-----------

Query results operations

Create view

localhost / 127.0.0.1 / perpustakaan x localhost/teori4/index.php

localhost/phpmyadmin/index.php?route=/sql&db=perpustakaan&table=buku&pos=0

Server: 127.0.0.1 Database: perpustakaan Table: buku

Browse Structure SQL Search Insert

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds)

`SELECT * FROM `buku``

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

id	judul	penulis	tahun_terbit	created_at	pengarang
----	-------	---------	--------------	------------	-----------

Query results operations

Create view

localhost / 127.0.0.1 / perpustakaan x localhost/teori4/index.php

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=perpustakaan&table=users

Server: 127.0.0.1 Database: perpustakaan Table: users

Browse Structure SQL Search Insert

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds)

`SELECT * FROM `users``

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

id	nama	email	password	created_at
----	------	-------	----------	------------

Query results operations

Create view

Hasil

localhost / 127.0.0.1 / perpustakaan x localhost/teori4/index.php x +

localhost/teori4/index.php

Tambah Buku

Judul:

Pengarang:

Tahun Terbit:

Jumlah:

Tambah Buku

Daftar Buku

Judul	Pengarang	Tahun Terbit	Jumlah
-------	-----------	--------------	--------

Tambah Pengguna

Nama:

Email:

Tambah Pengguna

Daftar Pengguna

Nama	Email
------	-------

Peminjaman Buku

ID Buku:

ID Pengguna:

Tanggal Pinjam:

Tanggal Kembali:

Pinjam Buku

Daftar Peminjaman Buku

ID Buku	ID Pengguna	Tanggal Pinjam	Tanggal Kembali	Status
---------	-------------	----------------	-----------------	--------

ERD

