PHP OOP II: Abstract, Interface, Trait

Oleh :

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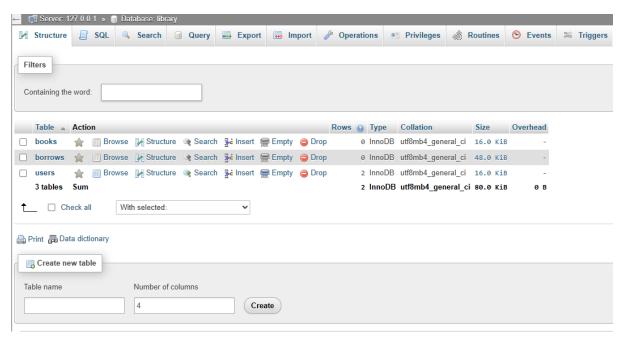
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Universitas Pancasila

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Database

Struktur Direktori Proyek

/PBW-OOP_II/

```
|
├── /controllers/
|   └── AuthController.php
|   └── BookController.php
|
├── /models/
|   └── UserModel.php
|   └── BookModel.php
|
├── /views/
|   └── login.php
|   └── dashboard.php
|   └── register.php
|
├── /assets/
|   └── css/
|       └── style.css
```

```
|
├── /config/
|    └── database.php
|
├── login.php
├── logout.php
├── register.php
└── index.php
```

/config/database.php

controllers/AuthController.php

controllers/BookController.php


```php
<?php
require_once 'models/BookModel.php';

class BookController {
    private $db;
    private $book;

    public function __construct($db) {
        $this->db = $db;
        $this->book = new BookModel($this->db);
    }

    public function listBooks() {
        $stmt = $this->book->getBooks();
        $books = $stmt->fetchAll(PDO::FETCH_ASSOC);
        return $books;
    }

    public function createBook($title, $author, $year) {
        $this->book->title = $title;
        $this->book->author = $author;
        $this->book->year = $year;

        if ($this->book->createBook()) {
            header("Location: dashboard.php");
        } else {
            echo "Gagal membuat buku";
        }
    }
}
?>
```

models/BookModel.php


```php
<?php
class BookModel {

    public $id;
    public $title;
    public $author;
    public $year;

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

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

    public function createBook() {
        $query = "INSERT INTO " . $this->table_name . " SET title=:title, author=:author, year=:year";
        $stmt = $this->conn->prepare($query);

        $stmt->bindParam(":title", $this->title);
        $stmt->bindParam(":author", $this->author);
        $stmt->bindParam(":year", $this->year);

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

models/UserModel.php


```php
<?php
class UserModel {
    private $conn;
    private $table_name = 'users';

    public $id;
    public $username;
    public $password;
    public $role;

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

    public function createUser() {
        $query = "INSERT INTO " . $this->table_name . " SET username=:username, password=:password, role=:role";
        $stmt = $this->conn->prepare($query);

        $stmt->bindParam(":username", $this->username);
        $stmt->bindParam(":password", password_hash($this->password, PASSWORD_BCRYPT));
        $stmt->bindParam(":role", $this->role);

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

    public function authenticate() {
        $query = "SELECT * FROM " . $this->table_name . " WHERE username=:username";
        $stmt = $this->conn->prepare($query);
        $stmt->bindParam(":username", $this->username);
        $stmt->execute();
        return $stmt;
    }
}
?>
```

views/dashboard.php

views/login.php

views/register.php

index.php

login.php


```php
<?php
session_start();
require_once 'config/database.php';
require_once 'controllers/AuthController.php';

$database = new Database();
$db = $database->getConnection();
$authController = new AuthController($db);

if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    $authController->login($_POST['username'], $_POST['password']);
}
?>

<?php include 'views/login.php'; ?>
```

logout.php


```php
<?php
session_start();
require_once 'controllers/AuthController.php';

$authController = new AuthController(null);
$authController->logout();
?>
```
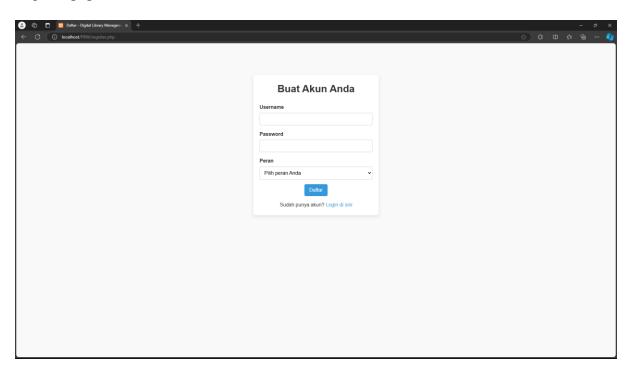
register.php

Capture Halaman Web

/index.php

/login.php

/register.php

/views/dashboard.php

Selamat Datang di Dasbor Anda

- Home
- Kelola Buku
- Kelola Pengguna
- Logout

Hello, User!

Nama pengguna Anda dari cookies: Afandi

Berikut adalah statistik Anda saat ini:

- Total Buku: 150
- Total Pengguna: 50
- Books Borrowed: 25

Aksi Cepat

- Tambah Buku Baru
- Lihat Buku yang Dipinjam

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