

MODEL VIEW CONTROLLER

Kelompok 7

Pemrograman Berbasis Web

ANGGOTA KELOMPOK



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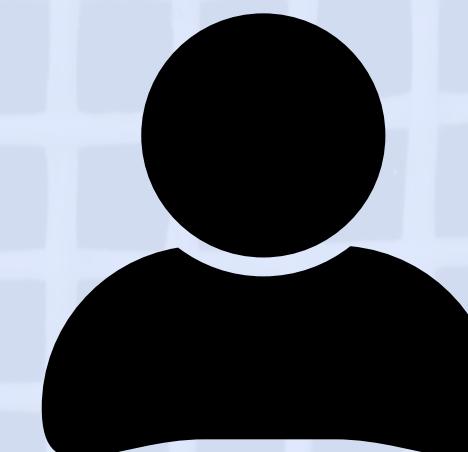
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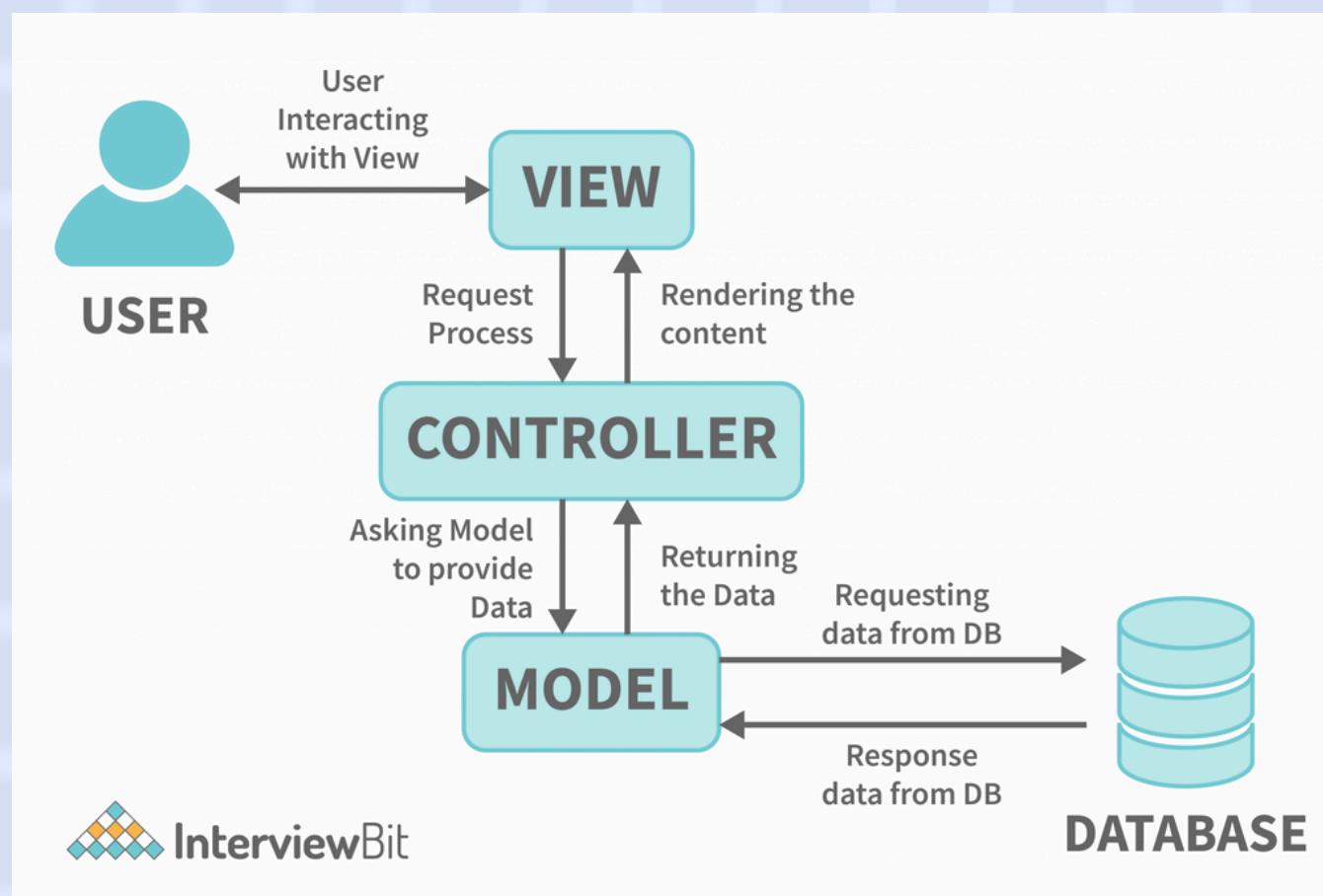
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DEFINISI MVC

MVC atau Model View Controller adalah sebuah pola desain arsitektur dalam sistem pengembangan website yang terdiri dari tiga bagian utama:

- 1. Model:** Bagian yang mengelola dan berhubungan langsung dengan database. Model bertanggung jawab untuk mengakses dan memanipulasi data.
- 2. View:** Bagian yang menyajikan tampilan informasi kepada pengguna. View menampilkan data dari model ke dalam bentuk yang dapat dilihat oleh pengguna.
- 3. Controller:** Bagian yang menghubungkan model dan view dalam setiap proses permintaan (request) dari pengguna. Controller mengatur alur kerja dan mengelola interaksi antara model dan view.

ALUR KERJA MVC



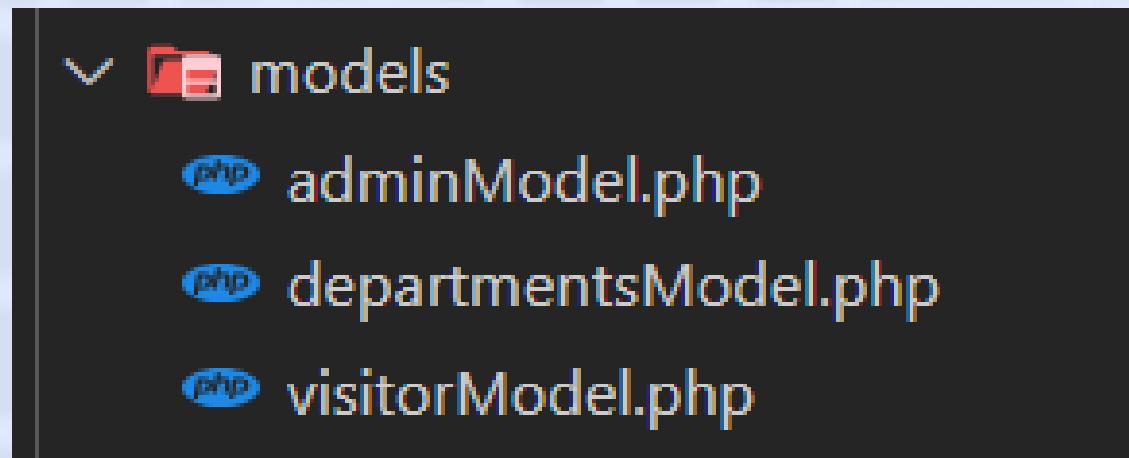
Alur Kerja MVC:

1. View meminta data untuk ditampilkan kepada pengguna.
2. Permintaan diterima oleh controller.
3. Controller meneruskan permintaan ke model untuk diproses.
4. Model mencari dan mengolah data di dalam database.
5. Setelah data ditemukan dan diolah, model mengirimkannya kembali ke controller.
6. Controller mengambil data hasil pengolahan model dan mengaturnya di bagian view untuk ditampilkan kepada pengguna.

COMPANY VISITORS MANAGEMENT SYSTEM

using PHP and MySQL

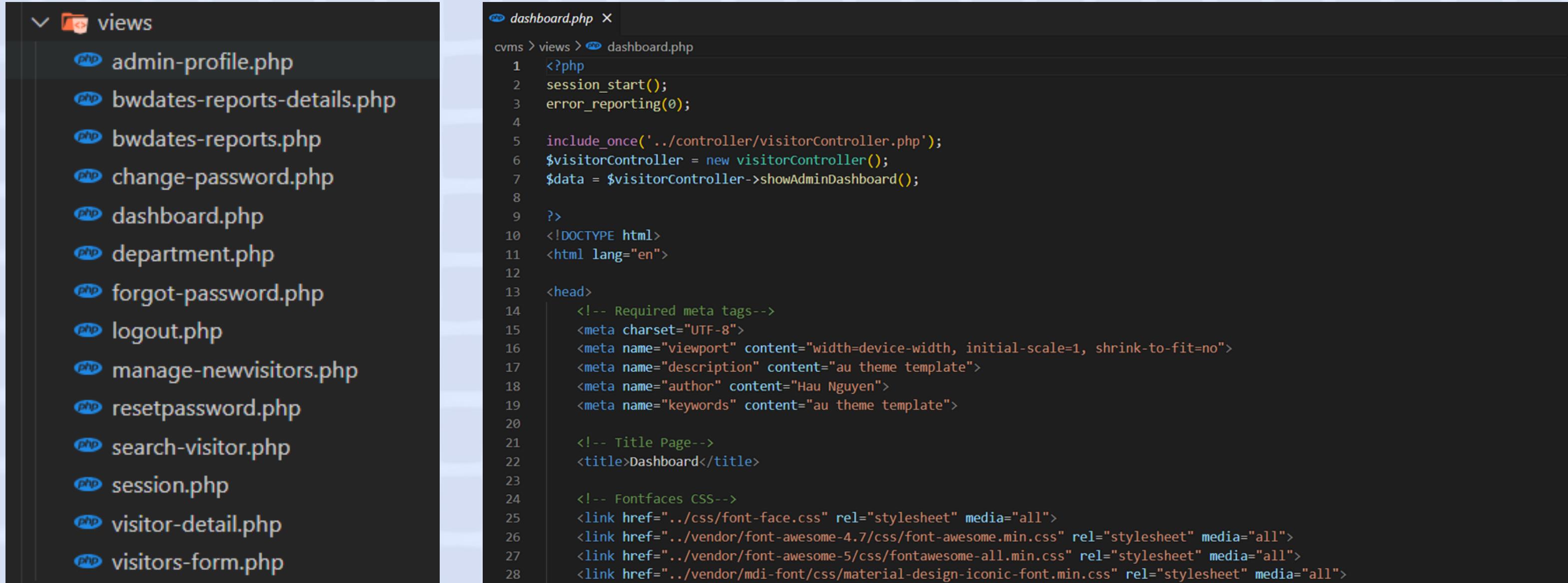
MODEL



```
visitorModel.php X
cvms > models > visitorModel.php
1  <?php
2      class visitorModel {
3          private $conn;
4
5          //inisialisasi awal untuk class biasa disebut instansiasi
6          function __construct(){
7              // create connection
8              $this->conn = new mysqli("localhost", "root", "", "cvmsdb");
9              // Check connection
10             if ($this->conn->connect_error) {
11                 die("Connection failed: ". $this->conn->connect_error);
12             }
13             // $connect = mysql_connect("localhost", "root", "");
14             // $db = mysql_select_db("cvmsdb");
15         }
16
17         function execute($query){
18             //return mysql_query($query);
19             return $this->conn->query($query);
20         }
21
22         function selectAll(){
23             $query = "select *from tblvisitor";
24             return $this->execute($query);
25         }
26
27         function selectVis($vid){
28             $query = "select * from tblvisitor where id='$vid'";
29             return $this->execute($query);
30         }

```

VIEW



The image shows a file explorer on the left and a code editor on the right.

File Explorer:

- views
 - admin-profile.php
 - bwdates-reports-details.php
 - bwdates-reports.php
 - change-password.php
 - dashboard.php
 - department.php
 - forgot-password.php
 - logout.php
 - manage-newvisitors.php
 - resetpassword.php
 - search-visitor.php
 - session.php
 - visitor-detail.php
 - visitors-form.php

Code Editor (dashboard.php):

```
cvms > views > dashboard.php
1 <?php
2 session_start();
3 error_reporting(0);
4
5 include_once('../controller/visitorController.php');
6 $visitorController = new visitorController();
7 $data = $visitorController->showAdminDashboard();
8
9 ?>
10 <!DOCTYPE html>
11 <html lang="en">
12
13 <head>
14     <!-- Required meta tags-->
15     <meta charset="UTF-8">
16     <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
17     <meta name="description" content="au theme template">
18     <meta name="author" content="Hau Nguyen">
19     <meta name="keywords" content="au theme template">
20
21     <!-- Title Page-->
22     <title>Dashboard</title>
23
24     <!-- Fontfaces CSS-->
25     <link href="../css/font-face.css" rel="stylesheet" media="all">
26     <link href="../vendor/font-awesome-4.7/css/font-awesome.min.css" rel="stylesheet" media="all">
27     <link href="../vendor/font-awesome-5/css/fontawesome-all.min.css" rel="stylesheet" media="all">
28     <link href="../vendor mdi-font/css/material-design-iconic-font.min.css" rel="stylesheet" media="all">
```

CONTROLLER

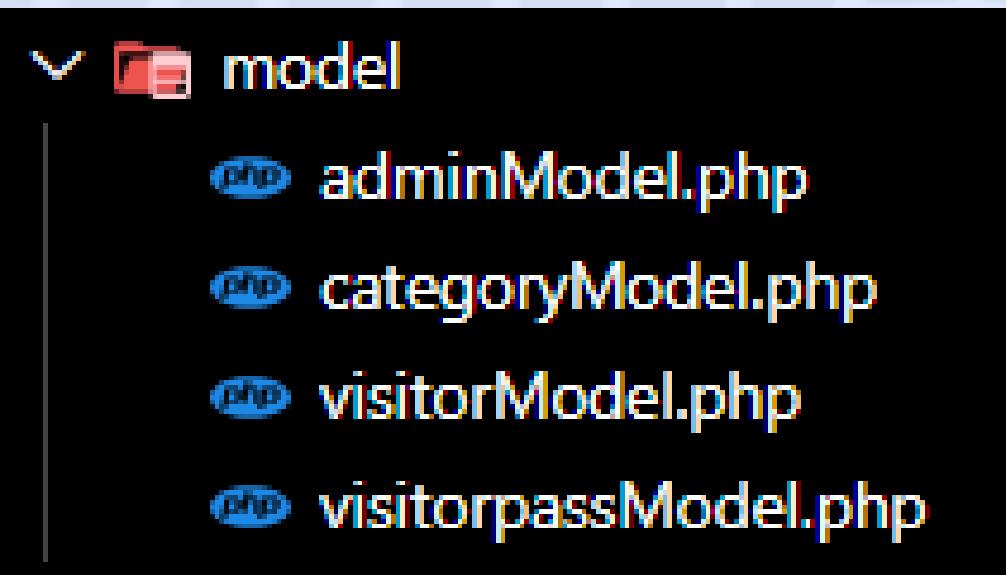
✓  controller
 • adminController.php
 • departmentsController.php
 • visitorController.php

```
visitorController.php X
cvms > controller > visitorController.php
1  <?php
2    //include class model
3    //include "../models/visitorModel.php";
4
5    $modelPath = __DIR__ . '/../models/visitorModel.php';
6
7    if (file_exists($modelPath)) {
8      include $modelPath;
9    } else {
10      die("Error: File not found at path: $modelPath");
11    }
12
13
14  class visitorController{
15    //variabel public
16    public $visitorModel;
17
18    //inisialisasi awal untuk class
19    function __construct(){
20      $this->visitorModel = new visitorModel(); //variabel model merupakan objek baru yang dibuat dari class model
21    }
22
23    function getvisitors($eid){
24      return $this->visitorModel->selectVis($eid);
25    }
26
27    function getAllvisitors(){
28      return $this->visitorModel->selectAll();
29    }
```

APARTMENT VISITORS MANAGEMENT SYSTEM

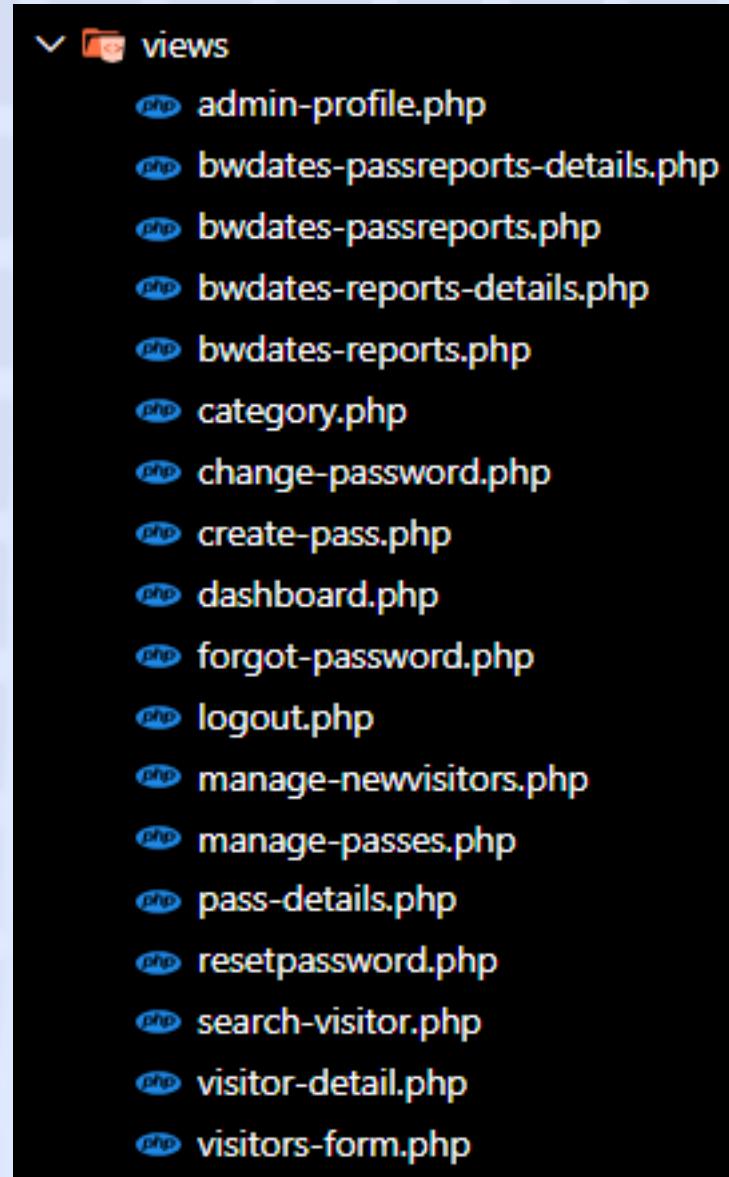
using PHP and MySQL

MODEL



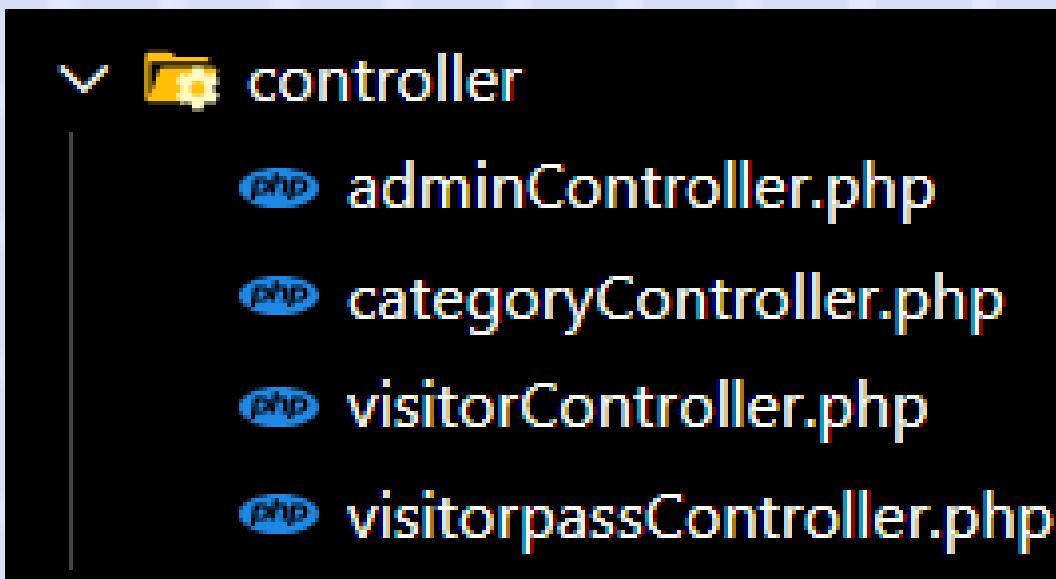
```
1 <?php
2 1 reference | 0 implementations
3 class visitorpassModel {
4     8 references
5     private $conn;
6
7     1 reference | 0 overrides
8     public function __construct(){
9         $this->conn = new mysqli("localhost", "root", "", "avmsdb");
10        if ($this->conn->connect_error) {
11            die("Connection failed: " . $this->conn->connect_error);
12        }
13
14     1 reference | 0 overrides
15     public function getVisitorPassById($pid) {
16         $query = "SELECT * FROM tblvisitorpass WHERE id='$pid'";
17         return $this->conn->query($query);
18
19     1 reference | 0 overrides
20     public function deleteVisitorPass($pid) {
21         $sql = "DELETE FROM tblvisitorpass WHERE ID='$pid'";
22         return $this->conn->query($sql);
23
24     1 reference | 0 overrides
25     public function getAllVisitorPasses() {
26         $query = "SELECT * FROM tblvisitorpass";
27         return $this->conn->query($query);
28
29     1 reference | 0 overrides
30     public function getVisitorsPassBetweenDates($fromDate, $toDate) {
31         $query = "SELECT * FROM tblvisitorpass WHERE date(creationDate) BETWEEN '$fromDate' AND '$toDate'";
32         return $this->conn->query($query);
33
34     1 reference | 0 overrides
35     public function createVisitorPass($passnumber, $categoryName, $visitorName, $mobileNumber, $address, $apartment, $floor, $passDetails, $fromDate, $toDate) {
36         $query = "INSERT INTO tblvisitorpass(passnumber, categoryName, VisitorName, MobileNumber, Address, Apartment, Floor, passDetails, fromDate, toDate)
37             VALUES ('$passnumber', '$categoryName', '$visitorName', '$mobileNumber', '$address', '$apartment', '$floor', '$passDetails', '$fromDate', '$toDate')";
38     }
39 }
```

VIEW



```
1 <?php
2 session_start();
3 error_reporting(E_ALL);
4 ini_set('display_errors', 1);
5
6 include('../includes/dbconnection.php');
7 include('../controller/visitorController.php');
8
9
10 // Ensure the user is logged in
11 if (strlen($_SESSION['avmsaid']) == 0) {
12     header('location:logout.php');
13 } else {
14     $fromDate = $_POST['fromdate'];
15     $toDate = $_POST['todate'];
16
17     $controller = new visitorController();
18     $visitors = $controller->getVisitorsBetweenDates($fromDate, $toDate);
19 }
20 ?>
21
22 <!DOCTYPE html>
23 <html lang="en">
24
25 <head>
26     <meta charset="UTF-8">
27     <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
28     <meta name="description" content="au theme template">
29     <meta name="author" content="Hau Nguyen">
30     <meta name="keywords" content="au theme template">
31     <title>AVMS</title>
32     ...
33     <link href="../css/font-face.css" rel="stylesheet" media="all">
34     <link href="../vendor/font-awesome-4.7/css/font-awesome.min.css" rel="stylesheet" media="all">
35     <link href="../vendor/font-awesome-5/css/fontawesome-all.min.css" rel="stylesheet" media="all">
36     <link href="../vendor/mdi-font/css/material-design-iconic-font.min.css" rel="stylesheet" media="all">
37     <link href="../vendor/bootstrap-4.1/bootstrap.min.css" rel="stylesheet" media="all">
38     <link href="../vendor/animsition/animsition.min.css" rel="stylesheet" media="all">
39     <link href="../vendor/bootstrap-progressbar/bootstrap-progressbar-3.3.4.min.css" rel="stylesheet" media="all">
40     <link href="../vendor/wow/animate.css" rel="stylesheet" media="all">
41     <link href="../vendor/css-hamburgers/hamburgers.min.css" rel="stylesheet" media="all">
42     <link href="../vendor/slick/slick.css" rel="stylesheet" media="all">
43     <link href="../vendor/select2/select2.min.css" rel="stylesheet" media="all">
44     <link href="../vendor/perfect-scrollbar/perfect-scrollbar.css" rel="stylesheet" media="all">
45     <link href="../css/theme.css" rel="stylesheet" media="all">
```

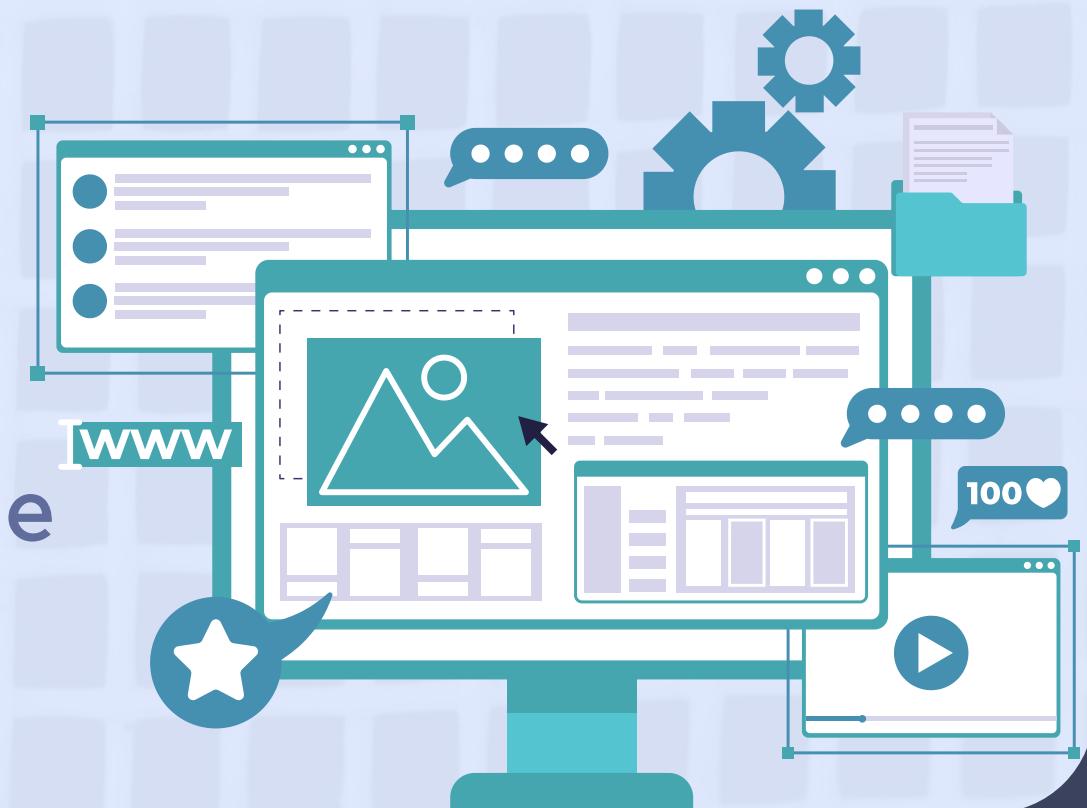
CONTROLLER



```
1 <?php
2 require_once '../model/visitorpassModel.php';
3
4 class visitorpassController {
5     private $model;
6
7     public function __construct() {
8         $this->model = new visitorpassModel();
9     }
10
11    public function getVisitorPassById($vid) {
12        return $this->model->getVisitorPassById($vid);
13    }
14
15    public function getVisitorsPassBetweenDates($fromDate, $toDate) {
16        return $this->model->getVisitorsPassBetweenDates($fromDate, $toDate);
17    }
18
19    public function createVisitorPass($category, $visitorName, $mobileNumber, $address, $apartment, $floor, $passDetails, $fromDate, $toDate) {
20        $passNumber = mt_rand(1000000, 9999999);
21        return $this->model->createVisitorPass($passNumber, $category, $visitorName, $mobileNumber, $address, $apartment, $floor, $passDetails, $fromDate, $toDate);
22    }
23
24    public function deleteVisitorPass($pid) {
25        return $this->model->deleteVisitorPass($pid);
26    }
27
28    public function getAllVisitorPasses() {
29        return $this->model->getAllVisitorPasses();
30    }
31 }
32
33 ??
```

MANFAAT PENERAPAN MVC

- Pemisahan Kekhawatiran (Separation of Concerns)
- Pengembangan yang Lebih Terorganisir
- Pengujian yang Lebih Mudah
- Meningkatkan Kemudahan Pemeliharaan
- Peningkatan Penggunaan Ulang Kode
- Pengembangan Tim yang Lebih Efisien
- Dukungan untuk Beberapa Antarmuka Pengguna
- Promosi Penggunaan Kembali dan Perpindahan Kode



KESIMPULAN

Penerapan Model-View-Controller (MVC) sangat menguntungkan dalam pengembangan aplikasi. Pola ini memisahkan kode menjadi tiga komponen utama yaitu Model untuk data, View untuk tampilan, dan Controller untuk logika. Pemisahan ini membuat kode menjadi terstruktur sehingga lebih mudah diuji, dipelihara, dan dikembangkan. Komponen-komponen tersebut juga dapat digunakan kembali pada proyek lain. Selain itu, pola MVC mendukung tampilan antarmuka yang berbeda dengan menggunakan logika yang sama. Meski penerapannya membutuhkan usaha di awal, pola desain MVC memberikan banyak manfaat untuk meningkatkan kualitas dan efisiensi pengembangan aplikasi, terutama untuk aplikasi yang besar dan kompleks.

Terima
Kasih

Mohon maaf atas kekurangan
dan kesalahan kami