**LAPORAN PRAKTIKUM PEMROGRAMAN BERBASIS WEB**

**“Praktikum Cookies Sessions MVC”**



Dosen Pengampu :

Adi Wahyu Pribadi, S.Si., M.Kom

Di Susun Oleh :

Verdianto Karnadi Wibowo

NPM : 4521210076

**JURUSAN TEKNIK INFORMATIKA**

**FAKULTAS TEKNIK**

**UNIVERSITAS PANCASILA**

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**Tujuan**

1. Memahami MVC dan Routing
2. Menggunakan Cookies dan Sessions
3. Membangun halaman admin untuk CRUD Barang

**SOURCE CODE**

* **File index.php**

<?php

session\_start();

require\_once 'config.php';

require\_once 'core/App.php';

require\_once 'core/Controller.php';

require\_once 'core/Database.php';

$app = new App();

* **core/App.php**

<?php

class App {

    protected $controller = 'HomeController';

    protected $method = 'index';

    protected $params = [];

    public function \_\_construct() {

        $url = $this->parseURL();

        // Controller

        if (isset($url[0]) && file\_exists('controllers/' . $url[0] . 'Controller.php')) {

            $this->controller = $url[0] . 'Controller';

            unset($url[0]);

        }

        require\_once 'controllers/' . $this->controller . '.php';

        $this->controller = new $this->controller;

        // Method

        if (isset($url[1])) {

            if (method\_exists($this->controller, $url[1])) {

                $this->method = $url[1];

                unset($url[1]);

            }

        }

        // Parameters

        $this->params = $url ? array\_values($url) : [];

        // Call method and pass parameters

        call\_user\_func\_array([$this->controller, $this->method], $this->params);

    }

    public function parseURL() {

        if (isset($\_GET['url'])) {

            $url = rtrim($\_GET['url'], '/');

            $url = filter\_var($url, FILTER\_SANITIZE\_URL);

            $url = explode('/', $url);

            return $url;

        }

        return [];

    }

}

* **core/Controller.php**

<?php

class Controller {

    public function model($model) {

        require\_once 'models/' . $model . '.php';

        return new $model();

    }

    public function view($view, $data = []) {

        require\_once 'views/' . $view . '.php';

    }

}

* **core/Database.php**

<?php

class Database {

    private $host = DB\_HOST;

    private $user = DB\_USER;

    private $pass = DB\_PASS;

    private $dbname = DB\_NAME;

    private $dbh;

    private $stmt;

    public function \_\_construct() {

        $dsn = 'mysql:host=' . $this->host . ';dbname=' . $this->dbname;

        $options = [

            PDO::ATTR\_PERSISTENT => true,

            PDO::ATTR\_ERRMODE => PDO::ERRMODE\_EXCEPTION

        ];

        try {

            $this->dbh = new PDO($dsn, $this->user, $this->pass, $options);

        } catch (PDOException $e) {

            die($e->getMessage());

        }

    }

    public function query($query) {

        $this->stmt = $this->dbh->prepare($query);

    }

    public function bind($param, $value, $type = null) {

        if (is\_null($type)) {

            switch (true) {

                case is\_int($value):

                    $type = PDO::PARAM\_INT;

                    break;

                case is\_bool($value):

                    $type = PDO::PARAM\_BOOL;

                    break;

                case is\_null($value):

                    $type = PDO::PARAM\_NULL;

                    break;

                default:

                    $type = PDO::PARAM\_STR;

            }

        }

        $this->stmt->bindValue($param, $value, $type);

    }

    public function execute() {

        $this->stmt->execute();

    }

    public function resultSet() {

        $this->execute();

        return $this->stmt->fetchAll(PDO::FETCH\_ASSOC);

    }

    public function single() {

        $this->execute();

        return $this->stmt->fetch(PDO::FETCH\_ASSOC);

    }

    public function rowCount() {

        return $this->stmt->rowCount();

    }

}

* **Config.php**

<?php

define('DB\_HOST', 'localhost');

define('DB\_USER', 'root');

define('DB\_PASS', '');

define('DB\_NAME', 'projectmvc');

// BASEURL untuk memudahkan penulisan URL

define('BASEURL', 'http://localhost/mvc/');

* **controllers/HomeController.php**

<?php

class HomeController extends Controller {

    public function index() {

        $data['title'] = 'Home';

        $this->view('templates/header', $data);

        $this->view('home/index', $data);

        $this->view('templates/footer');

    }

}

* **templates/header.php**

<!DOCTYPE html>

<html>

<head>

    <title><?= $data['title']; ?></title>

</head>

<body>

* **templates/footer.php**

</body>

</html>

* **home/index.php**

<h1>Selamat Datang di Aplikasi Penjualan Barang Aruteru Shoppu</h1>

<p>Ini adalah halaman home.</p>

<a href="<?= BASEURL; ?>index.php?url=login/index">Login</a>

* **controllers/LoginController.php**

<?php

class LoginController extends Controller {

    public function index() {

        $data['title'] = 'Login';

        $this->view('templates/header', $data);

        $this->view('login/index');

        $this->view('templates/footer');

    }

    public function auth() {

        $username = $\_POST['username'];

        $password = $\_POST['password'];

        // Misal autentikasi sederhana tanpa database

        if ($username === 'admin' && $password === 'admin') {

            $\_SESSION['user'] = $username;

            header('Location: ' . BASEURL . 'index.php?url=admin/index');

        } else {

            header('Location: ' . BASEURL . 'index.php?url=login/index');

        }

    }

    public function logout() {

        session\_destroy();

        header('Location: ' . BASEURL . 'index.php');

    }

}

* **views/login/index.php**

<h2>Form Login</h2>

<form action="<?= BASEURL; ?>index.php?url=login/auth" method="POST">

    <input type="text" name="username" placeholder="Username" required><br>

    <input type="password" name="password" placeholder="Password" required><br>

    <button type="submit">Login</button>

</form>

* **Admin CRUD Barang**

**controllers/AdminController.php**

<?php

class AdminController extends Controller {

    public function \_\_construct() {

        if (!isset($\_SESSION['user'])) {

            header('Location: ' . BASEURL . 'index.php?url=login/index');

            exit;

        }

    }

    public function index() {

        $data['title'] = 'Admin';

        $data['items'] = $this->model('ItemModel')->getAllItems();

        $this->view('templates/header', $data);

        $this->view('admin/index', $data);

        $this->view('templates/footer');

    }

    public function add() {

        $data['title'] = 'Tambah Barang';

        $this->view('templates/header', $data);

        $this->view('admin/add');

        $this->view('templates/footer');

    }

    public function store() {

        if ($this->model('ItemModel')->addItem($\_POST) > 0) {

            header('Location: ' . BASEURL . 'index.php?url=admin/index');

        } else {

            echo "Gagal menambahkan data.";

        }

    }

    public function edit($id) {

        $data['title'] = 'Edit Barang';

        $data['item'] = $this->model('ItemModel')->getItemById($id);

        $this->view('templates/header', $data);

        $this->view('admin/edit', $data);

        $this->view('templates/footer');

    }

    public function update() {

        if ($this->model('ItemModel')->updateItem($\_POST) > 0) {

            header('Location: ' . BASEURL . 'index.php?url=admin/index');

        } else {

            echo "Gagal mengubah data.";

        }

    }

    public function delete($id) {

        if ($this->model('ItemModel')->deleteItem($id) > 0) {

            header('Location: ' . BASEURL . 'index.php?url=admin/index');

        } else {

            echo "Gagal menghapus data.";

        }

    }

}

* **models/ItemModel.php**

<?php

class ItemModel {

    private $table = 'items';

    private $db;

    public function \_\_construct() {

        $this->db = new Database();

    }

    public function getAllItems() {

        $this->db->query("SELECT \* FROM " . $this->table);

        return $this->db->resultSet();

    }

    public function addItem($data) {

        $query = "INSERT INTO " . $this->table . " (nama, stok, harga) VALUES (:nama, :stok, :harga)";

        $this->db->query($query);

        $this->db->bind('nama', $data['nama']);

        $this->db->bind('stok', $data['stok']);

        $this->db->bind('harga', $data['harga']);

        $this->db->execute();

        return $this->db->rowCount();

    }

    public function getItemById($id) {

        $this->db->query("SELECT \* FROM " . $this->table . " WHERE id = :id");

        $this->db->bind('id', $id);

        return $this->db->single();

    }

    public function updateItem($data) {

        $query = "UPDATE " . $this->table . " SET nama = :nama, stok = :stok, harga = :harga WHERE id = :id";

        $this->db->query($query);

        $this->db->bind('nama', $data['nama']);

        $this->db->bind('stok', $data['stok']);

        $this->db->bind('harga', $data['harga']);

        $this->db->bind('id', $data['id']);

        $this->db->execute();

        return $this->db->rowCount();

    }

    public function deleteItem($id) {

        $query = "DELETE FROM " . $this->table . " WHERE id = :id";

        $this->db->query($query);

        $this->db->bind('id', $id);

        $this->db->execute();

        return $this->db->rowCount();

    }

}

**Views Admin**

* **views/admin/index.php**
* <h2>Halaman Admin</h2>
* <a href="<?= BASEURL; ?>index.php?url=admin/add">Tambah Barang</a> | <a href="<?= BASEURL; ?>index.php?url=login/logout">Logout</a>
* <table border="1" cellpadding="10" cellspacing="0">
* <tr>
* <th>ID</th>
* <th>Nama</th>
* <th>Stok</th>
* <th>Harga</th>
* <th>Aksi</th>
* </tr>
* <?php foreach ($data['items'] as $item): ?>
* <tr>
* <td><?= $item['id']; ?></td>
* <td><?= $item['nama']; ?></td>
* <td><?= $item['stok']; ?></td>
* <td><?= $item['harga']; ?></td>
* <td>
* <a href="<?= BASEURL; ?>index.php?url=admin/edit/<?= $item['id']; ?>">Edit</a> |
* <a href="<?= BASEURL; ?>index.php?url=admin/delete/<?= $item['id']; ?>" onclick="return confirm('Yakin ingin menghapus data ini?');">Hapus</a>
* </td>
* </tr>
* <?php endforeach; ?>
* </table>
* **views/admin/add.php**

<h2>Tambah Barang</h2>

<form action="<?= BASEURL; ?>index.php?url=admin/store" method="POST">

    <label for="nama">Nama:</label><br>

    <input type="text" name="nama" id="nama" required><br><br>

    <label for="stok">Stok:</label><br>

    <input type="number" name="stok" id="stok" required><br><br>

    <label for="harga">Harga:</label><br>

    <input type="number" name="harga" id="harga" required><br><br>

    <button type="submit">Simpan</button>

</form>

* **views/admin/edit.php**
* <h2>Edit Barang</h2>
* <form action="<?= BASEURL; ?>index.php?url=admin/update" method="POST">
* <input type="hidden" name="id" value="<?= $data['item']['id']; ?>">
* <label for="nama">Nama:</label><br>
* <input type="text" name="nama" id="nama" value="<?= $data['item']['nama']; ?>" required><br><br>
* <label for="stok">Stok:</label><br>
* <input type="number" name="stok" id="stok" value="<?= $data['item']['stok']; ?>" required><br><br>
* <label for="harga">Harga:</label><br>
* <input type="number" name="harga" id="harga" value="<?= $data['item']['harga']; ?>" required><br><br>
* <button type="submit">Update</button>
* </form>

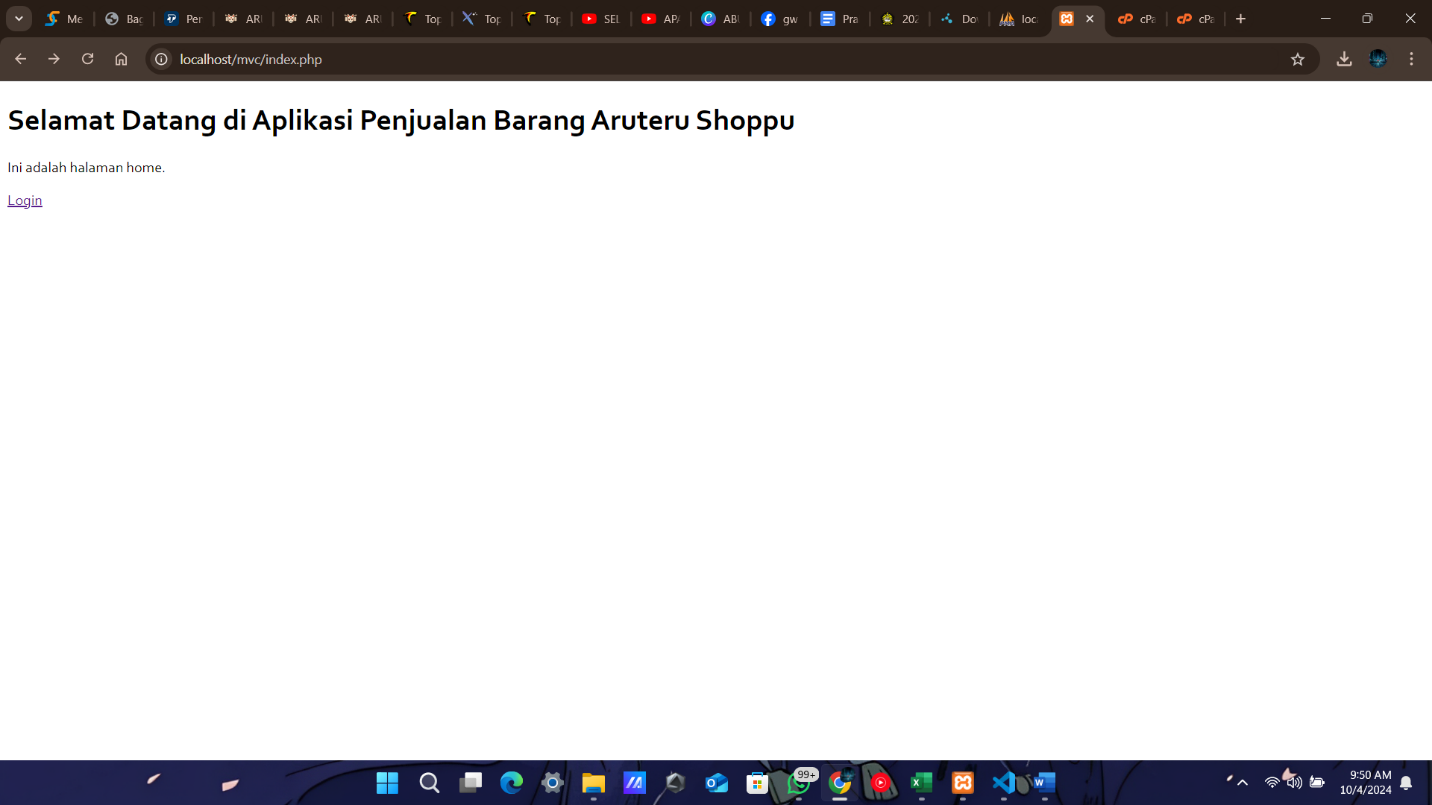
Buat Database

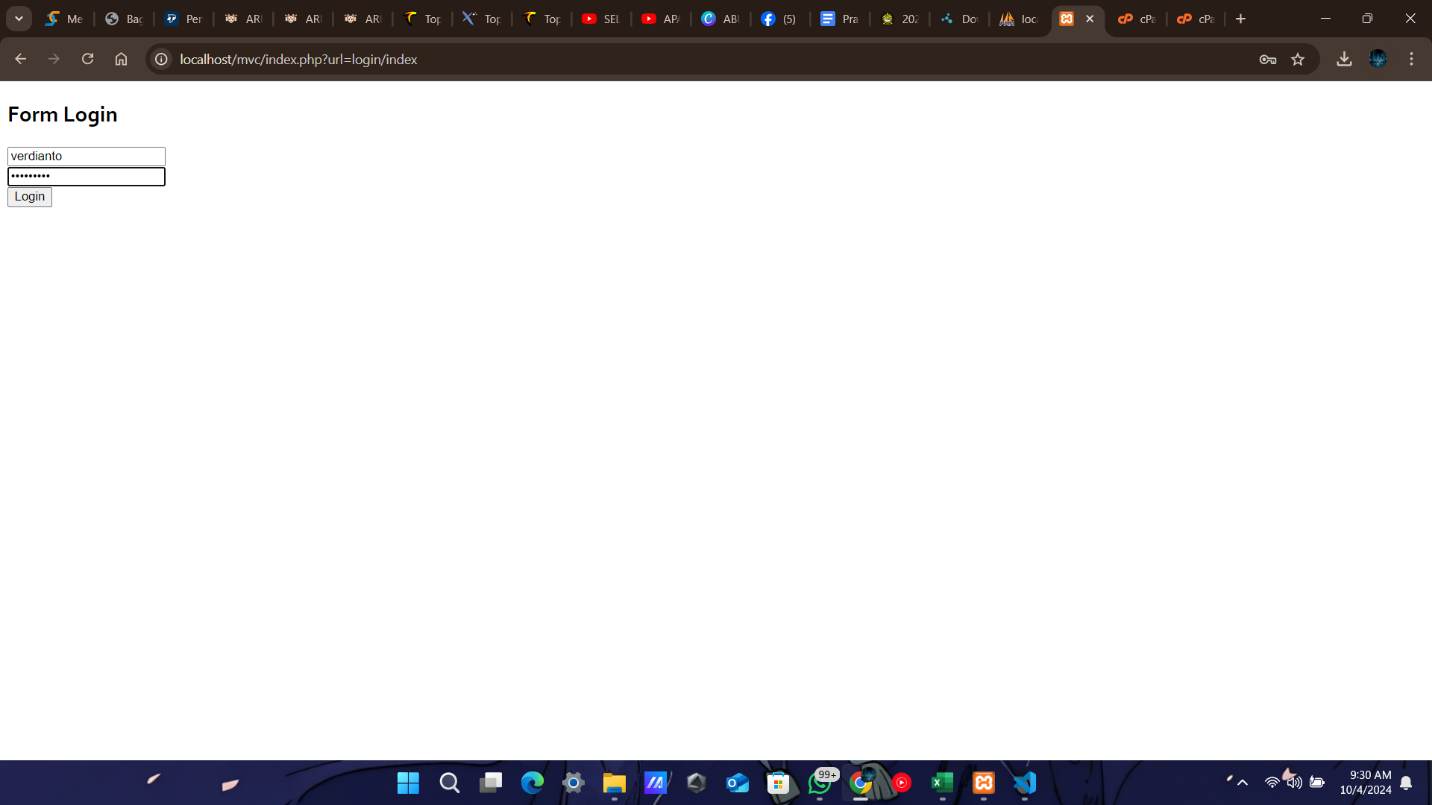
Nama database: projectmvc

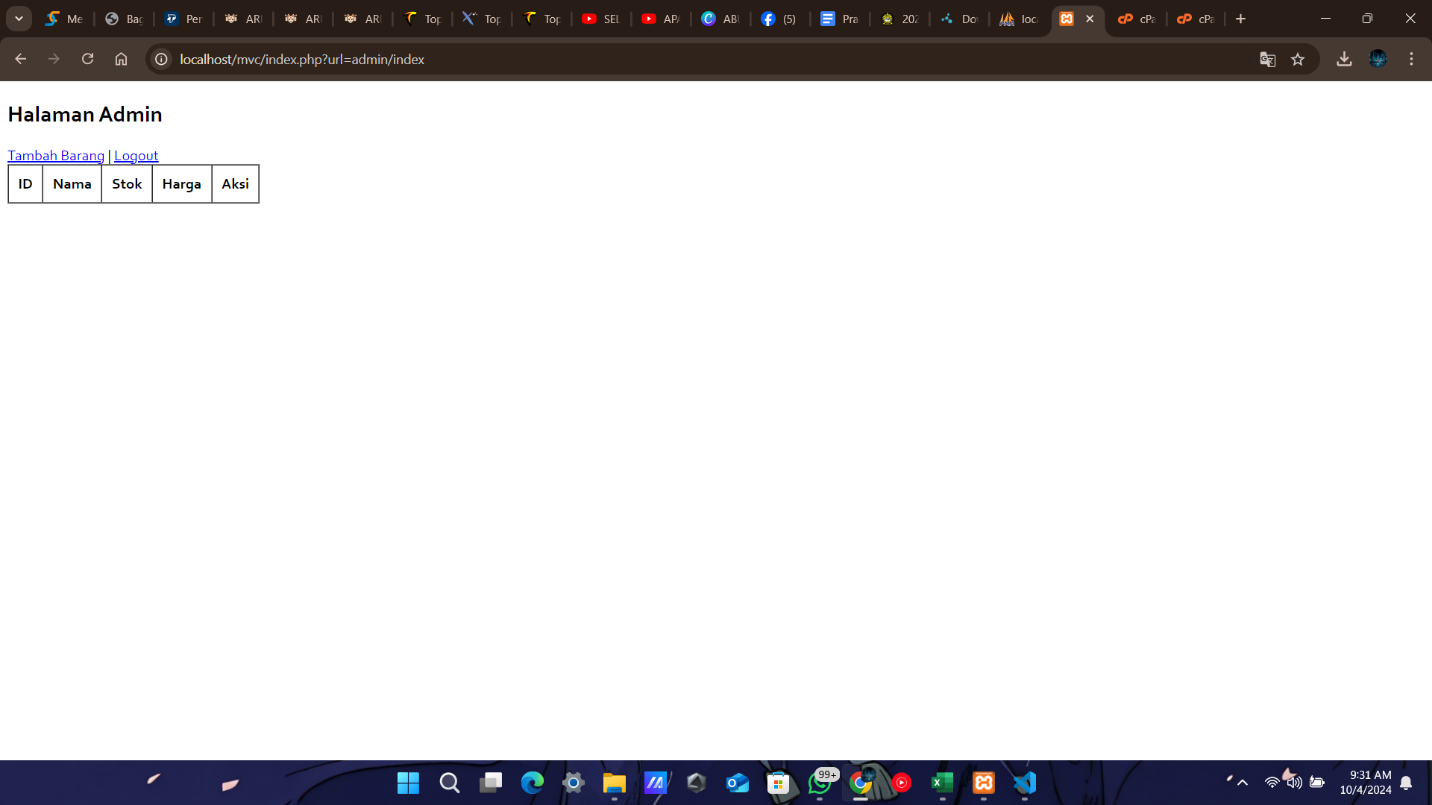
Buat tabel items (bentuk jamak dari item)

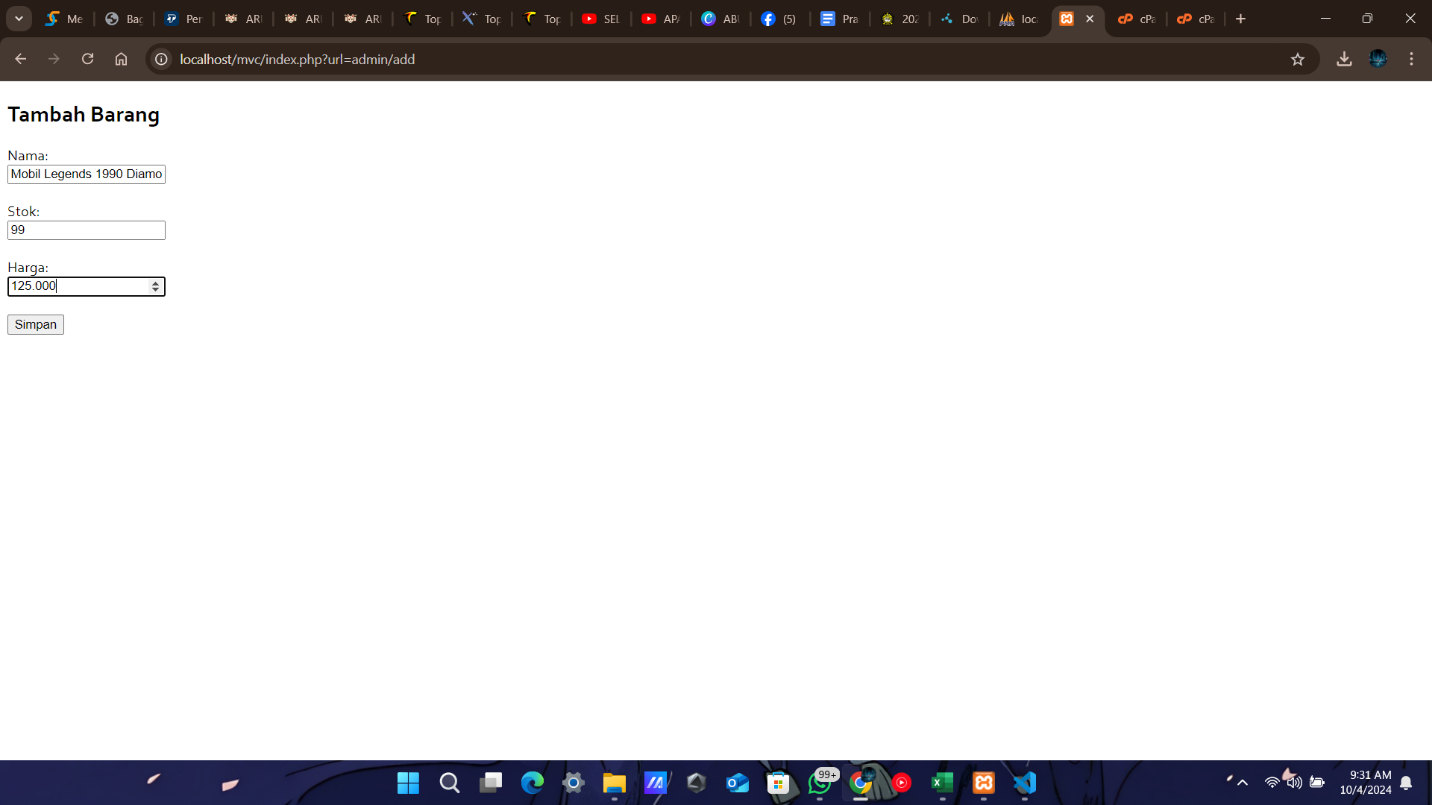
|  |
| --- |
| CREATE DATABASE IF NOT EXISTS projectmvc;  USE projectmvc;  CREATE TABLE IF NOT EXISTS `items` (   `id` int(11) NOT NULL AUTO\_INCREMENT,   `nama` varchar(255) NOT NULL,   `stok` int(11) NOT NULL,   `harga` decimal(15,2) NOT NULL,   PRIMARY KEY (`id`) ); |

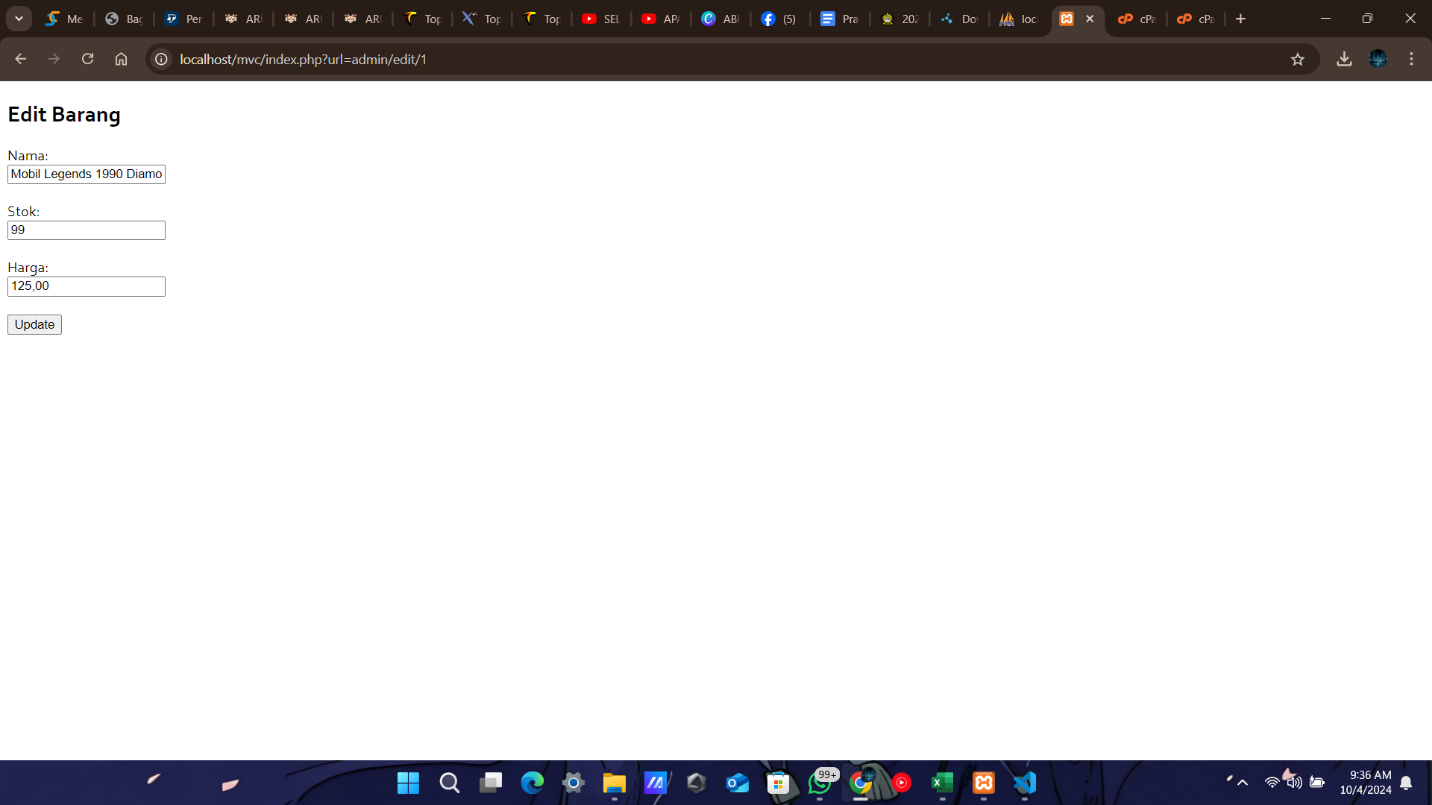
**HASIL RUNNING**

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