

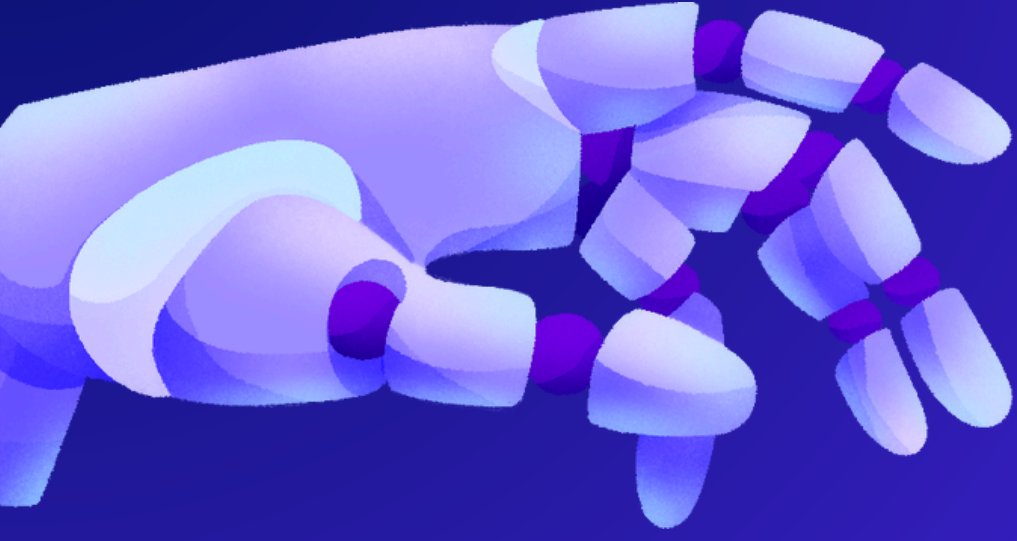


CHAPTER 1

# FRAMEWORK

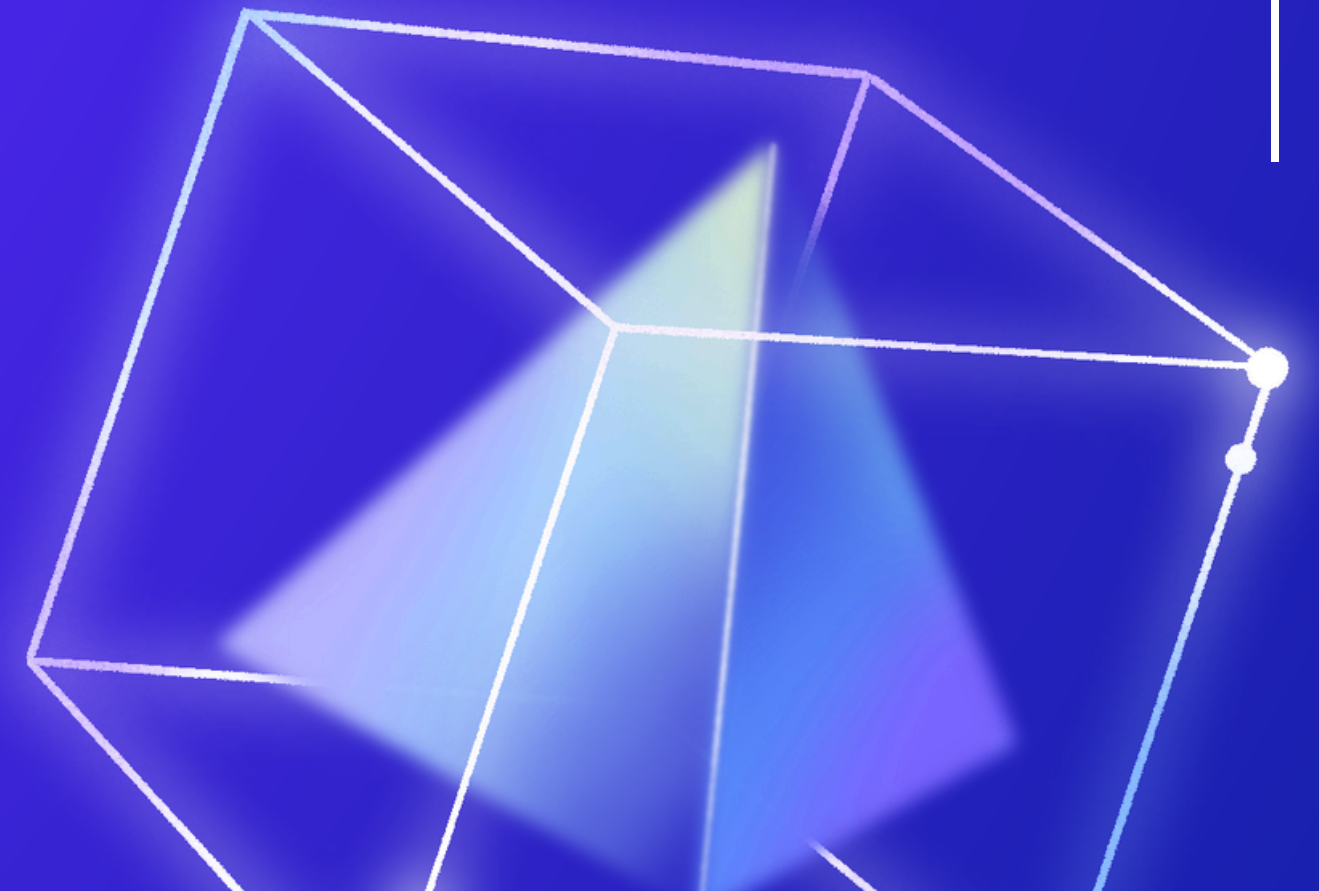
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# INTRODUCTION

**Laravel** is a popular open-source **PHP web application framework** designed for building modern, secure, and scalable web applications with elegant syntax. Created by **Taylor Otwell**, Laravel follows the **Model-View-Controller (MVC)** architectural pattern and provides a wide range of tools and features to streamline development.

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## Conclusion

Laravel makes web development faster, more enjoyable, and more efficient for PHP developers. With a huge community, extensive documentation, and modern tools, it remains one of the most loved PHP frameworks



# HOW TO INSTALL



# INSTALLATION PROCESS

## 1. COMPOSER INSTALL

01

```
1 composer global require laravel/installer  
composer create-project "laravel/laravel:^12" nameproject
```

02

## 2. CREATING AN APPLICATION

```
1 laravel new example-app
```

03

### 3.DATABASE CONFIG

```
1 DB_CONNECTION=mysql
2 DB_HOST=127.0.0.1
3 DB_PORT=3306
4 DB_DATABASE=laravel
5 DB_USERNAME=root
6 DB_PASSWORD=
```

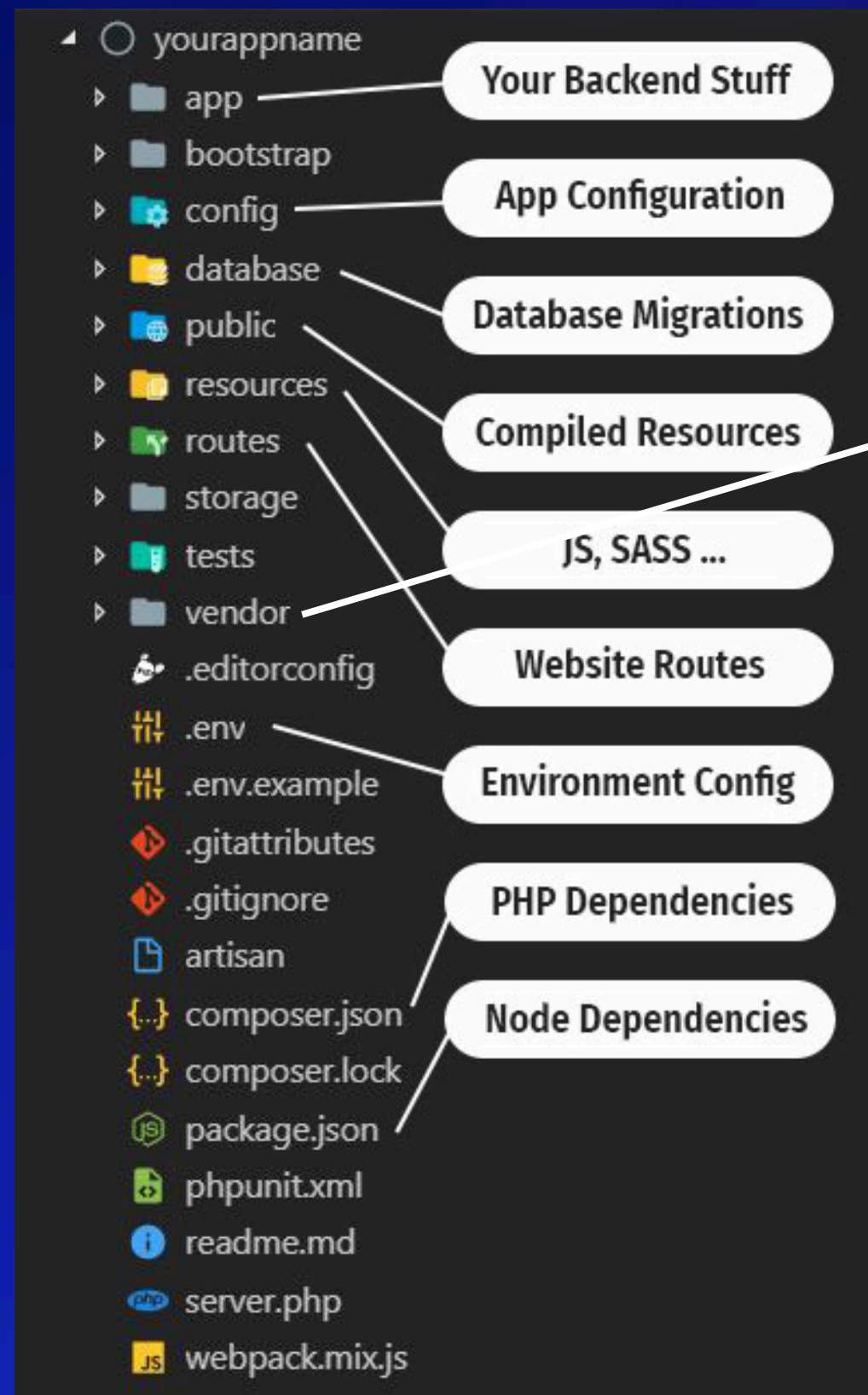
```
1 php artisan migrate
```

04

### 4.RUN

**php artisan serve**

# DIRECTORY STRUCTURE



This about the library of the system and it so important if not have cannot run the system



# What is a Route in Laravel?



In **Laravel**, a **route** is a way to define how your application responds to specific **URLs (or URI paths)**. When a user visits a URL, Laravel checks the routes and calls the appropriate code (like returning a view or calling a controller method).

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# EXAMPLE

```
use Illuminate\Support\Facades\Route;  
  
Route::get('/greeting', function () {  
    return 'Hello World';  
});
```

# EXAMPLE



```
use App\Http\Controllers\UserController;  
  
Route::get('/user', [UserController::class, 'index']);
```

How to see all the route :

**php artisan route:list**



# WHAT IS MVC?

MVC stands for:

- M = Model → Works with the database (data).
- V = View → Displays the HTML to the user (interface).
- C = Controller → Controls the logic and connects Model + View.

This structure separates your code so it's easy to read, manage, and scale.



# MODEL

```
namespace App\Http\Controllers;

use App\Models\User;

class UserController extends Controller
{
    public function index()
    {
        $users = User::all(); // Get all users
        return view('users.index', ['users' => $users]); //
    }
}
```

# VIEW

```
<!DOCTYPE html>
<html>
<head>
  <title>User List</title>
</head>
<body>
  <h1>List of Users</h1>
  <ul>
    @foreach ($users as $user)
      <li>{{ $user->name }} - {{ $user->email }}</li>
    @endforeach
  </ul>
</body>
</html>
```

# CONTROLLER

```
namespace App\Http\Controllers;

use App\Models\User;

class UserController extends Controller
{
    public function index()
    {
        $users = User::all(); // Get all users
        return view('users.index', ['users' => $users]); //
    }
}
```

# WHAT IS CONTROLLER

?



A **CONTROLLER** IS A CLASS THAT HANDLES THE **REQUEST LOGIC** OF YOUR APPLICATION. WHEN A USER ACCESSES A ROUTE, LARAVEL SENDS THE REQUEST TO A CONTROLLER METHOD, WHICH PROCESSES IT AND RETURNS A RESPONSE — TYPICALLY A VIEW OR JSON.

**WHERE ARE  
CONTROLLERS  
LOCATED?**

```
app/Http/Controllers/
```



# HOW TO CREATE BY CAMMAND



MAKE IT WITH NO FUNCTION

```
php artisan make:controller UserController
```

MAKE IT WITH SAMPLE FUNCTION SUCH AS  
INDEX, EDIT, STORE, VIEW, DELETE

```
php artisan make:controller UserController --resource
```



# EXAMPLE

```
php artisan make:controller ProductsController --resource
```

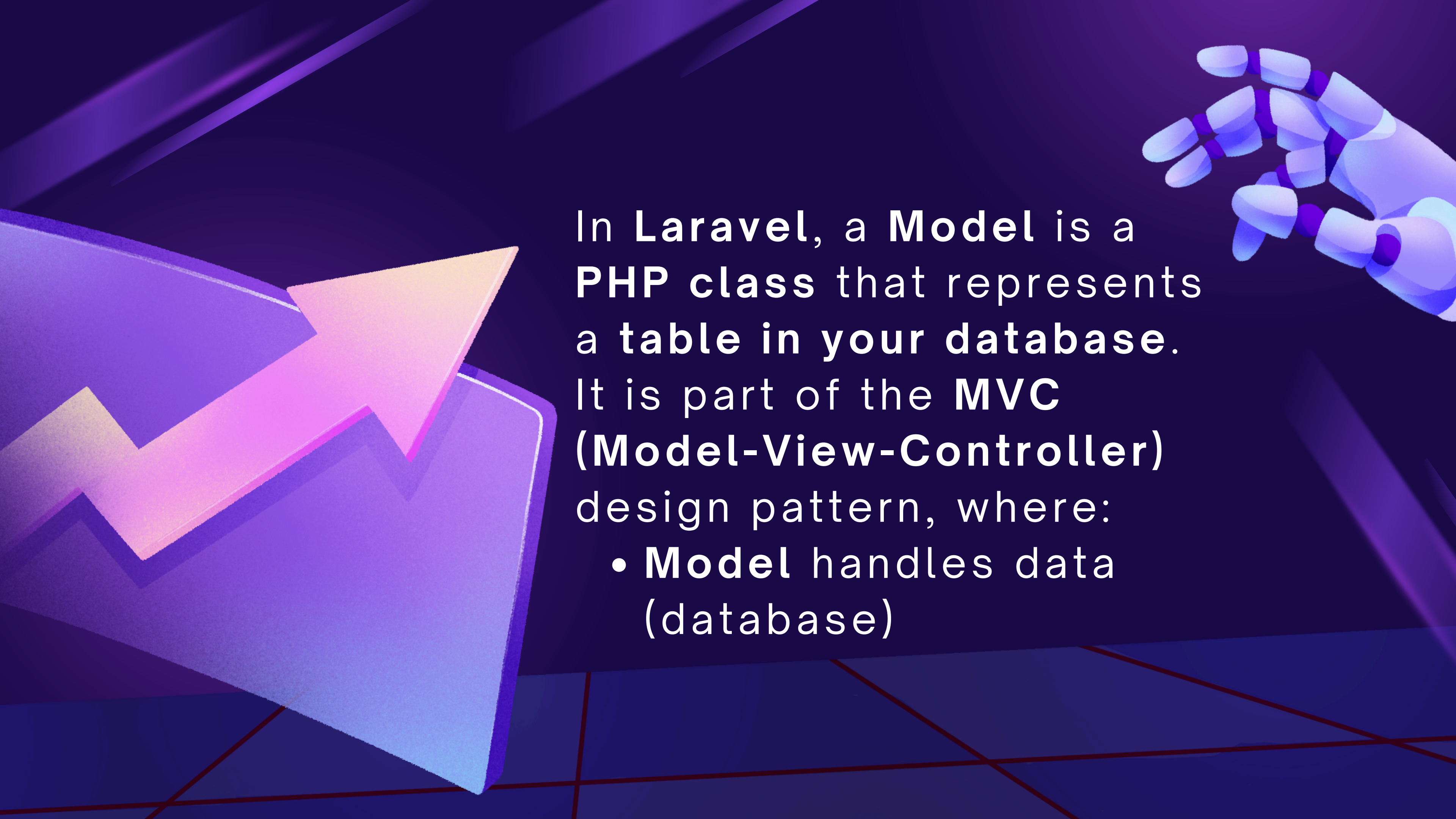
GO TO THE FOLDER AND FILE

```
app/Http/Controllers/ProductsController.php
```

PLEASE GO TO LINK AND  
DOWNLOAD THE FILE  
`ProductsController.php`

# WHAT IS MODEL ?





In **Laravel**, a **Model** is a **PHP class** that represents a **table in your database**. It is part of the **MVC (Model-View-Controller)** design pattern, where:

- **Model** handles data (database)



# DETAILS

WHERE ARE MODELS LOCATED?

```
app/Models/
```

MAKE MODEL BY CAMMAND

```
php artisan make:model Product
```

MAKE MODEL BY CAMMAND WITH  
EXAMLE CODE

```
php artisan make:model Products --resource
```

THAT CREATE BOTH MODEL WITH CONTROLLER

# EXAMPLE

```
<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Model;

class Product extends Model
{
    protected $fillable = ['name', 'price'];
}
```



# VIEW TEMPLATE

IN **LARAVEL**, A **VIEW TEMPLATE** IS A FILE THAT CONTAINS THE HTML (AND OPTIONALLY EMBEDDED PHP) USED TO BUILD THE FRONT-END OF YOUR WEB APPLICATION. VIEWS ARE PART OF THE **MVC (MODEL-VIEW-CONTROLLER)** ARCHITECTURE AND ARE MAINLY RESPONSIBLE FOR HOW DATA IS PRESENTED TO THE USER. LARAVEL USES **BLADE**, A SIMPLE BUT POWERFUL TEMPLATING ENGINE, TO HELP CREATE THESE VIEW TEMPLATES EFFICIENTLY.



# Example

```
@extends('layout')

@section('content')
    <h2>Product List</h2>
    <a href="{{ route('products.create') }}">+ Add New Product</a>
    @if(session('success'))
        <p>{{ session('success') }}</p>
    @endif
    <table border="1" cellpadding="5">
        <tr>
            <th>ID</th><th>Name</th><th>Price</th><th>Actions</th>
        </tr>
        @foreach($products as $product)
            <tr>
                <td>{{ $product->id }}</td>
                <td>{{ $product->name }}</td>
                <td>${{ $product->price }}</td>
                <td>
                    <a href="{{ route('products.edit', $product->id) }}">Edit</a> |
                    <a href="{{ route('products.show', $product->id) }}">View</a> |
                    <form action="{{ route('products.destroy', $product->id) }}" method="POST"
                        @csrf
                        @method('DELETE')
                        <button onclick="return confirm('Delete?')" type="submit">Delete</button>
                    </form>
                </td>
            </tr>
        @endforeach
    </table>
@endsection
```



# Create

```
@extends('layout')

@section('content')
    <h2>Create Product</h2>
    <form action="{{ route('products.store') }}" method="POST">
        @csrf
        Name: <input type="text" name="name" value="{{ old('name') }}"><br><br>
        Price: <input type="number" name="price" step="0.01" value="{{ old('price') }}">
        <button type="submit">Save</button>
    </form>
    <a href="{{ route('products.index') }}">Back</a>
@endsection
```

# Edit

```
@extends('layout')

@section('content')
    <h2>Edit Product</h2>
    <form action="{{ route('products.update', $product->id) }}" method="POST">
        @csrf
        @method('PUT')
        Name: <input type="text" name="name" value="{{ $product->name }}"><br><br>
        Price: <input type="number" name="price" step="0.01" value="{{ $product->price"
        <button type="submit">Update</button>
    </form>
    <a href="{{ route('products.index') }}">Back</a>
@endsection
```

# View

```
@extends('layout')

@section('content')
    <h2>Product Detail</h2>
    <p><strong>ID:</strong> {{ $product->id }}</p>
    <p><strong>Name:</strong> {{ $product->name }}</p>
    <p><strong>Price:</strong> ${{ $product->price }}</p>
    <a href="{{ route('products.index') }}">Back</a>
@endsection
```



STUDIO SHEDWE

# THANK YOU!

We appreciate your time and attention.



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