LARAVEL CERTIFICATION

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Batch-B

COURSE DESCRIPTION

- **Simplifies Development**: Laravel provides a clear and intuitive way to write code, making web development easier.
- **Reduces Routine** Tasks: It minimizes time spent on repetitive tasks, allowing developers to focus on unique features.
- **Pre-Built Components**: Laravel includes numerous pre-built components, libraries, and tools, such as routing, authentication, and caching.
- **Efficiency**: By offering these tools, Laravel enables developers to save time and effort, leading to the creation of powerful applications more efficiently.

ADVANTAGES

- **Elegant Syntax**: Laravel features a clean and easily readable syntax, which enhances coding speed and efficiency.
- **Built-in Tools**: The framework comes with pre-built tools and components, such as authentication, routing, and caching, minimizing the need for repetitive coding tasks.
- **Simplifies Complex Tasks**: Laravel streamlines common development processes, including database migrations, session management, and data validation.
- **Strong Community Support**: With a large and active community, along with comprehensive documentation, finding solutions and resources is made easier.
- **Scalability**: Laravel is flexible and scalable, making it suitable for both small projects and large, complex applications.

MVC ARCHITECTURE

- **MVC Architecture**: Laravel utilizes the MVC (Model-View-Controller) design pattern to divide an application into three core components: Model, View, and Controller.

- **User Interaction**: When a user interacts with the application, the Controller processes the incoming request.

- **Data Handling**: The Controller communicates with the Model to retrieve or modify data as necessary.

- **Data Presentation**: After processing the data, the Controller passes it to the View, where it is displayed to the user in a structured format.

LARAVEL FRAMEWORK KEY FOLDERS

- **App Directory**: This is the core of your application, containing essential folders such as:
  - **Console**: Contains artisan commands.
  - **Exceptions**: Manages exception handling.
  - **Http**: Houses controllers, middleware, form requests, and route definitions.
  - **Models**: Contains the data models for your application.
  - **Providers**: Manages service providers.
- **Bootstrap Directory**: This folder includes the files necessary for bootstrapping the Laravel application and loading required components.
- **Config Directory**: Contains configuration files for various aspects of your application, including database connections and cache settings.
- **Database Directory**: Contains files related to database management.

CONTROLLER

- Definition: A controller in Laravel is a class that processes incoming HTTP requests and contains the application's logic to generate the correct HTTP response.

- Function: Controllers act as intermediaries between the model (which handles data and business logic) and the view (which presents the user interface).

- Storage Location: Controllers are found in the `app/Http/Controllers` directory.

- Creating a Controller: You can create a new controller using the Artisan command:
- php artisan make:controller ExampleController`

- Types of Controllers:
- 1. Basic Controllers
- 2. Resource Controllers

ROUTING

- **Definition**: Routing in Laravel involves specifying the paths (URLs) that the application will respond to and linking them to specific actions, such as controller methods or closures.

- **Route Files**: Routes are defined in the `routes/web. Php` file for web routes and the `routes/api.php` file for API routes.

- **Basic Syntax**: The syntax for defining a route is as follows:

```
Route::get('/example', function ()
 {
return 'Hello, this is an example route!';
 }
);
```

CONCLUSION

- Understand Laravel Basics.
- Recognize key folders and their purposes.
- Create models, views, and controllers.
- Define basic and dynamic routes and use middleware.
- Perform CRUD (create, read, update, and delete) operations.
- Use Artisan commands for various tasks.

LARAVEL CERTIFICATE

Thank You