



# LARAVEL CERTIFICATION

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# Course description

- Laravel makes web development easier by providing a clear and simple way to write code.
- It reduces the time spent on routine tasks, allowing developers to focus on creating unique features.
- Laravel comes with many pre-built components, libraries, and tools like routing, authentication, and caching, so developers don't need to build everything from scratch.
- This saves time and effort, enabling them to create powerful applications more efficiently.

# Advantages

- Elegant syntax:** Laravel offers a clean and easy-to-read syntax, making coding faster and more efficient.
- Built-in tools:** It provides pre-built tools and components like authentication, routing, and caching, reducing the need for repetitive coding.
- Simplifies complex tasks:** Laravel simplifies common development tasks like database migrations, session handling, and data validation.
- Strong community support:** Laravel has a large, active community and extensive documentation, making it easier to find solutions and resources.
- Scalability:** The framework is flexible and scalable, suitable for small projects as well as large, complex applications.

# MVC architecture

- MVC (Model-View-Controller) architecture is a design pattern used in Laravel and many other frameworks to separate an application into three main logical components:
  1. Model
  2. View
  3. Controller
- When a user interacts with the application:
  1. The **Controller** handles the incoming request.
  2. The controller interacts with the **Model** to retrieve or manipulate data as needed.
  3. The controller then sends the data to the **View**, where it is presented to the user in a formatted way.

## Laravel framework key folders

- Laravel framework provides various key folders to help the user generate a application easily
- **app**: This directory is the heart of your application. It contains folders like:
  - **Console**: Contains artisan commands.
  - **Exceptions**: Manages exception handling.
  - **Http**: Contains controllers, middleware, form requests, and route definitions.
  - **Models**: Houses your application's data models.
  - **Providers**: Manages service providers.
- **bootstrap**: This directory holds the files responsible for bootstrapping the Laravel application and loading the necessary components.
- **config**: Contains configuration files for different parts of your application, such as database connections, cache settings, and more.
- **database**: Houses the database-related files.

# Routing

- In Laravel, **routing** is the process of defining the paths (URLs) that the application responds to and linking them to specific actions (e.g., controller methods or closures).
- In Laravel, routes are defined in the routes/web.php file for web routes and routes/api.php for API routes.
- The basic syntax for defining a route looks like this:

```
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