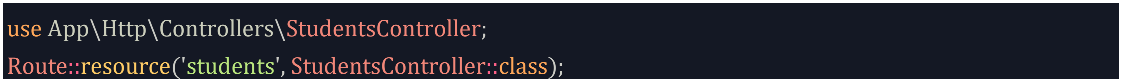
LARAVEL 8

Instalasi & Documentation

- Documentataion : https://laravel.com/docs/
- Normal Install : composer create-project laravel/laravel example-app
- Global Install : laravel new example-app

Tips atau Sering Digunakan

- blade tidak menggunakan titik koma ;
- php echo : {{ $nama }}
- periksa : @dump(); atau @dd();
- @crsf : hash dibawah tag <form> pembuka
- mt_rand(2, 8) : membuat bilangan random mt_rand(minimal, maksimal)
- jika membuat controller menggunakan artisan make C+M Res, route bisa disingkat :



```
use App\Http\Controllers\StudentsController;
Route::resource('students', StudentsController::class);
```

Php artisan

- php artisan db:seed : mengirim data seeder
- php artisan migrate:fresh –seed : mengirim data seeder & factory

Artisan make

- controller : php artisan make:controller <namaController>
- model : php artisan make:model <nama>
- factory : php artisan make:factory <namaFactory>
- C Res : php artisan make:controller <namaController> --resource
- C+M Res : php artisan make:controller <namaController> -r -m <namaModel>
- M+ mfs : php artisan make:model <nama> -mfs

ket : C = Controller m = migrate
M = Model f = factory
Res = Resource (CRUD) s = seeder

Artisan Migrate (migration)

- migrate : php artisan migrate
- rollback : php artisan migrate:rollback
- rollback + migrate : php artisan migrate:fresh
- migrate + seeder : php artisan migrate:fresh --seed

Struktur Folder MVC, Routes dan View

- routes : routes/web.php : file utama yg diakses
- controller : app/Http/Controllers
- model : app/Models
- view : resources/Views
- assets : public/assets : folder assets buat manual
- .env : konfigurasi url, database, dll

Blade Templating Engine

- membuat templates : views/layouts/main.blade.php

```
<head>
  <title>@yield('title')</title>
</head>
<body>
  @include('partials.navbar')
  <div class="container m-4">
    @yield('container')
  </div>
</body>
```

- partials (opsioanal) : views/partials/navbar.blade.php

- penggunaan di view : views/home.blade.php

```
@extends('layouts.main')
@section('title', 'Laravel 8 | Home')
@section('container')
  {{-- isi konten --}}
@endsection
```

Tinker

- Menambah data ke table menggunakan tinker di cmd

1. jalankan tinker : php artisan tinker
2. buat variable. ada 2 cara contoh :

```
>>> $user = new App\Models\User;
>>> $user = new User;
```

3. isi attribut table yg fillable. contoh :

```
>>> $user->name = 'Mochamad Ihsan Saepulloh';
>>> $user->email ='mihsansaepulloh9@gmail.com';
>>> $user->password = bcrypt('09072002');
```

4. simpan data diatas ke table

```
>>> $user->save()
```

5. memeriksa data table

```
>>> $user->all()
```

- **Seeder, Factory & Faker**
  - Merubah lokasi data faker :
    1. ubah config : config/app.php

```
'faker_locale' => env('FAKER_LOCALE', 'en_US'),
```

    2. tambahkan baris dibawah di file .env

```
FAKER_LOCALE=id_ID
```

  - Membuat seeder + factory
    1. buat factory di cmd :

```
php artisan make:factory <namaFactory>
```

    2. database/seeders/DatabaseSeeder.php

```
public function run()
{
  User::factory(3)->create();

  // manual tanpa factory
  Category::create([
    'name'  => 'Web Programming',
    'slug'  => 'web-programming'
  ]);

  Post::factory(20)->create();
}
```

    3. contoh factory User : database/factories/UserFactory.php

```
public function definition()
{
  return [
    'name' => $this->faker->name(),
    'username' => $this->faker->unique()->userName(),
    'email' => $this->faker->unique()->safeEmail(),
    'email_verified_at' => now(),
    'password' => '1234..’
    'remember_token' => Str::random(10),
  ];
}
```

N+1 Problem (Query Berlebihan)

- Untuk periksa jumlah query gunakan clockwork, cara instal :
  1. onProject : pasang library clockwork lewat cmd

     ```
     composer require itsgoingd/clockwork
     ```

  2. onChrome : instal ekstensi clockwork by itsgoingd

- Untuk mencegah multi query ada 3 cara :
  1. Jika di controllers/PostController.php : tambahkan with()

     ```
     public function index()
     {
        return view('posts',[
           "title" => "All Posts",
           // with('tabelRelasi1, dst..')
           "posts" => Post::with(['author', 'category'])->latest()->get()
        ]);
     }
     ```

  2. Jika di Web.php : untuk yg route model binding tambahkan load()

     ```
     Route::get('/authors/{author:username}', function(User $author) {
        return view('posts', [
           'title' =>  "Post by Author : $author->name",
           'posts' => $author->posts->load('author', 'category')
        ]);
     });
     ```

  3. Jika di models/Post.php : tambahkan protected $with

     ```
     protected $guarded = ['id'];
     protected $with = ['author', 'category'];
     ```

- ### Searching

  - controller/PostController.php : memanggil scope filter (function scopeFilter di model)

```
return view('posts',[
   "title" => "All Posts" . $title,
   'active' => 'posts',
   // Tambahkan filter()
   "posts" => Post::latest()->filter(request(['search', 'category', 'author']))->get()
]);
```

  - model/Post.php :

```
// fitur searching
public function scopeFilter($query, array $filters)
{
   // pengganti : isset( $filters['search'] ? $filters['search'] : false )
   // menjadi   : $filters['search'] ?? false
   $query->when($filters['search'] ?? false, function($query, $search) {
      return $query->where('title', 'like', '%' . $search . '%')
                  ->orWhere('body', 'like', '%' . $search . '%');
   });

   // menggunakan normal function
   $query->when($filters['category'] ?? false, function($query, $category) {
      return $query->whereHas('category', function($query) use ($category) {
         $query->where('slug', $category);
      });
   });

   // menggunakan arrow function (fn(..) => ..)
   $query->when($filters['author'] ?? false, fn($query, $author) =>
      $query->whereHas('author', fn($query) =>
         $query->where('username', $author)
      )
   );
}
```

- view/posts.blade.php : menambah pengkodisian dan ubah link href author/category

```
{{-- tambahkan pengkondisian dibawah setelah form pembuka --}}
<form action="/posts">
  {{-- Searching berdasarkan keyword dan category/author --}}
  @if (request('category'))
  <input type="hidden" name="category" value="{{ request('category') }}">
  @endif
  @if (request('author'))
  <input type="hidden" name="author" value="{{ request('author') }}">
  @endif
  ...
</form>
```

```
{{-- ubah link menjadi href="/posts?category={{ $posts[0]->category->slug }}" --}}
<a href="/posts?category={{ $posts[0]->category->slug  }}" class="text-decoration-none">
  {{ $posts[0]->category->name }}
</a> {{ $posts[0]->created_at->diffForHumans() }}
```