

PRAKTIKUM
PEMROGRAMAN FRAMEWORK
MODUL 3
ROUTING DAN BUNDLING ASET DI LARAVEL



DISUSUN OLEH:
MARISTA ADELIA PUTRI

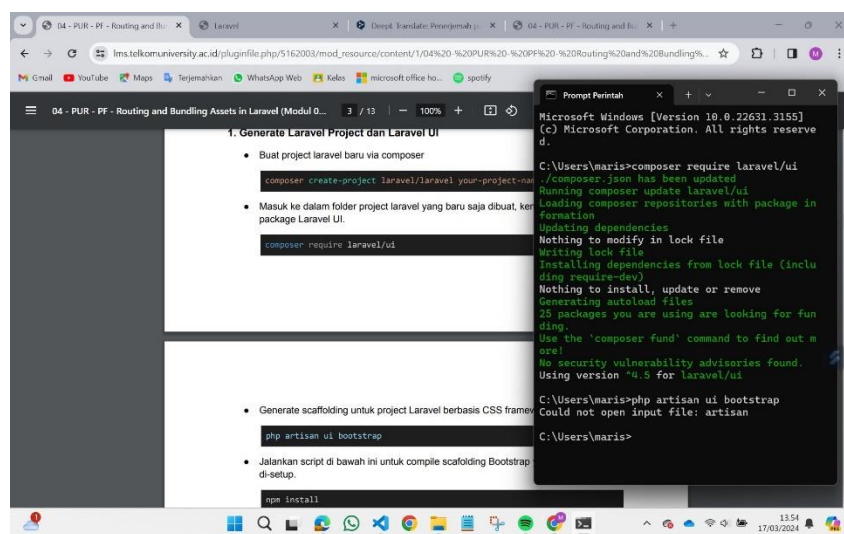
PROGRAM STUDI S1 SISTEM INFORMASI
FAKULTAS REKAYASA INDUSTRI
TELKOM UNIVERSITY SURABAYA
2024

Tugas

1. praktikkan seluruh poin praktikum yang ada di atas secara INDIVIDU.
2. Terapkan cloning website bootstrap yang telah dikerjakan pada modul 1 praktikum minggu sebelumnya ke dalam project laravel yang anda buat di praktikum ini.
 - a. Tambahkan Route dan file View baru agar halaman Bootstrap Clone ini bisa diakses dari browser.
 - b. Jika ada kode css yang perlu ditambahkan, bisa ditambahkan pada file `resources/sass/app.scss`
3. Dokumentasikan hasil praktikum dan soal no.2 tersebut (screenshot kode program, output pada browser, penjelasan kode program yang ditulis) dalam bentuk Laporan Praktikum.
4. Upload manual project laravel hasil praktikum ke github (hapus folder `node_modules` & `vendor`).
 - a. Buat repository public baru pada akun github anda.
 - b. Klik link "Uploading an existing file" untuk meng-upload project laravel yang telah anda buat.
 - c. Cantumkan URL repository yang telah dibuat pada Laporan Praktikum.
5. Kumpulkan Laporan Praktikum (.pdf) yang telah dibuat di dalam praktikum + tugas praktikum (no. 2) via LMS paling lambat sebelum jadwal praktikum minggu depan

Hasil praktikum modul 3:

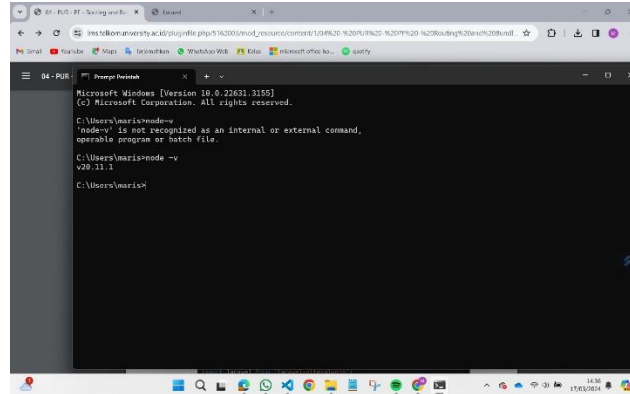
1. Generate Laravel Project dan Laravel UI



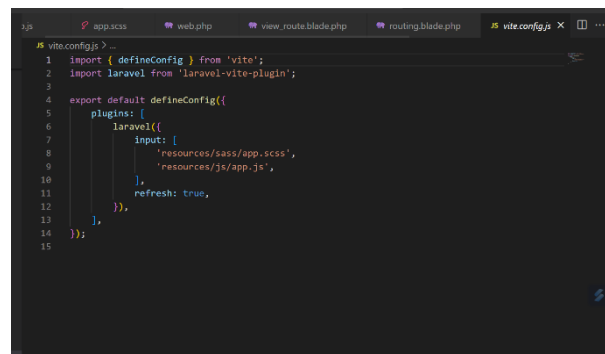
Pada gambar diatas adalah langkah untuk melakukan proses (composer require laravel/ui), saat melakukan instalasi tersebut saya melakukan instalasi di prompt perintah seperti gambar diatas.

2. Bundling Asset dengan Vite

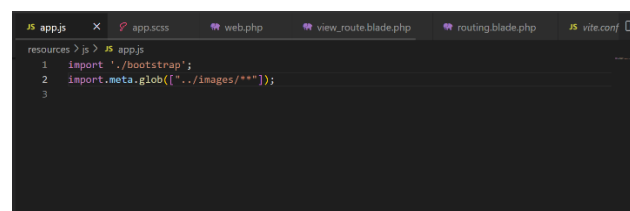
- Langkah yang dilakukan pertama kali yaitu melakukan proses instalasi NodeJS, lalu dilanjutkan dengan dengan beberapa langkah dibawah ini.



Pada gambar di atas adalah proses dilakukannya pengecekan hasil instalasi yang mana kode yang digunakan untuk melakukan cek instalasi adalah node -v.



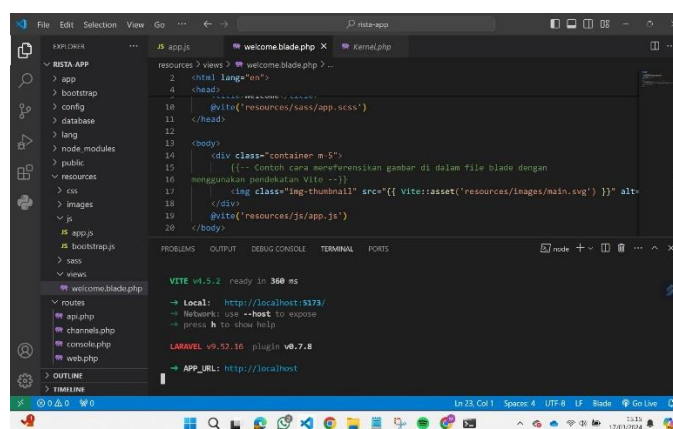
Pada gambar di atas adalah menerapkan fitur Refreshing on Save, maksud dari fitur tersebut yaitu untuk memungkinkan para pengguna dalam mengatur durasi tampilan screensaver pada beberapa device.



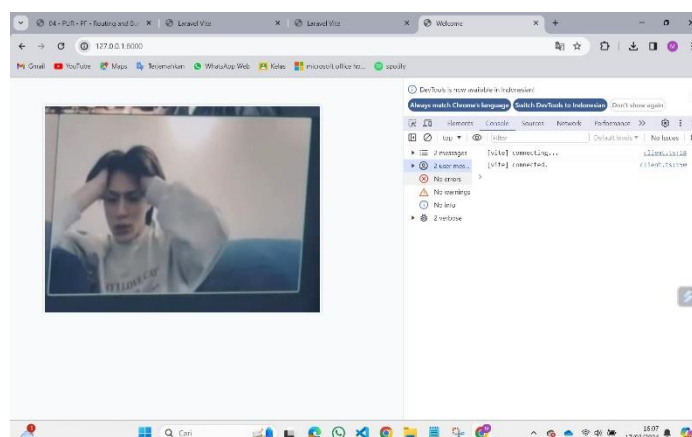
Pada gambar di atas adalah menerapkan fitur Processing Static Assets with vite, maksud dari fitur tersebut yaitu untuk mengatur proses pengolahan suatu aset statis menggunakan vite. Fitur ini mencakup proses pengolahan aset statis, yang tidak berubah seperti gambar, video, dan file lainnya.

```
ew_route.blade.php  vite.config.js  RouteController.php  welcome.blade.php
resources > views > welcome.blade.php > html > body > div.container.m-5 > img.img-thumbnail
1
2 <doctype html>
3 <html lang="en">
4
5 <head>
6 <meta charset="UTF-8">
7 <meta http-equiv="X-UA-Compatible" content="IE=edge">
8 <meta name="viewport" content="width=device-width,
9 initial-scale=1.0">
10 <title>Welcome</title>
11 @vite('resources/sass/app.scss')
12 </head>
13
14 <body>
15 <div class="container m-5">
16 <!-- Contoh cara mereferensikan gambar di dalam file blade dengan
17 menggunakan pendekatan Vite -->
18 
20 @vite('resources/js/app.js')
21 </body>
22 </html>
23
```

Pada gambar di atas terdapat pada file welcome.blade.php, ini adalah proses yang digunakan untuk memuat suatu gambar yang terletak di direktori.



Pada gambar di atas adalah langkah untuk menjalankan vite, yang dimana kode yang digunakan yaitu `npm run dev`.



Gambar di atas merupakan output dari tampilan langkah – langkah diatas.

3. Install Bootstrap dan Bootstrap Icons Terbaru pada Project Laravel

```
resources > sass > app.scss
1 // Fonts
2 // @import url('https://fonts.bunny.net/css?family=Nunito');
3
4 // Variables
5 // @import 'variables';
6
7 // Bootstrap
8 @import 'bootstrap/scss/bootstrap';
9 @import 'bootstrap-icons/font/bootstrap-icons.css';
10
```

4. Praktik Laravel Routing

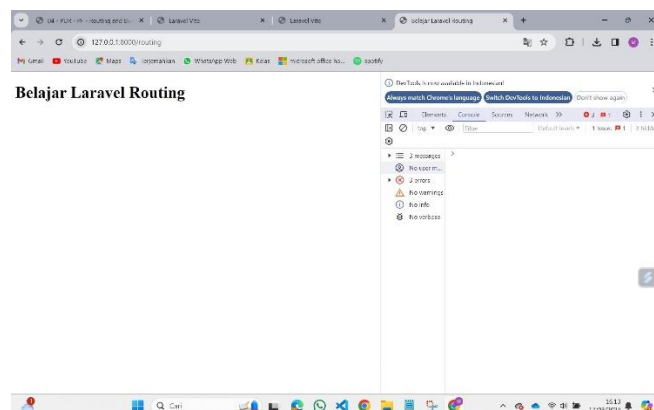
```
Route::get('/routing', function() {
    return view('routing');
});
```

ketika user mengakses URL /routing, website akan menampilkan tampilan dengan nama 'routing'.

```
resources > views > routing.blade.php > html
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5     <meta charset="UTF-8">
6     <meta name="viewport" content="width=device-width,
7     initial-scale=1.0">
8     <meta http-equiv="X-UA-Compatible" content="ie=edge">
9     <title>Belajar Laravel Routing</title>
10    @vite('resources/sass/app.scss')
11 </head>
12
13 <body>
14     <div class="container m-5">
15         <h1>Belajar Laravel Routing</h1>
16         <div class="list-group list-group-numbered mt-4">
17             {{-- Kode anda selanjutnya letakkan di sini --}}
18         </div>
19         {{-- Khusus kode program untuk Route Groups di sini --}}
20     </div>
21    @vite('resources/js/app.js')
22 </body>
23
24 </html>
25
```

Gambar di atas adalah kode yang menggunakan Vite untuk memuat dan memproses file SASS app.scss. Dan @vite('resources/js/app.js'): Memuat dan memproses file JavaScript app.js menggunakan Vite.

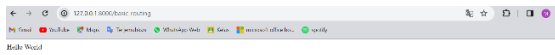
Output:



5. Praktik Basic Routing

```
14 Route::get('/basic_routing', function() {
15     return 'Hello World';
16 });
```

```
15 <a href="{{ url('/basic_routing') }}" class="list-group-item
16 list-group-item-action">Basic Routing (No View, No Controller)
17 </a>
```

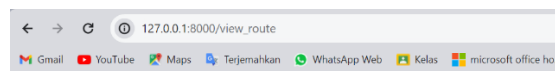


6. Praktik View Route

```
18 Route::view('/view_route', 'view_route');
19 Route::view('/view_route', 'view_route', ['name' => 'Rista']);
```

```
resources > views > view_route.blade.php > ...
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5     <meta charset="UTF-8">
6     <meta name="viewport" content="width=device-width,
7 initialscale=1.0">
8     <meta http-equiv="X-UA-Compatible" content="ie=edge">
9     <title>View Route</title>
10    @vite('resources/sass/app.scss')
11 </head>
12
13 <body>
14     <div class="container m-5">
15         <h1>This is from View Route</h1>
16         <p>Hello, My name is {{ $name }}</p>
17     </div>
18     @vite('resources/js/app.js')
19 </body>
20
21 </html>
22
```

```
18 <a href="{{ url('/view_route') }}" class="list-group-item
19 list-group-item-action">View Route
20 </a>
```



This is from View Route

Hello, My name is Rista

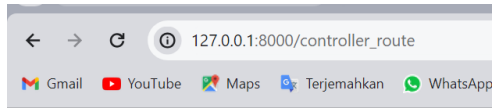
7. Praktik Controller Route

```
public function index() {
    return "This is from Controller";
}
```

```
1 Route::get('/controller_route', [RouteController::class, 'index']);
```

```
routes > web.php
1 <?php
2
3 use App\Http\Controllers\RouteController;
4 use Illuminate\Support\Facades\Route;
5
```

```
<a href="{{ url('/controller_route') }}" class="list-group-item
list-group-item-action">Controller Route
</a>
```



This is from Controller

8. Praktik Redirect Route

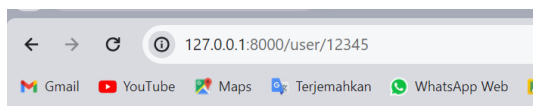
```
23 Route::redirect('/', '/routing');
```

```
24 <a href="{{ url('/') }}" class="list-group-item list-group-item-action">
25   Redirect Route
26 </a>
```

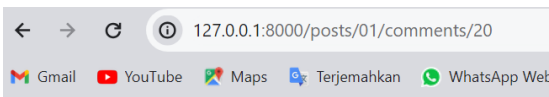
9. Praktik Route Parameter (Required Parameter)

```
25 Route::get('/user/{id}', function($id) {
26     return "User Id: ".$id;
27 });
28 Route::get('/posts/{post}/comments/{comment}', function($postId,
29     $commentId) {
30     return "Post Id: ".$postId.", Comment Id: ".$commentId;
31 });
```

```
27 <a href="{{ url('/user/12345') }}" class="list-group-item
28 list-group-item-action">Route Parameter (Required Parameter) - 1
29 </a>
30 <a href="{{ url('/posts/01/comments/20') }}" class="list-group-item
31 list-group-item-action">Route Parameter (Required Parameter) - 2
32 </a>
```



User Id: 12345

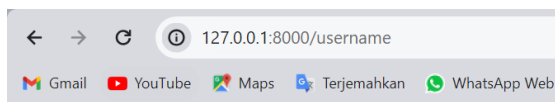


Post Id: 01, Comment Id: 20

10. Praktik Route Parameter (Optional Parameter)

```
33 Route::get('username/{name?}', function($name = null) {
34     return 'Username: '.$name;
35 });
```

```
33 <a href="{{ url('/username') }}" class="list-group-item
34 list-group-item-action">Route Parameter (Optional Parameter)
35 </a>
```



Username:

11. Praktik Route With Regular Expression Constraints

```
Route::get('/title/{title}', function($title) {
    return "Title: ".$title;
})->where('title', '[A-Za-z]+');

36 <a href="{{ url('/title/this-is-my-title') }}" class="list-group-item
37 list-group-item-action">Route With Regular Expression Constraints
38 </a>
```

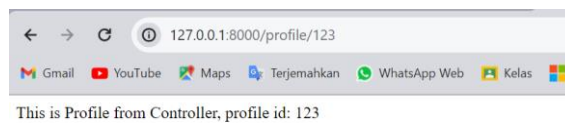
Output yang dihasilkan adalah halaman warning 404 Not Found, yang dimana hal ini terjadi karena URL /title/this-is-my-title, "this-is-my-title" tidak sesuai dengan pola yang diharapkan. Dalam pola rute tersebut, bagian {title} harus diisi dengan teks yang terdiri dari huruf (baik huruf besar maupun kecil) saja, sesuai dengan batasan regular expression [A-Za-z]+ yang telah ditetapkan.

12. Praktik Named Route

```
40 Route::get('/profile/{profileId}', [RouteController::class,
41 'profile'])->name('profileRouteName');

12 public function profile($profileId) {
13     return "This is Profile from Controller, profile id: ".$profileId;
14 }

39 <a href="{{ route('profileRouteName', ['profileId' => '123']) }}"
40 class="list-group-item list-group-item-action">
41     Named Route
42 </a>
```

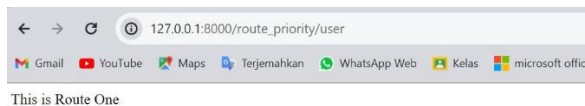


13. Praktik Route Priority

```
43 Route::get('/route_priority/{rpId}', function($rpId) {
44     return "This is Route One";
45 });
46 Route::get('/route_priority/user', function() {
47     return "This is Route 1";
48 });
49 Route::get('/route_priority/user', function() {
50     return "This is Route 2";
51 });

43 <a href="{{ url('/route_priority/user') }}" class="list-group-item
44 list-group-item-action">Route Priority
45 </a>
```

Sebelum ada command:



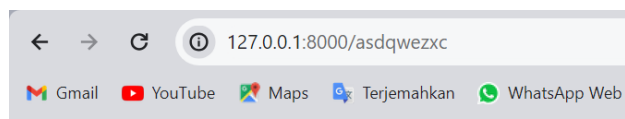
Setelah ada command:



14. Praktik Fallback Routes

```
52 Route::fallback(function() {  
53     return 'This is Fallback Route';  
54 });
```

```
46 <a href="{{ url('/asdqwezxc') }}" class="list-group-item  
47 list-group-item-action">Fallback Routes  
48 </a>
```



15. Praktik Route Groups (Route Prefixes & Route Name Prefixes)

```
55 Route::prefix('admin')->name('admin.')->group(function() {  
56     Route::get('/dashboard', function() {  
57         return "This is admin dashboard";  
58     })->name('dashboard');  
59     Route::get('/users', function() {  
60         return "This is user data on admin page";  
61     })->name('users');  
62     Route::get('/items', function() {  
63         return "This is item data on admin page";  
64     })->name('items');  
65 });  
66
```

```
49 <h6 class="mt-4">Route Groups (Route Prefixes & Route Name Prefixes)</h6>  
50 <div class="list-group list-group-numbered mt-4">  
51     <a href="{{ route('admin.dashboard') }}" class="list-group-item list-group-item-action">  
52         Admin Dashboard  
53     </a>  
54     <a href="{{ route('admin.users') }}" class="list-group-item list-group-item-action">  
55         Admin Users  
56     </a>  
57     <a href="{{ route('admin.items') }}" class="list-group-item list-group-item-action">  
58         Admin Items  
59     </a>  
60 </div>  
61
```

2. View Route
3. Controller Route
4. Redirect Route
5. Route Parameter (Required Parameter) - 1
6. Route Parameter (Required Parameter) - 2
7. Route Parameter (Optional Parameter)
8. Route With Regular Expression Constraints
9. Named Route
10. Route Priority
11. Fallback Routes

Route Groups (Route Prefixes & Route Name Prefixes)	
Admin Dashboard	
11.1. Admin Users	
11.2. Admin Items	

16. Praktik View Route List

```

PS C:\Users\maris\rista-app> php artisan route:list

GET|HEAD / ..... Illuminate\Routing\RedirectController
ANY / ..... Illuminate\Routing\RedirectController
POST /_ignition/execute-solution ..... Spatie\LaravelIgnition\HealthCheck
GET|HEAD /_ignition/health-check ..... Spatie\LaravelIgnition\HealthCheck
GET|HEAD /_ignition/update-config ..... Spatie\LaravelIgnition\UpdateConfig
GET|HEAD admin/dashboard ..... admin.dashboard
GET|HEAD admin/items ..... admin.items
GET|HEAD admin/users ..... admin.users
GET|HEAD api/user ..... api.user
GET|HEAD basic_routing ..... basic_routing
GET|HEAD controller_route ..... RouteController@index
POST|HEAD posts/post/comments/comment ..... RouteController@profile
GET|HEAD profile/profileId ..... RouteController@profile
GET|HEAD route_priority/user ..... route_priority.user
GET|HEAD routing ..... routing
GET|HEAD sanctum/csrf-cookie ..... Laravel\Sanctum\SanctumCsrfCookieController
GET|HEAD title/title ..... title.title
GET|HEAD user/id ..... user.id
GET|HEAD username/name? ..... username.name
GET|HEAD view_route ..... view_route
GET|HEAD fallbackplaceholder ..... fallbackplaceholder

Showing [21] routes
  
```

17. Praktik Route Caching

```

PS C:\Users\maris\rista-app> php artisan route:cache
[INFO] Routes cached successfully.

PS C:\Users\maris\rista-app> php artisan route:clear
[INFO] Route cache cleared successfully.

PS C:\Users\maris\rista-app>
  
```

Tugas rumah:

- Membuat file clone.blade.php

```
resources > views > clone.blade.php > html > body > nav.navbar.fixed-top.navbar-expand-lg.bg-purple > div.container.py-2
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Bootstrap Clone</title>
8   <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha2/dist/css"
9   <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.6.0/font/boc
10  <link rel="stylesheet" href="assets/css/style.css">
11  @vite('resources/css/app.css')
12 </head>
13
14 <body>
15
16   <nav class="navbar fixed-top navbar-expand-lg bg-purple" data-bs-theme="dark">
17     <div class="container py-2 px-4">
18       <a href="#" class="navbar-brand mb-0 h1">
19         
21
22       <button type="button" class="navbar-toggler" data-bs-toggle="offcanvas" data-bs-
23         <span class="navbar-toggler-icon"></span>
24       </button>
25
26       <div class="offcanvas offcanvas-end bg-purple" id="offcanvasNavbar">
27         <div class="offcanvas-header pb-0 px-4">
```

- Menambahkan code pada router

```
66 Route::get('/clone', function(){
67     return view('clone');
68 });
```

- Link vite css

```
s web.php # app.css view_route.blade.php routing
resources > views > clone.blade.php > html > head
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial
7   <title>Bootstrap Clone</title>
8   <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/
9   <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/
10  <link rel="stylesheet" href="assets/css/style.css" />
11  @vite('resources/css/app.scss')
12 </head>
```

```

resources > sass > app.scss > ...
6 // @import 'font-awesome';
7 // Bootstrap
8 @import 'bootstrap/scss/bootstrap';
9 @import 'bootstrap-icons/font/bootstrap-icons.css';
10 .bg-purple {
11   background-color: #7533F9 !important;
12 }
13
14 #main a {
15   color: gray;
16 }
17
18 #main a:hover {
19   color: rgb(73, 73, 73);
20 }
21
22 #footer a {
23   text-decoration: none;
24   color: black;
25 }
26
27 #footer a:hover {
28   text-decoration: underline;
29   color: var(--bs-primary) !important;
30 }
31

```

- Tautan untuk ke page selanjutnya

```

60 <a href="{{url('/clone')}}" class="list-group-item list-group-item-action">
61   Clone website Bootstrap
62 </a>
63 </div>
64

```

Output:

Belajar Laravel Routing	
1. Basic Routing (No View, No Controller)	
2. View Route	
3. Controller Route	
4. Redirect Route	
5. Route Parameter (Required Parameter) - 1	
6. Route Parameter (Required Parameter) - 2	
7. Route Parameter (Optional Parameter)	
8. Route With Regular Expression Constraints	
9. Named Route	
10. Route Priority	
11. Fallback Routes	
12. Clone Website Bootstrap	
Route Groups (Route Prefixes & Route Name Prefixes)	
1. Admin Dashboard	
2. Admin Users	
3. Admin Items	

