

## Web Framework Programming

### Topic 6:

# Designing your Website using Template

**WEEK 06**

Informatics Engineering  
Universitas Surabaya



# Outline

1

Templating and Layout in  
Web Development

2

Defining your Layout  
Template

3

Defining your Child  
Template

4

Implementation using  
Existing Case Study

# Templating

# Templating

- We will discuss how to use Custom HTML from a UI/UX designer into your Laravel Framework.
  - We use Blade Template (<https://laravel.com/docs/10.x/blade#introduction>)
  - Commonly used Template Syntax:
    - @section @endsection
    - @yield
    - @extends
    - {{ ..... }} -> displaying Data
    - {!! ..... !!} -> Displaying Unescaped Data
    - @json (json encode to render json data)
- By default, Blade `{{ }}` statements are automatically sent through PHP's `htmlspecialchars` function to prevent XSS attacks. If you do not want your data to be escaped, you may use the following syntax:

# Templating

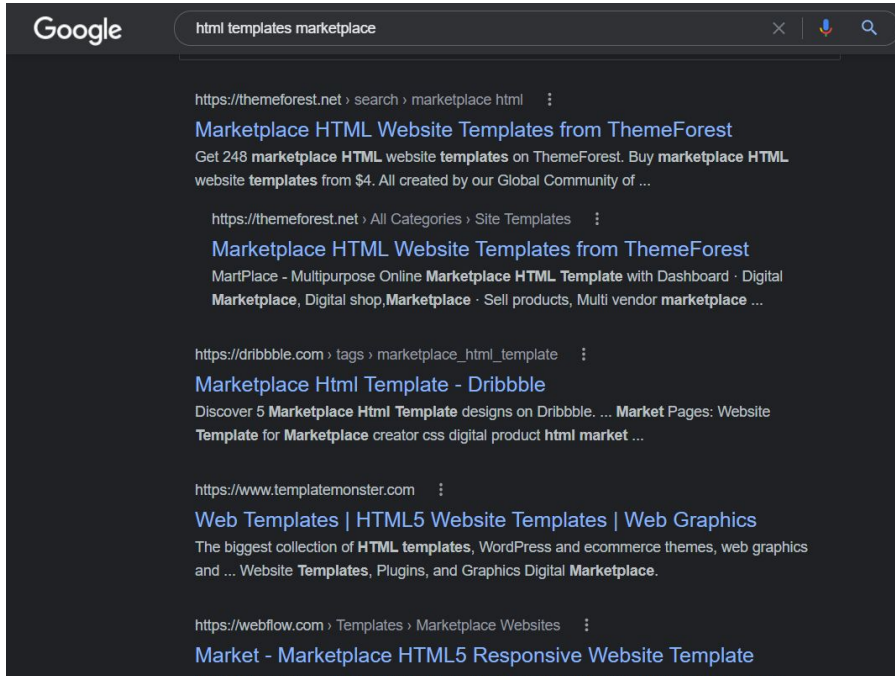
- Templates, which embedded in the Laravel Framework, have various types according to their functions.
- There are 2 types of templates: Administrative Templates (backend) and Public Templates (front-end).
- The backend is part of the portal that is used for the administration of all data and is accessed by the company's internals. Usually has a simple UI/UX but displays complete and detailed data.
- The front end is the part of the portal that is used to publish information to public. The main challenge is how to manage interactions with general users. Public Side has an attractive UI/UX and accommodated various kinds of interactions
- The technique of installing templates both Front-end and Backend has the same method.

# Practice #1: Installing Templates in Our Project

# Steps

1. **Search & download** HTML templates
2. **Extract** the HTML template source code
3. **Choose and Recognize Layouts** that are used as the basic UI framework
4. **Slicing Layout** to determine which is the parent (base layout) and child blade
5. **Apply Layouts and Child Templates** in Laravel's Resources View
6. **Customize child templates** with existing templates
7. **Integrate child templates** with layout templates with @yield and @extends syntax
8. **Integrate template assets** in Laravel project path with @asset . syntax

# 1. Find your Template



You can get custom Template from any resources like: themeforest, templatemonster, and so on.

For this lesson, we already provided 1 template for you.

We use: AdminLTE





## 2. Extract source HTML



Name	Date modified	Type	Size
.github	1/24/2025 4:06 AM	File folder	
dist	1/24/2025 4:06 AM	File folder	
src	1/24/2025 4:06 AM	File folder	
.browserslistrc	1/24/2025 4:06 AM	BROWSERSLISTRC...	1 KB
bundlewatch.config.json	1/24/2025 4:06 AM	JSON File	1 KB
.editorconfig	1/24/2025 4:06 AM	EDITORCONFIG File	1 KB
.eslintignore	1/24/2025 4:06 AM	ESLINTIGNORE File	1 KB
.eslintrc.json	1/24/2025 4:06 AM	JSON File	3 KB
.gitattributes	1/24/2025 4:06 AM	GITATTRIBUTES File	1 KB
.gitignore	1/24/2025 4:06 AM	GITIGNORE File	1 KB
.gitpod.yml	1/24/2025 4:06 AM	YML File	1 KB
.lgtm.yml	1/24/2025 4:06 AM	YML File	1 KB
.npmignore	1/24/2025 4:06 AM	NPMIGNORE File	1 KB
.prettierrc	1/24/2025 4:06 AM	PRETTIERRC File	1 KB
.stylelintignore	1/24/2025 4:06 AM	STYLELINTIGNORE...	1 KB
.stylelintrc.json	1/24/2025 4:06 AM	JSON File	2 KB



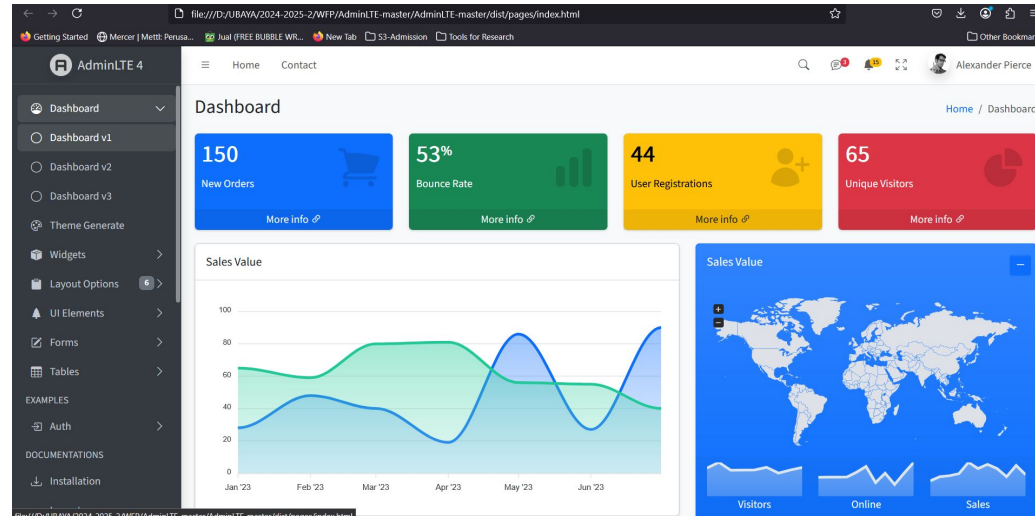
Name	Date modified	Type	Size
assets	1/24/2025 4:06 AM	File folder	
css	1/24/2025 4:06 AM	File folder	
js	1/24/2025 4:06 AM	File folder	
pages	1/24/2025 4:06 AM	File folder	

1. Copy and extract this zip
2. In AdminLTE, our layout is located on dist/pages.
3. Copy your element & assets template into directory **folder**. In this case: assets, css and js inside **dist** directory

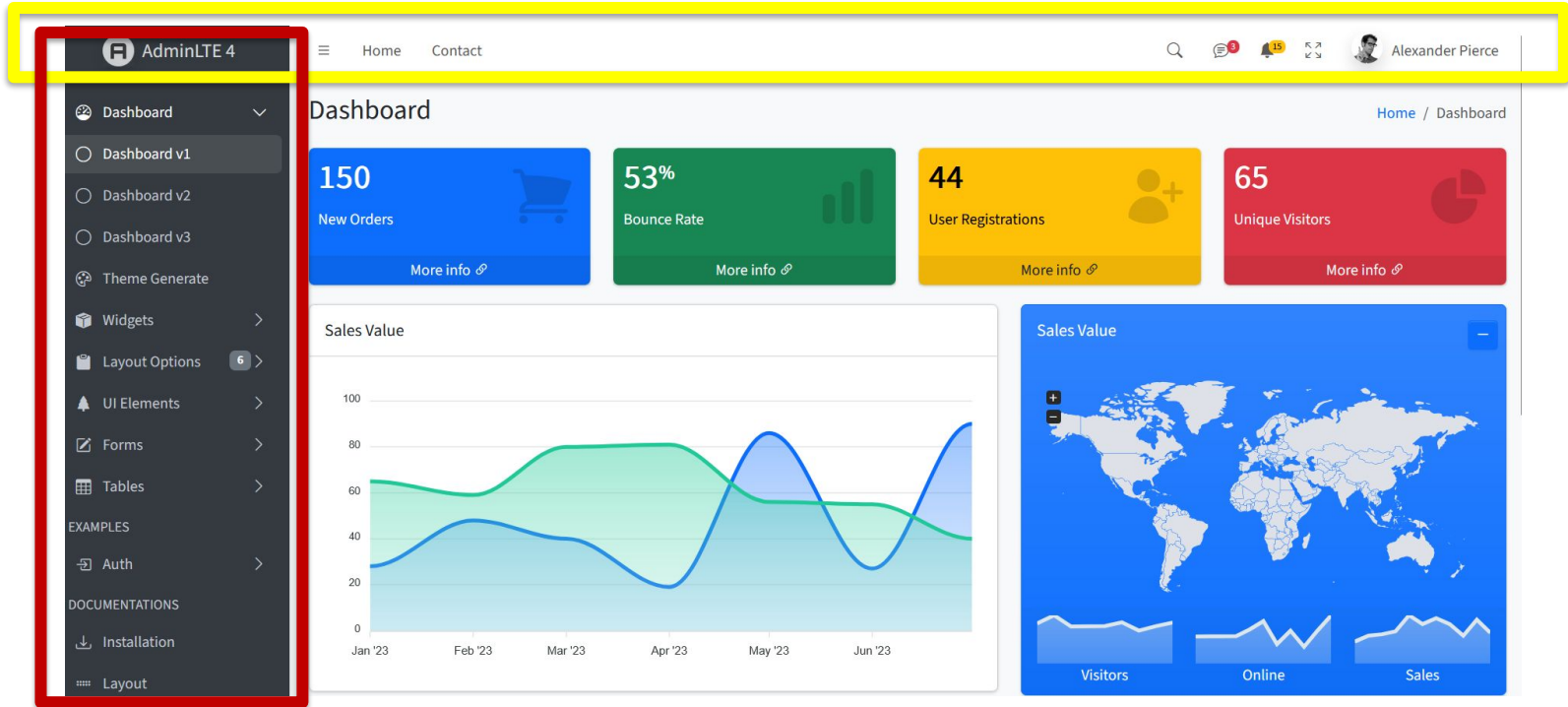
## 2. Extract source HTML (2)

Open your template and we analyze our `main` template. Open `index.html` in a web browser

Name	Date modified	Type	Size
docs	1/24/2025 4:06 AM	File folder	
examples	1/24/2025 4:06 AM	File folder	
forms	1/24/2025 4:06 AM	File folder	
generate	1/24/2025 4:06 AM	File folder	
layout	1/24/2025 4:06 AM	File folder	
tables	1/24/2025 4:06 AM	File folder	
UI	1/24/2025 4:06 AM	File folder	
widgets	1/24/2025 4:06 AM	File folder	
index.html	1/24/2025 4:06 AM	Firefox HTML Doc...	58 KB
index2.html	1/24/2025 4:06 AM	Firefox HTML Doc...	82 KB
index3.html	1/24/2025 4:06 AM	Firefox HTML Doc...	49 KB



# 3. Identify your Layout



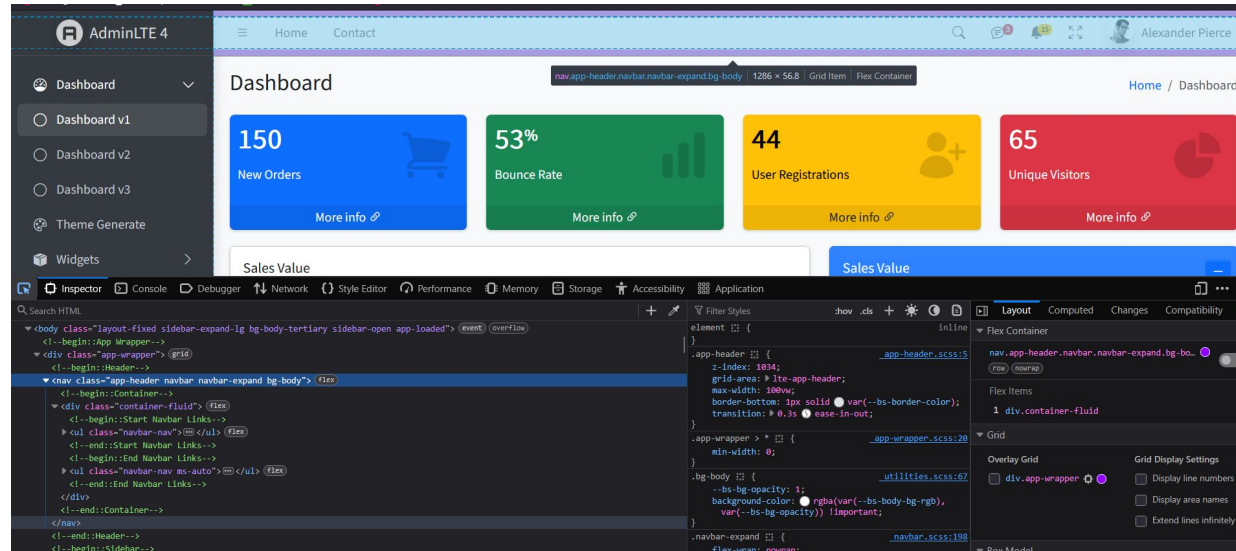
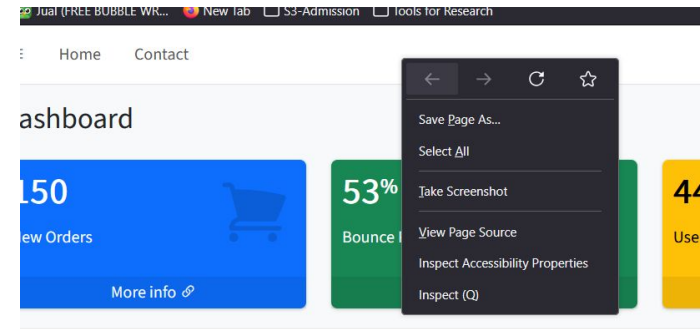
# Layout Analysis: Headers

Use the Inspect Element help tool in each browser.

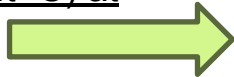
The **header** in AdminLTE is found as follows

The syntax or class declaring **header** is

```
<nav class="app-header navbar navbar-expand bg-body">
```



Use [Pick inspector]  
(Ctrl+Shift+C) at  
Firefox

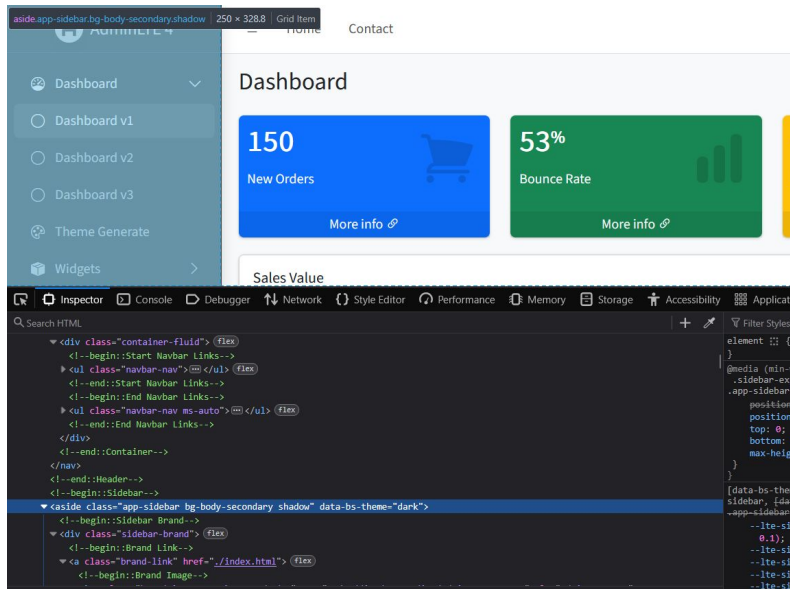


# Layout Analysis: Sidebar

- Use the Inspect Element help tool in each browser.
- Sidebar on AdminLTE

The syntax or class declaring it left-menu is a

`<aside class="app-sidebar bg-body-secondary shadow" data-bs-theme="dark">`



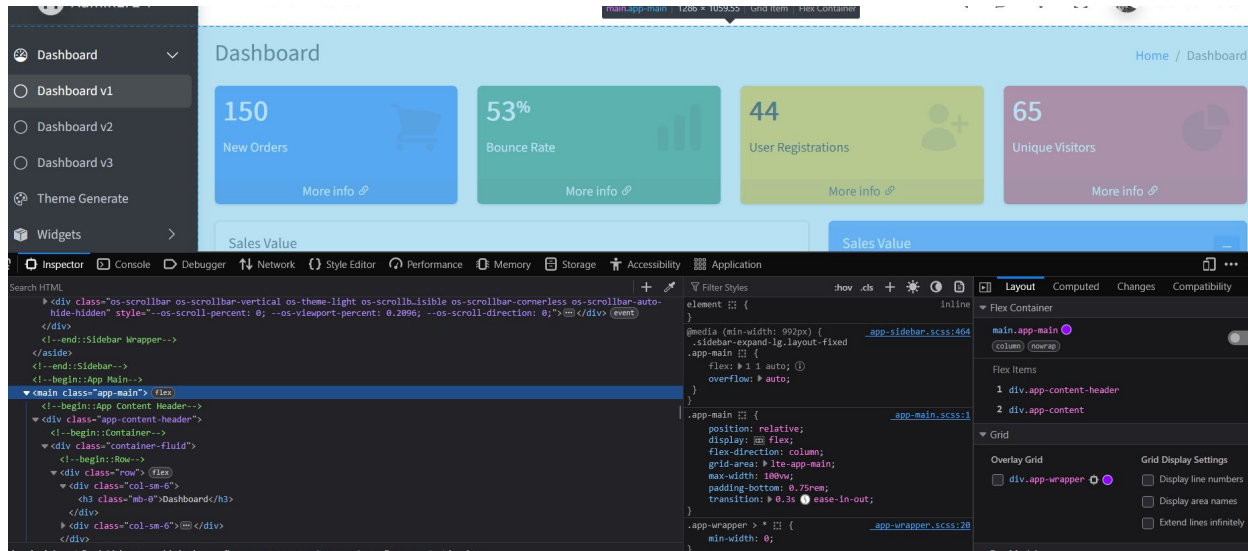
## Layout Analysis: Content

Use the Inspect Element help tool in each browser.

The **Content** on AdminLTE was found as follows

The syntax or class that declares **content** is ...

```
<main class="app-main">
```



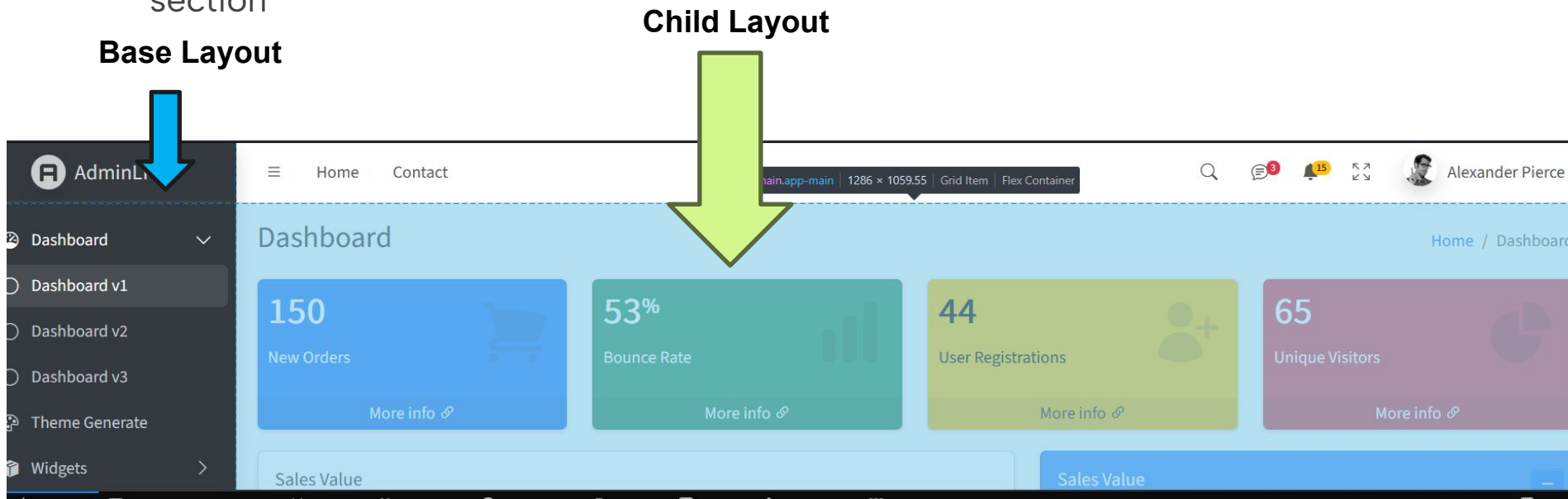
# 3. Identify Layout (Summary)

- The AdminLTE Admin template has 3 parts, namely
  - Header
  - Sidebar
  - Content
- When choosing a different menu, only the content section always show different content based on the selected menu.
- When selecting a different menu, the 'sidebar' section has minor change in content. Only different CSS for the active menu
- When choosing a different menu, the 'header' section has minor change
- **Hence, the 'content' part must be sliced from the main layout**

## 4. Define Base Layout and Child Layout

Based on the previous work steps, we can define:

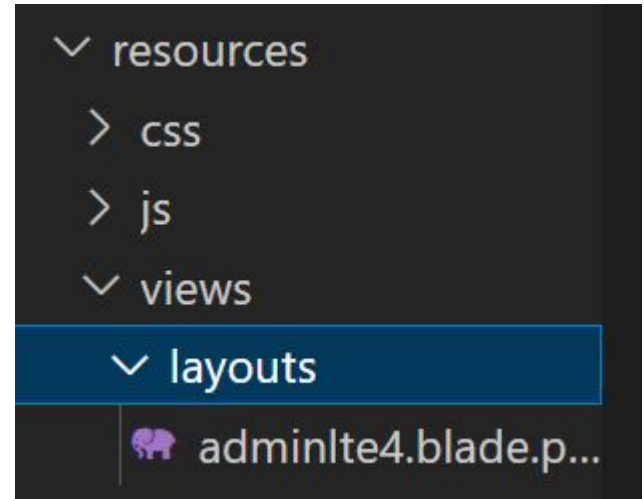
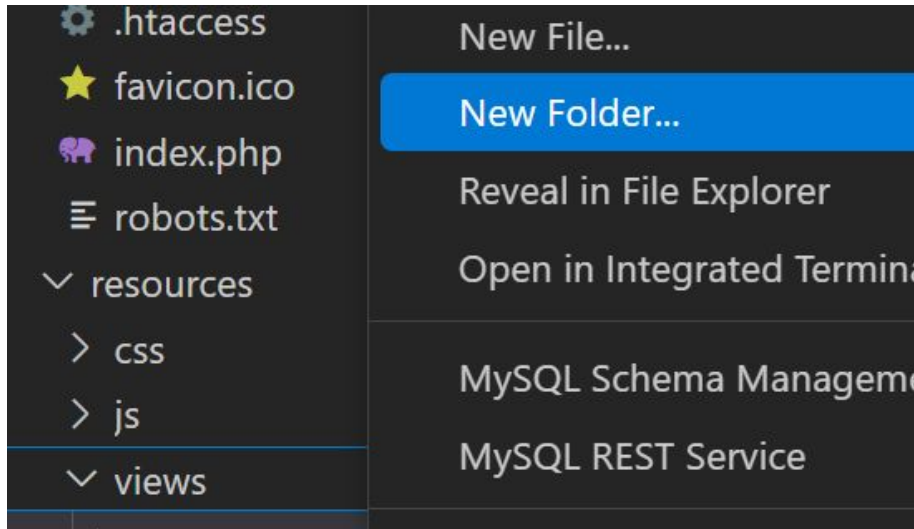
- **Child Layout** is the program snippet from the inside 'content'
- **Base Layout** is the entire HTML code of the 'index.html' file except 'content' section





## 5. Apply Layouts and Child Templates on Laravel Resources View (1)

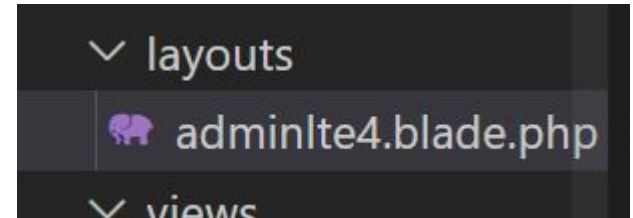
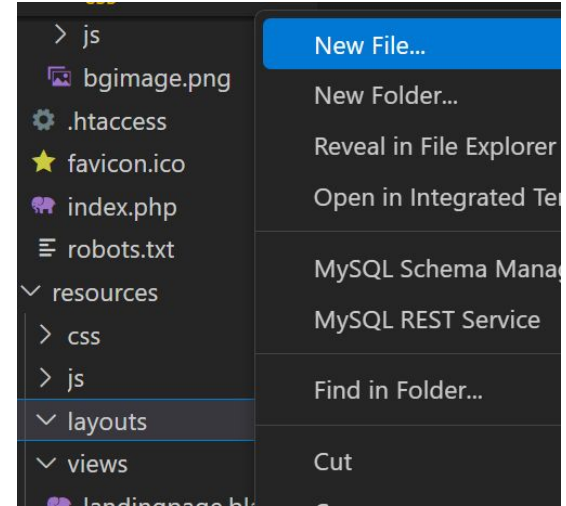
Create a folder called 'layouts' in resources/views



## 5. Apply Layouts and Child Templates on Laravel Resources View (2)

Create a new blade file.  
(extension: \*.blade.php)

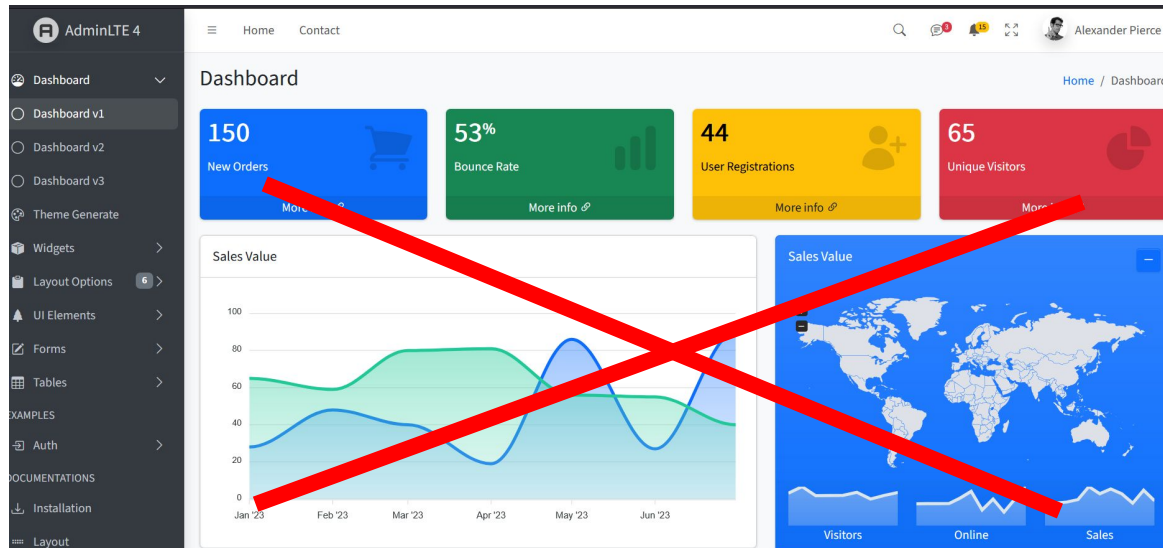
Filenames are basically free, but  
are recommended according to  
the `theme name`



## 5. Apply Layouts and Child Templates on Laravel Resources View (3)

**Copy** all the HTML scripts in index.html and **paste** them into layouts `adminlte4.blade.php`

(see next slide) Move the `content` section and move script html into `child layout` (see next slide)



## 5. Apply Layouts and Child Templates on Laravel Resources View (4)

Collapse <main class> 'page-content' and remove "...". Because we substitute with @yield

```
714 <!--end::Sidebar-->
715 <!--begin::App Main-->
716 > <main class="app-main"> ...
1155 </main>
1156 <!--end::App Main-->
1157 <!--begin::Footer-->
```

```
715 <!--begin::App Main-->
716 <main class="app-main">
717   @yield('content')
718 </main>
719 <!--end::App Main-->
720 <!--begin::Footer-->
```

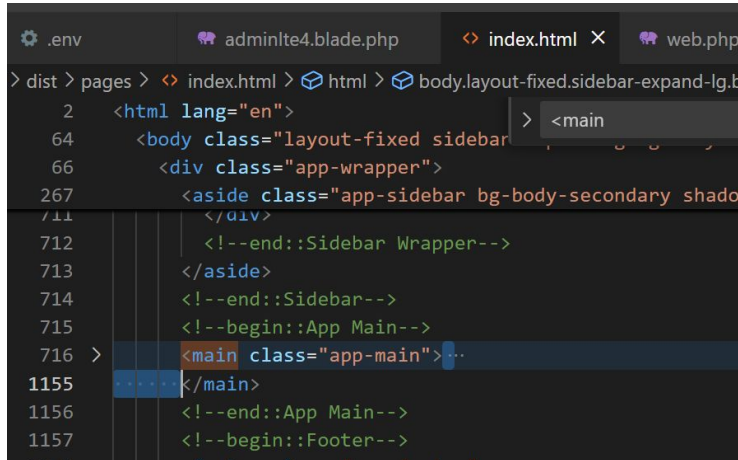
## 6. Integrate child layout with our `main template` using `@yield`, `@section` and `@extends` syntax

In the main-layout file, named `adminlte4.blade.php`, please add `@yield('content')` near the red boxed (previous slide) to indicate that the section will be filled with a child.

In the beginning of child-layout file, programmer must create `@section` syntax to synchronize the child & main layout.

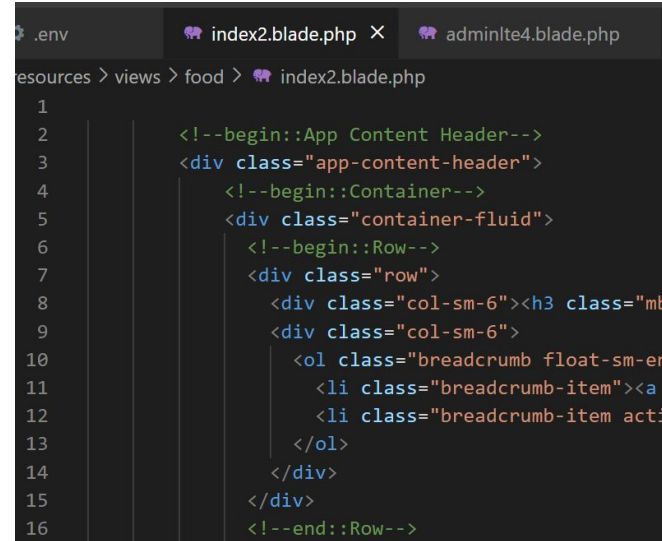
Inside the section of `child-layout` please paste the script content inside the red-boxed (from the previous slide) and modify the page title to make it more appropriate

# From your template, cut your content data



```
.env adminlte4.blade.php index.html X web.php
> dist > pages > < index.html > html > body.layout-fixed.sidebar-expand-lg.b
2 <html lang="en">
64 <body class="layout-fixed sidebar
66 <div class="app-wrapper">
267 <aside class="app-sidebar bg-body-secondary shado
/11 </div>
712 <!--end::Sidebar Wrapper-->
713 </aside>
714 <!--end::Sidebar-->
715 <!--begin::App Main-->
716 > <main class="app-main">...
1155 </main>
1156 <!--end::App Main-->
1157 <!--begin::Footer-->
```

Cut (Ctrl+X)



```
.env index2.blade.php X adminlte4.blade.php
resources > views > food > index2.blade.php
1
2 <!--begin::App Content Header-->
3 <div class="app-content-header">
4 <!--begin::Container-->
5 <div class="container-fluid">
6 <!--begin::Row-->
7 <div class="row">
8 <div class="col-sm-6"><h3 class="mb
9 <div class="col-sm-6">
10 <ol class="breadcrumb float-sm-en
11 <li class="breadcrumb-item"><a
12 <li class="breadcrumb-item acti
13 </ol>
14 </div>
15 </div>
16 <!--end::Row-->
```

New Child File  
(ex: index2.blade.php)

## In adminlte4.blade.php

```
@extends('layouts.adminlte4')

@section('content')
<!--begin::App Content Header-->
    <div class="app-content-header">
        ....
    </div>
@endsection
```

```
715 <!--begin::App Main-->
716 <main class="app-main">
717     @yield('content')
718 </main>
719 <!--end::App Main-->
```

.env index2.blade.php X adminlte4.blade.php

resources > views > food > index2.blade.php

```
1 @extends('layouts.adminlte4')
2
3 @section('content')
4     <!--begin::App Content Header-->
5     <div class="app-content-header"> ...
442 @endsection
443
```

# Practice #2: Implement the Template in Index of Food View

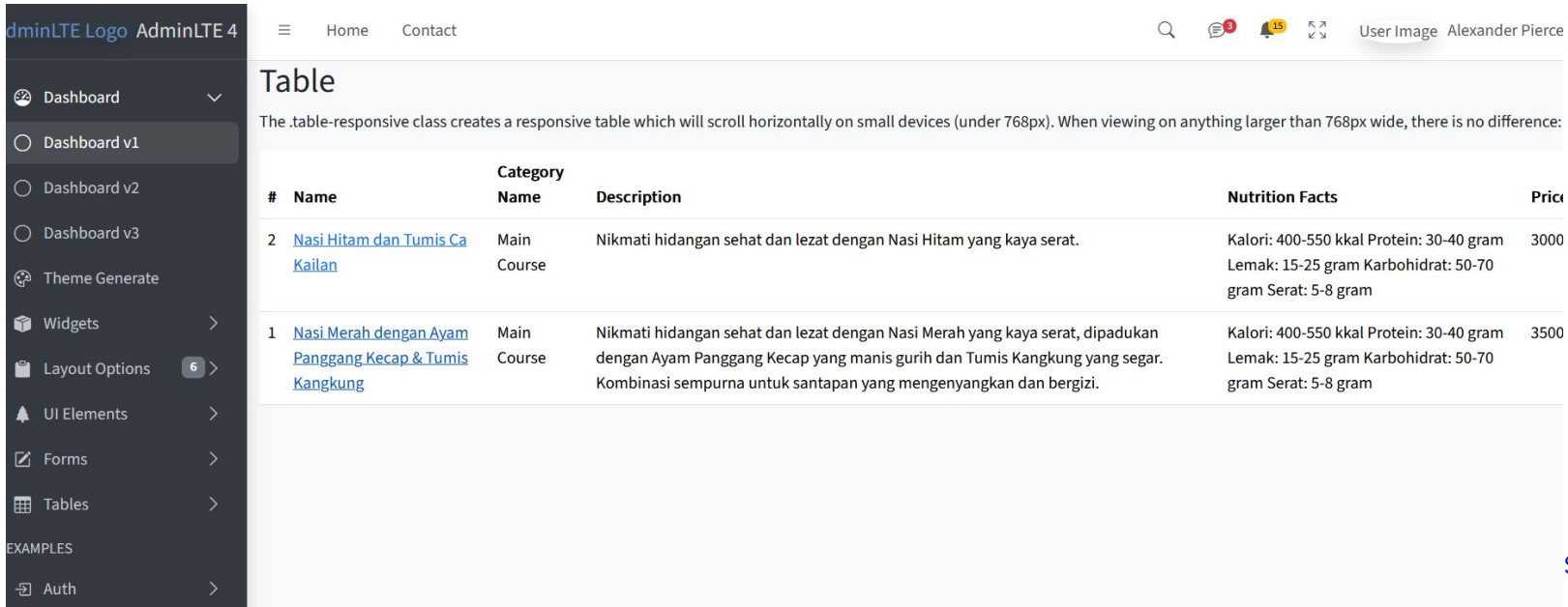


# Adapt your Food/index.blade.php into your Template

Add @extends and @section

Also take the page-title and page-bar and modify it to fit the contents of the page

Expected Results :



The screenshot displays the AdminLTE 4 dashboard interface. On the left is a dark sidebar with a menu including Dashboard, Theme Generate, Widgets, Layout Options (6), UI Elements, Forms, Tables, and Auth. The main content area has a top navigation bar with Home and Contact links, a search icon, notification icons, and a user profile for Alexander Pierce. Below the navigation bar is a section titled "Table" with a descriptive paragraph. It contains a table with 5 columns: #, Name, Category Name, Description, and Nutrition Facts. The table lists two food items: "Nasi Hitam dan Tumis Ca Kailan" and "Nasi Merah dengan Ayam Panggang Kecap & Tumis Kangkung".

#	Name	Category Name	Description	Nutrition Facts	Price
2	<a href="#">Nasi Hitam dan Tumis Ca Kailan</a>	Main Course	Nikmati hidangan sehat dan lezat dengan Nasi Hitam yang kaya serat.	Kalori: 400-550 kkal Protein: 30-40 gram Lemak: 15-25 gram Karbohidrat: 50-70 gram Serat: 5-8 gram	3000
1	<a href="#">Nasi Merah dengan Ayam Panggang Kecap &amp; Tumis Kangkung</a>	Main Course	Nikmati hidangan sehat dan lezat dengan Nasi Merah yang kaya serat, dipadukan dengan Ayam Panggang Kecap yang manis gurih dan Tumis Kangkung yang segar. Kombinasi sempurna untuk santapan yang mengenyangkan dan bergizi.	Kalori: 400-550 kkal Protein: 30-40 gram Lemak: 15-25 gram Karbohidrat: 50-70 gram Serat: 5-8 gram	3500

# Remove non-essential content

```
adminlte4.blade.php  index.blade.php X
resources > views > foods > index.blade.php
1  <!DOCTYPE html>
2  <html>
3  <head>
4  <<meta name="viewport" content="width=device-width, initial-scale=1">
5  <<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
6  <<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
7  <<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
8  </head>
9  <body>
10
11  <div class="container">
12    <h2>Table</h2>
13    <p>The .table-responsive class creates a responsive table which will scroll horizontally on small devices (under
14    <div class="table-responsive">
15      <table class="table">
16        <thead>
17          <tr>
18            <th>#</th>
19            <th>Name</th>
20
21
22
23
24
25
26
27
28
29    </table>
30  </div>
31  </div>
32  </div>
33  </body>
34  </html>
35
```

# Apply Layouts and Child Templates in Laravel's Resources View

Extend the parent/base layout and add a section for the content.

Put your content script data inside the section('content')

```
resources > views > foods > index.blade.php
@extends('layouts.adminlte4');

@section('content')
    <div class="container">
        <h2>Table</h2>
        <p>The .table-responsive class crea
        <div class="table-responsive">
            <table class="table">
                <thead>
                    <tr>
                        <th>#</th>
                        <th>Name</th>
                        <th>Category Name</th>
                        <th>Description</th>
```

```
32     </table>
33     </div>
34 </div>
35 @endsection
36
```

# Integrate child templates with layout templates with @yield and @extends syntax

Don't forget to check your `main-layout` and `child-layout` has similar name

```
<!--begin::App Main-->  
<main class="app-main">  
    @yield('content')  
</main>  
<!--end::App Main-->
```

# Integrate child templates with layout templates with @yield and @extends syntax (2)

In the child-layout file (eg: food/index.blade.php), it is written **@extends** and **@section**.

**@extends** has a layout name parameter that is used as a benchmark.  
**@extends** is placed on top of the same as import in the controller file.

**@section** has a yield name parameter to be entered.

```
1  @extends('layouts.adminlte4')
2
3  @section('content')
4  <div class="container">
5      <h2>Table</h2>
6      <p>The .table-responsive class creates
7      <div class="table-responsive">
```

```
32  </table>
33  </div>
34  </div>
35  @endsection
```

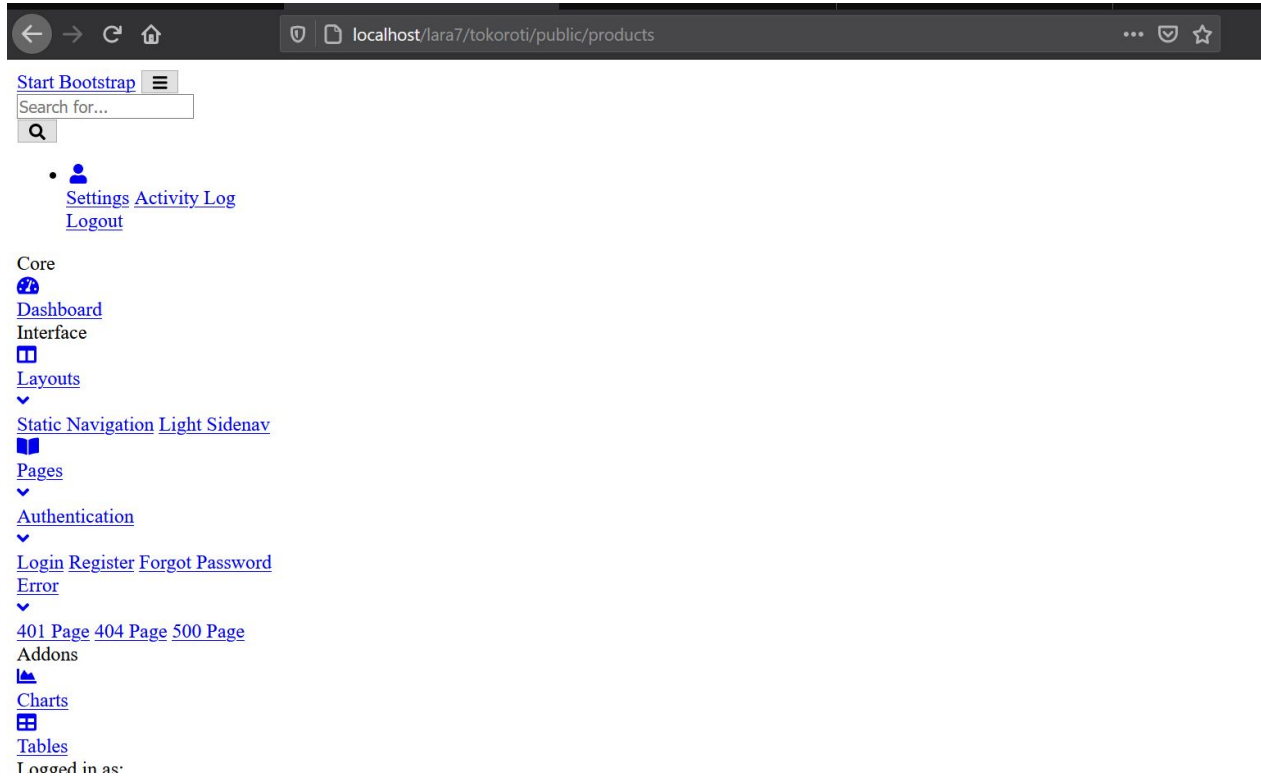
# Integrate child templates with layout templates with @yield and @extends syntax (3)

Add @section ('content') on the 3rd line (above the container-fluid class div because it indicates that from line 4 to @endsection will be pasted on @yield('content') in layouts.

```
1  @extends('layouts.adminlte4')
2
3  @section('content')
4  <div class="container">
5      <h2>Table</h2>
6      <p>The .table-responsive class creates
7      <div class="table-responsive">
```

```
32  </table>
33  </div>
34  </div>
35  @endsection
```

# Result



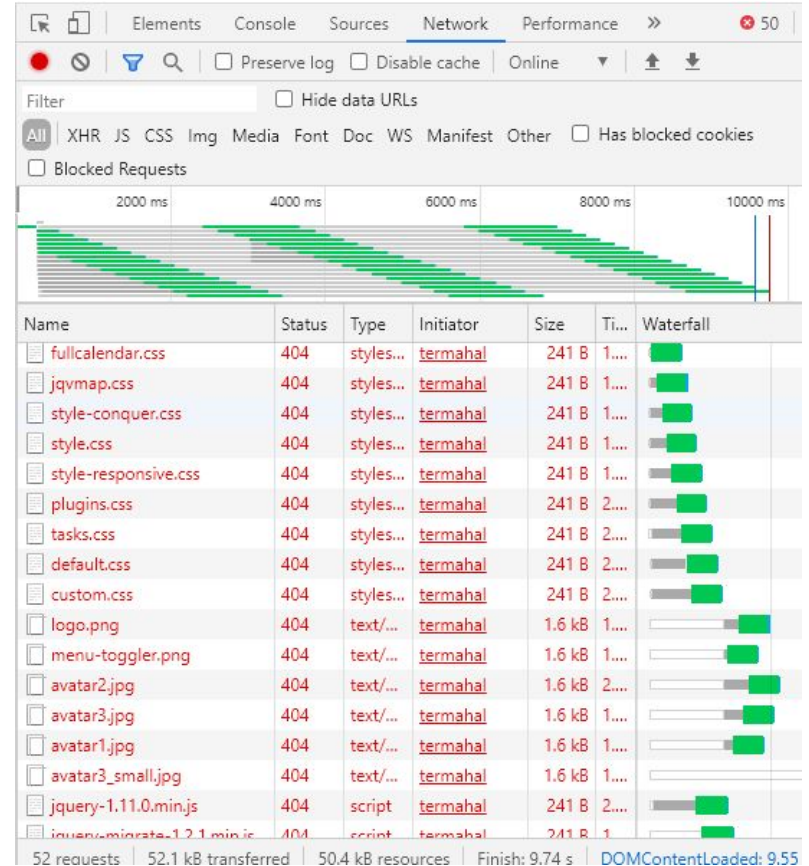
# What's wrong?

Your template isn't load correctly.  
Please check your "Inspect Element" and "Network tab".

This case caused by your asset template is missing.

The components of template are

- Asset css
- Asset js
- Asset img





# SOLUTION: Install Asset JS/CSS template with @asset syntax

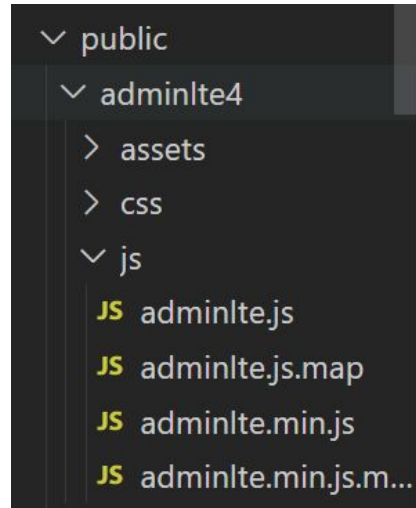
The solution is type "asset()" function before and after `all` import js/css/image` scripts in layouts template.

Usually import js/css scripts are located at the beginning (header) of html and footer of html

```
<html lang="en">
<head>
  <link
    href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.min.css"
    integrity="sha256-9kPW/n5nn53j4WMRYAxe9c1rCY96Oogo/MKSVdKzPmI="
    crossorigin="anonymous"
  />
<!--end::Third Party Plugin(Bootstrap Icons)-->
<!--begin::Required Plugin(AdminLTE)-->
<link rel="stylesheet" href="../../dist/css/adminlte.css" />
<!--end::Required Plugin(AdminLTE)-->
<!-- apexcharts -->
<link
  rel="stylesheet"
```

```
crossorigin= anonymous
></script>
<!--end::Required Plugin(Bootstrap 5)--><!--begin::Required Plugin(AdminLTE)-->
<script src="../../dist/js/adminlte.js"></script>
<!--end::Required Plugin(AdminLTE)--><!--begin::OverlayScrollbars-->
<script>
```

# The Result is



```
<!--begin::Required Plugin(AdminLTE)-->
<link rel="stylesheet" href="{ asset('adminlte4/css/adminlte.css')}" />
<!--end::Required Plugin(AdminLTE)-->
```

```
<!--end::Required Plugin(Bootstrap 5)--><!--begin::Required Plugin(AdminLTE)-->
<script src="{ asset('adminlte4/js/adminlte.js') }"></script>
<!--end::Required Plugin(AdminLTE)--><!--begin::OverlayScrollbars Configure-->
<script>
```

# Practice #3: Updating the menu for links to other tables

# Workflow Development

1. Go to the script file that implements left-menu
2. Determine what links will appear in the menu
3. Find the URI from the menu in web.php or use the artisan syntax "php artisan route:list"
4. Use the syntax `@route('route_name')` or `@url('path_url')` where it goes

# 1. Go to the script file that implements left-menu

In the above case we go to layouts/adminlte4.blade.php on the `<div class="sidebar-wrapper">`

```
<!--end::Sidebar Brand-->
<!--begin::Sidebar Wrapper-->
<div class="sidebar-wrapper">
  <nav class="mt-2">
    <!--begin::Sidebar Menu-->
    <ul
      class="nav sidebar-menu flex-column"
      data-lte-toggle="treeview"
      role="menu"
      data-accordion="false"
    >
      <li class="nav-item menu-open">
```

## 2. Determine what links will appear in the menu

- Modify the coding in this case by providing 2 menus, namely: Food, Category menus
- In addition to the menu above, we will delete it.

### 3. Find your URI from route:list

With **php artisan route:list** we are helped to find the link url or route name of the action to be displayed

```
GET|HEAD filament/imports/{import}/failed-rows/download filament.imports.failed-rows.download > Filament\Action...
GET|HEAD listkategori ..... listkategori.index > CategoryController@index
POST listkategori ..... listkategori.store > CategoryController@store
GET|HEAD listkategori/create ..... listkategori.create > CategoryController@create
GET|HEAD listkategori/{listkategori} ..... listkategori.show > CategoryController@show
PUT|PATCH listkategori/{listkategori} ..... listkategori.update > CategoryController@update
DELETE listkategori/{listkategori} ..... listkategori.destroy > CategoryController@destroy
GET|HEAD listkategori/{listkategori}/edit ..... listkategori.edit > CategoryController@edit
GET|HEAD listmakanan ..... listmakanan.index > FoodController@index
POST listmakanan ..... listmakanan.store > FoodController@store
GET|HEAD listmakanan/create ..... listmakanan.create > FoodController@create
GET|HEAD listmakanan/{listmakanan} ..... listmakanan.show > FoodController@show
PUT|PATCH listmakanan/{listmakanan} ..... listmakanan.update > FoodController@update
DELETE listmakanan/{listmakanan} ..... listmakanan.destroy > FoodController@destroy
GET|HEAD listmakanan/{listmakanan}/edit ..... listmakanan.edit > FoodController@edit
GET|HEAD livewire/livewire.js ..... Livewire\Mechanisms > FrontendAssets@returnJavaScriptAsFile
GET|HEAD livewire/preview-file/{filename} livewire.preview-file > Livewire\Features > FilePreviewController@han...
```

# Add script -> route()

Remember @route and  
@url is syntax  
blade then must  
given {{ ... }}

```
296 <li class="nav-item">
297     <a href="{ route('listmakanan.index') }}" class="nav-link">
298         <i class="nav-icon bi bi-palette"></i>
299         <p>Daftar Menu Makanan</p>
300     </a>
301 </li>
302 <li class="nav-item">
303     <a href="{ route('listkategori.index') }}" class="nav-link">
304         <i class="nav-icon bi bi-palette"></i>
305         <p>Daftar Kategori Makanan</p>
306     </a>
307 </li>
308 <li class="nav-item menu-open">
```



# Result

← → ↺

localhost:8000/listmakanan

☆

🔥 Getting Started

🌐 Mercer | Mettl: Perusa...

💻 Jual (FREE BUBBLE WR...

🔥 New Tab

📁 S3-Admission

📁 Tools for Research

🔖 Other Bookmarks

AdminLTE Logo AdminLTE 4

☰ Home Contact

🔍 3 15

User Image Alexander Pierce

🍽️ Daftar Menu Makanan

🍽️ Daftar Kategori Makanan

📊 Dashboard >

🎨 Theme Generate

📦 Widgets >

📁 Layout Options 6 >

🔔 UI Elements >

📄 Forms >

📅 Tables >

EXAMPLES

## Table

The .table-responsive class creates a responsive table which will scroll horizontally on small devices (under 768px). When viewing on anything larger than 768px wide, there is no difference:

#	Name	Category Name	Description	Nutrition Facts	Price
2	<a href="#">Nasi Hitam dan Tumis Ca Kailan</a>	Main Course	Nikmati hidangan sehat dan lezat dengan Nasi Hitam yang kaya serat.	Kalori: 400-550 kkal Protein: 30-40 gram Lemak: 15-25 gram Karbohidrat: 50-70 gram Serat: 5-8 gram	30000
1	<a href="#">Nasi Merah dengan Ayam Panggang Kecap &amp; Tumis Kangkung</a>	Main Course	Nikmati hidangan sehat dan lezat dengan Nasi Merah yang kaya serat, dipadukan dengan Ayam Panggang Kecap yang manis gurih dan Tumis Kangkung yang segar. Kombinasi sempurna untuk santapan yang mengenyangkan dan bergizi.	Kalori: 400-550 kkal Protein: 30-40 gram Lemak: 15-25 gram Karbohidrat: 50-70 gram Serat: 5-8 gram	35000

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Daftar Menu Makanan

Daftar Kategori Makanan

Dashboard

Dashboard v1

Dashboard v2

Dashboard v3

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User ImageAlexander Pierce

Hover Rows

The .table-hover class enables a hover state on table rows:

#	Name	Number of Food	List of Food Name
1	Appetizer	0	
2	Main Course	2	<ul style="list-style-type: none"><li>Nasi Merah dengan Ayam Panggang Kecap &amp; Tumis Kangkung</li><li>Nasi Hitam dan Tumis Ca Kailan</li></ul>
3	Snack	0	
4	Dessert	0	
5	Coffee	0	
6	Non Coffee	0	
7	Healthy Juice	0	

# Your Task

- #1. Modify all page of views and reports that you have created in previous tasks with new templates.
  - Food/Category/Customer/Order
  - All your Report
- #2. Add menus in the sidebar to access those pages.
- #3. Change each of title homepage with your current page (clue: add @yield('title') at your layouts)
- #4. Change active menu from your side-bar menu. (clue: add @yield('side-bar') at your layouts and add "active" in side class)

```
<a href="#" class="nav-link active">
```

# Thank You