



# CSS preprocessor-Sass

# Contents

1 What is Sass?

2 Sass features

3 Sass Variables

4 Sass Nesting

5 Importing SASS

6 Selector inheritance

7 SASS - Mixins

8 Working with Sass

00

# What are CSS Preprocessors ?

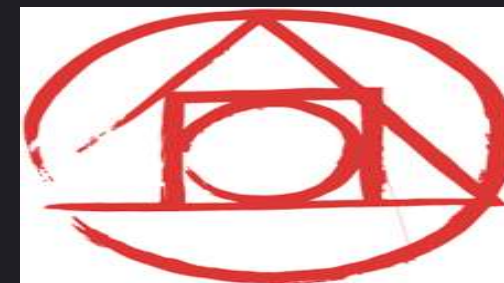
## What are CSS Preprocessors ?

---

- Scripting language for writing CSS.
- Write CSS more efficiently.

A few of most popular CSS preprocessors:

- Sass
- LESS
- Stylus
- PostCSS



The background is a dark navy blue. It features several decorative elements: a large, semi-transparent '01' in the upper left; a series of parallel, light-colored lines forming a large 'L' shape on the right side; and a series of parallel lines forming a large 'Z' shape on the left side. Thin, light-colored diagonal lines cross the background.

01

# What is sass?

Syntactically Awesome Style sheets

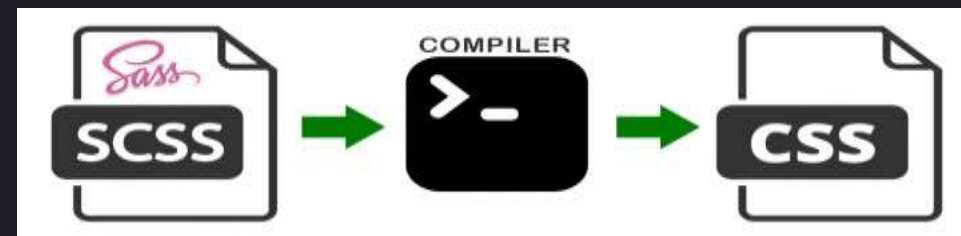
# What is

## SASS

---

- Super Awesome Stylesheets OR Syntactically Awesome Stylesheets

- SASS a style sheet extension language because it extends the standard CSS characteristics by introducing the benefits of a basic programming language. So SASS will compile your code and generate the CSS output a browser can understand.



# What is

## SASS

- SASS comes with two different syntaxes: SASS itself and SCSS, the most used one. SCSS syntax is CSS compatible, so you just have to rename your .css file to .scss .
- scss extension is exactly the same. sass extension uses next line instead of {} and tab instead of ;.

SCSS Sass

```
$font-stack: Helvetica, sans-serif;
$primary-color: #333;

body {
  font: 100% $font-stack;
  color: $primary-color;
}
```

SCSS Sass

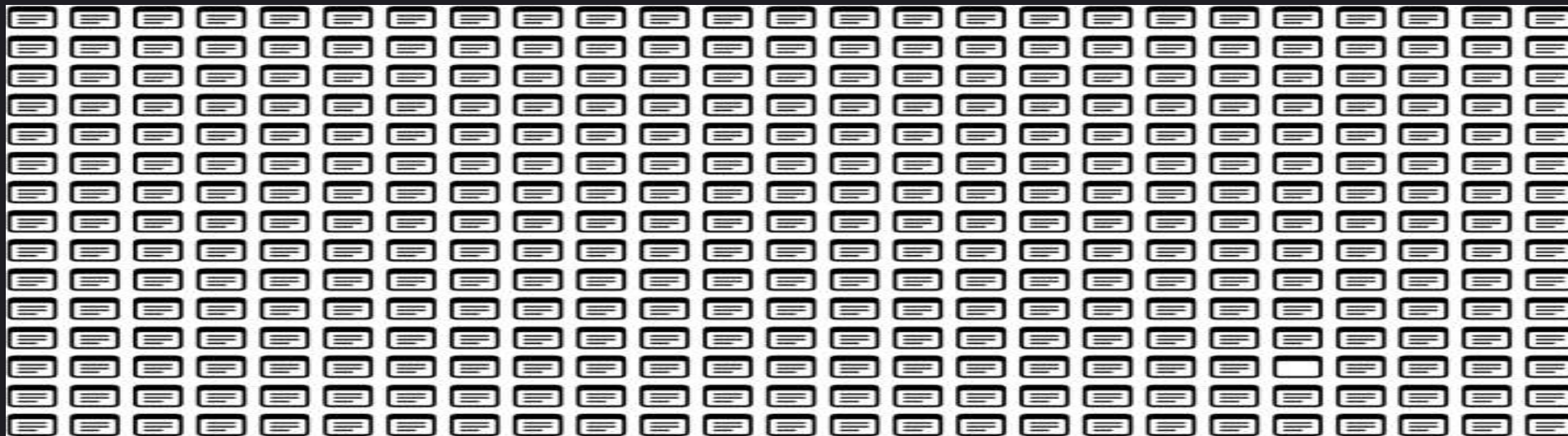
```
$font-stack: Helvetica, sans-serif
$primary-color: #333

body
  font: 100% $font-stack
  color: $primary-color
```

# Why?? What's wrong with CSS ??

Nothing , CSS is awesome

Without it , all websites would look the same

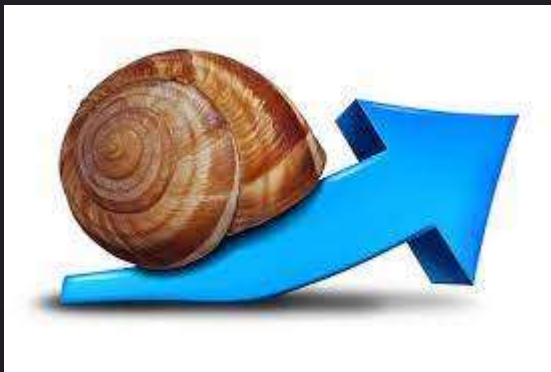




# Why?? What's wrong with CSS ??

BUT .....

1- Developing CSS is **slow**



2- CSS is **repetitive**



So CSS needs **external tools** for optimization

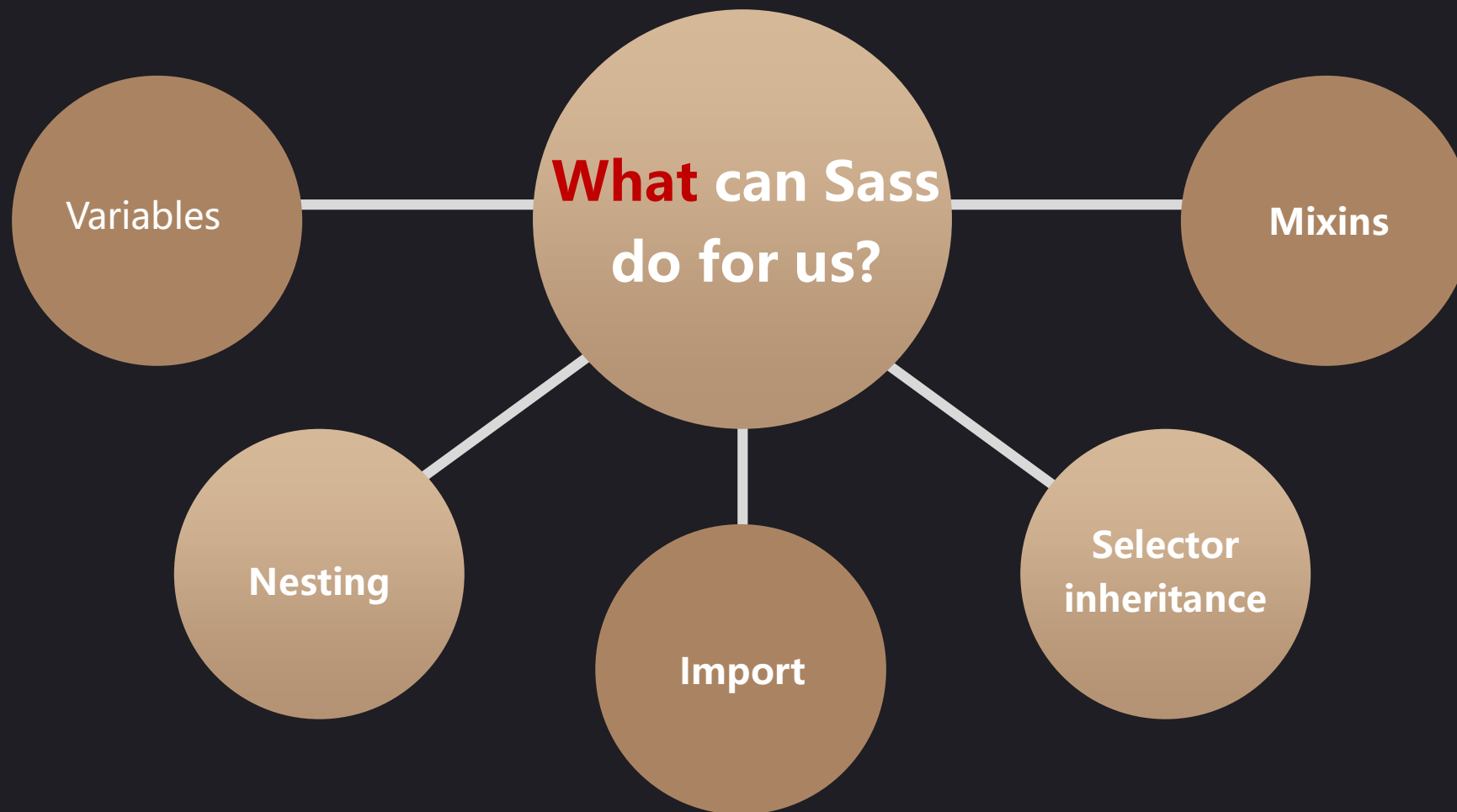
3- CSS isn't really **reusable**

The background is a dark navy blue. It features several thin, light-colored lines: a single diagonal line from the top-left towards the center, and a series of parallel lines on the right side that form a large, stylized arrow pointing towards the top-right. The number '02' is rendered in a large, bold, dark grey font on the left side.

02

# Sass features

# S a s s f e a t u r e s



03

# SASS Variables

# S A S S V a r i a b l e s

## Using the \$ (dollar) symbol

Can be used to store  
colors , fonts , size , etc ...

.SCSS

```
$link-color: #ffffff;  
$v-link-color: #646363;  
  
a {  
  color: $link-color;  
  &:visited {  
    color: $v-link-color;  
  }  
}
```

.CSS

```
body a {  
  color: white; }  
body a:visited {  
  color: #646363; }
```

04

# SASS Nesting

# S A S S   N e s t i n g

1

All selectors inside a selector are translated to nested selectors .

SCSS

Sass

```
nav {  
  ul {  
    margin: 0;  
    padding: 0;  
    list-style: none;  
  }  
  
  li { display: inline-block; }  
  
  a {  
    display: block;  
    padding: 6px 12px;  
    text-decoration: none;  
  }  
}
```

CSS

```
nav ul {  
  margin: 0;  
  padding: 0;  
  list-style: none;  
}  
nav li {  
  display: inline-block;  
}  
nav a {  
  display: block;  
  padding: 6px 12px;  
  text-decoration: none;  
}
```

# S A S S   N e s t i n g

- 2 Selectors can also reference themselves inside their selector using the symbol  $\rightarrow$  "&".





The background is a dark navy blue. It features several decorative elements: a large, faint, light blue chevron pointing right in the top right corner; a smaller, faint, light blue chevron pointing right in the bottom left corner; and several thin, light blue diagonal lines crossing the frame. The number '05' is prominently displayed in a large, bold, light blue font on the left side.

05

# Importing SASS

# Importing Sass

**SASS**

## screen.sass

```
// Reset CSS
@import reset

// Global Styles
@import global

// Layout Styles
.wrapper
  /* styles here */
.sidebar
  /* styles here */

// Page-Specific Styles
.home-page h1
  color: red
.about-page h1
  color: white
.contact-page h1
  color: blue
```

## \_global.sass

```
// Global Styles
h1
  /* styles here */
p
  /* styles here */
```

## CSS import VS SASS import

CSS	SASS
CSS import makes multiple HTTP request.	Sass import makes only one HTTP request.
Poor performance	Good performance
CSS import happens at runtime.	Sass import happens at compile time.

The background is a dark navy blue. It features several decorative elements: a large, faint, light-colored chevron pointing right in the top right corner; a smaller, similar chevron in the bottom left corner; and several thin, light-colored diagonal lines crossing the frame. The text '06' is positioned in the upper left area.

06

# Selector inheritance

# Selector inheritance

The `@extend` directive lets you share a set of CSS properties from one selector to another.

## .SCSS

```
.button-basic {  
  border: none;  
  padding: 15px 30px;  
  text-align: center;  
  font-size: 16px;  
  cursor: pointer;  
}  
  
.button-report {  
  @extend .button-basic;  
  background-color: red;  
}  
  
.button-submit {  
  @extend .button-basic;  
  background-color: green;  
  color: white;  
}
```

## .CSS

```
.button-basic, .button-report, .button-submit {  
  border: none;  
  padding: 15px 30px;  
  text-align: center;  
  font-size: 16px;  
  cursor: pointer;  
}  
  
.button-report {  
  background-color: red;  
}  
  
.button-submit {  
  background-color: green;  
  color: white;  
}
```

07

# SASS - Mixins

## S a s s - M i x i n s

- A mixin lets you make groups of CSS declarations that you want to reuse throughout your site. It helps keep your Sass very DRY. You can even pass in values to make your mixin more flexible. Here's an example for theme:-

SCSS Sass

```
@mixin theme($theme: DarkGray) {  
  background: $theme;  
  box-shadow: 0 0 1px rgba($theme, .25);  
  color: #fff;  
}  
  
.info {  
  @include theme;  
}  
  
.alert {  
  @include theme($theme: DarkRed);  
}  
  
.success {  
  @include theme($theme: DarkGreen);  
}
```

CSS

```
.info {  
  background: DarkGray;  
  box-shadow: 0 0 1px rgba(169, 169, 169, 0.25);  
  color: #fff;  
}  
  
.alert {  
  background: DarkRed;  
  box-shadow: 0 0 1px rgba(139, 0, 0, 0.25);  
  color: #fff;  
}  
  
.success {  
  background: DarkGreen;  
  box-shadow: 0 0 1px rgba(0, 100, 0, 0.25);  
  color: #fff;  
}
```

The background is a dark navy blue. In the top right corner, there is a series of parallel, slightly curved lines in a light beige color, creating a sense of depth and movement. In the bottom left corner, there is a similar series of parallel lines, also in a light beige color, mirroring the design in the top right.

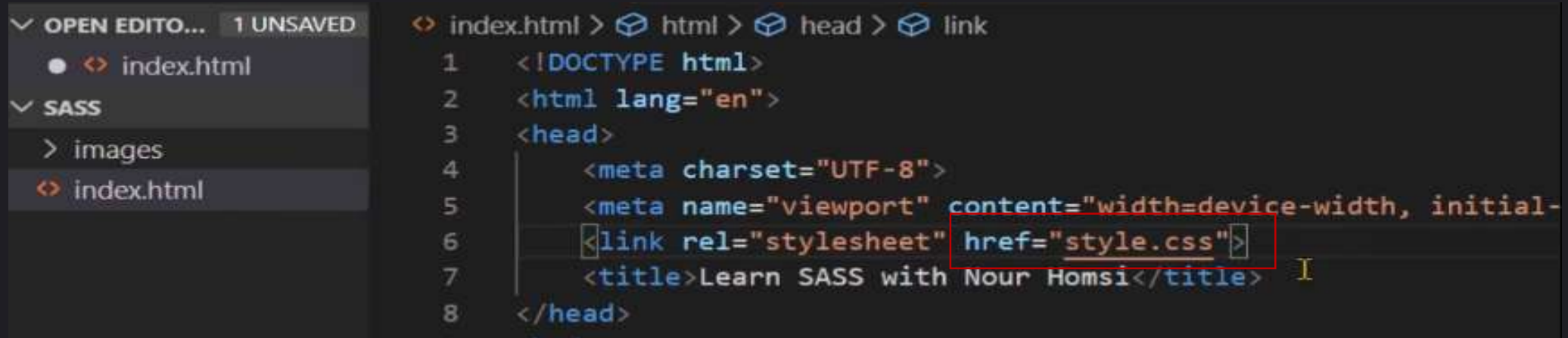
08

# Working with Sass – in VSC



# S A S S

1

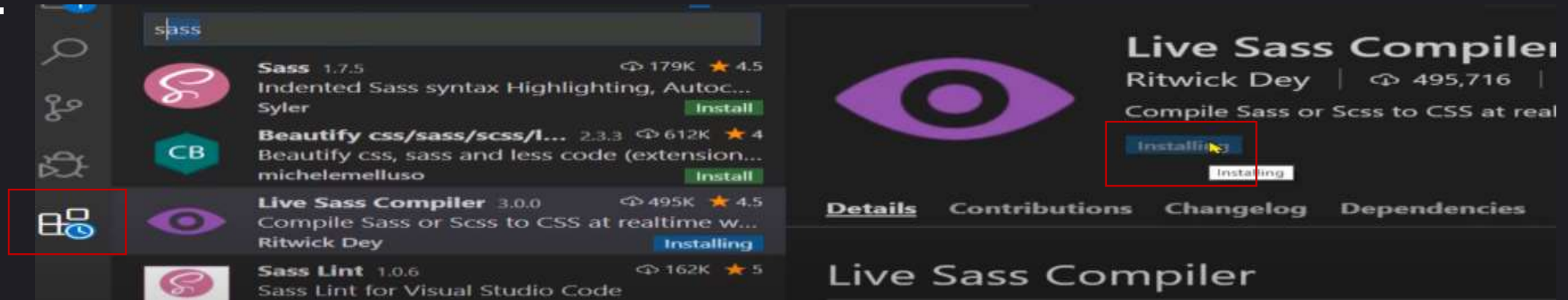


The screenshot shows the VS Code editor interface. On the left, the Explorer sidebar shows a file named 'index.html' under a 'SASS' folder. The main editor area displays the content of 'index.html'. The file path at the top is 'index.html > html > head > link'. The code is as follows:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-
6   <link rel="stylesheet" href="style.css">
7   <title>Learn SASS with Nour Homsy</title>
8 </head>
```

A red box highlights the `<link rel="stylesheet" href="style.css">` line in the code.

2



The screenshot is divided into two parts. The left part shows the VS Code extension marketplace search results for 'sass'. The right part shows the 'Live Sass Compiler' website.

**VS Code Extension Marketplace:**

- Search bar: sass
- Extensions listed:
  - Sass** 1.7.5 by Syler (179K downloads, 4.5 stars). Buttons: Install.
  - Beautify css/sass/scss/less** 2.3.3 by michelemelluso (612K downloads, 4 stars). Buttons: Install.
  - Live Sass Compiler** 3.0.0 by Ritwick Dey (495K downloads, 4.5 stars). Button: Installing.
  - Sass Lint** 1.0.6 (162K downloads, 5 stars).

**Live Sass Compiler Website:**

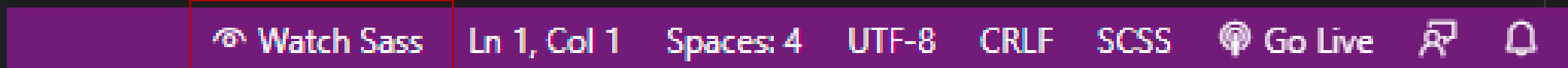
- Header: Live Sass Compiler, Ritwick Dey | 495,716 | Compile Sass or Scss to CSS at real...
- Buttons: Installing (highlighted with a red box), Installing.
- Navigation: Details, Contributions, Changelog, Dependencies.
- Footer: Live Sass Compiler.

S A S S

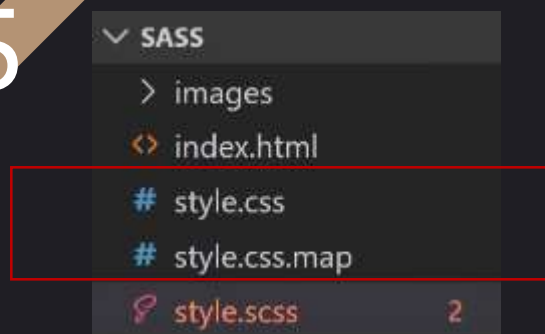
3



4

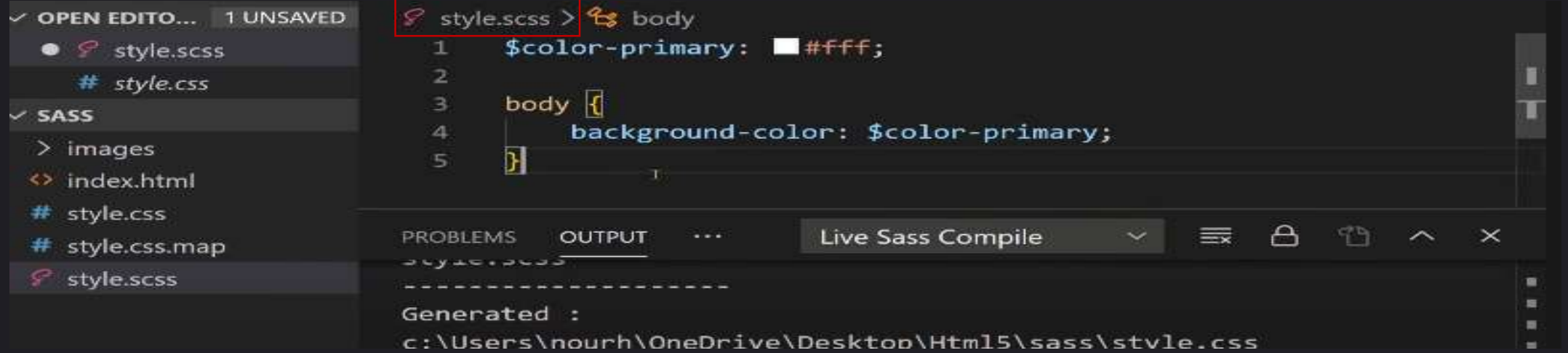


5



# S A S S

6



```
✓ OPEN EDITOR... 1 UNSAVED
  ● style.scss
  # style.css

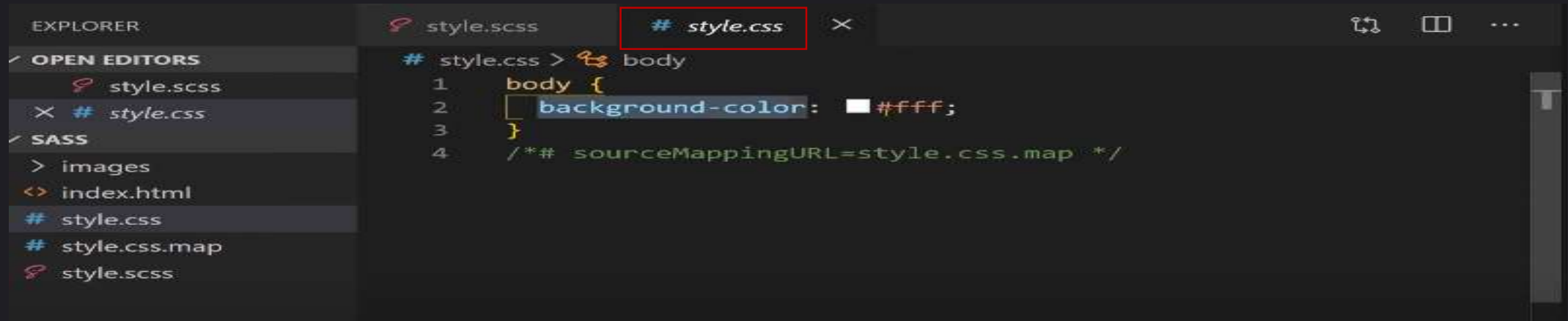
✓ SASS
  > images
  <> index.html
  # style.css
  # style.css.map
  style.scss
```

```
style.scss > body
1 $color-primary: #fff;
2
3 body {
4   background-color: $color-primary;
5 }
```

PROBLEMS OUTPUT ... Live Sass Compile

Generated :  
c:\Users\nourh\OneDrive\Desktop\Htm15\sass\style.css

7



```
EXPLORER
  ✓ OPEN EDITORS
    style.scss
    # style.css
  ✓ SASS
    > images
    <> index.html
    # style.css
    # style.css.map
    style.scss
```

```
# style.css > body
1 body {
2   background-color: #fff;
3 }
4 /*# sourceMappingURL=style.css.map */
```

# Resources

PXA07MUI3A2oxnOfB6z4&index=1

PXA07MUI3A2oxnOfB6z4&index=1

[gJpXA07MUI3A2oxnOfB6z4&index=9](#)

[gJpXA07MUI3A2oxnOfB6z4&index=9](#)

The background is a dark navy blue. A large, semi-transparent, dark grey diamond is centered on the page. In each of the four corners, there are decorative line patterns. The top-left and bottom-right corners feature a series of thin, parallel, light gold lines that form a large 'X' shape. The top-right and bottom-left corners feature a series of thin, parallel, light gold lines that form a large 'L' shape, resembling a corner bracket or a stylized arrow pointing towards the center.

THANKS