Skill Training
Frontend Foundation

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Week3 - Schedule

Day11 : Bootstrap

Day12 : Bootstrap

Day13 : SASS

Day14 : LESS

Day15 : Practice Day / Doubts Clarifications

Day-13
SASS

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Index – Day13

1. **SASS**
    a. SASS Overview, setup,
    b. variables, partials, mixins, imports
    c. media queries, operators
    d. functions, inheritance
    e. conditional directives, loops

SASS

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SASS Overview

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What is SASS?

- SASS (Syntactically Awesome Stylesheet)
- Sass is a CSS pre-processor.
- Sass reduces repetition of CSS and therefore saves time.
- It is more stable and powerful **CSS extension language** that describes the style of document structurally.
- It was initially designed by **Hampton Catlin** and developed by **Natalie Weizenbaum** in 2006.

Features of SASS

- It is more stable, powerful, and compatible
- It makes easier way to read/express the things more clearly.
- It uses its own syntax and compiles to readable CSS.
- You can easily write CSS in less code within less time.
- It is an open source pre-processor, which is interpreted into CSS.

Advantages of SASS

- Writing clean CSS in a programming approach.
- Helps in writing CSS quickly.
- It is a superset of CSS, which helps designers and developers work more efficiently.
- As Sass is compatible with all versions of CSS, we can use any available CSS libraries.

Sass: Syntactically Awesome Style

sass-lang.com

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Black Lives Matter

Sass stands with the protesters against police violence. We encourage our users to get in the streets and join them if you can.

Sass

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CSS with superpowers

Sass is the most mature, stable, and powerful professional grade CSS extension language in the world.

Current Releases: Dart Sass 1.55.0 LibSass 3.6.5 Ruby Sass Implementation Guide

Environment Setup

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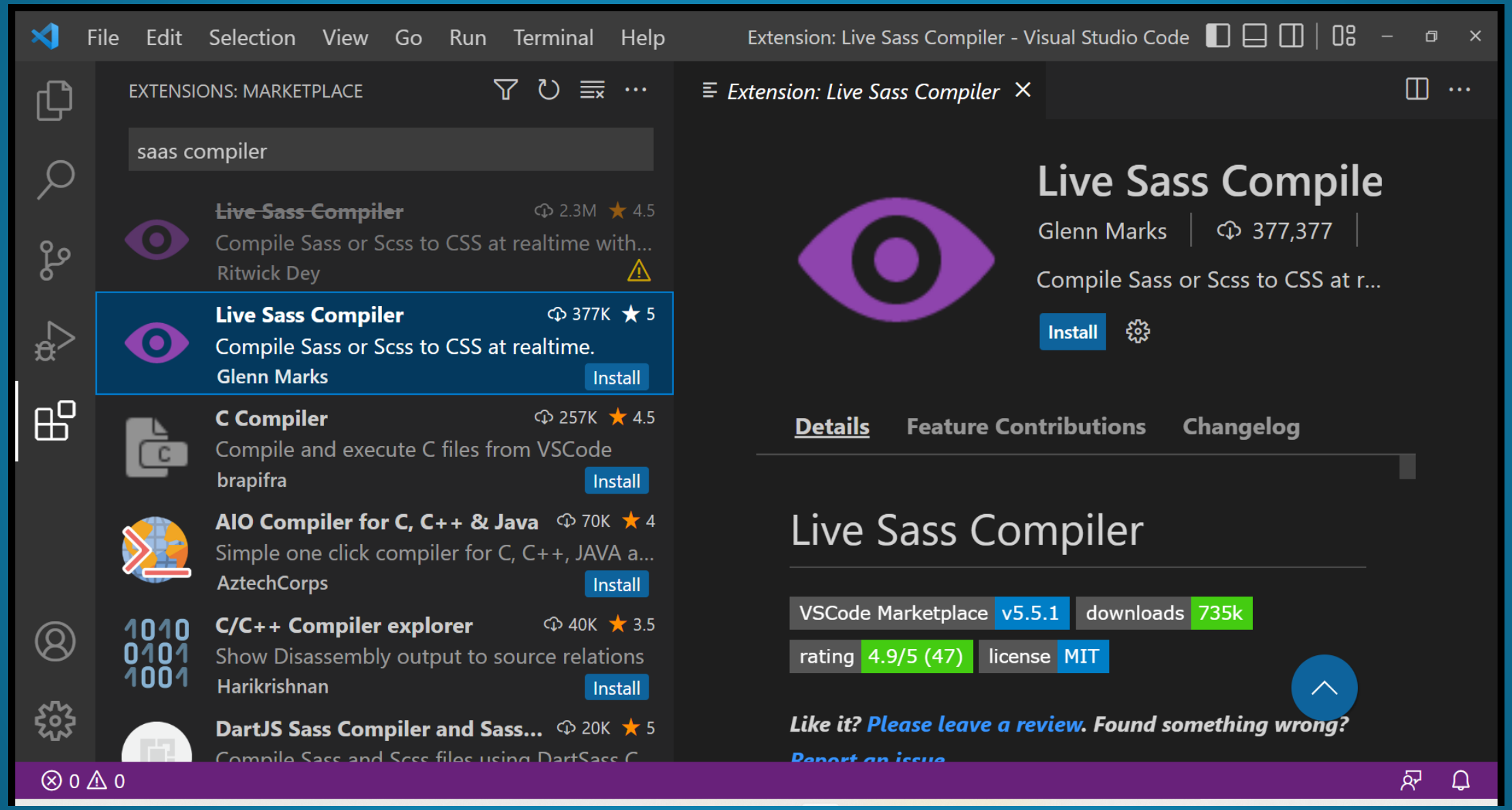
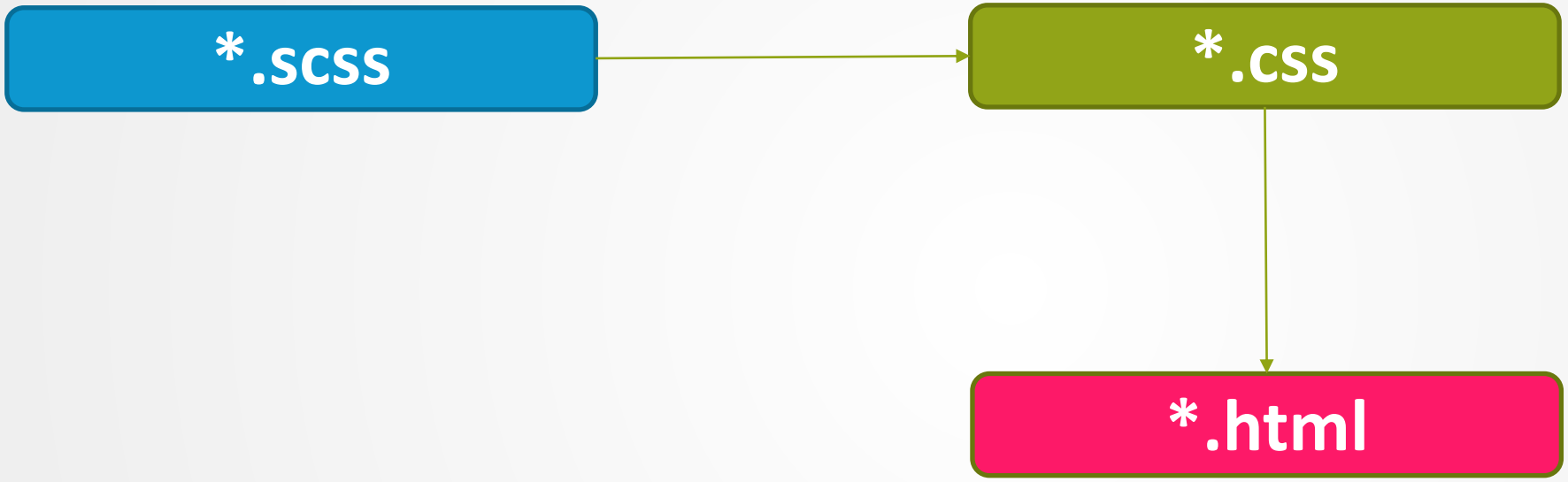
VS Code extension for SASS Compiler



Steps to Implement

1. Create SASS styles file (*.scss)
2. Compile the *.scss file to generate *.css file
3. Import the *.css file in the web page (*.html)

Steps to Implement



Variables

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Variables

- Sass variables are used to store style values so that we can reuse in other selectors.
- Sass uses the $ symbol to create variable
- Syntax: $variable-name : value;
- Example:
  - $font-stack: Helvetica, sans-serif;
  - $primary-color: #333;

Variables -- Usage

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


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

Partials , Imports,

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Partials in SASS

_header.scss

```scss
header{
    display: flex;
    justify-content: center;
    align-items: center;
    height: 50vh;
    background-color: skyblue;
}
```

MyStyles.scss

```scss
@use 'header’;

....
```

@use vs @import

- @use is the latest option to import the partials
- @use and @import do similar actions.
- As @import is having practical issues for developers, the Sass team discourages the continued use of the @import rule.
- Prefer the @use rule instead.

Mixins

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Mixins

- A mixin lets you make groups of CSS declarations that you want to reuse throughout your site.
- Mixins are like functions in javascript
- Mixins can be parameterized.
- Usage:

```
@mixin theme($theme: DarkGray) {
        background-color: $theme;
}
```

Operators, Loops
&
Conditional directives

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Operators, Conditional Directives

- Operators: +, -, *, /, %, <, ……
- Conditional Directives:
  - @if, @else, @for, etc..

For loop

```
@for $i from start to end
{
        // use $i  define styles
}
```

```
@for $i from 1 to 6
{
        // use $i  define styles
}
```

For loop

```
<div class="box box-s1"></div>
<div class="box box-s2"></div>
<div class="box box-s3"></div>
<div class="box box-s4"></div>
<div class="box box-s5"></div>
<div class="box box-s6"></div>
```

Media queries

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Media Queries

```
$small: 300px;
$medium: 500px;

.card {
   //other styles

  @media screen and (min-width: $small) {
    column-count: 1;
    background-color: lightblue;
  }
  @media screen and (min-width: $medium) {
    column-count: 2;
    background-color: lightyellow;
  }
}
```

Inheritance

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Inheritance

- In Sass, @extend is used to share a set of CSS properties from one selector to another.
- The @extend feature of Sass allows classes to share a set of properties with one another.

```
.message {
        border: 1px solid #ccc;
        padding: 10px;
        color: #333;
      }
```

```
.success {
        @extend  .message;
        border-color: green;
}
```

Hands-Ons

Practice Hands-Ons

Q & A