Defining nested rules

Sass also lets you define nested styles, and again, if you saw this earlier in the section on SASS, this will look familiar to you. So you've probably seen CSS code that looks like this before, right? You have a class that defines some styles, and then you have the same class, but it uses some child selectors to define some more styles, and so on, and so forth, right? Here I have a base class named content, and then various child selectors terminating in an anchor tag that has a hover pseudo class style assigned to it as well. Now, as CSS code gets more and more complex, this kind of CSS structure can get more and more unruly to read.

Sass allows you to define styles in a nested format, which more closely mirrors the DOMstructure of the document that you're styling. So, for example, I could rewrite the same CSS that you see here in a different format using nested styles. So, for example, I could define the outer content class like this, and then just put the contents that are specific to the paragraph child inside the content class, like this. I could also define the class for the anchor tag here. Now, remember that the anchor tag had a hover effect applied to it, so to define a nested style that refers to the parent, in this case, we need to have the :hover attach to the anchor; we use the ampersand character.

1. Open **nested_styles.scss** and add below code and save it.

```
body {

  font-family: Helvetica, Arial, sans-serif;

  p {

    font-family:Times;

  }

  p#mypara {

    font-family: "Courier New";

  }
```

}

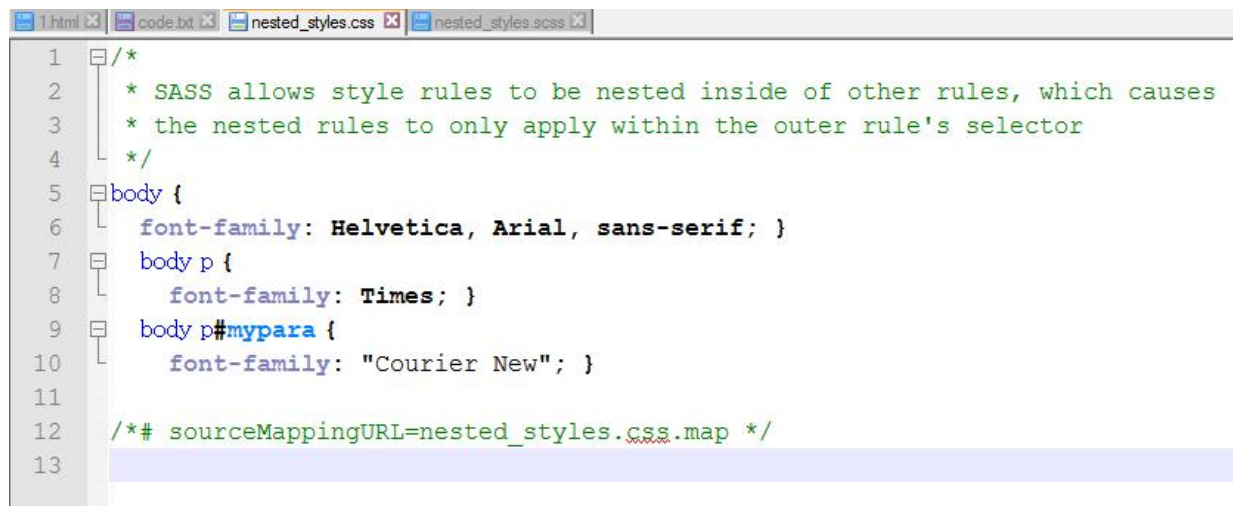Here we have main class **body** and then child tag **p** nested inside the **body** tag

And one another second child p tag with id called **mypara**.

2. And run command to convert into css. **Sass -–watch nested_styles.scss**
   Here we use watch command so it continuously watching updates so, we
   don't need to run update command.
3. Check new nested_styles.css is created in exercise folder.

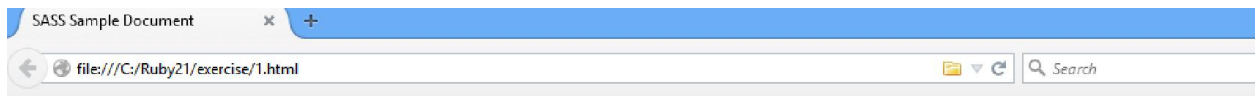4. Open it and see compiled code in css

```
  1  /*
  2   * SASS allows style rules to be nested inside of other rules, which causes
  3   * the nested rules to only apply within the outer rule's selector
  4   */
  5  body {
  6    font-family: Helvetica, Arial, sans-serif; }
  7    body p {
  8      font-family: Times; }
  9    body p#mypara {
 10      font-family: "Courier New"; }
 11
 12  /*# sourceMappingURL=nested_styles.css.map */
 13
```

5. Now include nested_styles.css in 1.html file

<link rel="stylesheet" href="nested_styles.css" type="text/css">

6. Open 1.html file in browser and see it show style we applied in css.
   Body has sans-sarif font

SASS Sample Document   body : sans-sarif font

Heading 2

Heading 3

Heading 4

Sample paragraph of text **Courier New font**

Another paragraph of text **Times font**

- List Item 1
- List Item 2
- List Item 3
- List Item 4
- List Item 5
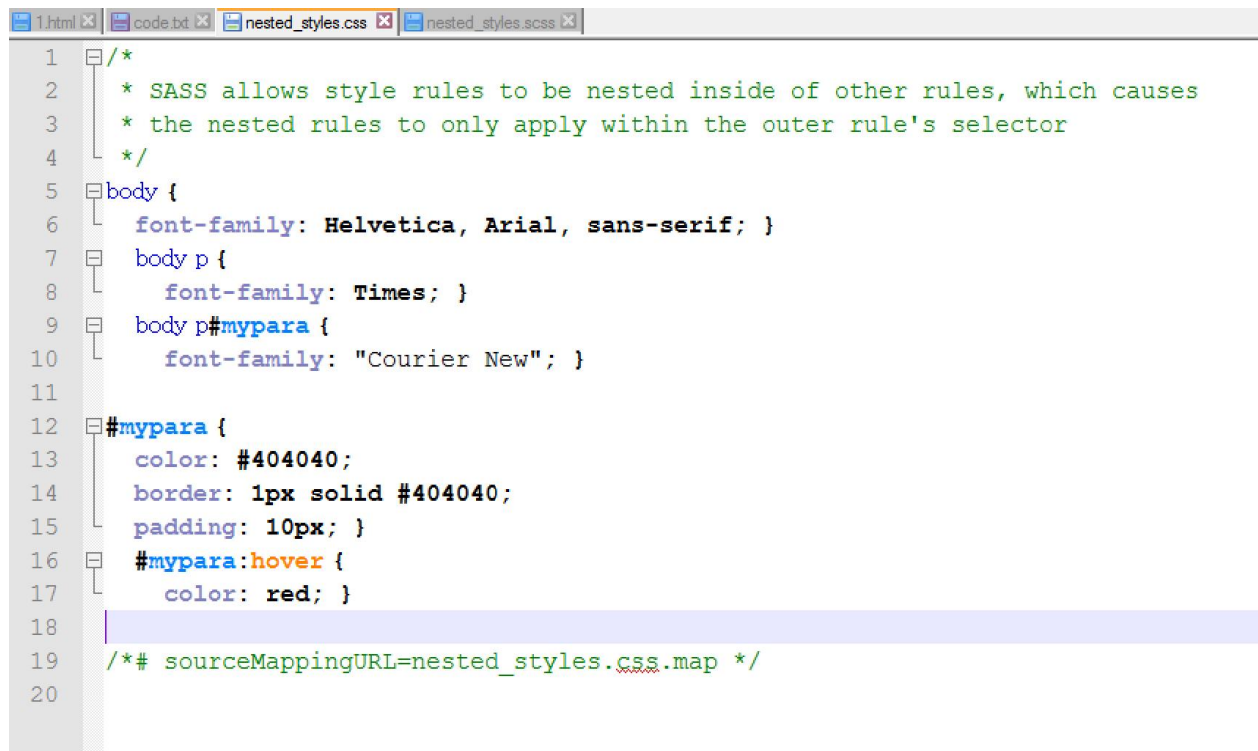- List Item 6

This is some footer content

7. Lets back to the code and copy another code and paste in nested_styles.scss file.

#mypara {

   color: #404040;

   border: 1px solid #404040;

   padding: 10px;

    &:hover {

    color: red;

  }

}

so we created rules for p tag with id called mypara and give some color, border, padding and give hover effect to sudo class (p#mypara).
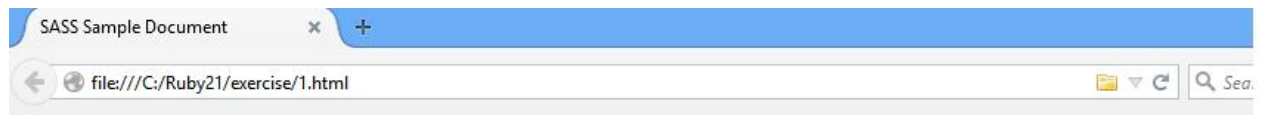
So we used watch command it continuously watching whatever changes done in scss file it automatic make changes css file.

8. Open nested_styles.css file and see new added css is created.

```
1.html    code.txt    nested_styles.css    nested_styles.scss

 1   /*
 2    * SASS allows style rules to be nested inside of other rules, which causes
 3    * the nested rules to only apply within the outer rule's selector
 4    */
 5   body {
 6       font-family: Helvetica, Arial, sans-serif; }
 7       body p {
 8           font-family: Times; }
 9       body p#mypara {
10           font-family: "Courier New"; }
11
12   #mypara {
13       color: #404040;
14       border: 1px solid #404040;
15       padding: 10px; }
16       #mypara:hover {
17           color: red; }
18
19   /*# sourceMappingURL=nested_styles.css.map */
20
```

9. Now go to browser and refresh page.

Here you can see that mypara class has border and also red color on hover

10.Sass code that compiled it more closely with DOMstructure
    We can nested class like we use in DOM structure.