Software Studio
軟體設計與實驗

Lab 0
Environment Setting

Hung-Kuo Chu

Department of Computer Science

National Tsing Hua University

Goal

- Go through all basic steps
  - VS Code setup and config
  - Create your own first h5 project
- Running an example on chrome

Visual Studio Code

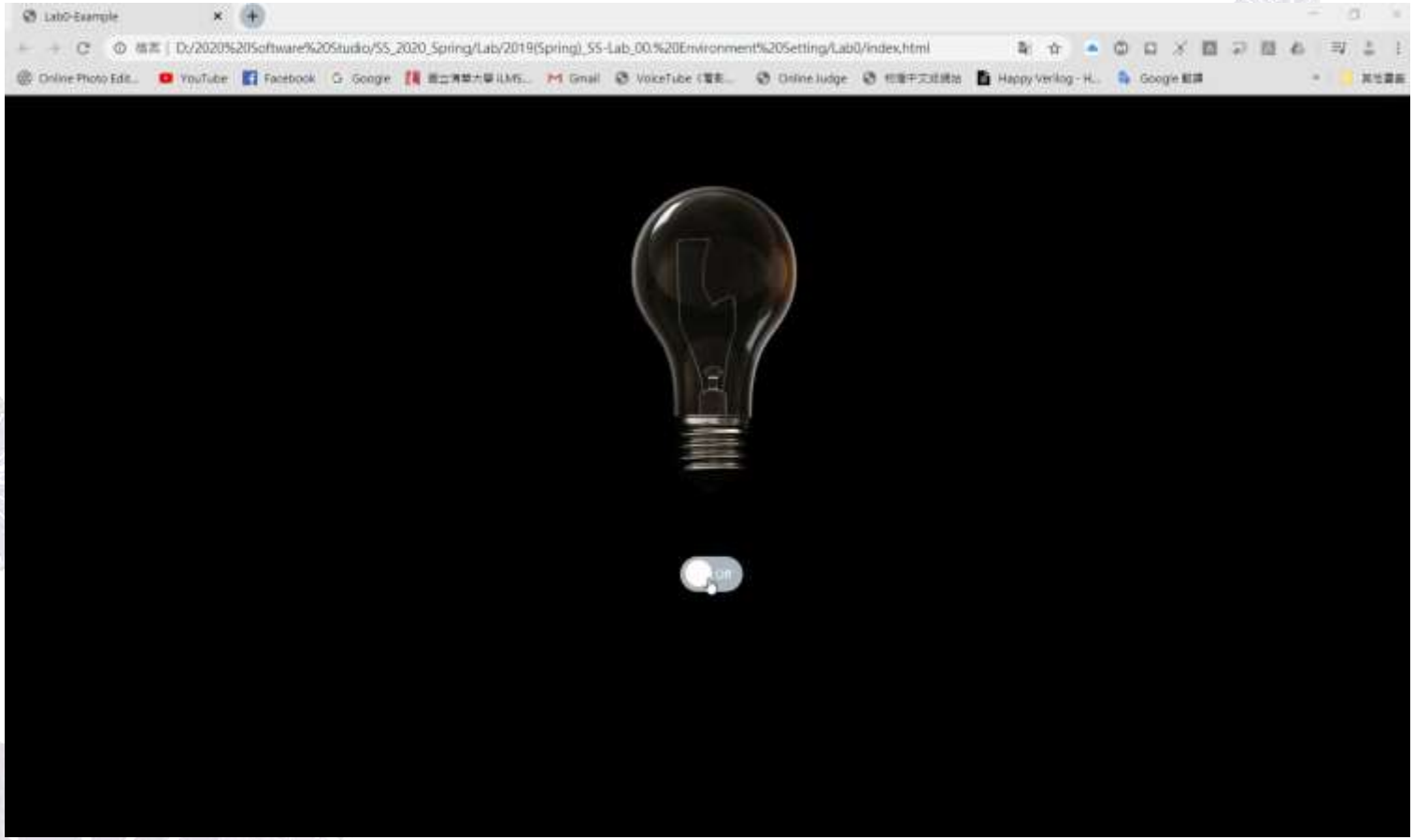
Visual Studio Code

- Why we select VS Code?
  - Native support for version control
  - Built-in debugger
  - Integrated terminal
  - Large community
- 10 reasons to use VS Code

Install VS Code

- Refer to the Appendix01 VS Code

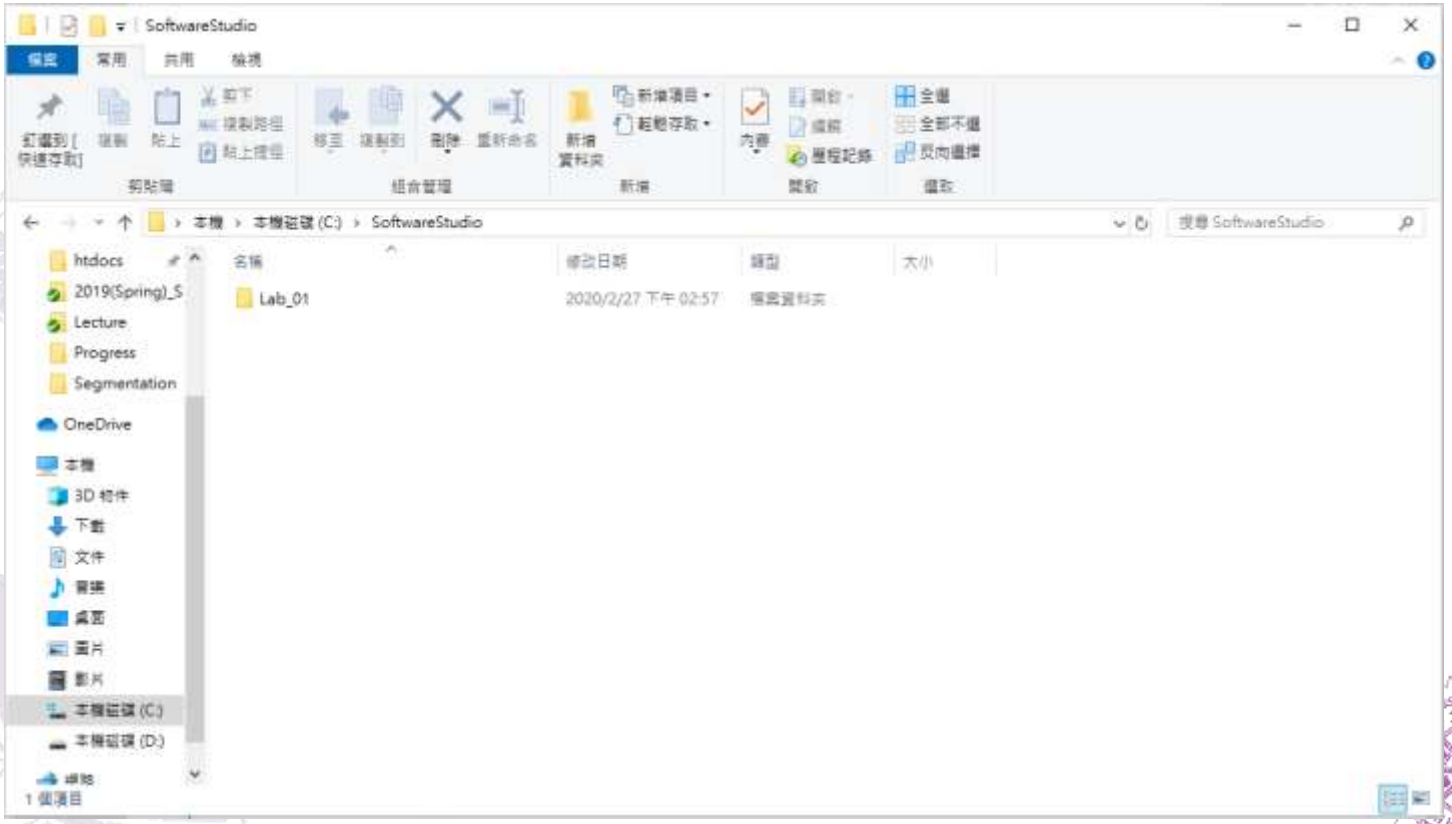
Today’s Goal: Light Switch !



Let’s Start From an Empty Project !

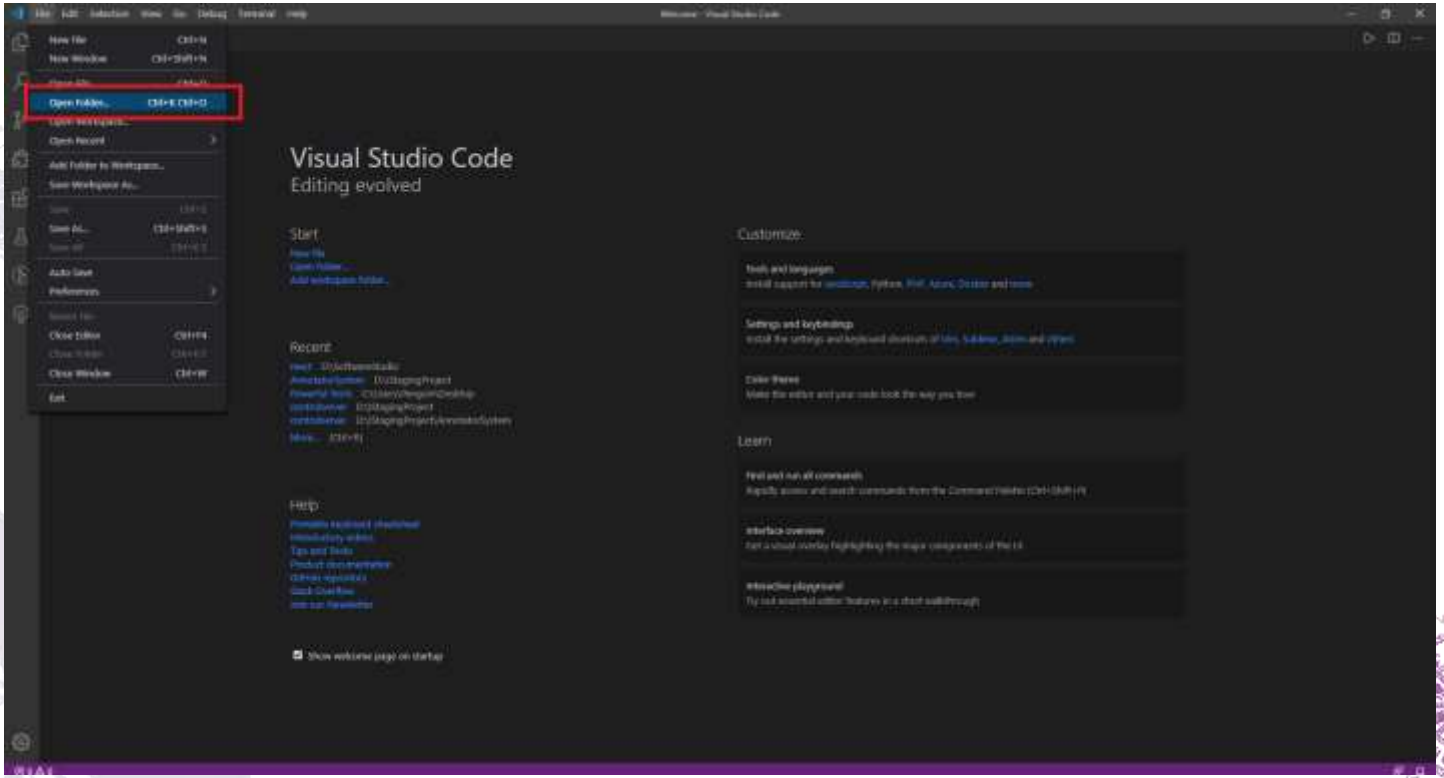
Create New Project

- We want to start a new project in VS Code.
- First, create a new folder.



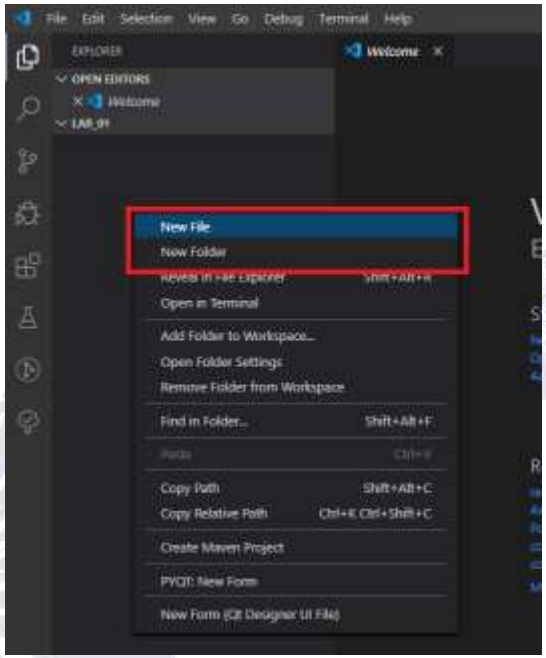
Open Project

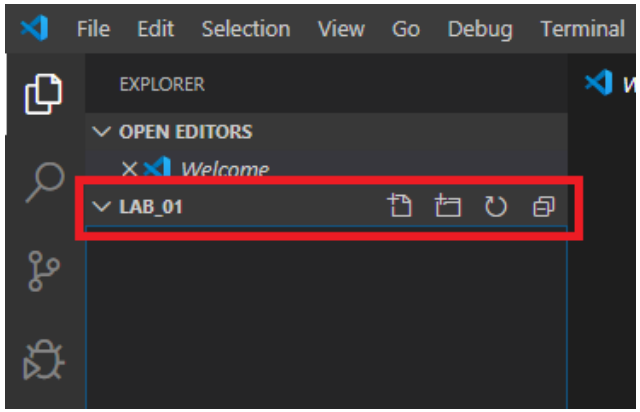
- Open VS Code, then select tool bar “**File → Open Folder**” to select the folder we created.



Create New File or Folder

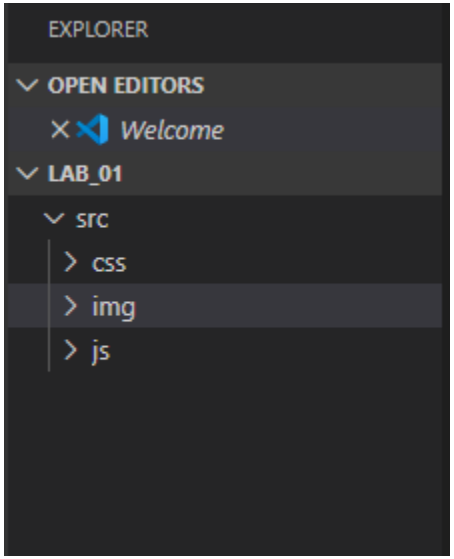
- Click right mouse button on explorer window, then you can find ”**New File**” and “**New Folder**”.
- Or, on the header of your project folder. There is a tool bar also has the same function.





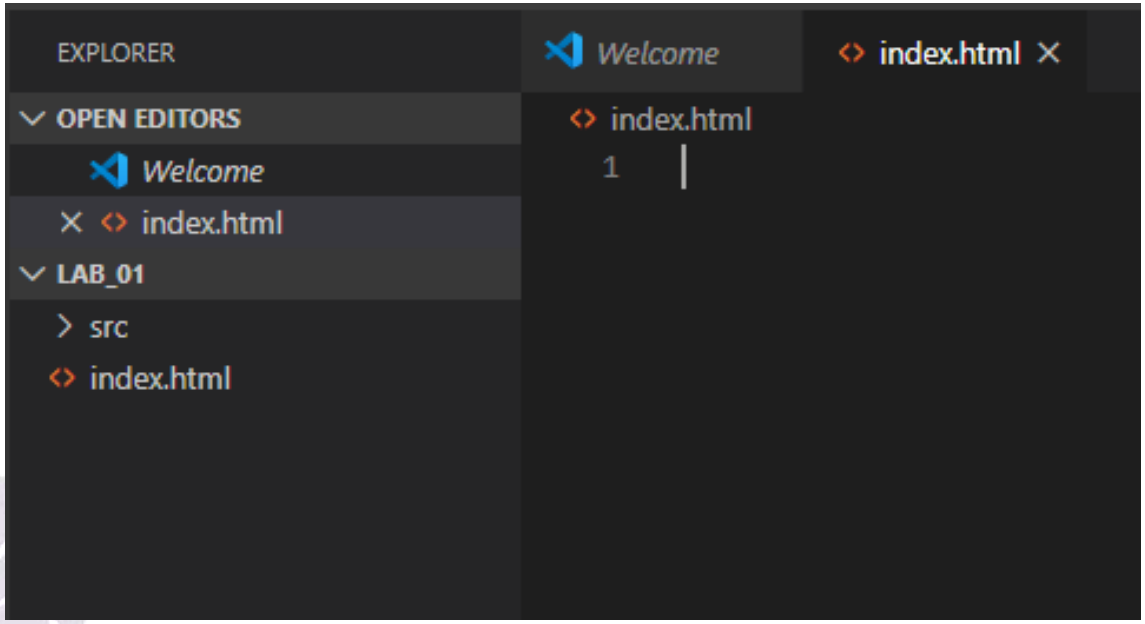
Create New Folders

- In order to manage our project files easily and efficiently, we need to add some folders to place our source files.
- Create **src, css, img, js** folders and put the last three folders into src folder.



Create New File

- Now create a new file named “**index.html**”.
- Select it in explorer then you can edit it.



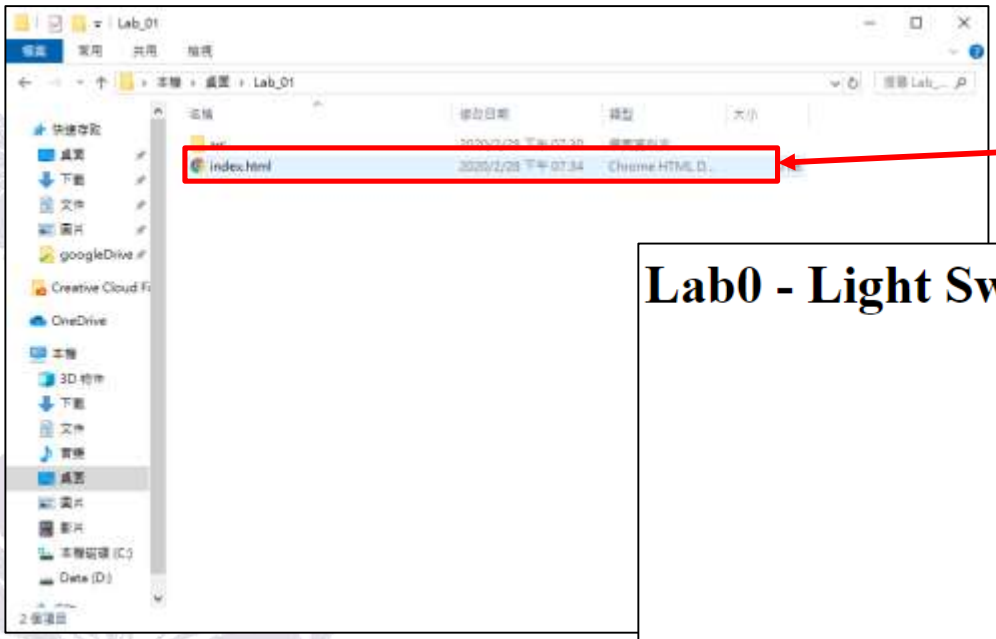
Edit HTML File

- Paste the example code into it.

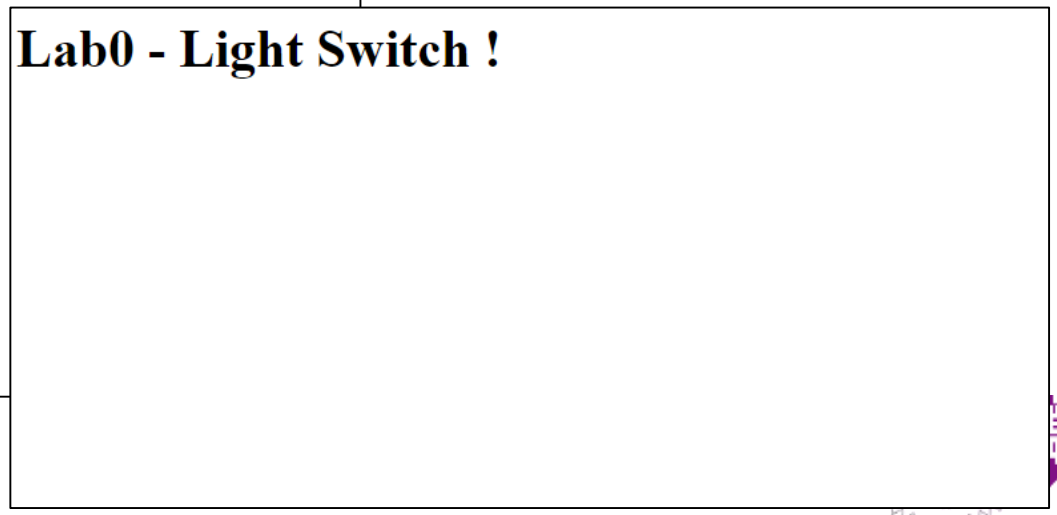
```
<!DOCTYPE html>
<html>
  <head>
    <title>Lab0-Example</title>
  </head>
  <body>
    <h1>Lab0 - Light Switch !</h1>
  </body>
</html>
```

Open your html!

- Open your html file in folder, then you will see your default browser show the content like the example image.

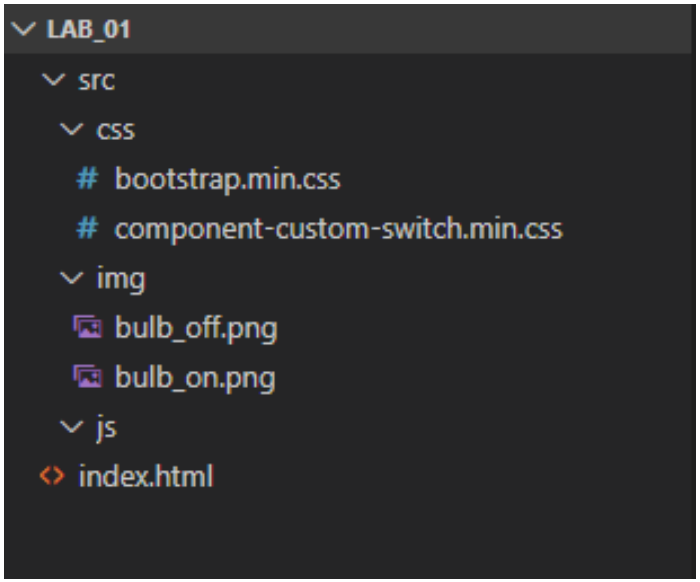


Open it directly from chrome



Place Files

- After opening html file on chrome successfully, now we can place files which TAs provide into corresponding folders.



Add Image & Button

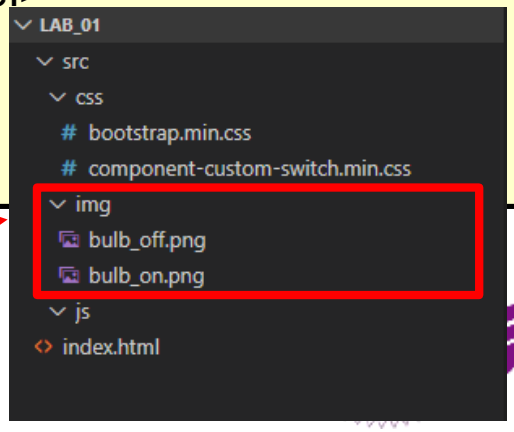
- Now, we can add light bulb image & switch button to our html code.
- Modify the content of **body** tag.

Add Image & Button

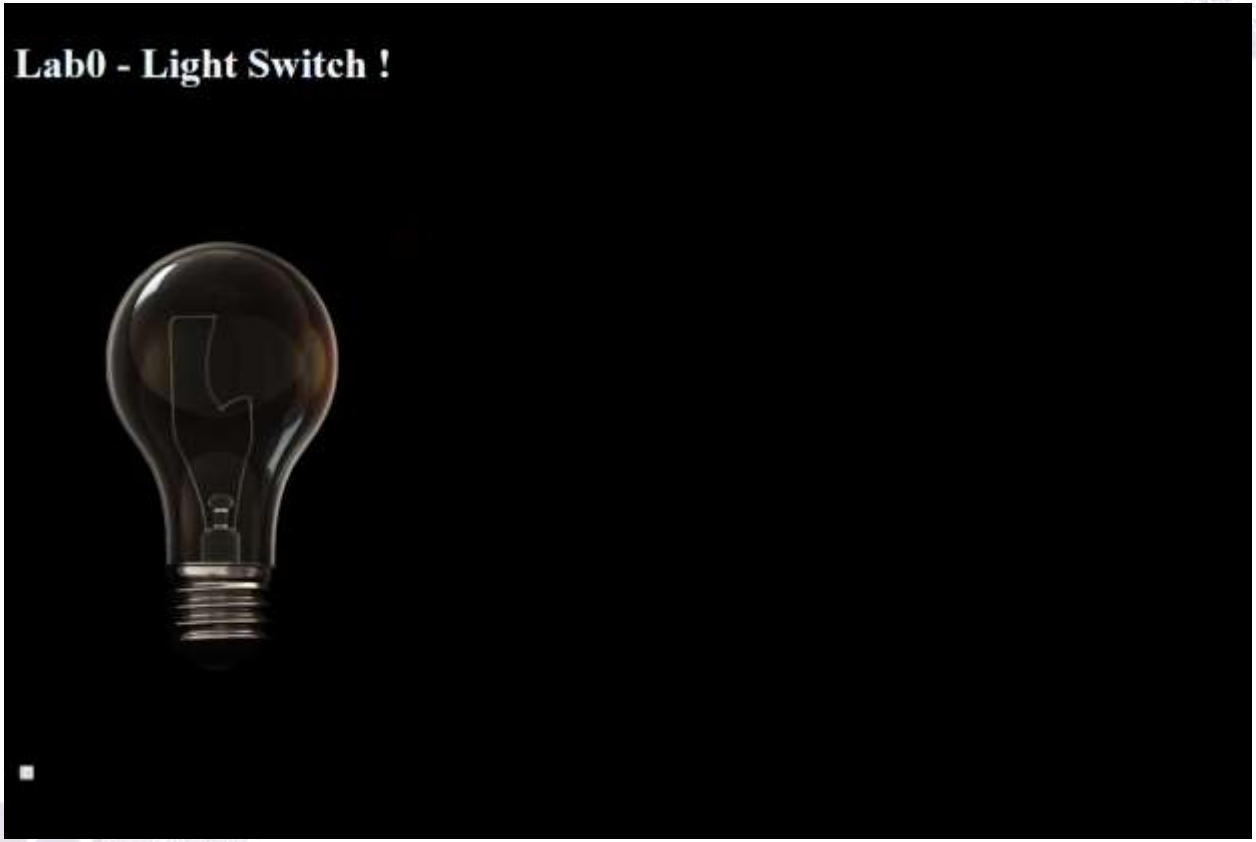
- Paste the example code into it.

```
<body style="background-color: black;">
    <div class="container text-center">
      <h1 style="color: aliceblue; margin-top: 30px;">Lab0 - Light Switch !</h1>
      <div>
        <img src='src/img/bulb_off.png' id="bulb" width="315" height="500">
      </div>
      <div class="custom-switch custom-switch-label-onoff pl-0">
        <input class="custom-switch-input" id="switch" type="checkbox"
onclick="switchLight();">
        <label class="custom-switch-btn" for="switch"></label>
      </div>
    </div>
  </body>
```

src value is the path which links to the image files !



Add Image & Button



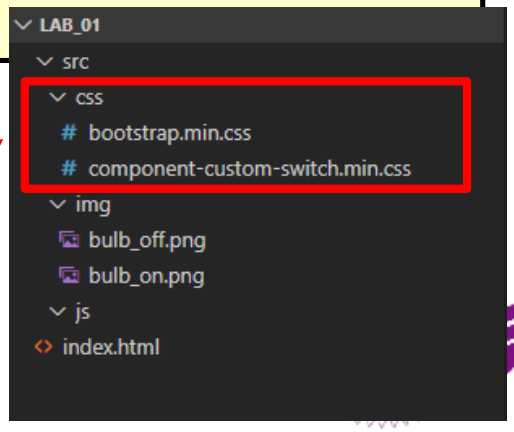
Problem

- We can notice that the style of switch button is different from the demo, and it also has no effect.

Link Files

- We need to link the CSS files which we just added to change the style of the switch button.
- Paste the example code into it.

```
<head>
  <title>Lab0-Example</title>
  <link href="src/css/bootstrap.min.css" rel="stylesheet">
  <link href="src/css/component-custom-switch.min.css" rel="stylesheet">
</head>
```



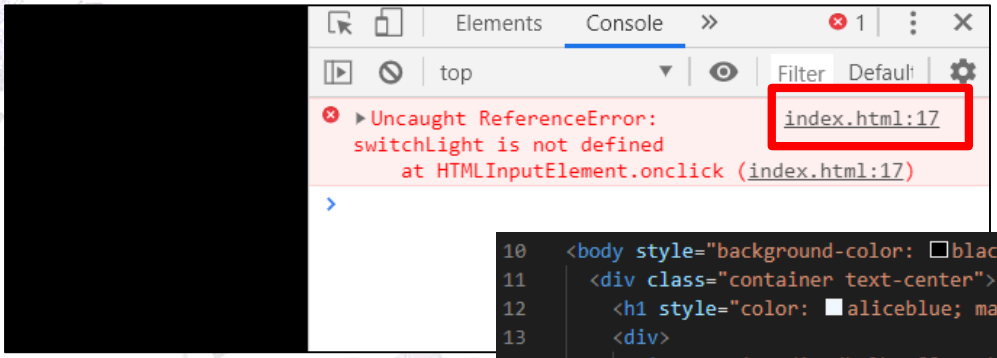
href value is the path which links to the CSS files !

Problem

- We can notice that we have the correct style of the switch, but it still has no effect.
- After pressing **F12**, we can find that there are some errors when we press the button.

Problem

- There are some errors at line 17 in index.html.
- The error messages says that the switchLight function is not defined.



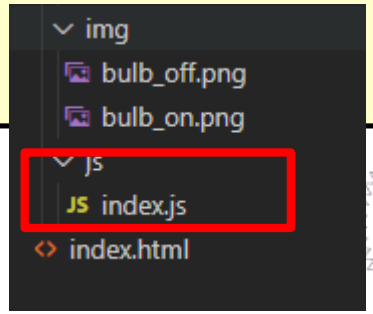

```
10  <body style="background-color: black;">
11    <div class="container text-center">
12      <h1 style="color: aliceblue; margin-top: 30px;">Lab0 - Light Switch !</h1>
13      <div>
14        <img src='src/img/bulb_off.png' id="bulb" width="315" height="500">
15      </div>
16      <div class="custom-switch custom-switch-label-onoff pl-0">
17        <input class="custom-switch-input" id="switch" type="checkbox" onclick="switchLight();">
18        <label class="custom-switch-btn" for="switch"></label>
19      </div>
20    </div>
21  </body>
22
23  </html>
```

Add Switch Button Function

- Now we need to define **switchLight** function to implement the function of switch.
- Add **index.js** file in **js** folder.
- Paste the following code in html **head** tag to link js file.

```
<head>
  <title>Lab0-Example</title>
  <link href="src/css/bootstrap.min.css" rel="stylesheet">
  <link href="src/css/component-custom-switch.min.css" rel="stylesheet">
  <script src="src/js/index.js"></script>
</head>
```

src value is the path which links to the js files !



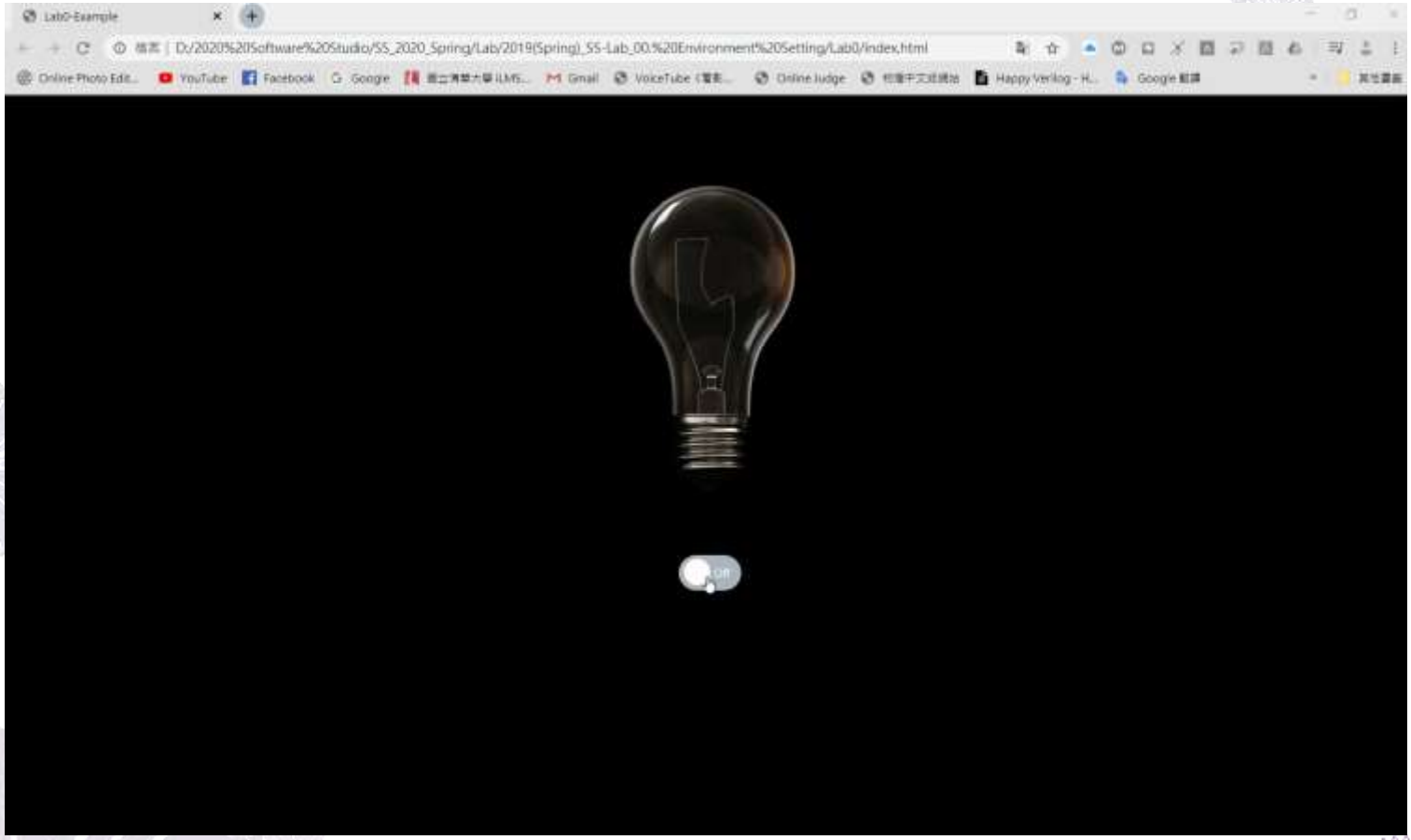
Edit JS File

- Paste the example code into it.

```
var mySwitch;
var myBulb;

window.onload = function() {
    mySwitch = document.getElementById('switch');
    myBulb = document.getElementById('bulb');
};
function switchLight() {
    if(mySwitch.checked)
        myBulb.src = 'src/img/bulb_on.png';
    else
        myBulb.src = 'src/img/bulb_off.png';
}
```

Finish !


Lab0-Example
Online Photo Edit...
YouTube
Facebook
Google
Gmail
VoiceTube
Online Judge
Happy Verilog - H...
Google 翻譯
OFF

Notice !

- Remember to sign your name before you leave the lab class. Even if you have given the studentID.

Try it!

Extra Selection

- Aside from filling out the **application for extra selection** in the **Academic Information System**, please also fill out this **survey**.

URL: https://forms.gle/78kndsKrGRNNSPG4A

thank you!
Question