

Fall, 2020

## COMP2121 E-Business

# Lab 2 HTML5

Kevin Kam Fung Yuen  
Department of Computing  
Hong Kong Polytechnic University  
kevin.yuen@polyu.edu.hk

## References

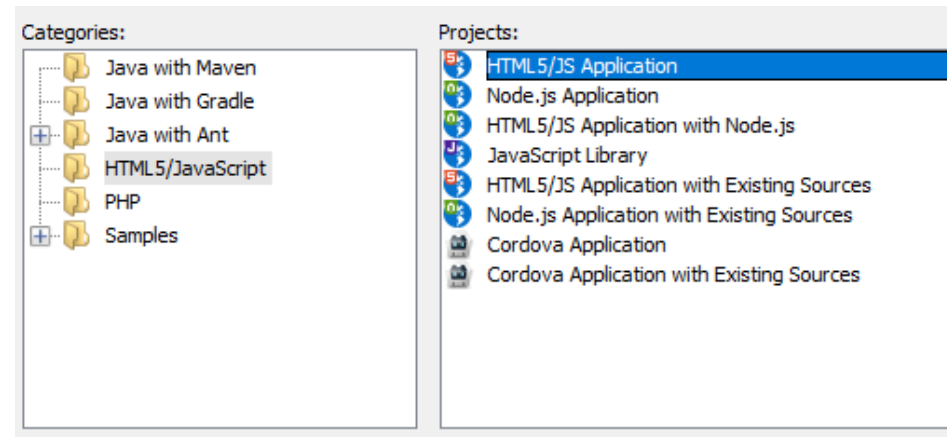
- <https://html.spec.whatwg.org/>
- <https://netbeans.apache.org/kb/docs/php/index.html>
- <https://www.w3schools.com/html>
- <https://www.w3schools.com/tags>

## Ask questions and find the solutions, but DON'T Just Copy and Paste

- If you write code, it is very common to make mistakes or bugs. Don't Scare! It is normal. We need to learn from a lot of mistakes, instead of the final solution cleaned by others.
- The point of these exercise is to train your hands, and your brain in how to read, design, think and write codes, the practical skills to solve problems.
- If you copy and paste, you might just do and learn nothing.
- No source codes cleaned will be provided in the Labs.
- You must type and codes by yourself ( I did these as well).
- The labs are not to aim to provide solutions, but expect learners to learn from mistakes.
- There are vast of source codes in the internet. You may try them in the future, but not in these labs.

## Ex1: Create a project

- Open your Netbeans IDE (Run as administrator)
- Click File -> New Project → HTML 5/JS Application



- Create a folder named “Lab02HTML5” (no space) under your working folder which has been done in Lab 1, for example,

## Ex1: Create a project

- Create a folder named “Lab02HTML5” (no space) under your working folder which you have created in Lab 1; For example,

### Steps

1. Choose Project
2. **Name and Location**
3. Site Template
4. Tools

### Name and Location

Project Name:

Project Location:

Project Folder:

- Choose no site template

### Steps

1. Choose Project
2. Name and Location
3. **Site Template**
4. Tools

### Site Template

Optionally initialize your project structure with a site template.

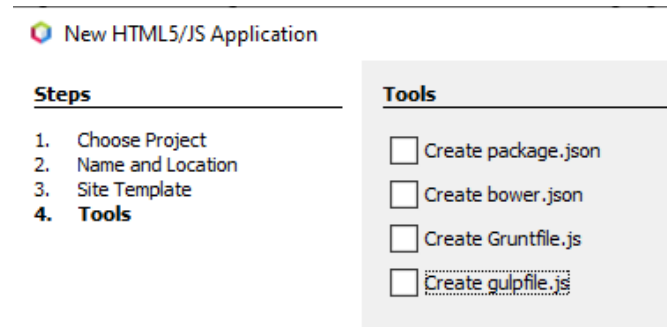
- ☒ No Site Template
- ☐ Select Template:

Template:

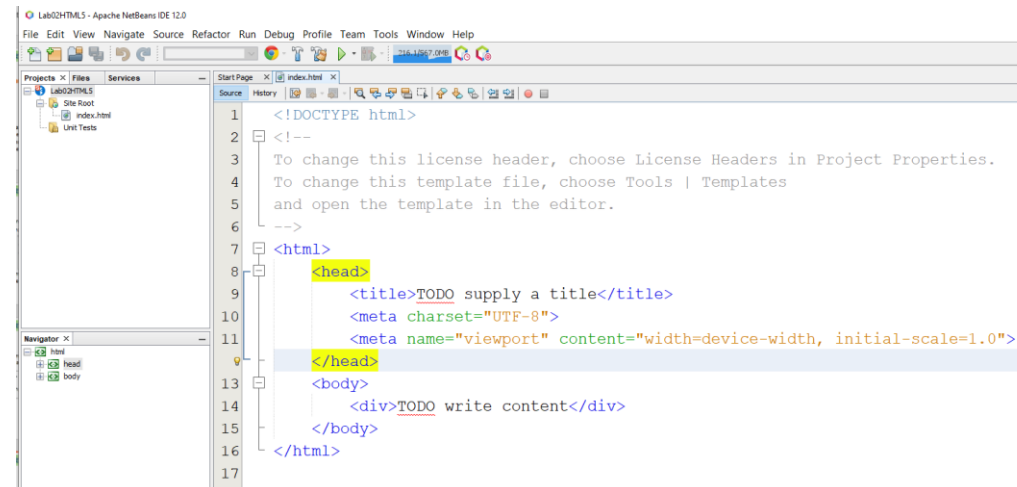
Local archive file or a URL pointing to remote archive file can be specified.

## Ex1: Create a project

- Uncheck these (.json and .js) as we do not need them at this moment.



- Finish and we will have this





# The General Template

Document Type Definition (DTD)

Define the document is HTML5

<!-- comments -->

<StartTagName> some content </EndTagName>

<html>: root element of an HTML page

<head> : contains meta information and title about the HTML page

<title> : a title for the HTML page (shown in the browser's title bar or in the page's tab)

<meta>: metadata about an HTML document: charset, content, http-equiv, and name

<body> : the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

<div>: division

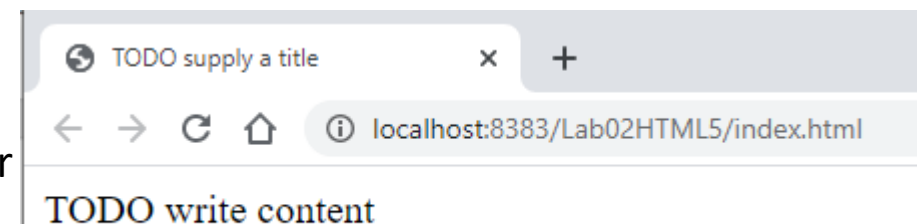
```

1 <!DOCTYPE html>
2 <!--
3   To change this license header, choose License Headers in Project Properties.
4   To change this template file, choose Tools | Templates
5   and open the template in the editor.
6 -->
7 <html>
8   <head>
9     <title>TODO supply a title</title>
10    <meta charset="UTF-8">
11    <meta name="viewport" content="width=device-width, initial-scale=1.0">
12  </head>
13  <body>
14    <div>TODO write content</div>
15  </body>
16 </html>
17

```

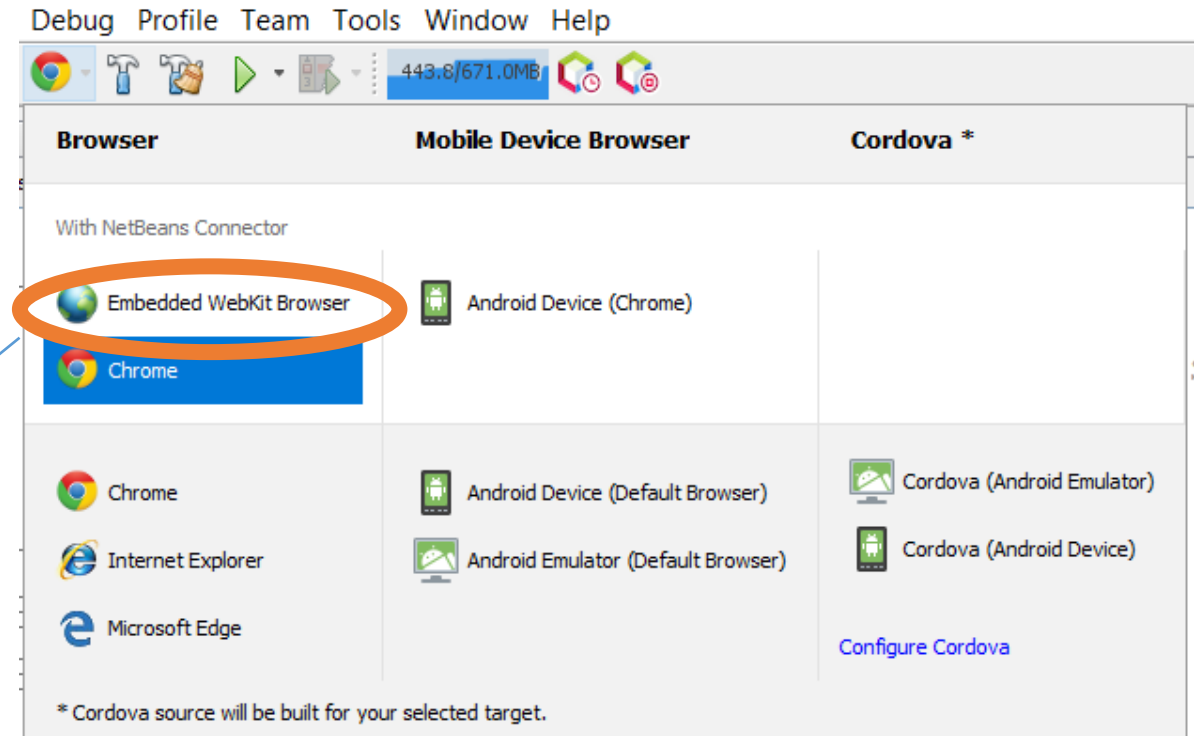
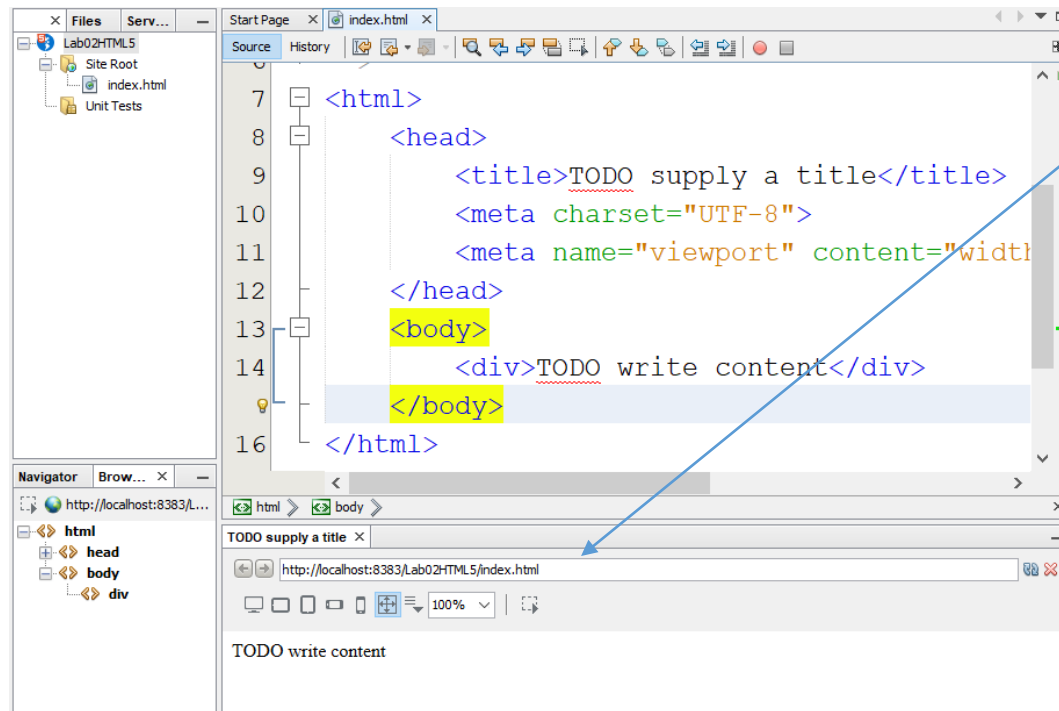
Press shift + F6

Show on browser



# Browsers

One html code can be used for different browsers  
You may follow the instruction to download and  
install the Android Emulator





# DOCTYPE

## HTML 5

```
<!DOCTYPE html>
```

## Older HTML Documents

### HTML 4.01

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
```

### XHTML 1.1

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"  
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
```

## Ex2: meta

<head>

```
<title>E-Business Lab 2 </title>
```

```
<meta charset="UTF-8">
```

 character encoding for the HTML document

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

 viewport to make your website look good on all devices

```
<meta name="description" content="E-Business COMP2121 Lab 2: Introduction to HTML5">
```

 description of your web page

```
<meta name="author" content="Kevin Yuen">
```

 author of the web page

```
<meta http-equiv="refresh" content="30">
```

 Refresh document every 30 seconds

```
<meta name="keywords" content="HTML, Lab">
```

 keywords for search engines

</head>

## Ex3: Headings

15

16

17

18

19

20

21

22

23

24

26

<body>

<h1> Headings </h1>

<div>

<p>Let's test Headings.</p>

<h1> This is Level 1</h1>

<h2> This is Level 2</h2>

<h3> This is Level 3</h3>

<h4> This is Level 4</h4>

<h5> This is Level 5</h5>

<h6> This is Level 6</h6>

</div>

</body>

<p> :a paragraph.

## Headings

Let's test Headings.

**This is Level 1**

**This is Level 2**

**This is Level 3**

**This is Level 4**

**This is Level 5**

**This is Level 6**

## Ex4: hyperlink

```
<h1>Hyperlink </h1>
<p>Let's try the hyperlink.</p>
<p> Please visit
<a href="https://www.comp.polyu.edu.hk">Department of Computing</a>, or
<a href="https://www.polyu.edu.hk">The Hong Kong Polytechnic University</a>.
</p>
```

You need to use Chrome to open  
<https://www.comp.polyu.edu.hk>.  
Read the error message to see why if we  
use webkit browser.

# Hyperlink

Let's try the hyperlink.

Please visit [Department of Computing](https://www.comp.polyu.edu.hk), or [The Hong Kong Polytechnic University](https://www.polyu.edu.hk).

# Ex5: Display photo/image

```
<h1>Display photo/image </h1>
<p> Let's insert photo</p>
<h2> Photo in local file </h2>


<p> When the photo is not found, alt attribute is used. </p>


<h2> Photo from the web source</h2>
<p> Make sure that you have internet access and the photo is available in remote source. </p>

```

## Display photo/image

Let's insert photo

### Photo in local file



When the photo is not found, alt attribute is used.

 PolyU Campus 058a

### Photo from the web source

Make sure that you have internet access and the photo is available in remote source.





## Ex6: HTML Text Formatting

Tags	Definitions
<b>	bold text
<strong>	important text
<em>	emphasized text
<i>	italic
<u>	underline
<small>	smaller text
<sub>	subscripted text
<sup>	superscripted text
<ins>	inserted text
<del>	deleted text
<mark>	Highlight text
<q>	Short quotation

```
<H1>Formatting HTML Text</H1>
<div>
  <p> Just for illustrating the tags. </p>
  <p>What is serverless?</p>
  <p>
    <b>Serverless</b> is the native architecture of the <mark>cloud</mark> that
    <u> enables you to shift more
      of your operational responsibilities to <strong>AWS</strong></u>,
    increasing your agility and innovation.
    <u>Serverless</u> allows you to <em>build and run applications and services
      without thinking about servers </em>. <br>
    It eliminates <del>infrastructure management tasks such as server or
    cluster provisioning, patching, operating system maintenance,
    and capacity provisioning</del>.
    <br>You can build them for nearly any type of application or
    <u>backend service</u>, and everything required to <small>run</small> and <sub>scale </sub>
    your application with <q> high availability</q> is handled for you.<sup>1</sup>
  </p>
  <sup>1</sup><a href="https://aws.amazon.com/serverless/">https://aws.amazon.com/serverless/
</div>
```



## Ex6: HTML Text Formatting

### Formatting HTML Text

Just for illustrating the tags.

What is serverless?

Serverless is the native architecture of the **cloud** that enables you to shift more of your operational responsibilities to **AWS**, increasing your agility and innovation. Serverless allows you to *build and run applications and services without thinking about servers*.

It eliminates ~~infrastructure management tasks such as server or cluster provisioning, patching, operating system maintenance, and capacity provisioning.~~

You can build them for nearly any type of application or backend service, and everything required to run and <sub>scale</sub> your application with "high availability" is handled for you.<sup>1</sup>

<sup>1</sup><https://aws.amazon.com/serverless/>

## Ex7: Table

```
<H1>Table</H1>

<table> </table>
<table style="width:100%">
  <tr>
    <th>Given Name</th>
    <th>Family Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Alice</td>
    <td>Wong</td>
    <td>15</td>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Lo</td>
    <td>16</td>
  </tr>
  <tr>
    <td>Jack</td>
    <td>Chan</td>
    <td>18</td>
  </tr>
</table>
```

- `<table>` : an HTML table.
- `<tr>` : Each table row.
- `<th>` : table header; bold and centered by default.
- `<td>` : table data/cell; regular and left-aligned by default

## Table

Given Name	Family Name	Age
Alice	Wong	15
Peter	Lo	16
Jack	Chan	18

## Ex8: List

```
<h1>List</h1>
```

```
<h2>Unordered List</h2>
```

```
<ul>  
  <li>Cat</li>  
  <li>Fish</li>  
  <li>Bird</li>  
</ul>
```

```
<h2>Ordered List</h2>
```

```
<ol>  
  <li>Cat</li>  
  <li>Fish</li>  
  <li>Bird</li>  
</ol>
```

```
<h2>Description List</h2>
```

```
<dl>  
  <dt>Cat</dt>  
  <dd>- can climb</dd>  
  <dd>- can see at night</dd>  
  <dd>- live in the land</dd>  
  <dt>Fish</dt>  
  <dd>- an swim</dd>  
  <dd>- live in the water</dd>  
  <dt>Bird</dt>  
  <dd>- can fly</dd>  
</dl>
```

<ul>: an unordered list  
<ol>: an ordered list  
<li>: a list item  
<dl>: a description list  
<dt>: Defines a term  
<dd>: Describes the term

### List

#### Unordered List

- Cat
- Fish
- Bird

#### Ordered List

1. Cat
2. Fish
3. Bird

#### Description List

Cat

- can climb
- can see at night
- live in the land

Fish

- an swim
- live in the water

Bird

- can fly

## Ex9: Video and audio

```
<h1>Video and Audio </h1>
```

```
<h2>Audio</h2>
```

```
<p>Don't forget to check if the user's browser supports this function.<br>
```

```
It may not be a good idea to include music in the web
```

```
because it may annoy users.<br>
```

```
Please keep it simple.
```

```
</p>
```

```
<audio controls>
```

```
<source src="GT.mp3" type="audio/mpeg">
```

```
Your browser does not support the audio tag.
```

```
</audio>
```

```
<h2>Video</h2>
```

```
<video width="350" height="280" controls>
```

```
<source src="tw.mp4" type="video/mp4">
```

```
<source src="tw.ogg" type="video/ogg">
```

```
Your browser does not support the video tag.
```

```
</video>
```

```
<video width="350" height="280" controls>
```

```
<source src="sg.mp4" type="video/mp4">
```

```
Your browser does not support the video tag.
```

```
</video>
```

File Format

Media Type

MP3

audio/mpeg

OGG

audio/ogg

WAV

audio/wav

**Controls:** adds video controls, like play, pause, and volume

The **<source>** element allows user to specify alternative video files which the browser may choose from.

The text between the **<video>** and **</video>** tags (or **<audio>** and **</audio>**) will only be displayed in browsers that do not support the **<video>** (or **<audio>**) element.

# Ex10: Iframe

## iFrame

An HTML iframe is used to display a web page within a web page.

### Display Web page

```
<h1>iFrame</h1>
<p>An HTML iframe is used to display a web page within a web page.</p>
<h2>Display Web page</h2>
<iframe width="450" height="350"
  title="Link to the other webpage"
  style="border:none;"
  src="http://www4.comp.polyu.edu.hk/~kf2yuen/">
</iframe>

<h2>Display Youtube video</h2>
<iframe width="450" height="350"
  src="https://www.youtube.com/embed/sGJv2a3_rY8">
</iframe>
```

You make link to your own pages with the project.

It works!hahahah....

## iFrame

An HTML iframe is used to display a web page within a web page.

### Display Web page

It works!hahahah....

Not all external web pages (or youtube videos) are allowed to be linked.

Q&A  
Thank you