

# Web application development

(Introduction to HTML/CSS/Javascript)  
Instructor: Tran Vinh Khiem

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*Smart Software System Team*



"Learning HTML and CSS is a lot more challenging than it used to be. Responsive web design adds more layers of complexity to design and develop websites."

– Jacob Lett, Bootstrap 4 Quick Start: Responsive Web Design and Development Basics for Beginners

# HTML/CSS – Install - Boilerplate

<https://code.visualstudio.com/download>

The screenshot shows the Visual Studio Code interface with the 'HTML Boilerplate' extension installed. The left sidebar displays the 'EXTENSIONS: MARKETPLACE' view, listing various extensions. The main editor area shows the 'HTML Boilerplate' extension details, including its version (v1.1.1), author (sidthesloth), and a description: 'A basic HTML5 boilerplate snippet generator.' The 'README' section explains that this extension provides the standard HTML boilerplate code used in all web applications. The 'Usage' section instructs users to type 'html5-boilerplate' in an HTML file and select the snippet from the auto suggestion dropdown. The right sidebar shows the 'Categories' (Snippets) and 'Extension Resources' (Marketplace, Repository, License, sidthesloth). The 'More Info' section provides release and update dates.

**EXTENSIONS: MARKETPLACE**

- HTML Boilerplate** (sidthesloth) - 8.3M, 4 stars
- HTML Snippets** (Mohamed Abusaid) - 205ms, 4 stars
- HTML CSS Support** (ecmel) - 205ms, 4 stars
- IntelliSense for CS...** (Zignd) - 5.1M, 3.5 stars
- JS-CSS-HTML-For...** (lonely) - 3.2M, 1.5 stars
- HTML Preview** (Thomas Haakon Town...) - 2M, 3.5 stars
- Kite AutoComplete ...** (Kite) - 3.7M, 3 stars
- Format HTML in PHP** (rif2k) - 1.2M, 3.5 stars
- Live HTML-Previewer** (Harshdeep Gupta) - 920K, 2 stars
- HTML Format** (Mohamed Akram) - 539K, 3 stars
- HTML Play** - 443K, 5 stars

**Extension: HTML Boilerplate**

**HTML Boilerplate** v1.1.1  
sidthesloth | 1,710,946 | ★★★★★ (14)  
A basic HTML5 boilerplate snippet generator.  
[Disable] [Uninstall] [Settings]  
This extension is enabled globally.

**Details** | Feature Contributions | Runtime Status

**README**

**Visual Studio Code HTML Boilerplate**

This extension provides the standard HTML boilerplate code used in all web applications.

**Usage**

Type 'html5-boilerplate' in an HTML file and select the snippet from the auto suggestion dropdown to get the HTML boilerplate.

```
1 <!DOCTYPE html>
2 <html class="no-js" <!--[if IE 7]>
3 <!--[if IE 7]>
4 <!--[if IE 8]>
5 <!--[if gt IE 8]>
6 </html>
7 <!--[if IE 7]>
8 <!--[if IE 8]>
9 <!--[if gt IE 8]>
10 <!--[if IE 7]>
11 <!--[if IE 8]>
12 <!--[if gt IE 8]>
13 </html>
14 </body>
```

**Categories**  
[Snippets]

**Extension Resources**  
[Marketplace] [Repository] [License] [sidthesloth]

**More Info**  
Released: 5/8/2016, on: 06:06:19  
Last updated: 9/28/2020, 20:18:16  
Identifier: sidthesloth.html5-boilerplate

# HTML/CSS – Install - Boilerplate



This screenshot shows the Visual Studio Code editor with a new file named "html: Untitled-1". The Explorer sidebar on the left shows a folder named "LAB" containing two files: "~\$Lab1\_Intro.pptx" and "Lab1\_Intro.pptx". The main editor area shows the first line of the file with the text "1 html:". A dropdown menu is visible, suggesting the Emmet abbreviation "html:5" (highlighted) and "html:xml".

This screenshot shows the Visual Studio Code editor with the same file, now containing the full HTML boilerplate code. The Explorer sidebar remains the same. The main editor area shows the following code:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Document</title>
8 </head>
9 <body>
10
11 </body>
12 </html>
```

# HTML/CSS – First implementation – Exercise 1



- Create empty file index.html
- In the body, type the same lines of code, one after the other as shown in the images below (remember to save the code after typing).
- F5 index.html page opened in the browser, see the content displayed on the web to know the function of the html tags in the code

# HTML/CSS – First implementation – Basic, list,



D:\Web\MSSV\_Web01\index.html (MSSV\_Web01) - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

```
index.html x
</head>
<body>
  <h1>Title h1</h1>
  <h2>Title h2</h2>
  <h3>Title h3</h3>
  <h4>Title h4</h4>
  <h5>Title h5</h5>
  <h6>Title h6</h6>
  <p>Paragraph</p>
  <p><b>Bold</b></p>
  <p><strong>Strong</strong></p>
  <p><i>Italic</i></p>
  <p><em>em</em></p>
  <p><u>Underline</u></p>
  <p><strike>Strikethrough</strike></p>
  <p><sup>2</sup></p>
  <p><sub>2</sub></p>
  <!--https://unicode-table.com/en/00A9-->
  <p>Copyright &#169; 2020</p>
  <p>
    <blockquote>Học, học nữa, học mãi.
      <cite>&mdash; Lê-nin</cite>
    </blockquote>
  </p>
  <p>
    <address>KP6, Linh Trung, Thủ Đức, HCM.</address>
  </p>
</body>
</html>
```

```
14 <body>
15   <ul>
16     <p>Danh sách website:</p>
17     <li><a href="http://uit.edu.vn/"target="_blank">UIT</a></li>
18     <li>SE</li>
19     <li>Website môn học UIT</li>
20   </ul>
21   <ol>
22     <p>Danh sách website:</p>
23     <li><a href="http://uit.edu.vn/"target="_blank">UIT</a></li>
24     <li>SE</li>
25     <li>Website môn học UIT</li>
26   </ol>
27 </body>
```

```
7 <body>
8   <a href="http://fb.com/">Facebook</a>
9   <a href="http://uit.edu.vn/" target="_blank">UIT</a>
10  <br>
11  <a href="https://www.facebook.com/profile.php" target="_blank">
12    
13  </a>
14 </body>
```

Line 34, Column 8

# HTML/CSS – First implementation



- This code after saving and F5 index.html page, the result is that the image is not visible
- If you want to see an image, download something, save it to the folder containing the index.html file 🙌



# HTML/CSS – First implementation - Table

Fill your information into html tag

```
D:\Web\MSSV_Web01\index.html • (MSSV_Web01) - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

index.html
6 </head>
7 <body>
8   <table border="1">
9     <tr>
10      <th>STT</th>
11      <th>Họ Tên</th>
12      <th>Lớp</th>
13    </tr>
14    <tr>
15      <td>1</td>
16      <td>Nguyễn Văn A</td>
17      <td>PMCL</td>
18    </tr>
19    <tr>
20      <td>2</td>
21      <td>Nguyễn Văn B</td>
22      <td>KTPM</td>
23    </tr>
24    <tr>
25      <td>3</td>
26      <td colspan="2">None</td>
27    </tr>
28  </table>
29  <br>
30  <table border="1">
31    <tr>
32      <th>STT</th>
33      <td>1</td>
34      <td>2</td>
```

```
D:\Web\MSSV_Web01\index.html • (MSSV_Web01) - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

index.html
24   <tr>
25     <td>3</td>
26     <td colspan="2">None</td>
27   </tr>
28 </table>
29 <br>
30 <table border="1">
31   <tr>
32     <th>STT</th>
33     <td>1</td>
34     <td>2</td>
35     <td>3</td>
36   </tr>
37   <tr>
38     <th>Họ Tên</th>
39     <td>Nguyễn Văn A</td>
40     <td>Nguyễn Văn B</td>
41     <td rowspan="2">None</td>
42   </tr>
43   <tr>
44     <th>Lớp</th>
45     <td>PMCL</td>
46     <td>KTPM</td>
47   </tr>
48 </table>
49 </body>
```



# HTML/CSS – First implementation - Form



```
D:\Web\MSSV_Web01\index.html • (MSSV_Web01) - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

index.html
5 <title>HTML5</title>
6 </head>
7 <body>
8   <form action="" method="GET" accept-charset="UTF-8">
9     <!--action: java script
10      method: GET/POST/PUSH/PATCH/DELETE-->
11     <label for="full-name">Họ và Tên:</label>
12     <input type="text" name="full-name" value="" placeholder="Họ và Tên">
13     <label for="about-your-self">Mô tả về bạn:</label>
14     <textarea name="about-your-self" id="" cols="30" rows="10"></textarea>
15     <button>Xóa dữ liệu</button>
16     <input type="submit" value="Gửi dữ liệu">
17     <!--
18     type: color/checkbox/date/datetime/datetime-local/email/file/hidden/
19          image/month/number/password/radio/range/reset/search/tel/time/url/week
20     -->
21     <select name="" id="">
22       <optgroup label="UIT">
23         <option value="">DAA</option>
24         <option value="">Website môn học</option>
25       </optgroup>
26       <optgroup label="Mạng xã hội">
27         <option value="">FB</option>
28         <option value="">Zalo</option>
29       </optgroup>
30     </select>
31   </form>
32 </body>
```



# HTML/CSS – HTML cheatsheet

<https://web.stanford.edu/group/csp/cs21/htmlcheatsheet.pdf>

<https://www.w3schools.com/>

<https://developer.mozilla.org/en-US/>

# HTML/CSS – Exercise 2



- Firstly, you should create new folder Exercise 2 and new index.html
- Clone and rewrite this website



**Thomas H. Cormen**  
**Emeritus Professor**  
**Department of Computer Science**

I retired on January 1, 2022. I am no longer taking any new students or interns at any level.

Update June 2022: I am a Democratic candidate for the New Hampshire House of Representatives, running in Lebanon Ward 3 (Grafton County District 15).  
[Campaign website](#)

Ph.D., [Massachusetts Institute of Technology](#), 1992.

- [Papers](#)
- [EG](#)
- [Other software](#)
- [Vita](#)

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I taught my final course in Fall 2019. You can view a [video of my last lecture](#), which was not about computer science.

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Khan Academy now carries [algorithms tutorials](#) for which [Devin Balkcom](#) and I produced content.

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Are you looking for solutions to exercises and problems in *Introduction to Algorithms*?

If you are, then see the [frequently asked question and answer](#) below.

If you request solutions from me, I will not respond.

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From July 2004 through June 2008, I was the director of the [Dartmouth Institute for Writing and Rhetoric](#).

I occasionally taught a graduate Computer Science course on how to write papers and how to give talks. I publish a [list of usage rules](#) that I required my students to observe.

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In 2015, PRI's "The World" ran a [story on mentoring women in computer science](#) in which a couple of my students and I were interviewed.



# HTML/CSS – Exercise 2

- Replace with your personal information
- Example here



**Tran Van Boss**  
**Sen's boss at CTTT2019**  
**My student ID is 1952xxxx**

I Like female cat, fish and pate (Your introduction)

Soon to be genius engineer, [UIT\\_VNU-HCM](#), 2024.

- [Github \(Your personal github site\)](#)
- [Facebook](#)

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I learnt at UIT-VNUHCM from 2019. You can view a [My student ID](#)

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## Subject and learning

- Web application development
- Introduction to database

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## Working experience

Dates	Work
2019-2022	Student at UIT
06/2021-now	Internship at Facebook

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## Skills

HTML/CSS	★	Python	★★★★★
React	★	SQL	★★★★★



# HTML/CSS – CSS Introduction

- There are several CSS formatting options: External Stylesheet (using distinct link and css tags), The Style Region (using style tags placed directly in html code), and Inline Styles.
- When a tag has many distinct CSS forms, the inline format takes priority 1.

# HTML/CSS – CSS Introduction – Exercise 3



- Open the file index-2.html and app.css to see how to format a CSS, add CSS for a tag. The relationship between the two files.
- Open the index-2.html file with Chrome. Guess what lines of code the effects on the web are created with?
- Link of these files:

<https://drive.google.com/file/d/1B4AvDNtrpqRM9hHM0sXEKTES-xjQ6ibq/view?usp=sharing>

# HTML/CSS – CSS Introduction – Exercise 3



- Using your knowledge of html and CSS, add the GENERAL NOTICE section of [daa.uit.edu.vn](http://daa.uit.edu.vn) to [index-2.html](#)

## THÔNG BÁO CHUNG

- › [Hướng dẫn triển khai dạy và học qua mạng trong thời gian phòng chống dịch COVID-19](#) - 27/03/2020 - 11:28
- › [Thông báo khẩn: Các lớp hệ đại học chính quy tiếp tục học qua mạng cho đến khi có thông báo mới để phòng chống Dịch bệnh Covid-19](#) - 27/03/2020 - 10:50
- › [Quyết định về việc chuyển ngành và chuyên ngành cho sinh viên hệ đào tạo chính quy học kỳ 2 năm học 2019-2020](#) - 11/03/2020 - 08:38
- › [Thông báo về việc gia hạn thời gian thu học phí HK2 2019-2020](#) - 10/03/2020 - 15:34
- › [Thông báo code đăng nhập lớp Pháp luật đại cương trong HK 2 NH 2019-2020](#) - 09/03/2020 - 14:56
- › [Thông báo code đăng nhập một số lớp Lý luận chính trị trong HK 2 NH 2019-2020](#) - 08/03/2020 - 21:13
- › [Hướng dẫn SV về việc học online từ 9/3 đến 31/3](#) - 08/03/2020 - 19:19
- › [Thông báo khẩn: Điều chỉnh kế hoạch đào tạo học kỳ 2 do dịch Covid-19 từ ngày 09/3/2020](#) - 06/03/2020 - 14:59
- › [Thông báo thời gian nộp đơn chuyển ngành từ HK 2 năm học 2019-2020](#) - 02/03/2020 - 10:26
- › [Thông báo khẩn: Thay đổi kế hoạch học kỳ 2 do dịch Covid-19](#) - 28/02/2020 - 11:55

[Xem thêm »](#)

# HTML/CSS – Homework 1



- Upgrade your exercise 2 – The CV.
- Using CSS and making as this sample.

## Profile

I'm a student

### About me

I am a lovely cat. I have passion in IT and I want to become data analyst.



### Details

**Name:**  
Tran Van Boss  
**Age:**  
5 years  
**Location:**  
UIT, VNU-HCM

## Experiences

### Educations

#### UIT, VNU-HCM

Apr 2019 - June 2024

#### Information System

The education was mainly System design-basec course, but I also learned about Web, Data analysis and more. During my time in college, I specialized in OOP, data science. Now, I'm learning web development

### Working Experiences

#### Facebook I Fresher Engineer

Sep 2021 - current

#### Partime - Fresher Web Developer

Working as a Fresher Developer on a dating function on Facebook page. Dating function is an app as Tinder





# HTML/CSS – Homework 1

- Upgrade your exercise 2 – The CV.
- Using CSS and making as this sample.

## Abilities

### Skills

HTML/CSS



Object Orientated Programming



SQL



SEO



JQuery



React



Javascript



*See my profile on github.*

[See project on Github](#)

### Languages

Vietnamese (Native)



Cat (Mother Tongue)



English (IELTS 6.5)



Dog (My enemy)



# Javascript – Homework 1




- Please add some javascript code to make it great. For example, you can add menu on the left of this website. When people click on each part, your website will direct them here.

## Profile

I'm a student

### About me

I am a lovely cat. I have passion in IT and I want to become data analyst.



### Details

**Name:**  
Tran Van Boss  
**Age:**  
5 years  
**Location:**  
UIT, VNU-HCM

Profile

Experiences

Abilities

Projects

Contact

# Javascript – Homework 2



- Develop a website similar to this and add sound to each button.

## Drum 🥁 Kit





## Homework 2- Hint

- Find out more about DOM Audio Object, addEventListener
- Add 2 types of EventListener, first is click and next is keypress
- Use switch-case to perform it.

# Javascript – Homework 3 – Inspired by Dau Dinh Quang Anh (CTTT2020)



- Access to this link and clone this:
- <https://www.youtube.com/watch?v=FazgJVnrVul>
- After that, develop a teaser website that provides information about the upcoming Information System Training Camp, stimulates interest, and allows potential participants to get a glimpse of what to expect.
- The figure and other materials you can find here:  
<https://www.facebook.com/profile/100064235221783/search/?q=tr%E1%BA%A1i%20r%C3%A8n%20luy%E1%BB%87n>

# Javascript – Homework 3 - Design & Aesthetics



- Adhere to the camp's color scheme and branding guidelines.
- Ensure the design is mobile-responsive and cross-browser compatible.
- Use high-resolution images and graphics related to the camp's theme.
- Ensure an intuitive user interface with easy navigation.

# Javascript – Homework 3 - Core Features



- Homepage: Brief about the training camp, countdown timer to the camp's start date, and a visually appealing banner or hero section.
- About Page: Detailed information about the camp, its objectives, and expected outcomes.
- Schedule: Provide a tentative schedule or timeline of activities and sessions during the camp.
- Gallery: A section to display photos or videos from previous camps or related activities.
- Contact Information:\*\* Details such as phone number, email address, and physical location (if relevant).

# Javascript – Homework 3 - Functionality & Interactivity



- Implement smooth transitions and animations for a dynamic user experience.
- Ensure the registration form captures necessary details and has validation checks.
- Include a confirmation notification or email functionality for successful registrations.
- Integrate social media sharing

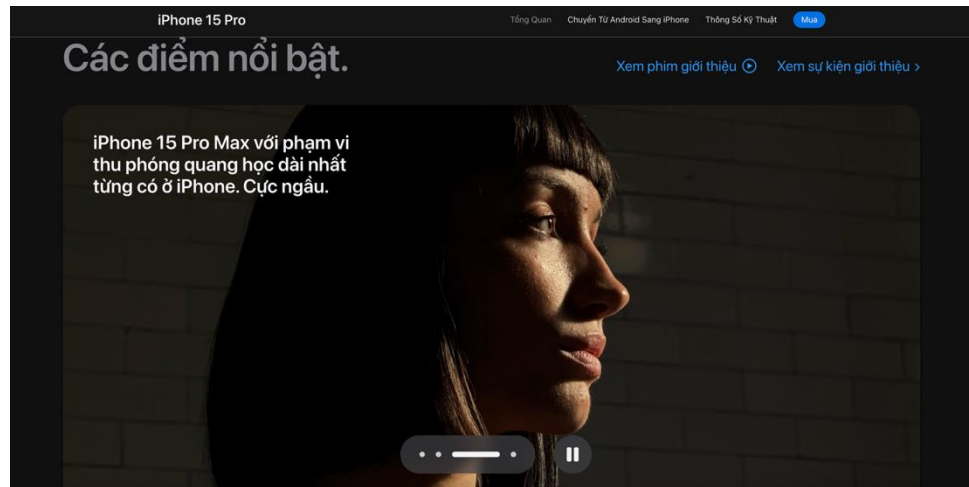
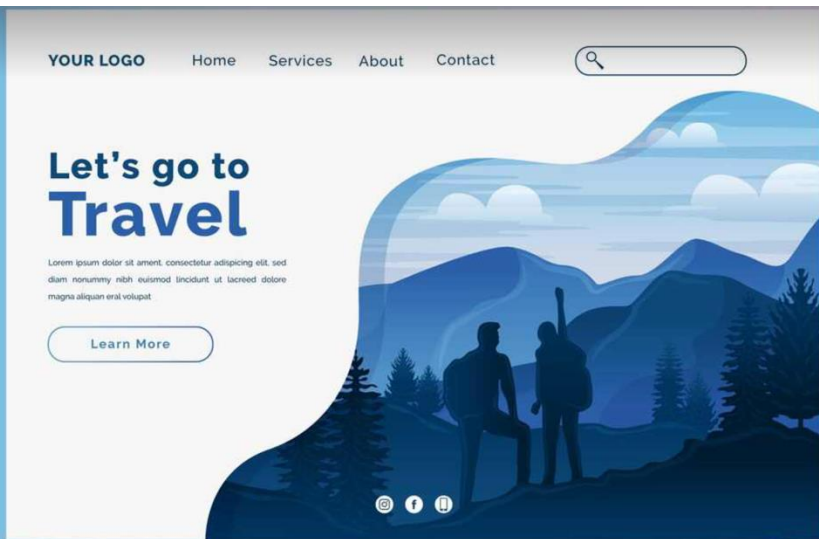


# Javascript – Homework 3 (Option 2) - Functionality & Interactivity



- Some typical examples of teaser website:

<https://www.apple.com/vn/iphone-15-pro/>





## Thank you for cooperating

*"Coming together is a beginning;  
Keeping together is progress;  
Working together is success."*  
- HENRY FORD