

## WEB PROGRAMMING AND APPLICATIONS

(503073)

Lab 2

by Mai Van Manh

### Objective:

This week, you will enhance your understanding of CSS by styling a set of provided HTML files. The given HTML files contain only structural markup and lack any styling. **Your task** is to create and apply CSS rules to improve the visual appearance of these pages, aligning them with the provided illustrative examples.

### Key Requirements:

- **CSS Styling:** Write CSS code to style the pages according to the reference images.
- **Non-Intrusive HTML Editing:** You are not permitted to modify the HTML code directly, except for updating class attribute values as necessary.
- **Separate Stylesheet:** Place your CSS code in a standalone file (e.g., style.css) and link it to the HTML files using the `<link>` tag in the `<head>` section.

Before beginning the exercises, ensure you have reviewed the tutorial videos corresponding to this lab for guidance on best practices and techniques.

### Exercise 1: Customizing a Button

Create a `.black-button` class to style a button as shown in the images. The button should have a black background, white text, and slightly rounded corners. On hover, its background color should transition smoothly to gray (#808080) over 0.5 seconds and revert when the mouse leaves. Use the `:hover` pseudo-class and the `transition` property to implement the effect.

Purchase

Purchase

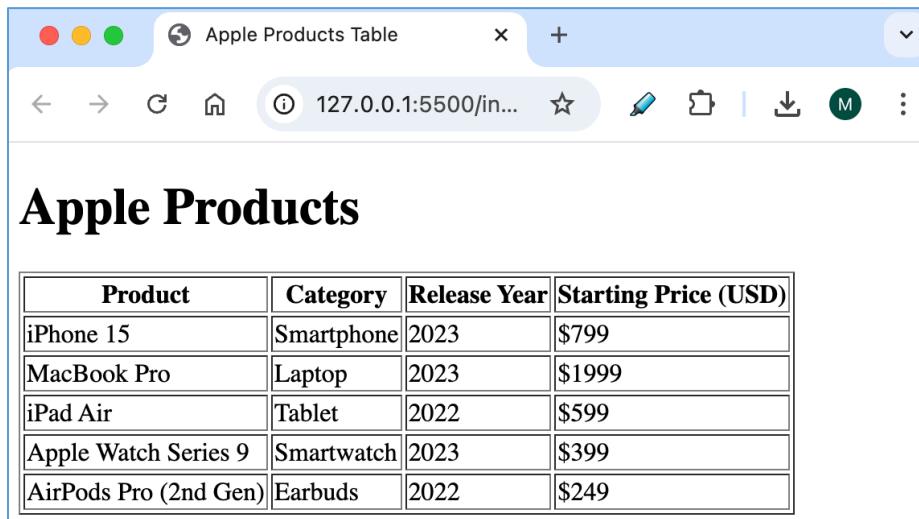
*Default state of the button*

*Button state on hover*

## Exercise 2: Styling a Table

You are provided with an HTML file containing a bare table that lists Apple products. Your task is to write CSS to style and decorate the table.

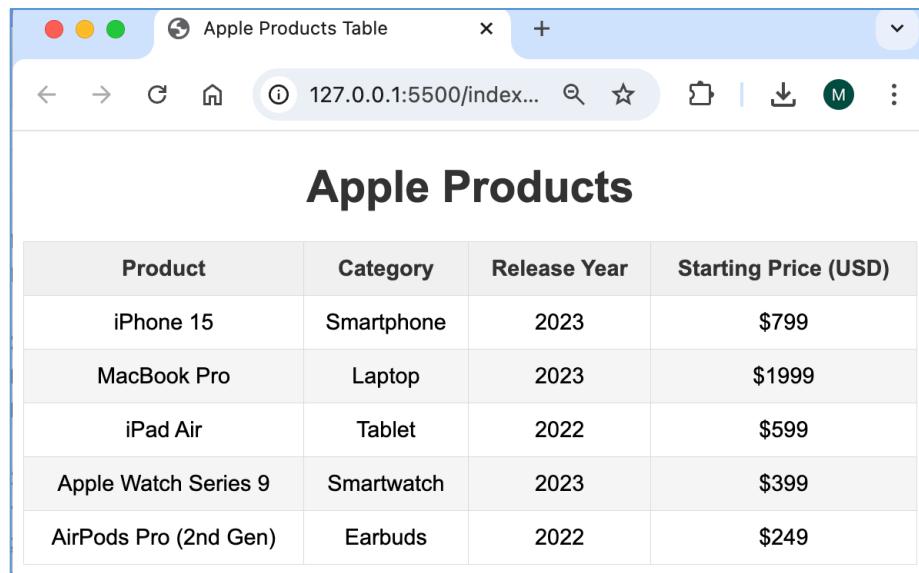
The table should span the full width of the container, with borders collapsed for a clean layout. Apply padding and center-align the text in each cell, and make sure the header row has a distinct background color with bold text. Use alternating row colors to improve readability and apply a hover effect that highlights rows when the mouse is over them.



A screenshot of a web browser window titled "Apple Products Table". The address bar shows "127.0.0.1:5500/index...". The main content area displays the heading "Apple Products" followed by a table with six rows of data. The table has four columns: Product, Category, Release Year, and Starting Price (USD). The data is as follows:

Product	Category	Release Year	Starting Price (USD)
iPhone 15	Smartphone	2023	\$799
MacBook Pro	Laptop	2023	\$1999
iPad Air	Tablet	2022	\$599
Apple Watch Series 9	Smartwatch	2023	\$399
AirPods Pro (2nd Gen)	Earbuds	2022	\$249

Table before styling



A screenshot of a web browser window titled "Apple Products Table". The address bar shows "127.0.0.1:5500/index...". The main content area displays the heading "Apple Products" followed by a table with six rows of data. The table has four columns: Product, Category, Release Year, and Starting Price (USD). The data is the same as the original table. The styling includes a light gray background for all rows, bold text for the header row, and centered text within each cell.

Product	Category	Release Year	Starting Price (USD)
iPhone 15	Smartphone	2023	\$799
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Table after applying CSS styling

### Exercise 3: Registration Form

Your Name

Email address

Email address is not valid

Birthday  

Birthtime  

Gender

Male  Female

Country

Please select a country

TOEIC

Your Name

Email address

Email address is not valid

Birthday  

Birthtime  

Gender

Male  Female

Country

Please select a country

TOEIC

Figure 1. HTML Form without CSS

Figure 2. HTML Form with CSS

### Exercise 4: Responsive Website

#### Responsie Website

- Vietnam
- Singapore
- Thailand
- Indonesia

#### Tutorials

To make the layout responsive, using **media query** feature. This feature allows us to set css on different conditions such as: viewport size, rotation direction of screen, type of device running ...

#### What is Lorem Ipsum?

Lorem Ipsum is simply dummy text of the printing and typesetting industry.

#### Where does it come from?

Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old.

#### Why do we use it?

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout..

Lorem Ipsum chỉ đơn giản là một đoạn văn bản giả, được dùng vào việc trình bày và dàn trang phục vụ cho in ấn.

Figure 1. Plain HTML page

## Responsie Website

[Vietnam](#)  
[Singapore](#)  
[Thailand](#)  
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Figure 2. HTML page with CSS applied when running on PC

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Figure 3. HTML page with CSS applied when running on tablet devices

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Figure 4. HTML with CSS applied when running on mobile devices

### Exercise 5: Chat Conversation

```
Hello
I would like for the div to only expand to as wide as my table becomes.
Hello
when there are no width specified. I heard they think of adding what you w
Hello
lement that has what CSS calls shrink-to-fit width and the spec does not pr
Hello
Hello
Hello
Hello
Hello
the effect is called "shrinkwrapping", and as answered there's a couple of v
Hello
You want a block element that has what CSS calls shrink-to-fit width and t
"has to" get a width out of thin air. Those situations are:
Hello
Hello
```

Hello

I would like for the div to only expand to as wide as my table becomes.

Hello

when there are no width specified. I heard they think of adding what you want in CSS3. For now, make do with one of the above.

Figure 1. HTML only

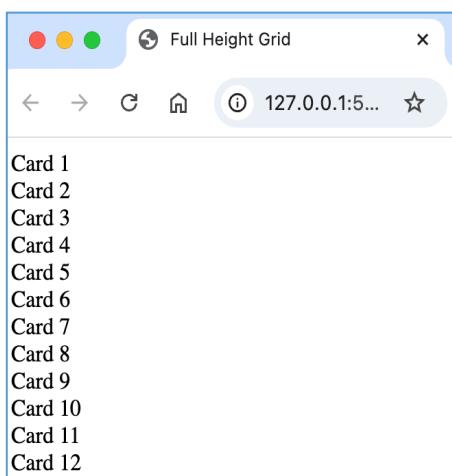
Figure 2. HTML with CSS applied

### Exercise 6: Simple ListView (using flexbox)



### Exercise 7: Full-Height Grid Layout

In this exercise, you are tasked with creating a full-width, full-height container that uses CSS Grid to display a grid with 3 rows and 4 columns. Each grid cell should contain centered text. The container should take up the entire viewport, and each cell should have a background color with centered text. Add appropriate spacing between the cells using grid gaps.



Before using CSS Grid



After using CSS Grid

### Exercise 8: Student Schedule Table

student schedule			
Day/Period	I	II	III
Monday	Math	Physics	IV
Tuesday	LAB		
Wednesday	History	Music	
Thursday	Physical Education	Swimming	
Friday	LAB		
Saturday	Math	Physics	
Sunday			Homework

Figure 1. Plain HTML Table

STUDENT SCHEDULE			
DAY/PERIOD	I	II	III
Monday	Math	Physics	
Tuesday	LAB		
Wednesday	History	Music	SEMINAR
Thursday	Physical Education	Swimming	Chemistry Biology
Friday	LAB		Geography Informatics
Saturday	Math	Physics	LAB
Sunday			Homework

Figure 2.. HTML Table with CSS applied