

CASCADING STYLE SHEETS : CSS

01 INTRODUCTION

INFO 2302 WEB TECHNOLOGIES

What is CSS ...?

```
1 button:hover {  
2  
3     background-color: green;  
4  
5     transform: scale(1.1);  
6  
7 }
```

CSS



CSS Introduction

- **Cascading Style Sheets**, fondly referred to as **CSS**, is a simple design language intended to simplify the process of **making webpages presentable**.
- CSS handles the look and feel part of a web page. Using CSS,
 - you can control the color of the text, the style of fonts,
 - the spacing between paragraphs, how columns are sized and laid out,
 - **what background images or colors are used, as well as a variety of other effects.**
- CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.

CSS Introduction

- CSS is important because it allows web developers to separate the content and structure of a webpage from its presentation.
- This makes it easier to maintain and update a webpage, and it also allows for more flexibility in design.
- With CSS, you can create responsive web designs that look great on any device, from desktops to smartphones.

CSS Introduction -ADVANTAGES

- **CSS SAVE TIME**

- You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.

- **PAGES LOAD FASTER**

- If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply to all the occurrences of that tag. So less code means faster **download times**.

- **EASY MAINTENANCE**

- To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

CSS Introduction -ADVANTAGES

- **SUPERIOR STYLES TO HTML**

- CSS has a much wider array or attributes than HTML so you can give far better look to your **HTML page in comparison of HTML attributes.**

- **MULTIPLE DEVICE COMPATIBILITY**

- Style sheets allow content to be optimized for more than one type of device. By using the same **HTML document, different versions of a website can be presented for handheld devices** such as tablet and cell phone.

- **GLOBAL WEB STANDARDS**

- Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

CSS Introduction –Who creates and maintain CSS



Word Wide Web Consortium

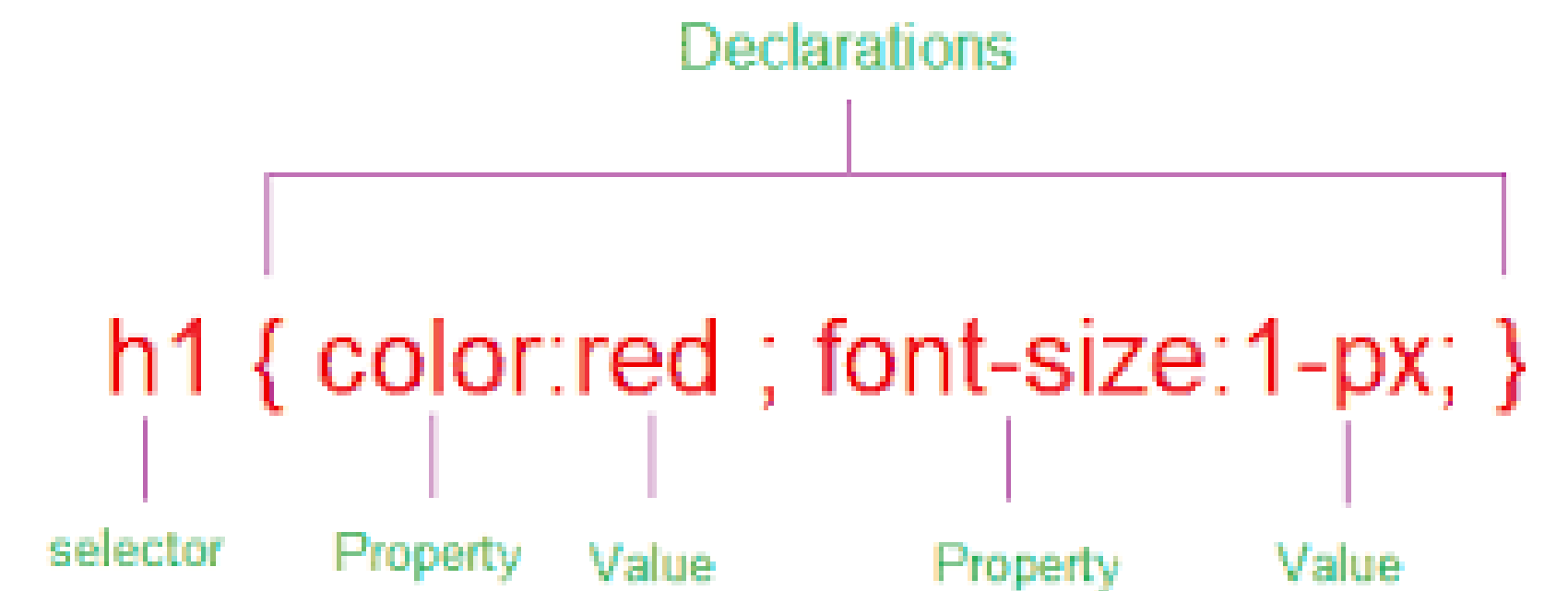
- CSS is created and maintained through a group of people within the W3C called the CSS Working Group. The CSS Working Group creates documents called specifications. When a specification has been discussed and officially ratified by W3C members, it becomes a recommendation.
- These ratified specifications are called recommendations because the W3C has no control over the actual implementation of the language. Independent companies and organizations create that software.
- **NOTE:** The World Wide Web Association, or W3C is a group that makes recommendations about how the Internet works and how It should evolve.

CSS Introduction –CSS versions

- Cascading Style Sheets, level 1 (CSS1) came out of W3C as a recommendation in December 1996. This version describes the CSS language as well as a simple visual formatting model for all the HTML tags.
- CSS2 was become a W3C recommendation in May 1998 and was builds on CSS1. This version adds support for media-specific style sheets **e.g.** printers and aural devices, downloadable fonts, element positioning and tables.
- CSS3 (2005) , is a more advanced version of CSS and the successor of CSS2. CSS3 incorporates more up-to-date features designed to increase efficiency and make it more convenient for developers to use. Ex, opacity, animations, Works with media queries, thus allowing responsive web design.

CSS SYNTAX - SELECTORS

- A CSS comprises of style rules that are interpreted by the browser and then applied to the **corresponding elements in your document**.
A style rule is made of three parts:
- **SELECTOR:**
 - A selector is an HTML tag at which style will be applied. This could be any tag like `<h1>` or `<table>` etc.
- **PROPERTY:**
 - A property is a type of attribute of HTML tag. Put simply, all the HTML attributes are converted into CSS properties. They could be color or border etc.
- **VALUE:**
 - Values are assigned to properties. For example color property can have value either red or #F1F1F1 etc.



CSS SYNTAX - SELECTORS

SELECTOR	Example	Example Description
.class	.intro	Selects all elements with class = “intro”
#id	#container	Selects all elements with id = “container”
*	*	Selects all elements
element	p	Selects all <p> elements
element, element	div, p	Selects all <div> and <p> elements
selector::pseudo-element	p::first-letter	Selects the first letter in <p> elements
selector:pseudo-class	a:link	Select unvisited link
https://www.w3schools.com/cssref/css_selectors.php more		

CSS SYNTAX – Applying CSS into HTML

a) Inline styles

```
<p style="color: red;">This is CSS</p>
```

a) Internal stylesheet

```
<head><style> p{color: red;}</style></head>
```

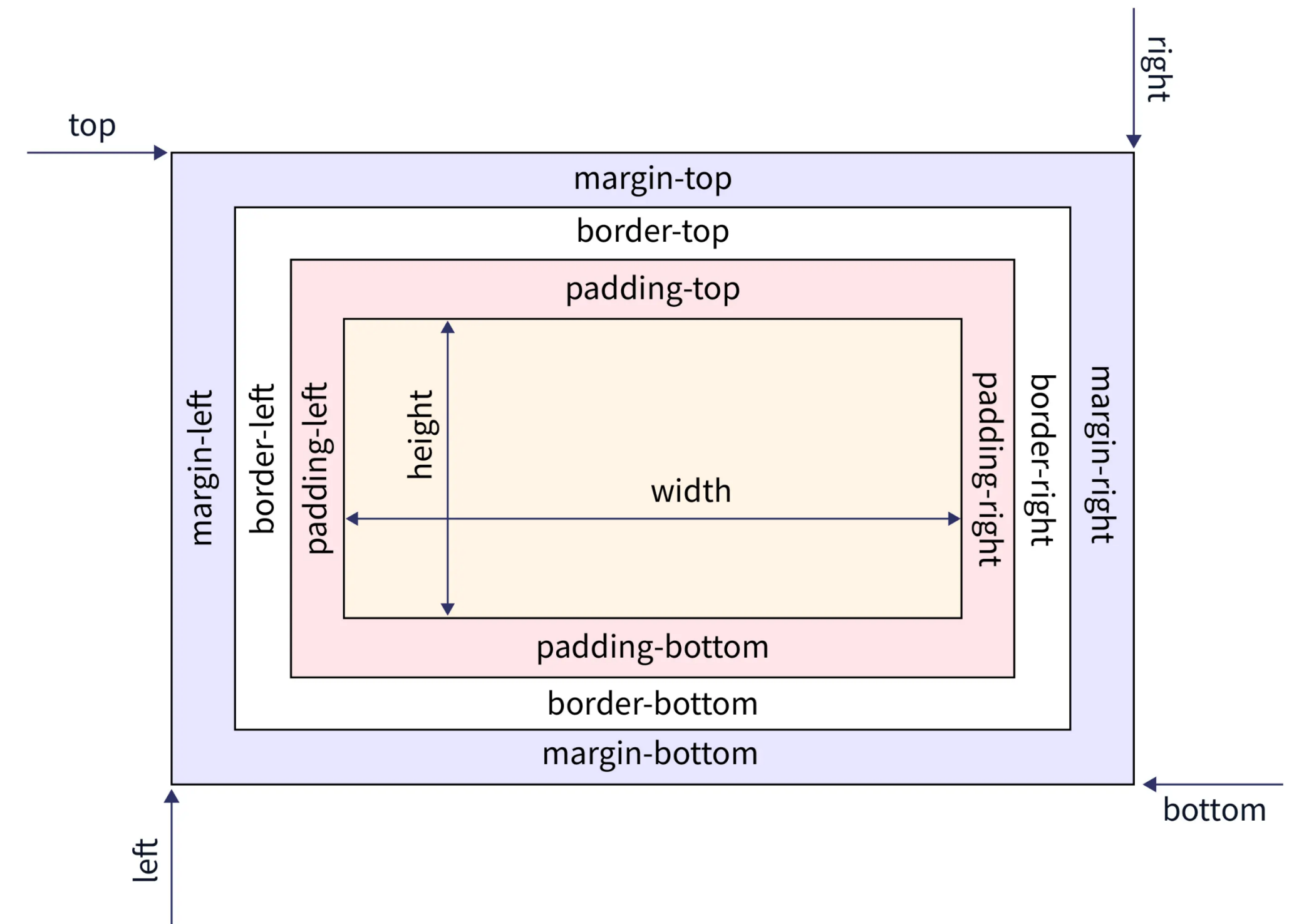
a) External stylesheet –

```
<head><link rel="stylesheet" href="style.css"></head>
```

.

CSS SYNTAX – BOX MODEL

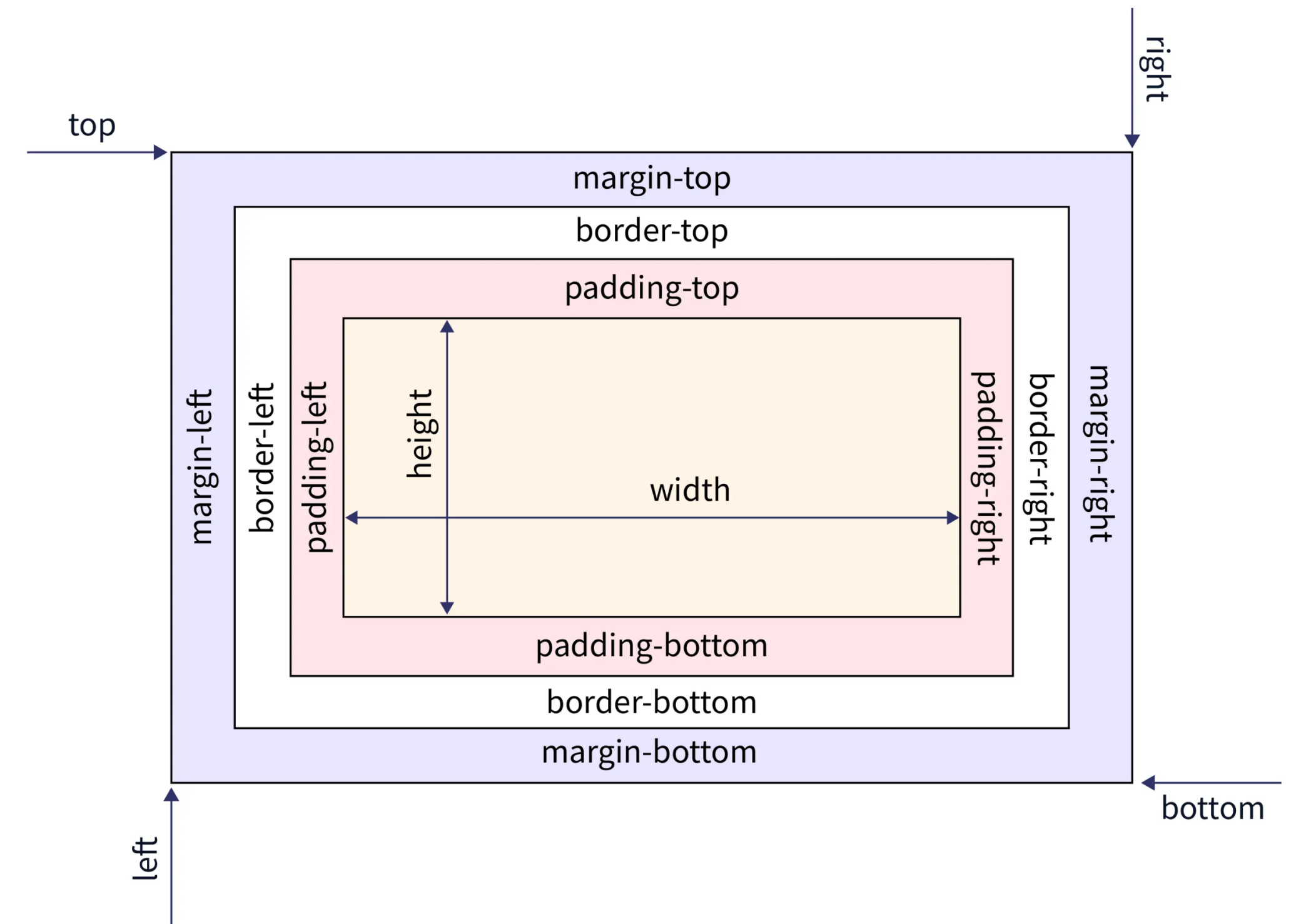
- The CSS box model is the foundation of layout on the Web
- Each element is represented as a rectangular box, with the box's content, padding, border, and margin built up around one another like the layers of an onion.



SCALER
Topics

CSS useful link

- <https://htmlcheatsheet.com/css/>
- <https://www.csszengarden.com/>
- <https://codepen.io/>



SCALER
Topics

CSS walk trough

```
<!DOCTYPE html>
<html>
<head>
</head>
<body>

<h1>My First CSS Example</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

```
<style>
body {
  background-color: lightblue;
}

h1 {
  color: white;
  text-align: center;
}

p {
  font-family: verdana;
  font-size: 20px;
}
</style>
```




CLASS ACTIVITIES