

Intro ASP.NET Core 3.1 course

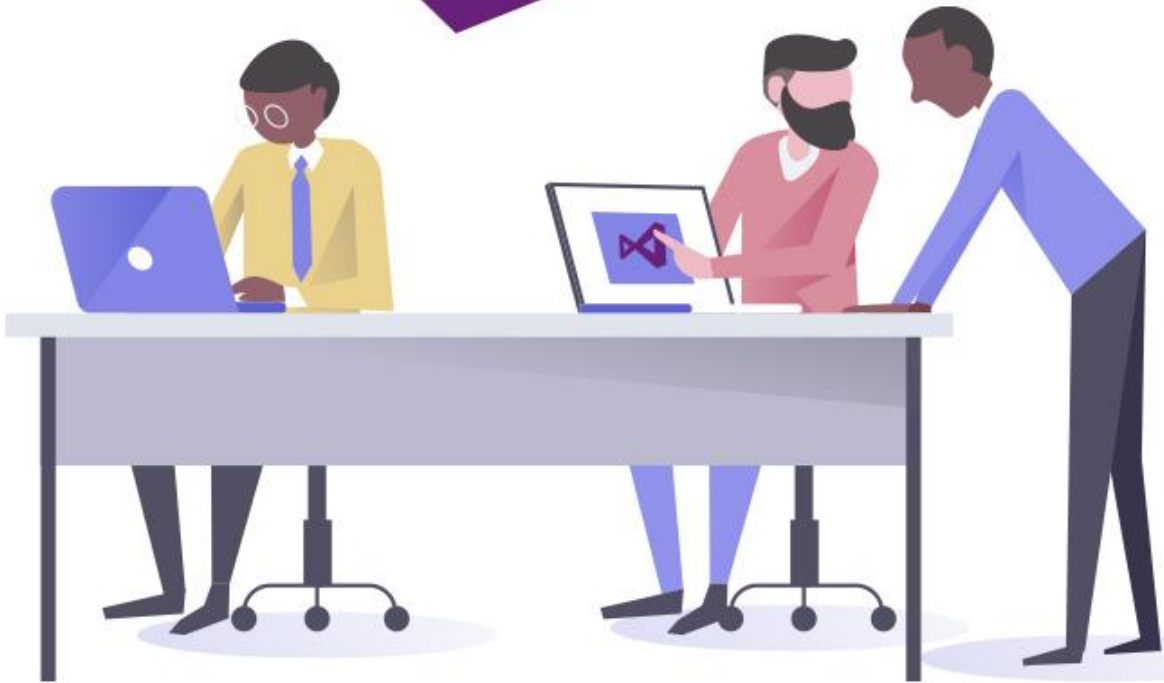


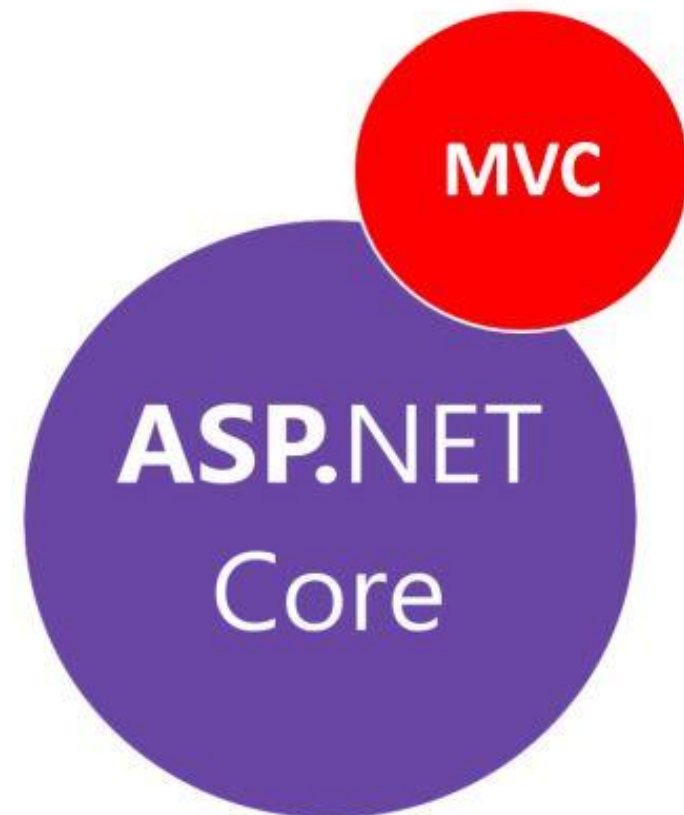
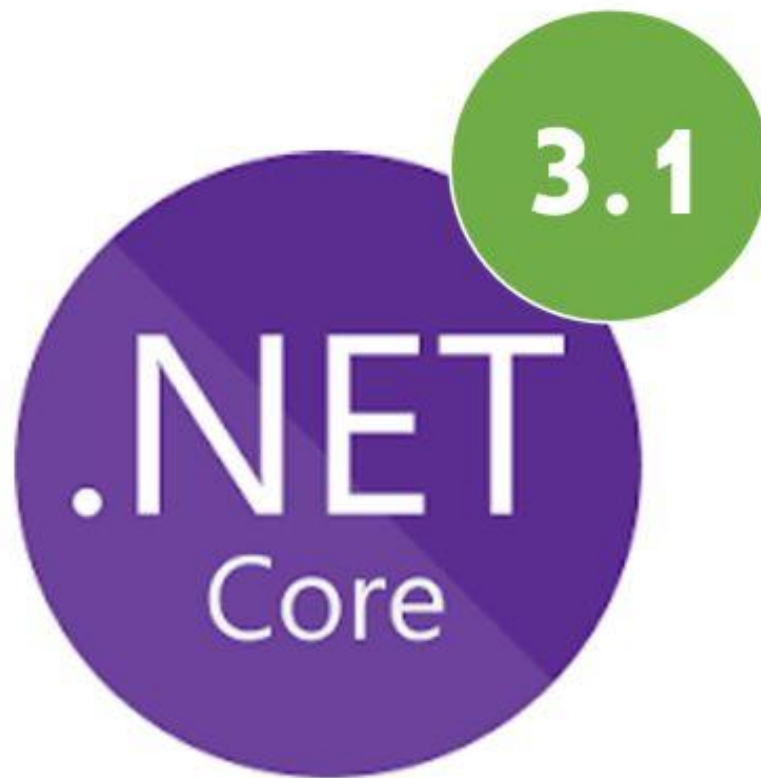
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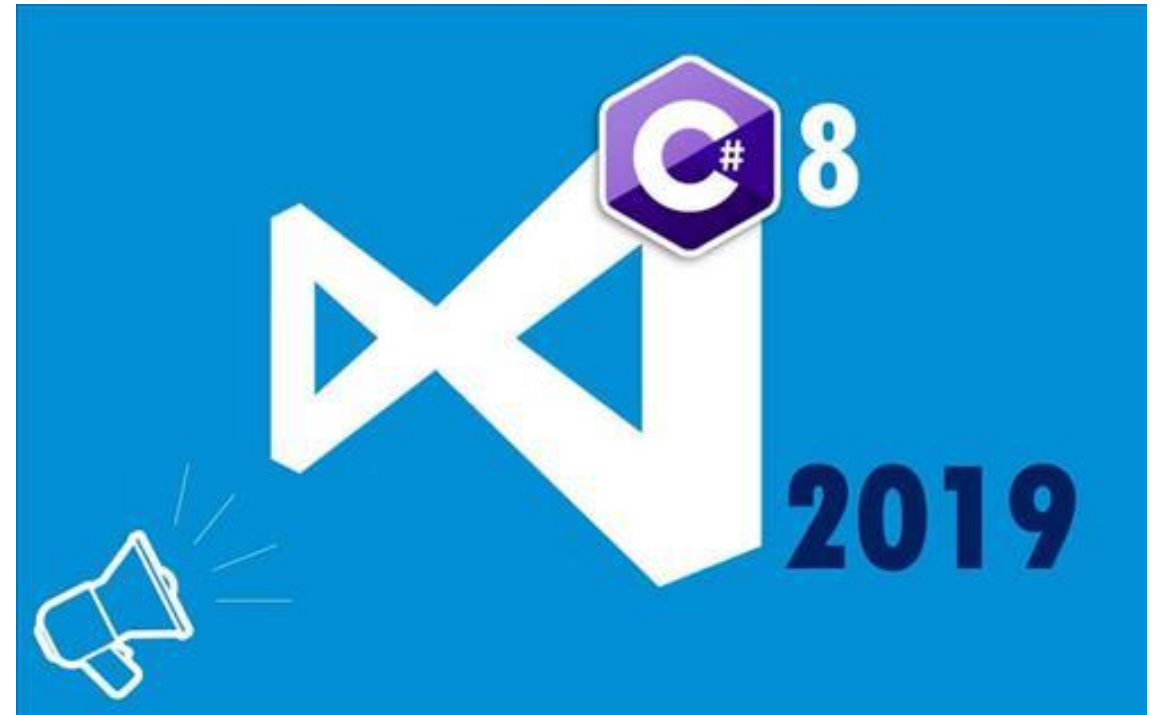






Nội dung

- ❑ Ôn tập C# cơ bản
- ❑ HTML5, CSS3, BootStrap, jQuery
- ❑ ASP.NET Core
- ❑ MVC Core
- ❑ EF Core
- ❑ API
- ❑ Project



ASP.NET Core 3.1

Overview, HTML + CSS



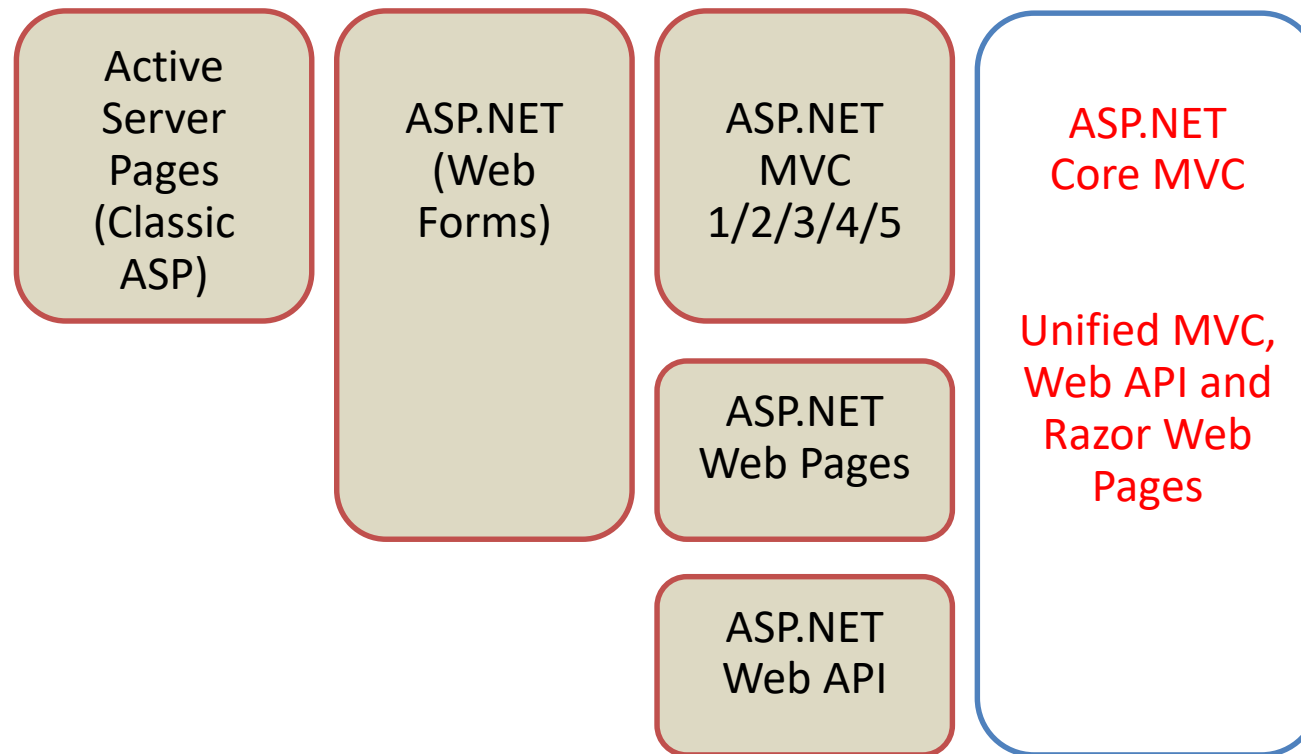
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- Giới thiệu ASP.NET Core
- Cấu trúc project .NET Core
- HTML
- CSS

Sự phát triển của ASP và ASP .NET

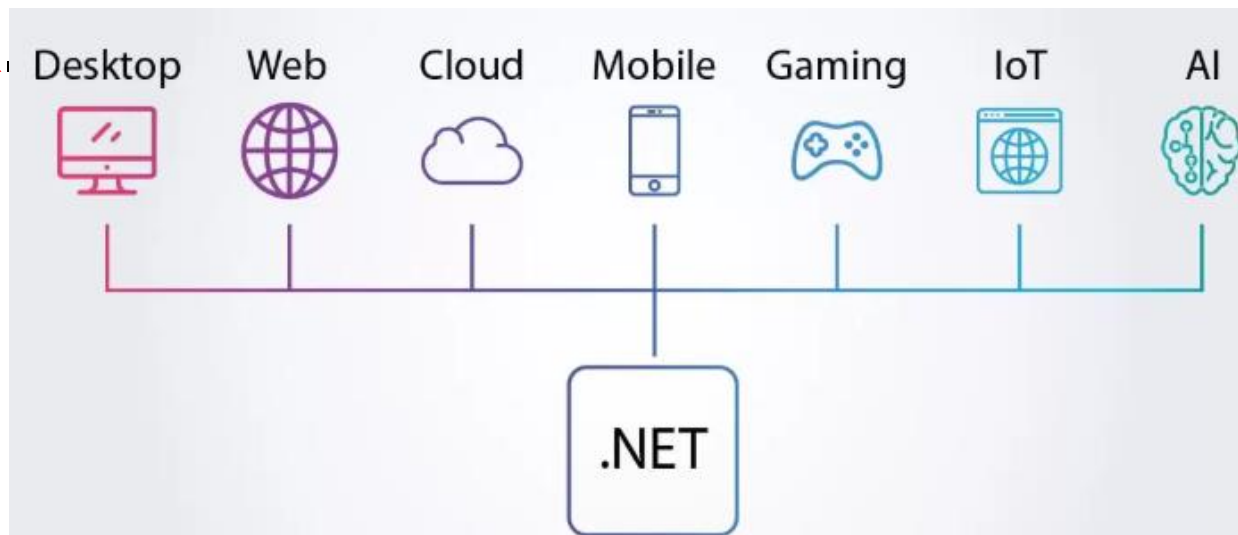




ASP.NET Core Overview

ASP.NET Core Overview

- ❑ **ASP.NET Core** is a cross-platform, open-source framework
 - You can build web applications and services, **IoT** apps, and mobile backends with ASP.NET Core.
- ❑ **ASP.NET Core** provides:
 - Integration of **modern client-side frameworks** and **development workflows**.
- ❑ **ASP.NET Core** applications run both on **.NET Core** and **.NET Framework**.



ASP.NET Overview

Sites

Services

Web
Forms

Web
Pages

MVC

Web
API

SignalR

ASP.NET

ASP.NET Core Overview

Sites

Services

Web Pages

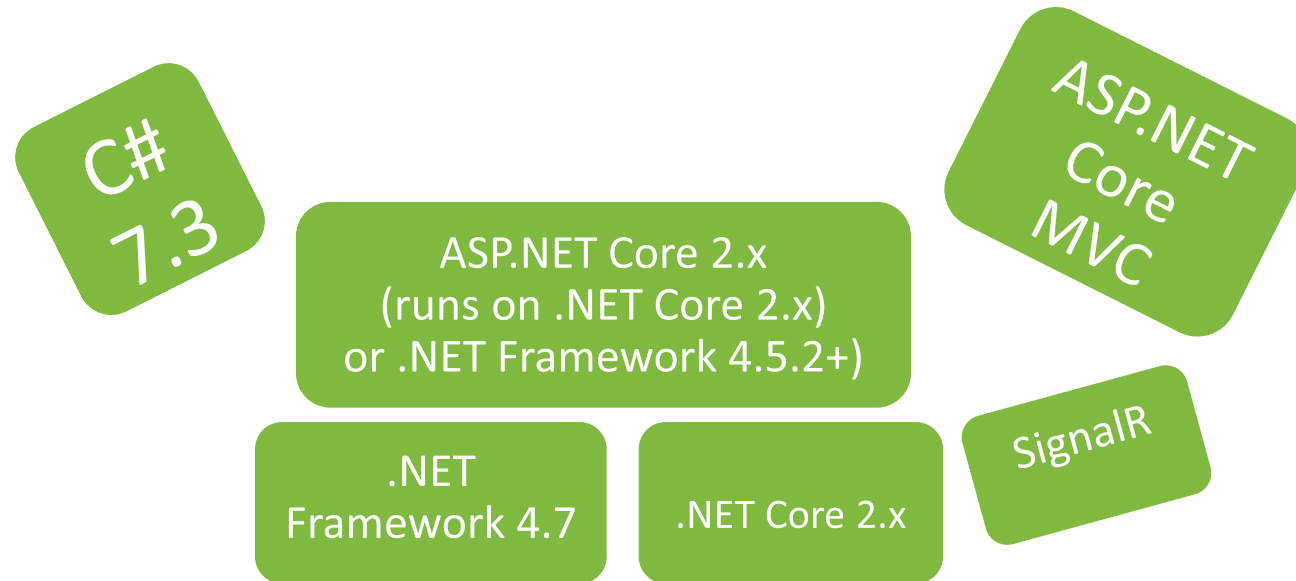
MVC

Web
API

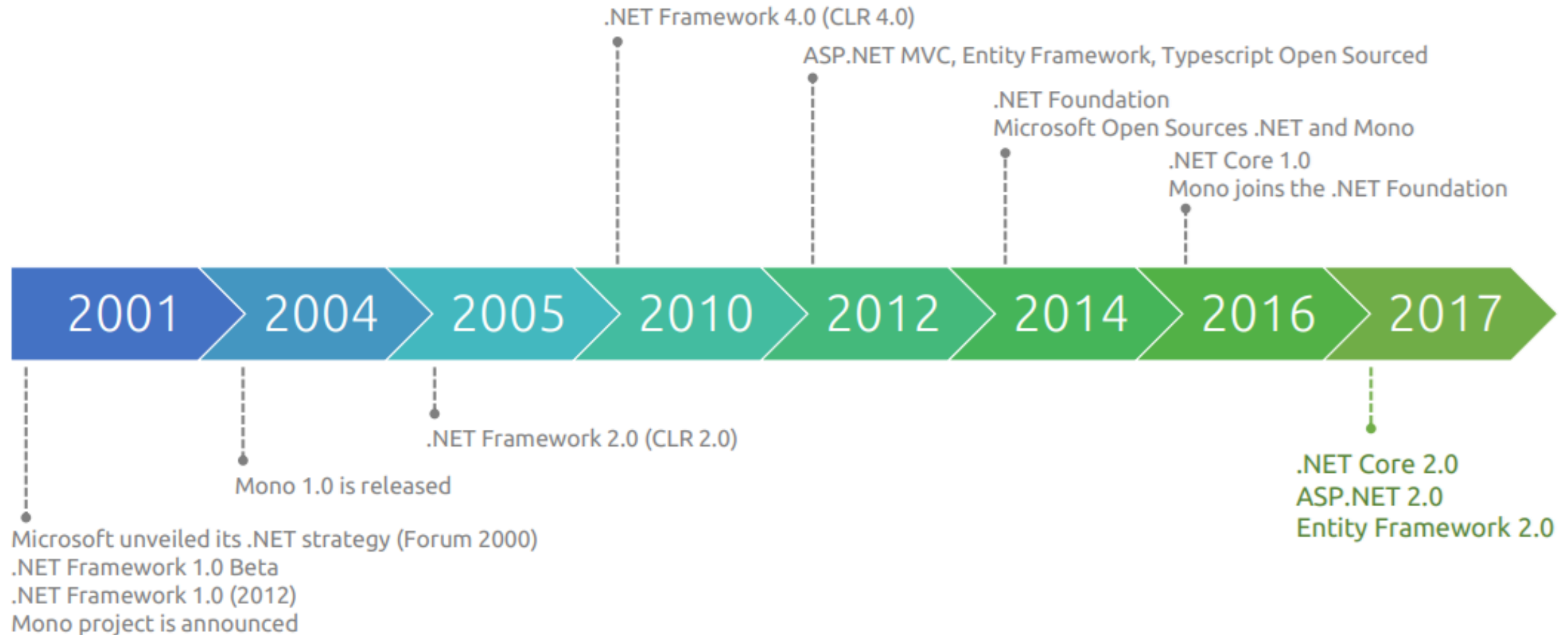
SignalR

ASP.NET Core

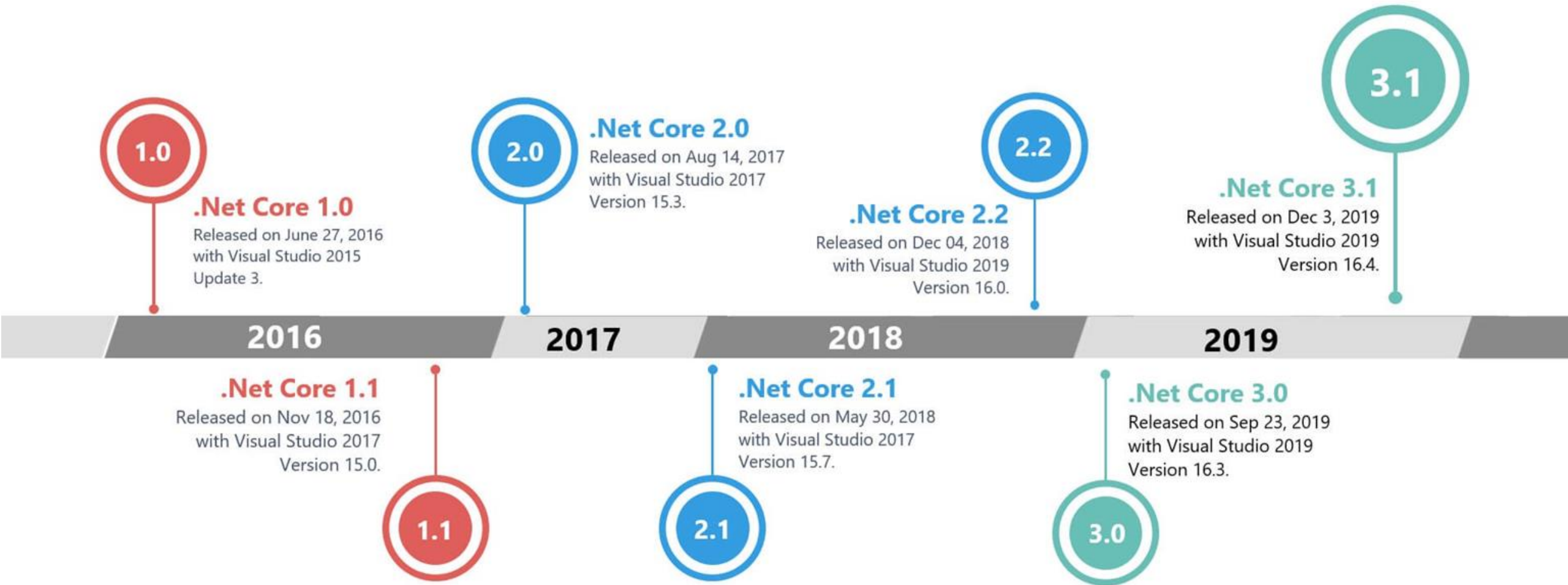
Names & Version Numbers



History of .NET Framework



History of .NET Core Framework



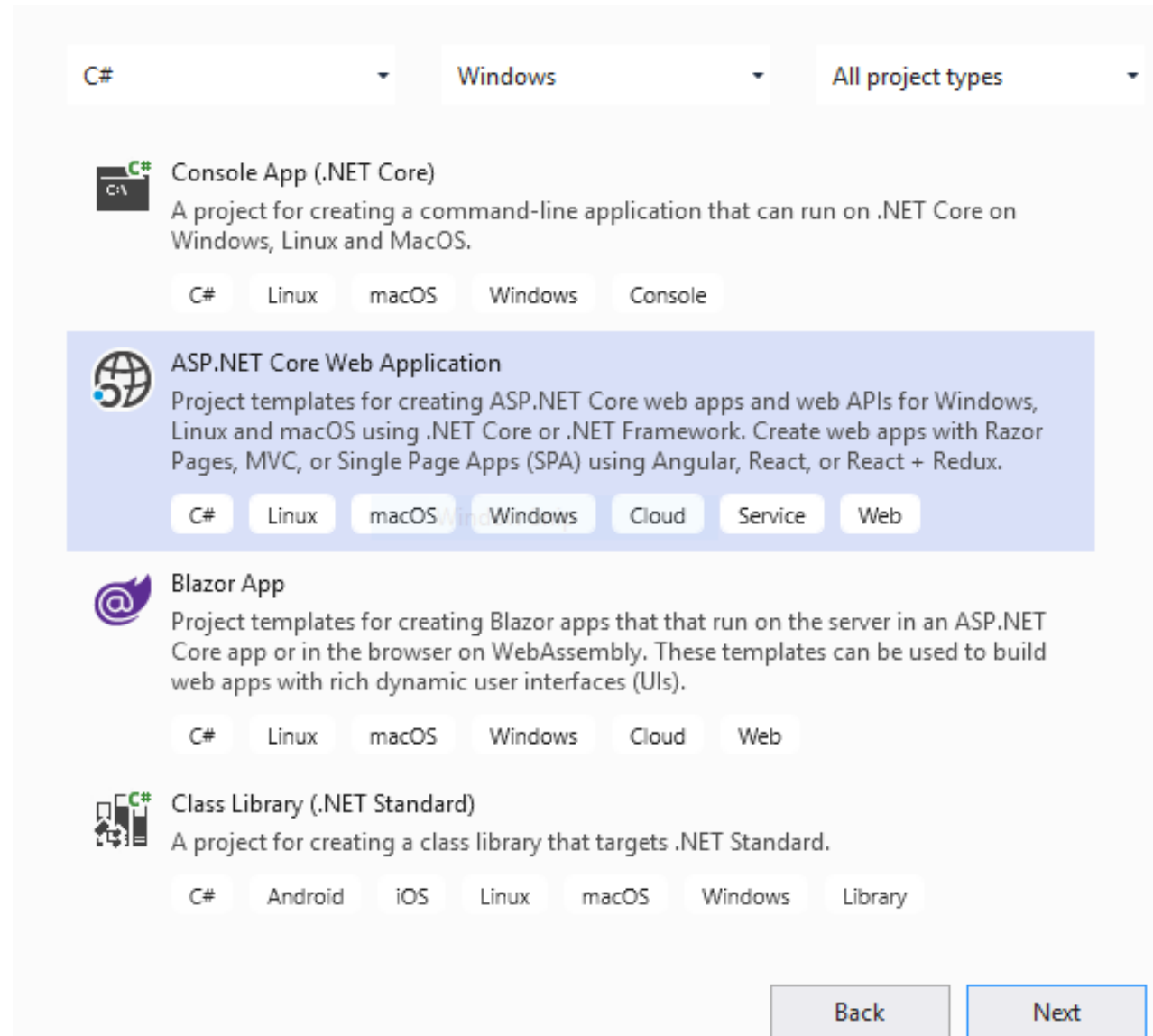
.NET Schedule



- .NET Core 3.0 release in September
- .NET Core 3.1 = Long Term Support (LTS)
- .NET 5.0 release in November 2020
- Major releases every year, LTS for even numbered releases
- Predictable schedule, minor releases if needed

Visual Studio .NET Core Templates

- ☐ Console App
- ☒ **ASP.NET Core**
- ☐ Blazor App
- ☐ Class Library



ASP.NET Core Project Templates

- ☐ Empty
- ☐ Web API
- ☐ Web App
- ☒ **Web App (MVC)**
- ☐ Angular
- ☐ React
- ☐ React and Redux
- ☐ Docker

The screenshot shows the ASP.NET Core project templates selection interface. At the top, there are two dropdown menus: '.NET Core' and 'ASP.NET Core 3.1'. Below these, a list of templates is displayed:

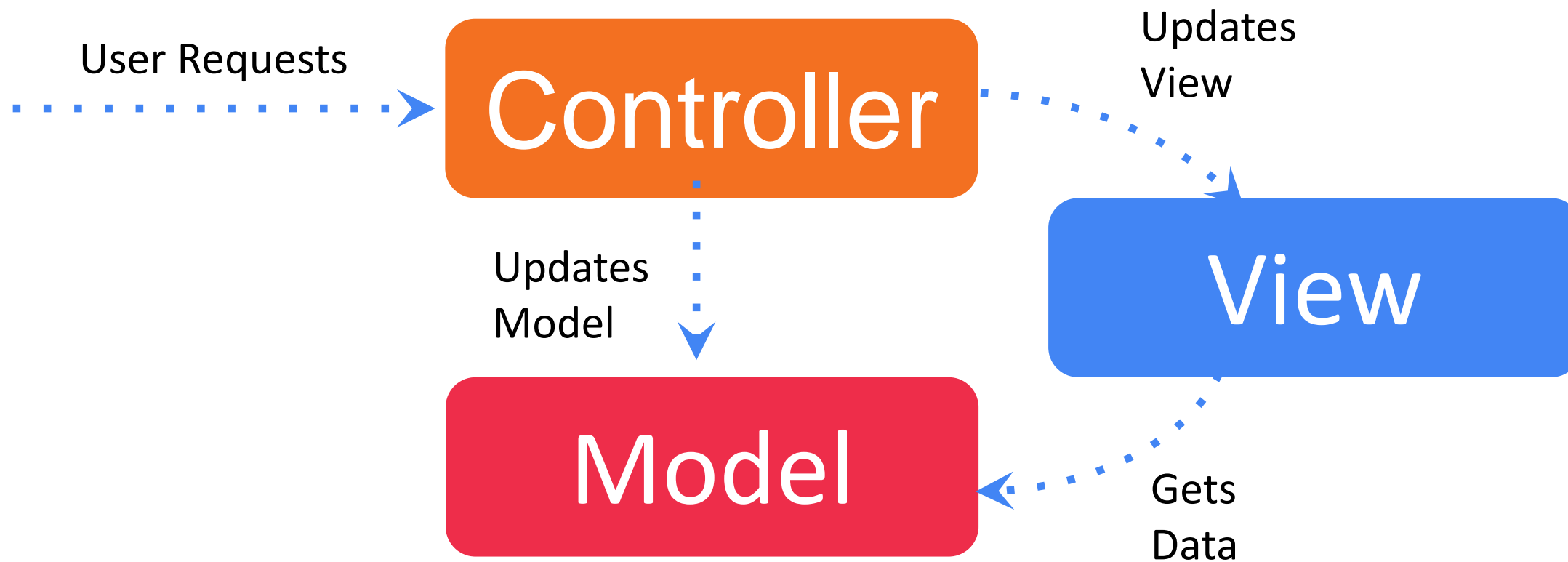
- Empty**: An empty project template for creating an ASP.NET Core application. This template does not have any content in it.
- API**: A project template for creating an ASP.NET Core application with an example Controller for a RESTful HTTP service. This template can also be used for ASP.NET Core MVC Views and Controllers.
- Web Application**: A project template for creating an ASP.NET Core application with example ASP.NET Razor Pages content.
- Web Application (Model-View-Controller)**: A project template for creating an ASP.NET Core application with example ASP.NET Core MVC Views and Controllers. This template can also be used for RESTful HTTP services. (This template is highlighted in blue in the screenshot).
- Angular**: A project template for creating an ASP.NET Core application with Angular.
- React.js**: A project template for creating an ASP.NET Core application with React.js.

On the right side, there are two sections:

- Authentication**: No Authentication. A [Change](#) link is available.
- Advanced**:
 - ☒ Configure for HTTPS
 - ☐ Enable Docker Support (Requires [Docker Desktop](#))

At the bottom right, there is a dropdown menu for the operating system, currently set to 'Linux'. Below that, it says 'Author: Microsoft' and 'Source: .NET Core 3.1.1'.

MVC Web MVC Basics



HTML & CSS



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Nội dung

□ HTML

- Cấu trúc trang HTML5
- Các thẻ cơ bản
- Form
- Bảng

□ CSS

- Selector
- Nạp chồng
- Box Model
- Positioning
- Layout

□ Cấu trúc trang web

- `<html>`, `<head>`, `<body>`, `<title>`, `<meta>`

□ Các thẻ căn bản

- Tiêu đề: `<h1>`, `<h2>`, ... `<h6>`
- Danh sách: ``, ``, ``
- Đa ph.tiện: ``, `<embed>`
- Bảng: `<table>`, `<tr>`, `<th>`, `<td>`

□ Form nhập

- `<form>`, `<input>`, `<select>`, `<textarea>`
- `<label>`, `<fieldset>`, `<legend>`

HTML-CẤU TRÚC

```
<html>
<head>
  <meta charset="utf-8">
  <title>Tiêu đề</title>
</head>
<body>
  <h1>CHÀO QUÍ VỊ</h1>
</body>
</html>
```

HTML Terminology

- ❑ Tags – the smallest piece in HTML
- ❑ Attributes – properties of the tag, e.g. size, color, etc...
- ❑ Elements – combination of opening, closing tag and attributes

Opening tag

Attribute: **key** = "**value**"

``

Navigate to

`home page`

``

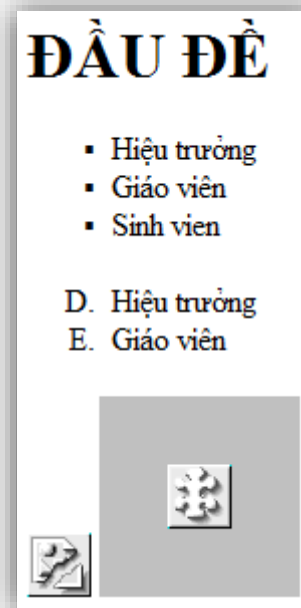
Element

Closing tag

HTML-THẺ CĂN BẢN

```
<h1>ĐẦU ĐỀ</h1>
<ul type="square">
  <li>Hiệu trưởng </li>
  <li>Giáo viên</li>
  <li>Sinh viên</li>
</ul>
<ol type="A" start="4">
  <li>Hiệu trưởng </li>
  <li>Giáo viên</li>
</ol>

<embed src="fim.mp3" width="100" height="100">
```



Image, Video, Audio



```

```



```
<video width="320" height="240" controls autoplay>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
  Your browser does not support the video tag.
</video>
```



```
<audio controls autoplay>
  <source src="horse.ogg" type="audio/ogg">
  <source src="horse.mp3" type="audio/mpeg">
  Your browser does not support the audio element.
</audio>
```

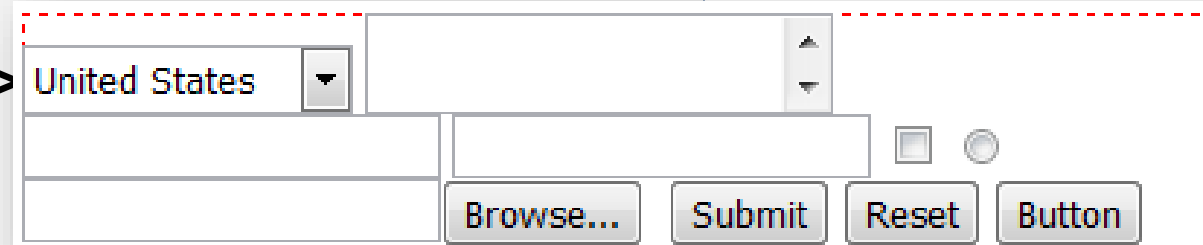
HTML-BẢNG

```
<table width="300" border="1" cellspacing="2" cellpadding="5">
  <tr>
    <td>A</td>
    <td>B</td>
    <td>C</td>
  </tr>
  <tr>
    <td colspan="2" bgcolor="#FFFF00">D</td>
    <td rowspan="2" bgcolor="#FF0000">E</td>
  </tr>
  <tr>
    <td>F</td>
    <td>G</td>
  </tr>
</table>
```

A	B	C
D		E
F	G	

HTML-FORM

```
<form action="" method="post" enctype="multipart/form-data" name="form1">
  <select name="select">
    <option value="VN">Viet Nam</option>
    <option value="US">United States</option>
  </select>
  <textarea name="textarea"></textarea>
  <input type="text" name="textfield">
  <input type="password" name="textfield2">
  <input type="checkbox" name="checkbox" value="checkbox">
  <input name="radiobutton" type="radio" value="radiobutton">
  <input type="file" name="file">
  <input type="submit" name="Submit" value="Submit">
  <input type="reset" name="Submit2" value="Reset">
  <input type="button" name="Submit22" value="Button">
</form>
```



Thẻ tổ chức bố cục

❑ <div>, <p>

❑ <fieldset> + <legend>

❑ Semantic

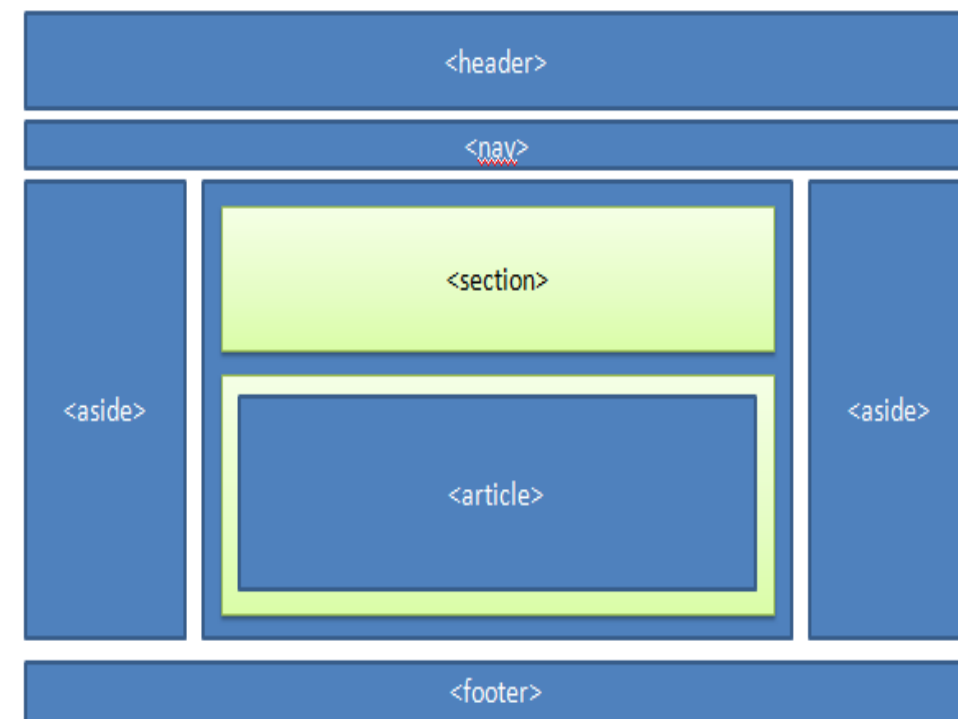
- <header>
- <footer>
- <aside>
- <section>
- <article>
- <nav>

Gender

☐ Male ☐ Female

Brands

- Nokia
- Samsung
- Apple
- GL



DIV và P

```
<div>Division 1</div>
```

```
<div>Division 2</div>
```

```
<hr />
```

```
<p>Paragraph 1</p>
```

```
<p>Paragraph 2</p>
```

Division 1

Division 2

Paragraph 1

Paragraph 2

FieldSet

```
<fieldset>
  <legend>Gender</legend>
  <input name="gender" type="radio" value="true" />Male
  <input name="gender" type="radio" value="false" />Female
</fieldset>
```

```
<fieldset>
  <legend>Brands</legend>
  <ul>
    <li>Nokia</li>
    <li>Sumsung</li>
    <li>Apple</li>
    <li>GL</li>
  </ul>
</fieldset>
```

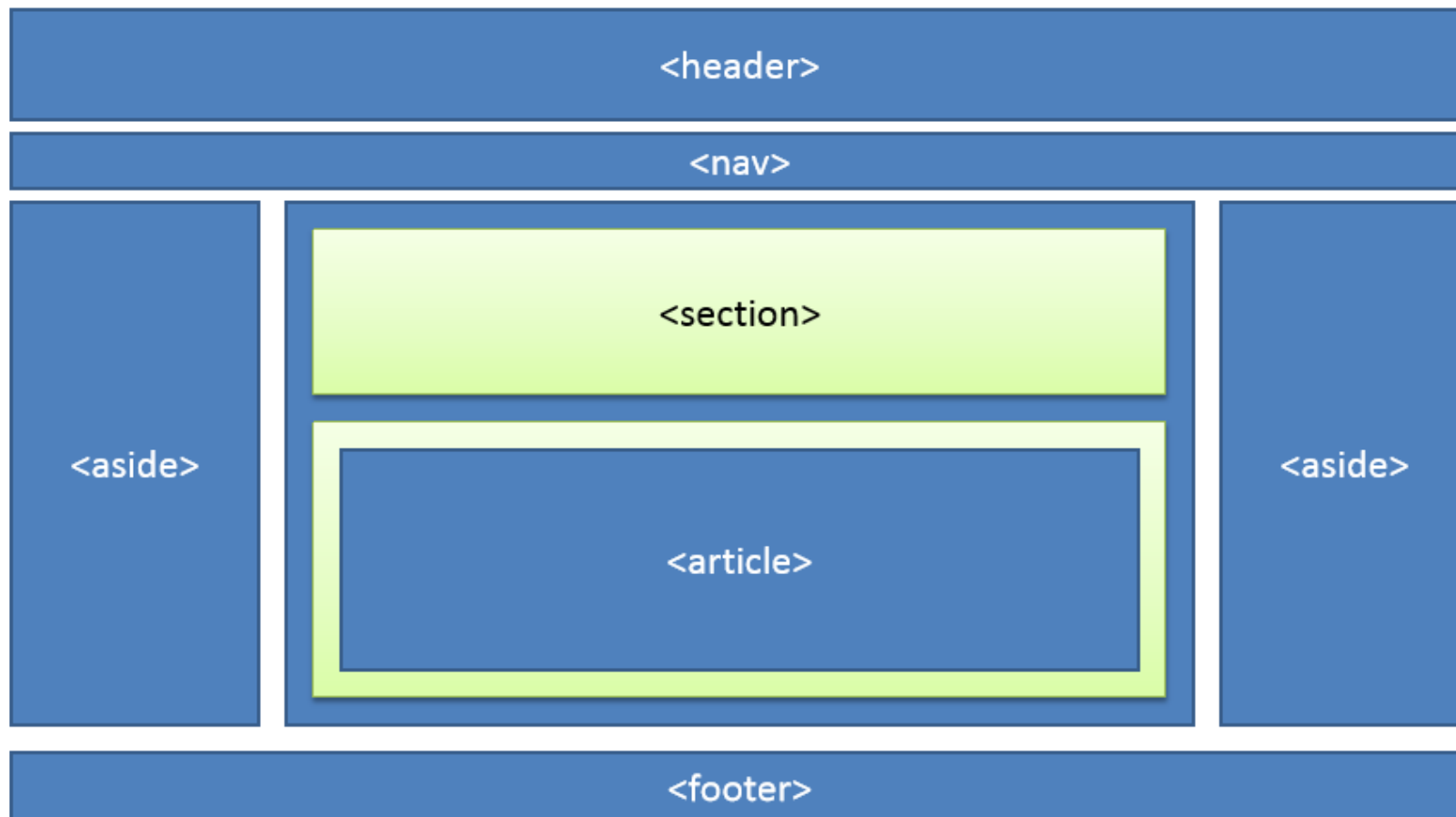
Gender

☐ Male ☐ Female

Brands

- Nokia
- Sumsung
- Apple
- GL

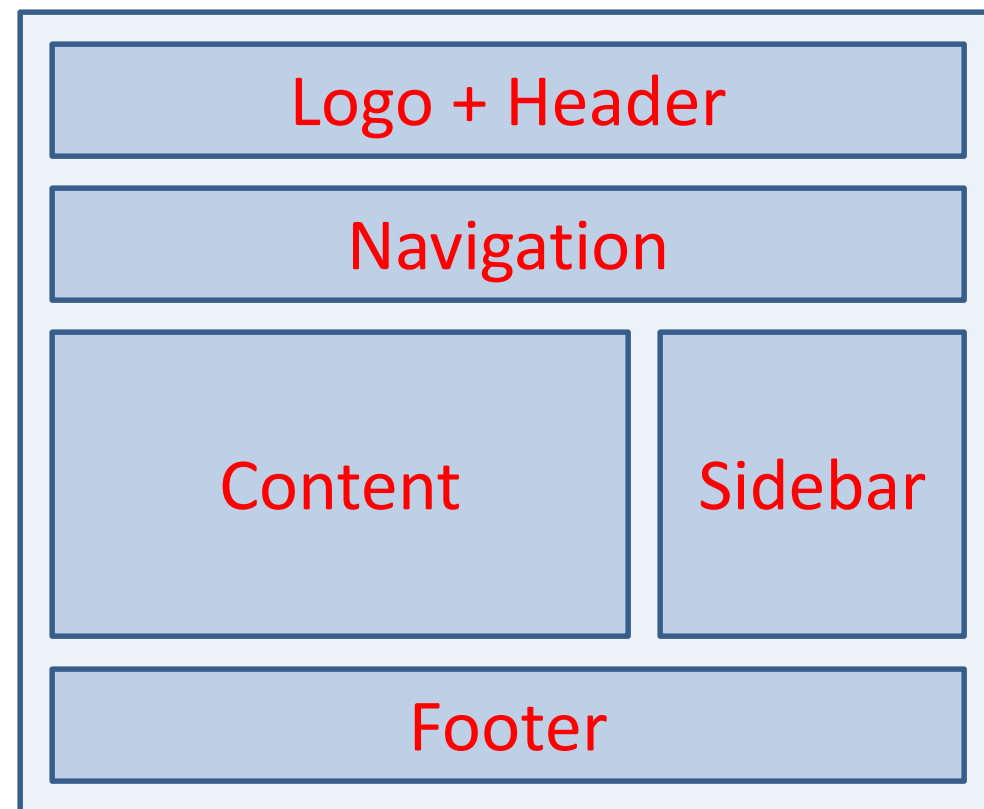
❑ Như `<div>` nhưng có nghĩa để dễ nhớ cho phần nội dung bên trong.



Using HTML5 To Create a Structure

- ❑ In HTML5 there are semantic tags for layout
 - `<header>`, `<footer>`, `<nav>`, `<aside>`, `<section>`

```
<html>
  <head> ... </head>
  <body>
    <header> ... </header>
    <nav> ... </nav>
    <aside> ... </aside>
    <section> ... </section>
    <footer> ... </footer>
  </body>
</html>
```



CSS



☐ Class selector

- Đ.Nghĩa: **.ClassName**{CSS}
- A.Dụng: <Tag **class="ClassName"**>

☐ ID Selector

- Đ.Nghĩa: **#IDName**{CSS}
- A.Dụng: <Tag **id="IDName"**>

☐ HTML Selector

- Đ.Nghĩa: **Tag**{CSS}

☐ Inline Style

- A.Dụng: <Tag **style="CSS"**>

- Selector là ký hiệu được sử dụng để xác định các thẻ để áp dụng css.
- 3 loại selector cơ bản:

- HTML selector

TagName{css}

- Class selector:

.ClassName{css}

- ID selector:

#Id{css}

```
<style>
  li{
    color:green;
  }
  .red{
    color:red;
  }
  #blue{
    color:blue;
  }
</style>
```

CSS-CLASS SELECTOR

- Định Nghĩa

```
<style type="text/css">
.MyHeader
{
    font-family: Arial, Helvetica, sans-serif;
    font-weight: bold;
    font-style: italic;
    font-size: 14px;
    color: #FF0000;
}
</style>
```

Dấu
chấm

font-family: tên font chữ
font-weight: độ đậm
font-style: kiểu chữ
font-size: kích thước chữ
color: màu chữ

- Áp Dụng

```
<h1 class="MyHeader">Hello World</h1>
```

CSS-ID SELECTOR

- Định Nghĩa

```
<style type="text/css">
#MyParam
{
    background-color: #0000FF;
    background-image: url(images/abc.gif);
    text-align: justify;
    margin: 10px;
    padding: 5px;
    border: 1px dotted #0000FF;
}
</style>
```

Dấu
thẳng

background-color: màu nền
background-image: ảnh nền
text-align: canh lề
margin: độ dày lề ngoài
padding: độ dày lề trong
border: đường viền

- Áp Dụng

```
<p id="MyPara">Hello World</p>
```

CSS-HTML SELECTOR

FIELDSET

```
{  
    width: 200px;  
    border: 1px solid #0000FF;  
}
```

LEGEND

```
{  
    font-weight: bold;  
    color: #FF0000;  
    background-color: #FFFF00;  
    border: 1px solid #0000FF;  
    width: 100px;  
}
```

```
<fieldset>  
    <legend>DE MUC</legend>  
    NOI DUNG  
</fieldset>
```

DE MUC

NOI DUNG

CSS-INLINE STYLE

□ Áp dụng

```
<p style="font-size:50px;color:red;">  
    Hello World  
</p>
```

CSS-KHOANH VÙNG

```
P INPUT
{
CSS1
}

#MyMenu IMG
{
CSS2
}
P .MyClass
{
CSS3
}
.MyClass #MyID
{
CSS4
}
```

P INPUT:

CSS1 chỉ áp dụng cho các thẻ <INPUT> đặt trong thẻ <P>
(<P><INPUT></P><INPUT>)

#MyMenu IMG:

CSS2 chỉ áp dụng cho các thẻ đặt trong thẻ có ID là MyMenu ()

P .MyClass:

CSS3 chỉ áp dụng cho các thẻ có thuộc tính class là MyClass đặt trong thẻ <P> (<P><INPUT class="MyClass"><INPUT></P>)

.MyClass #MyID:

CSS4 chỉ áp dụng cho các thẻ có thuộc tính class là MyClass đặt trong thẻ có ID là MyID ()

CSS-NHIỀU SELECTOR

- Định Nghĩa

```
<style type="text/css">
```

```
#A, .B, INPUT, H2, #X H1
```

```
{
```

```
font-family: Arial, Helvetica, sans-serif;
```

```
font-weight: bold;
```

```
font-style: italic;
```

```
font-size: 14px;
```

```
color: #FF0000;
```

```
}
```

```
</style>
```

#A: ID selector

.B: class selector

INPUT, H2: HTML
selector

#X H1: khoảng vùng

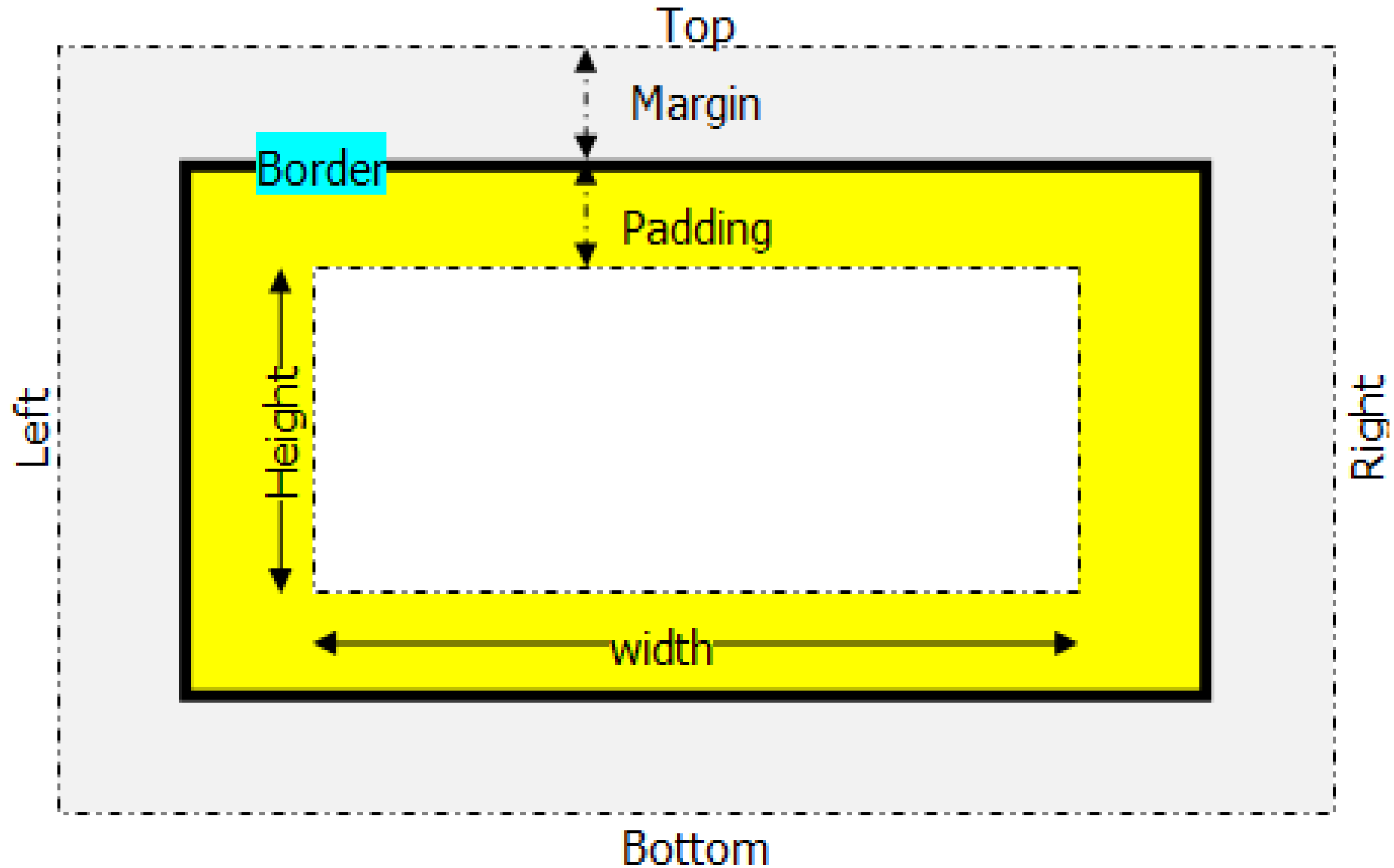
CSS-LIÊN KẾT

```
A
{
  font-family: Arial
  font-size: 16px;
  color: #0000FF;
  font-weight: bold;
  font-style: italic;
}
A:link
{
  text-decoration: none;
}
```

A: chung
A:LINK: thường
A:VISITED: đã xem
A:HOVER: có chuột
A:ACTIVE: đang chọn

```
A:visited
{
  text-decoration: none;
  color: #000000;
}
A:hover
{
  text-decoration: underline;
  color: #FF0000;
}
A:active
{
  text-decoration: none;
  color: #00FF00;
}
```

CSS Box-Model



Box-Model

Thuộc tính	Mô tả	Ví dụ
Width, Height	Chiều rộng, Chiều cao	height: 222px; width: 111px;
margin margin-top margin-right margin-bottom margin-left	Khoảng lề xung quanh hộp (top-right-bottom-left) hoặc riêng từng phía	margin: 1px 2px 3px 4px; margin: 3px 24px; margin: 1234px;
padding padding-top padding-right padding-bottom padding-left	Phần đệm bên trong hộp (top-right-bottom-left) hoặc riêng từng phía	padding: 1px 2px 3px 4px; padding: 13px 24px; padding: 1234px;
border border-top border-right border-bottom border-left	Đường kẻ bao quanh hộp hoặc riêng từng phía.	border: 1px dotted red;
overflow	Điều kiện chế độ tràn: scroll, visible, hidden	overflow: scroll;

Bo góc

☐ Bo cả 4 góc

- Border-radius: 10px;

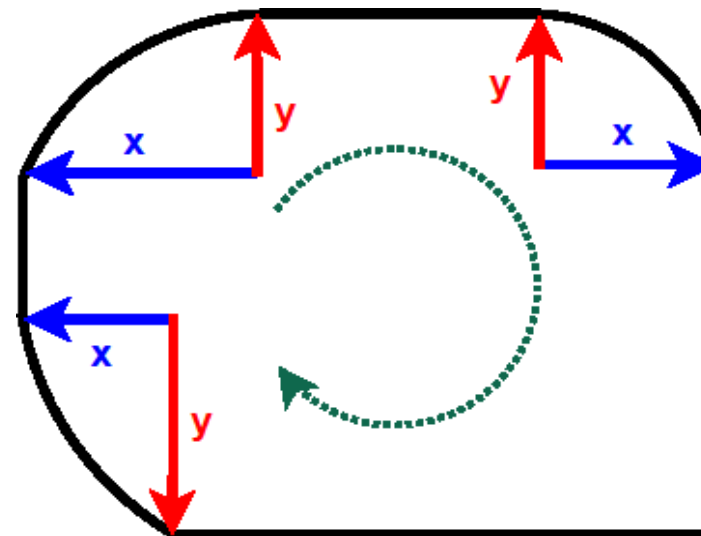
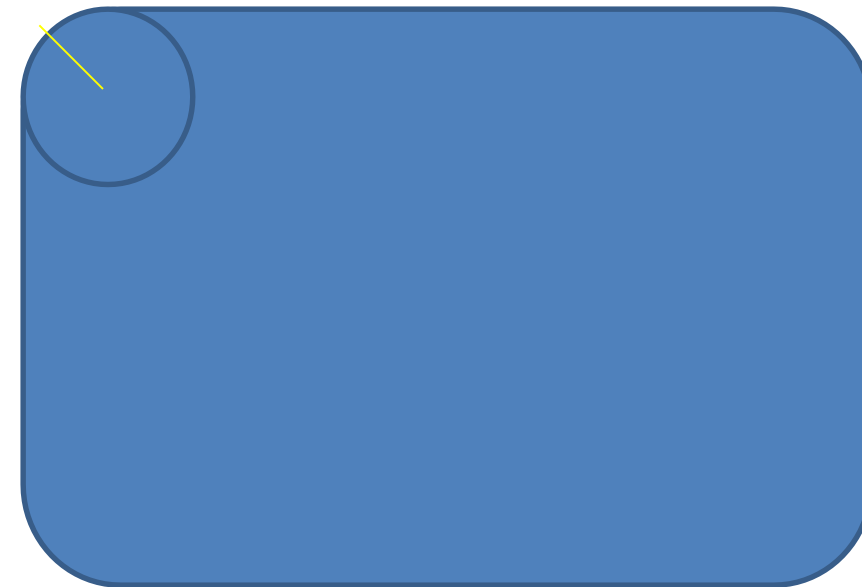
☐ Bo từng góc

- Border-top-left-radius: 10px;
- Border-top-right-radius: 10px;
- Border-bottom-left-radius: 10px;
- Border-bottom-right-radius: 10px;

border *-*-radius: [**x**] [**y**]?

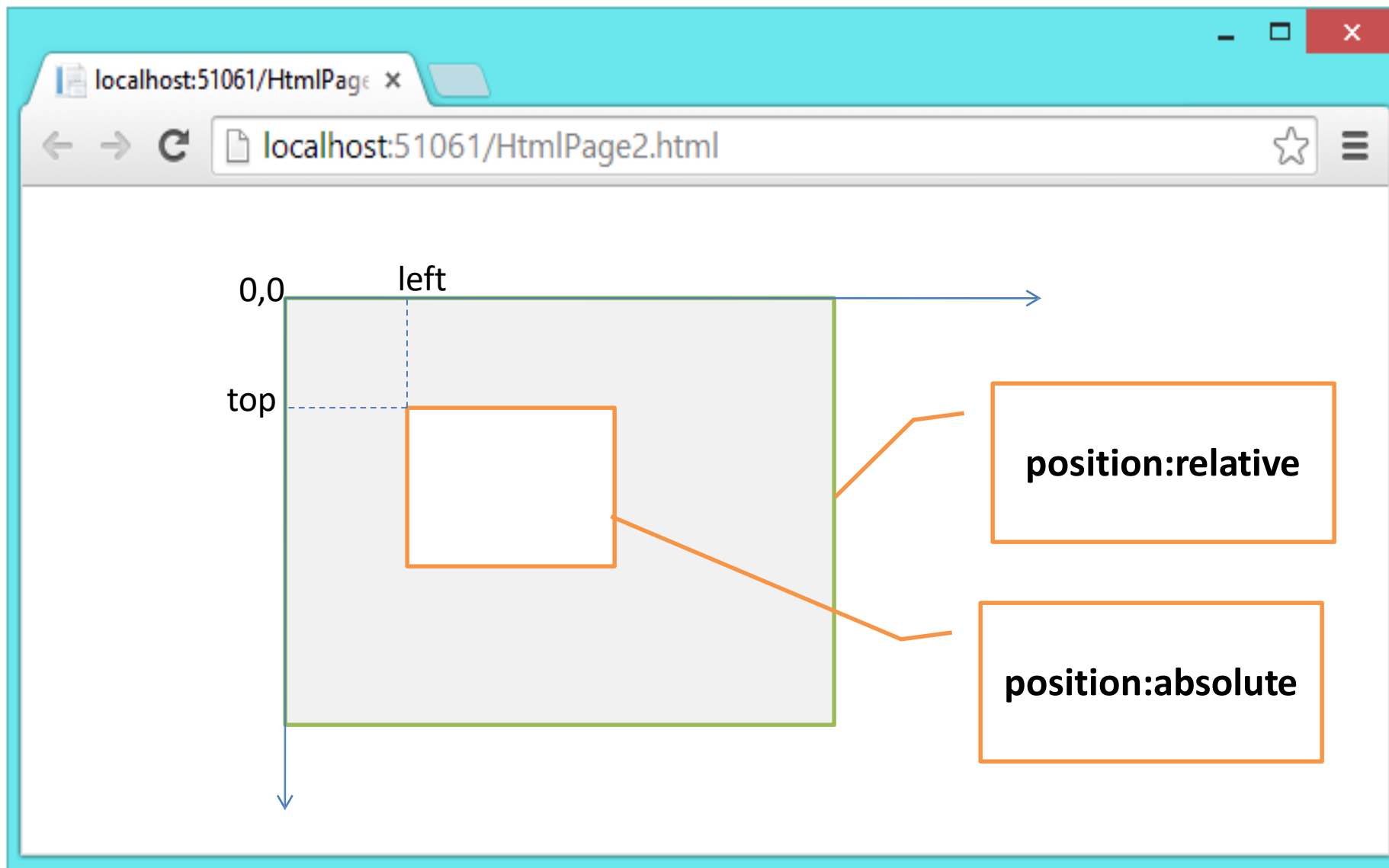
x = **horizontal** radius [<length> | <%>]

y = **vertical** radius [<length> | <%>]

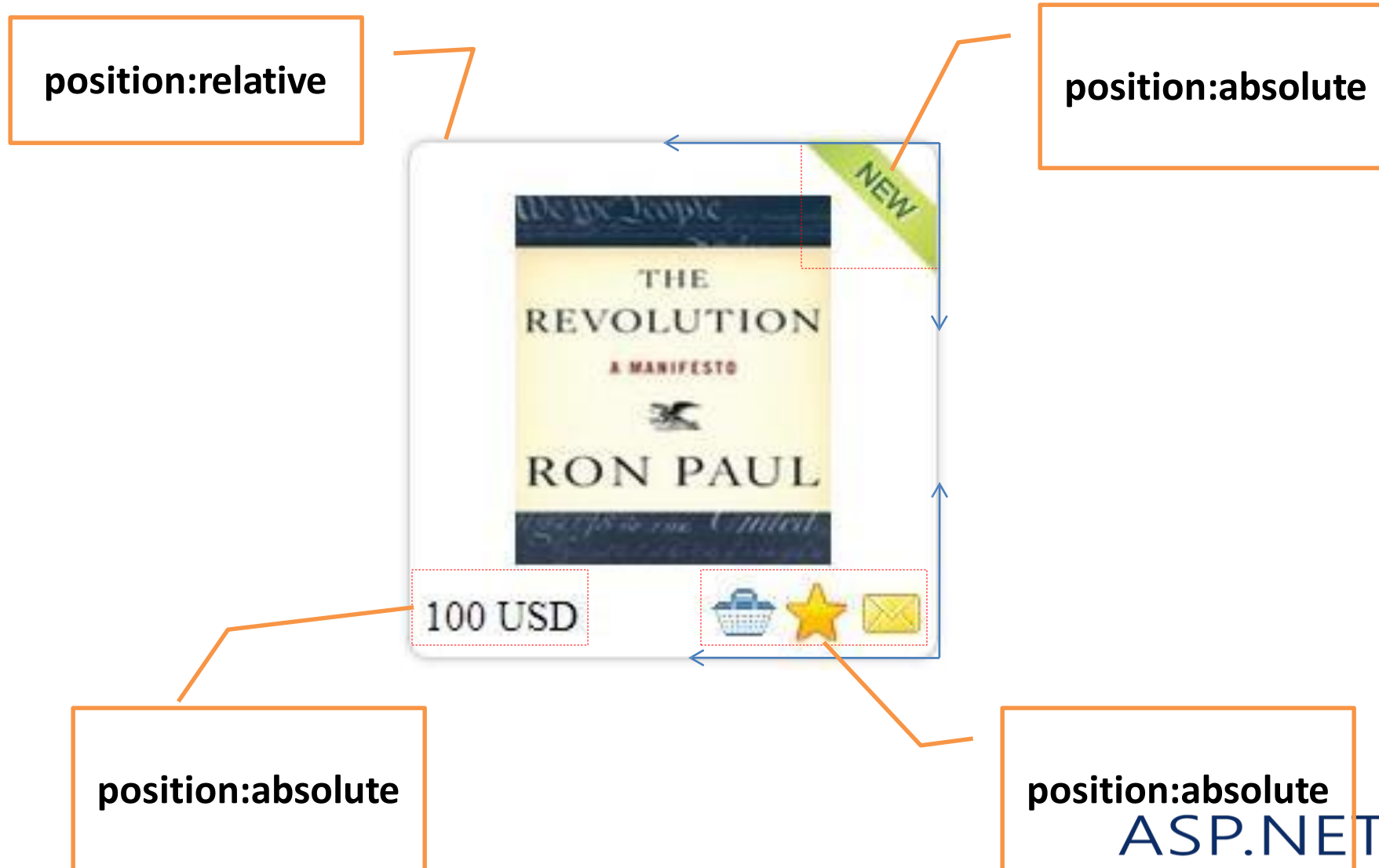


Thuộc tính	Mô tả	Ví dụ
background-color	Màu nền	background-color: #F00;
background-attachment	Chế độ cuộn ảnh nền ✓ Fixed = cố định ảnh nền khi cuộn nội dung ✓ Scroll = ảnh nền cuộn theo nội dung	background-attachment: fixed;
background-image	Ảnh nền	background-image: url(bg.jpg);
background-repeat	Chế độ lặp: ✓ None: không lặp ✓ Repeat: lặp cả 2 chiều ✓ repeat-x: lặp chiều ngang ✓ repeat-y: lặp chiều đứng	background-repeat: repeat;
background-position	Vị trí đặt ảnh nền trường hợp không lặp	background-position: left center;
Background-size	Kích thước ảnh nền (width height)	Background-size: 100% 100%

Định vị



Định vị



Thuộc tính CSS định vị

Thuộc tính	Mô tả	
position	<p>Các giá trị hợp lệ:</p> <ul style="list-style-type: none"> ✓ Static: chế độ mặc định ✓ Absolute: định vị tuyệt đối ✓ Relative: định vị tương đối ✓ Fixed: định vị cố định 	position: relative;
left	Vị trí layer tính từ bên trái	left: 0px;
top	Vị trí layer tính từ bên trên	top: 0px;
right	Vị trí layer tính từ bên phải	right: 0px;
bottom	Vị trí layer tính từ bên dưới	bottom: 0px;
z-index	Chiều z hướng từ trong màn hình ra người dùng. Layer nào có z-index cao hơn sẽ nằm trên.	z-index: 111;

Thuộc tính	Mô tả	Ví dụ
float	Ép trái (left), ép phải (right)	float: left;
clear	Xóa chế độ float (left, right, both)	clear:both
display	Chế độ hiển thị: <ul style="list-style-type: none">✓ none ẩn khối✓ block một khối tách biệt✓ inline trong hàng cho phép ngắt khối khi xuống hàng✓ inline-block xuống hàng nguyên khối	display: inline-block;

CSS3 Shadows

box-shadow: **x** **y** **b** **color**

Examples:

-webkit-box-shadow: -3px 3px 3px #999999;

-moz-box-shadow: -3px 3px 3px #999999;

text-shadow: -4px 4px 3px #999999;

Text Shadow

- ☐ Can be added outside the graphic
- ☐ No IE support
- ☐ Format:

text-shadow: **x** **y** **b** **color**

- ☐ **x** = horizontal offset
 - **x** < 0: left of the text
 - **x** > 0: right of the text
- ☐ **y** = vertical offset
 - **y** < 0: above the text
 - **y** > 0: below the text
- ☐ **b** = blur radius

CSS3 Backgrounds

- Format: background-size: length | percentage | cover | contain;

- Sample Markup:

background-size: 400px 500px; //width, height

background-size:30% 40%; //width, height

background-size:100%; //Omitting first value sets
//the second to auto

background-size:cover;

background-size:contain;

Multiple background images

background:

```
<image> <position> <size> <repeat> <attachment> <box>,  
<image> <position> <size> <repeat> <attachment> <box>,  
<image> <position> <size> <repeat> <attachment> <box>,  
<image> <position> <size> <repeat> <attachment> <box>  
    <color>;
```

OR

```
background-image: <image>, <image>, <image>, <image>;  
background-repeat: <repeat>, <repeat>, <repeat>, <repeat>;  
background-position: <position>, <position>, <position>, <position>;  
/* plus any background attachment and/or box properties as needed */
```

```
#example {  
  width: 500px;  
  height: 250px;  
  background-image: url(decoration.png), url(ribbon.png),  
  url(old_paper.jpg);  
  background-repeat: no-repeat;  
  background-position: left top, right bottom, left top;  
}
```



Multi-Column Layout

```
#multi-column {
/* For Mozilla: */
    -moz-column-width: 13em;
    -moz-column-gap: 1em;
/* For WebKit: */
    -webkit-column-width: 13em;
    -webkit-column-gap: 1em;
}
```

Lorem ipsum dolor sit amet, Nunc ut leo vel magna adipiscing Quisque ut eros at erat ultrices
 consectetur adipiscing elit. tempor. Donec pretium, ligula et sodales. Nunc vitae ipsum.
 Aenean egestas blandit ipsum. hendrerit faucibus, sem velit Mauris in elit in dolor imperdiet
 Morbi nulla metus, luctus et, accumsan tortor, sodales tempor interdum. Vivamus egestas
 ullamcorper sit amet, commodo est ligula non velit. Nulla sagittis, sagittis justo. Sed lorem. Sed vel
 quis, nisl. Ut blandit lacus nec odio quis porta nonummy, mauris neque in ipsum gravida
 nibh. Phasellus eleifend enim et arcu gravida odio, quis aliquam nonummy. Nulla tempor blandit
 risus. Nam condimentum. lacus elit non libero. Proin elit.
 Praesent euismod auctor dui. aliquam augue accumsan augue.

Multi-Column Layout

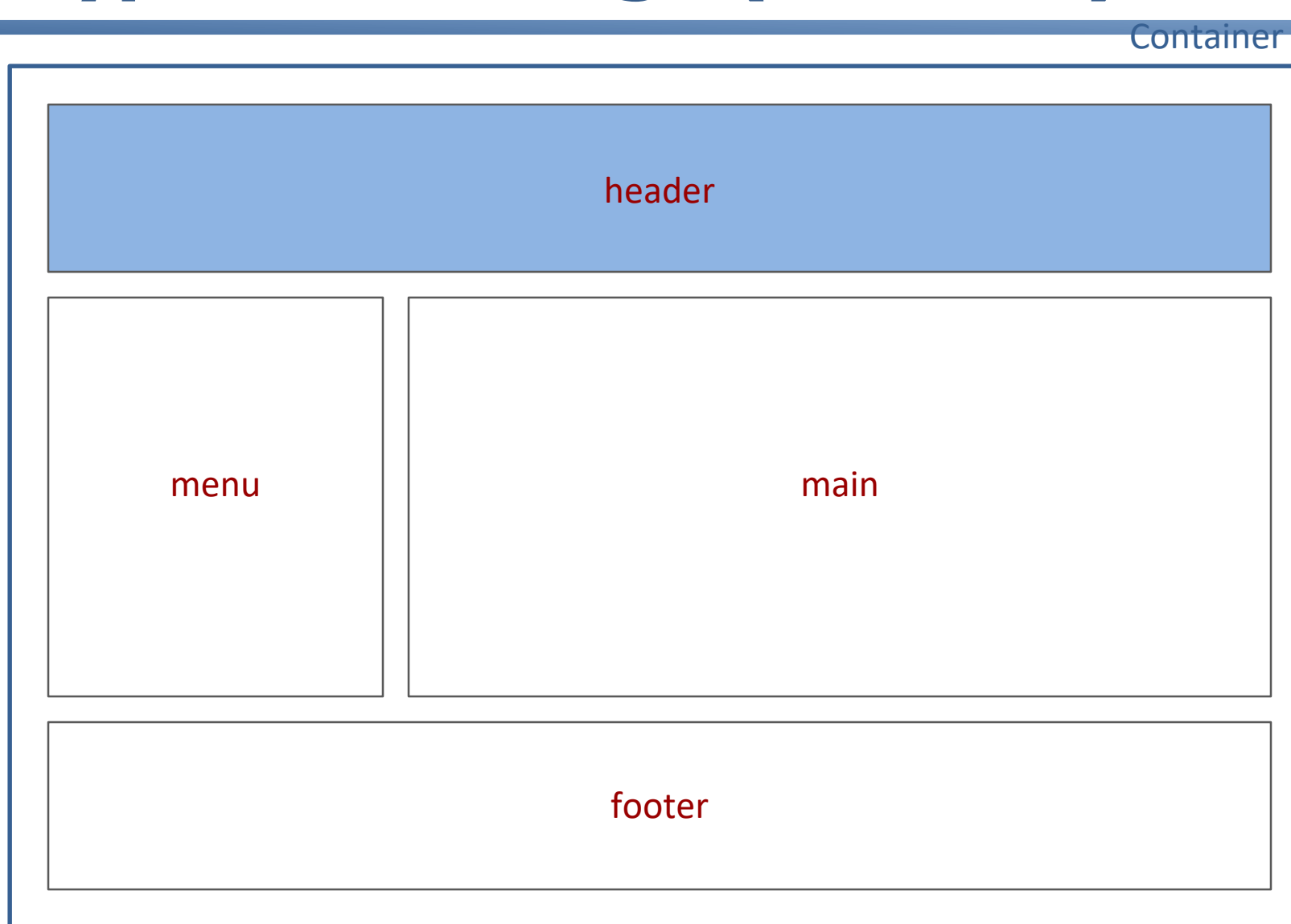
```
#multi-column {
    -moz-column-count: 3;
    -moz-column-gap: 1em;
    -moz-column-rule: 1px solid black;
    -webkit-column-count: 3;
    -webkit-column-gap: 1em;
    -webkit-column-rule: 1px solid black;
}
```

Cras urna metus, aliquam sed, condimentum eget, pellentesque scelerisque, massa. Nullam et est id augue blandit tincidunt. Ut consectetur, justo eleifend varius facilisis, tortor lorem pharetra nunc, ac sodales purus nunc semper tortor. Integer nec urna. Praesent scelerisque,

ipsum nec aliquet volutpat, sem ante sagittis risus, sed condimentum magna libero luctus elit. Donec pede purus, hendrerit non, laoreet vel, porta ut, neque. Cras eu lacus. Pellentesque tempus mattis magna. Nullam id nisl. Quisque dolor lorem, commodo ac, pharetra sed,

nonummy nec, nulla. Mauris purus. Suspendisse eget mauris nec justo eleifend vestibulum. Nunc ut eros sed pede pretium congue. Etiam in elit ut nisi ultrices hendrerit. Cras vulputate ultrices quam. Curabitur venenatis. Cras sed nisi.

Typical Web Page (Browser)



#container

```
graph TD; container["#container"] --- banner["#banner"]; container --- nav["#nav"]; container --- content["#content"]; container --- footer["#footer"];
```

The diagram illustrates a web page layout within a container. The container is a large rectangle with a blue border. Inside, there are four sections: a banner at the top, a navigation bar on the left, a main content area on the right, and a footer at the bottom. Each section is outlined with a different color: purple for the banner, green for the navigation bar, orange for the content area, and dark purple for the footer.

#banner

#nav

#content

#footer

```
<body>
<div id="container">
  <div id="banner"></div>
  <div id="nav">
    <span><a href="home.htm">home</a></span>
    <span><a href="contact.htm">contact</a></span>
  </div>
  <div id="content">
    <h1>My Resume</h1>
    <p>Resume text</p>
  </div>
  <div id="footer">Copyright info here</div>
</div>
</body>
```

HTML

```
body {  
  font-size: 1em; }  
  
#container {  
  width: 920px; }  
  
#banner {  
  width: 920px; height: 120px; }  
  
#nav {  
  float: left; width: 200px; }  
  
#content {  
  width: 720px; }  
  
#footer {  
  font-size: .8em; }
```



CSS

