

Bootstrap 4 與 3 的差異

DIFFERENCES BETWEEN BOOTSTRAP 3 AND 4



六角學院



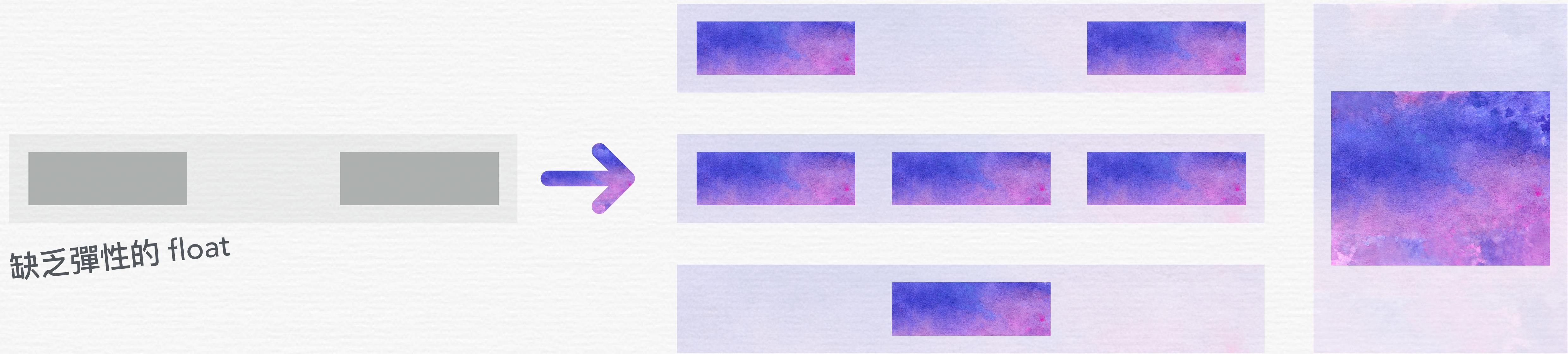
從 Less 轉移到 Sass

當初 Sass 受限於編譯速度，所以 Bootstrap 不願使用 Sass 來開發，而 Libsass 讓 Sass 不再受限於 Ruby 環境，所以開發團隊也轉換到 Sass 以擁抱更大的社群能量。



IE 扱

第四版放棄對 IE8、IE9 及 iOS6 的支援，換來的是更好、更有彈性的排版語法。



缺乏彈性的 float

全面改用 flex

排版放棄使用已久的 float，取而代之的是 flexbox，這一個新屬性讓排版不在一個水平面的左右方開始，無論是齊左右、等距分配、元素置中、垂直排版都不再是問題。

BS 3 / BS4	-- / xs	xs / sm	sm / md	md / lg	lg / xl
Bootstrap 3		< 768px	>= 768px	>= 992px	>= 1200
Bootstrap 4	<= 575px	576px ~ 767px	768px ~ 991px	992px ~ 1199px	>= 1200

中斷點

中斷點新增了一個階段並且重新命名了，這使得在更小的裝置有增加了些許選擇 (更小裝置還是有跑版的危機啊~)。

px → rem

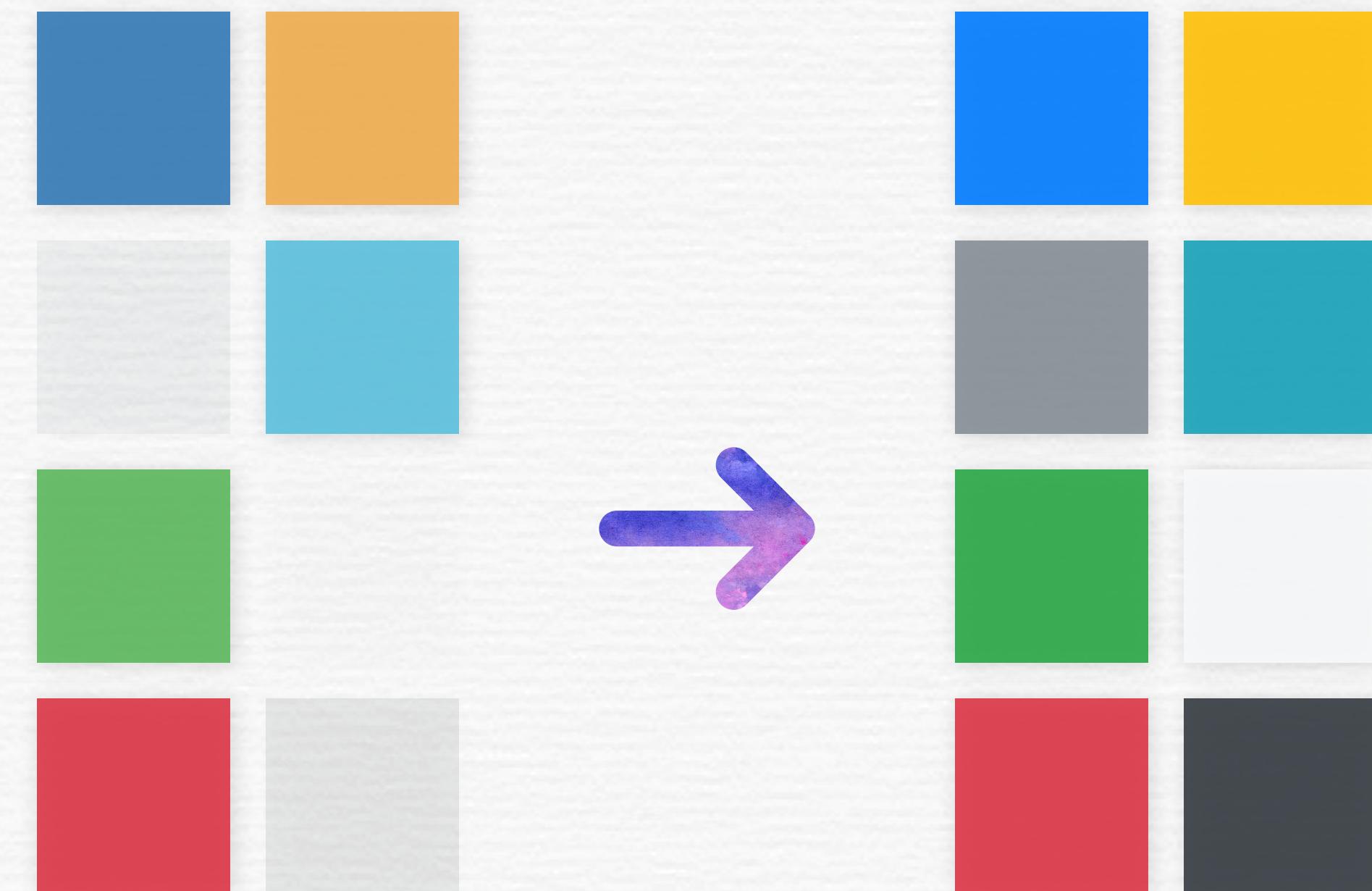
px 到 rem

px 是絕對的數值單位，網頁開發需要更有彈性的數值單位，來符合不同裝置、瀏覽器的運用，而 rem 能透過 media query 輕易的切換不同裝置下的整體尺寸。

14px → 16px

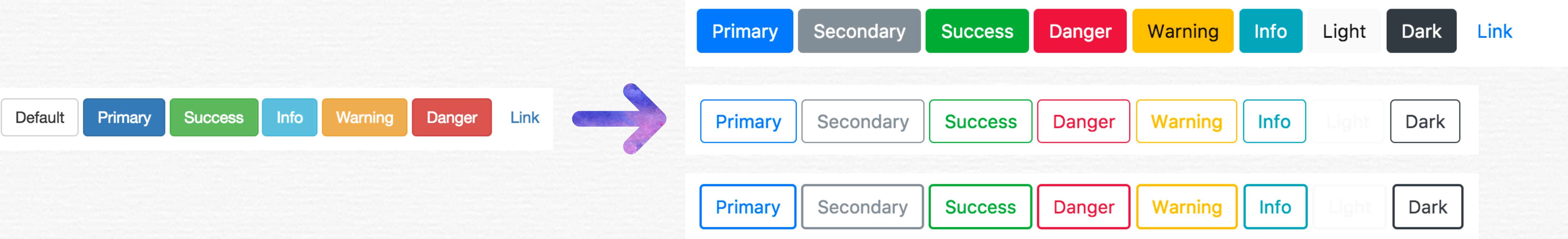
預設字體大小

16px 不僅是瀏覽器預設的文字大小，較大的字體也能夠在行動版上有更佳的閱讀性。



大方的色彩

預設的色彩改為更為鮮豔大方，並且新增常使用的次要、黑白等色彩。



充滿生命力的按鈕

按鈕不僅色彩較為鮮豔，且增加了 outline 版本的按鈕 (超愛)，且在第四版靈活的架構下，調整邊框粗細也相當容易。

Navbar Home Features Pricing About

Search

Search

Navbar Home Features Pricing About

Search

Search

Navbar Home Features Pricing About

Search

Search

靈活的變化

元件在設計上更巧妙的運用 CSS 的特性，如 navbar 使用了透明的色彩，使的底色能夠自由的套用，讓變化性不受限於框架本身。



Panel heading without title

Panel content

Panel title

Panel content

Look, I'm in a well!



318x180

Card title

Some quick example text to build on the card title and make up the bulk of the card's content.

Go somewhere

Special title treatment

With supporting text below as a natural lead-in to additional content.

Go somewhere

Active Link Disabled

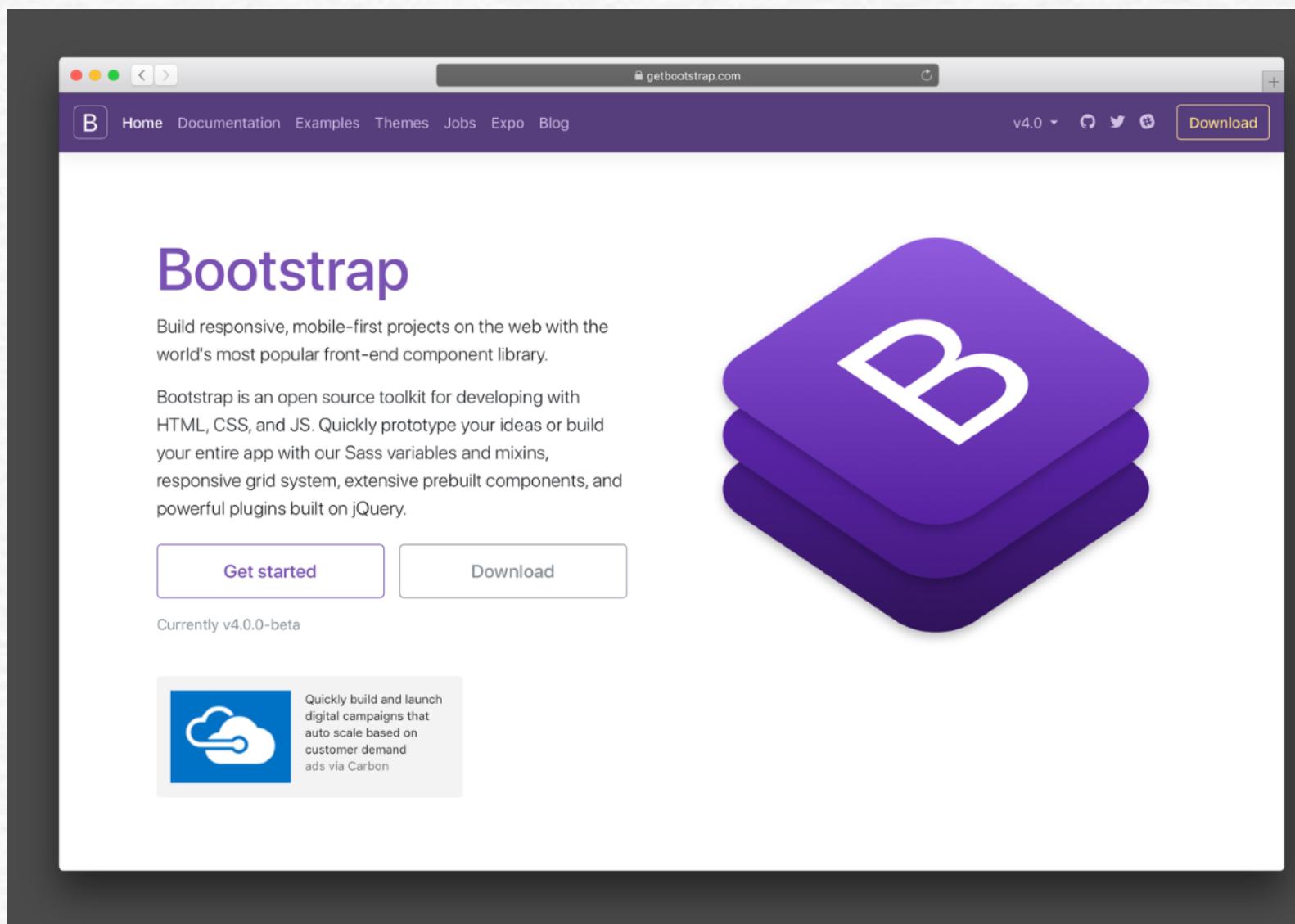
Special title treatment

With supporting text below as a natural lead-in to additional content.

Go somewhere

移除與新增元件

許多元件在樣式設計上有許多共通之處，第四版將這些元件移除後統整成更易於使用，且彈性更高的卡片元件。



重新設計的文件

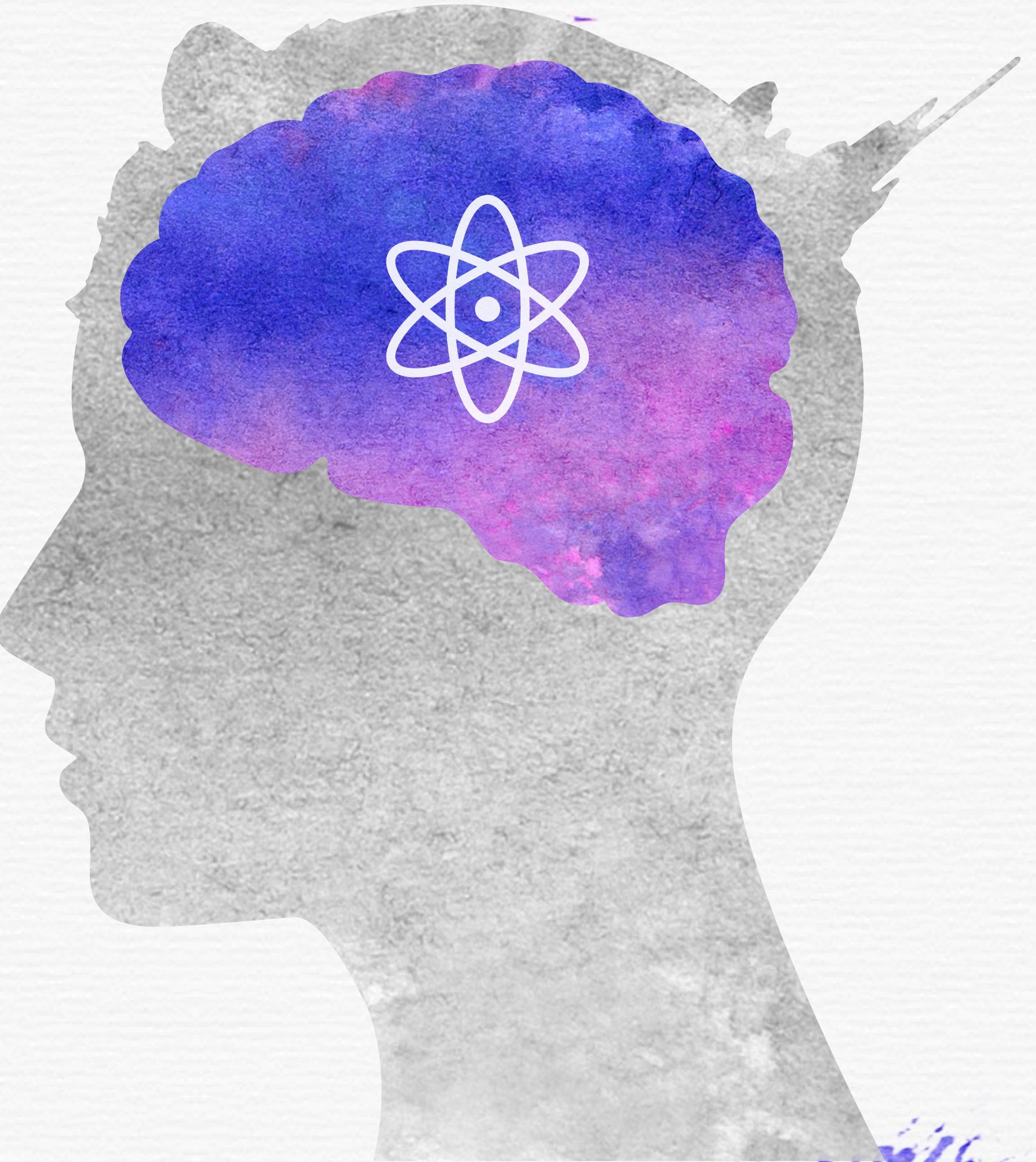
新的文件重新美化，且可以使用搜尋來快速切換不同的元件說明。還有許多細節尚未列出，從六角學院翻譯的繁體中文文件，了解還有什麼新奇吧！

<http://bootstrap.hexschool.com/>



六角學院
Bootstrap 4
繁體中文手冊

文件說明



Getting started

Layout

Content

Components

Utilities

Extend

Migration

快速開始

排版

內容

元件

通用類別

擴增

更版紀錄



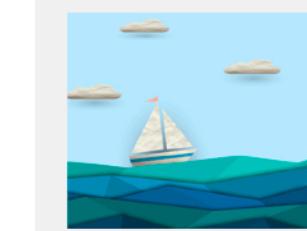
Home Documentation Examples Themes Jobs Expo Blog v4.0

Getting started

- Introduction
- Download
- Contents
- Browsers & devices
- JavaScript
- Options
- Build tools
- Webpack
- Accessibility
- Layout
- Content
- Components
- Utilities
- Extend
- Migration

Introduction

Get started with Bootstrap, the world's most popular framework for building responsive, mobile-first sites, with the Bootstrap CDN and a template starter page.

 90% Unlimited Downloads Choose from Over 300,000 Vectors, Graphics & Photos. ads via Carbon

Quick start

Looking to quickly add Bootstrap to your project? Use the Bootstrap CDN, provided for free by the folks at MaxCDN. Using a package manager or need to download the source files? [Head to the downloads page](#).

Copy-paste the stylesheet `<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-beta/css/bootstrap.min.css"` into your `<head>` before all other stylesheets to load our CSS.

`<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-beta/css/bootstrap.min.css" data-bbox="600 650 750 670" style="border: 1px solid #ccc; padding: 2px; border-radius: 3px; display: inline-block; width: 150px; height: 15px; vertical-align: middle;"/>`

Copy

Add our optional JavaScript plugins, jQuery, and [Popper.js](#)) near the end of your pages, right before the closing `</body>` tag. Be sure to place jQuery and Popper.js first, as our JavaScript plugins depend on them. While we use [jQuery's slim build](#) in our docs, the full version is also supported.

`<script src="https://code.jquery.com/jquery-3.2.1.slim.min.js" integrity="sha384-KJ3o2DK" data-bbox="600 810 750 830" style="border: 1px solid #ccc; padding: 2px; border-radius: 3px; display: inline-block; width: 150px; height: 15px; vertical-align: middle;"/>`

Copy

Getting started

Layout

Content

Components

Utilities

Extend

Migration

快速開始

排版

內容

元件

通用類別

擴增

更版紀錄



- Getting started
- Layout
 - Overview
 - Grid
 - Media object
 - Utilities for layout
- Content
- Components
- Utilities
- Extend
- Migration

.col-12 .col-md-8 .col-6 .col-md-4

.col-6 .col-md-4 .col-6 .col-md-4 .col-6 .col-md-4

.col-6 .col-6

Copy

```
<!-- Stack the columns on mobile by making one full-width and the other half-width -->
<div class="row">
  <div class="col-12 col-md-8">.col-12 .col-md-8</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
</div>

<!-- Columns start at 50% wide on mobile and bump up to 33.3% wide on desktop -->
<div class="row">
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
</div>

<!-- Columns are always 50% wide, on mobile and desktop -->
<div class="row">
  <div class="col-6">.col-6</div>
  <div class="col-6">.col-6</div>
</div>
```

Alignment

Use flexbox alignment utilities to vertically and horizontally align columns.

Vertical alignment

Getting started

Layout

Content

Components

Utilities

Extend

Migration

快速開始

排版

內容

元件

通用類別

擴增

更版紀錄



- Getting started
- Layout
- Content
- Reboot
- Typography
- Code
- Images
- Tables
- Figures
- Components
- Utilities
- Extend
- Migration

.h1 through .h6 classes are also available, for when you want to match the font styling of a heading but cannot use the associated HTML element.

h1. Bootstrap heading

h2. Bootstrap heading

h3. Bootstrap heading

h4. Bootstrap heading

h5. Bootstrap heading

h6. Bootstrap heading

Copy

```
<p class="h1">h1. Bootstrap heading</p>
<p class="h2">h2. Bootstrap heading</p>
<p class="h3">h3. Bootstrap heading</p>
<p class="h4">h4. Bootstrap heading</p>
<p class="h5">h5. Bootstrap heading</p>
<p class="h6">h6. Bootstrap heading</p>
```

Customizing headings

Use the included utility classes to recreate the small secondary heading text from Bootstrap 3.

Fancy display heading With faded secondary text

Copy

```
<h3>
  Fancy display heading
  <small class="text-muted">With faded secondary text</small>
</h3>
```

Getting started

Layout

Content

Components

Utilities

Extend

Migration

快速開始

排版

內容

元件

通用類別

擴增

更版紀錄



- Getting started
- Layout
- Content
- Components

 - Alerts
 - Badge
 - Breadcrumb
 - Buttons
 - Button group
 - Card
 - Carousel
 - Collapse
 - Dropdowns
 - Forms
 - Input group
 - Jumbotron
 - List group
 - Modal
 - Navs
 - Navbar
 - Pagination
 - Popovers
 - Progress
 - Scrollspy
 - Tooltips

functionality (like collapsing content), rather than linking to new pages or sections within the current page, these links should be given a `role="button"` to appropriately convey their purpose to assistive technologies such as screen readers.

Link Button Input Submit Reset

```
<a class="btn btn-primary" href="#" role="button">Link</a>
<button class="btn btn-primary" type="submit">Button</button>
<input class="btn btn-primary" type="button" value="Input">
<input class="btn btn-primary" type="submit" value="Submit">
<input class="btn btn-primary" type="reset" value="Reset">
```

Copy

Outline buttons

In need of a button, but not the hefty background colors they bring? Replace the default modifier classes with the `.btn-outline-*` ones to remove all background images and colors on any button.

Primary Secondary Success Danger Warning Info Light Dark

```
<button type="button" class="btn btn-outline-primary">Primary</button>
<button type="button" class="btn btn-outline-secondary">Secondary</button>
<button type="button" class="btn btn-outline-success">Success</button>
<button type="button" class="btn btn-outline-danger">Danger</button>
<button type="button" class="btn btn-outline-warning">Warning</button>
<button type="button" class="btn btn-outline-info">Info</button>
<button type="button" class="btn btn-outline-light">Light</button>
<button type="button" class="btn btn-outline-dark">Dark</button>
```

Copy

Getting started 快速開始

Layout 排版

Content 內容

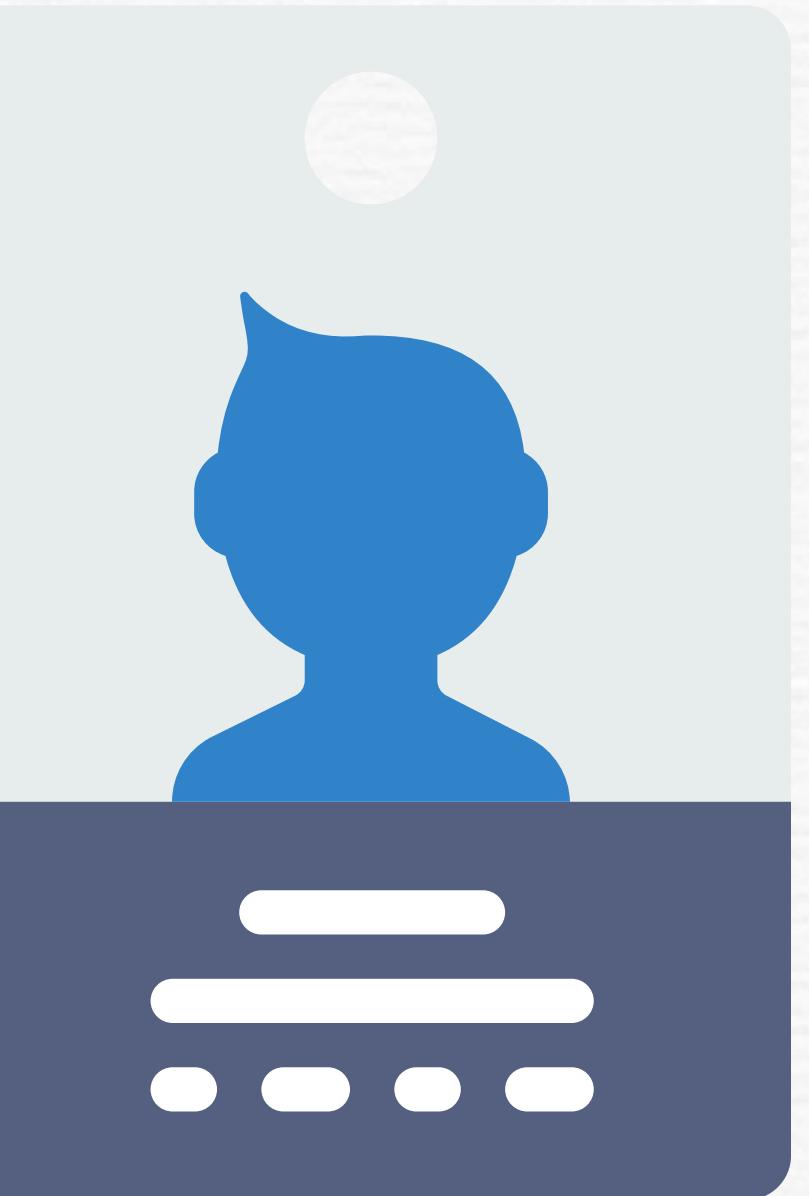
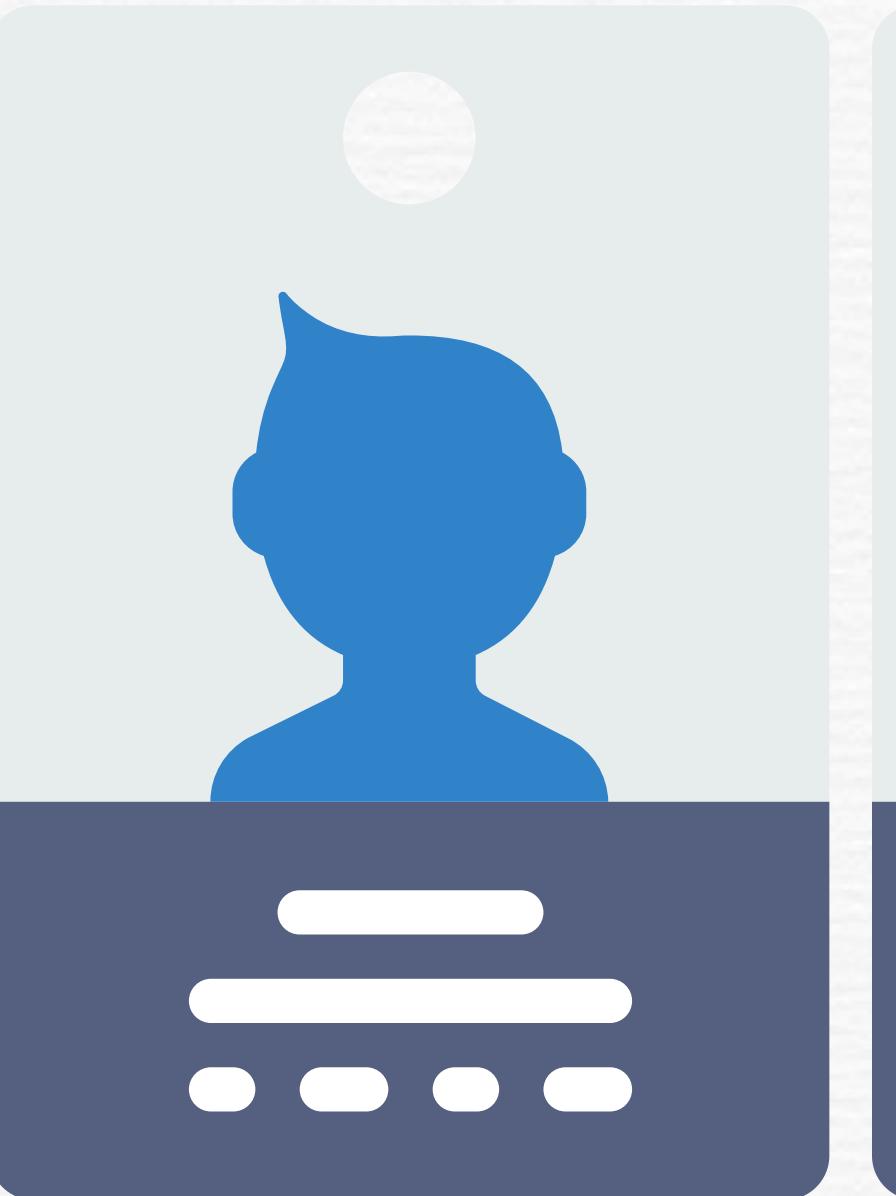
Components 元件



Utilities 通用類別

Extend 擴增

Migration 更版紀錄



Getting started

快速開始

Layout

排版

Content

內容

Components

元件

Utilities

通用類別

Extend

擴增



Migration

更版紀錄



Getting started 快速開始

Layout 排版

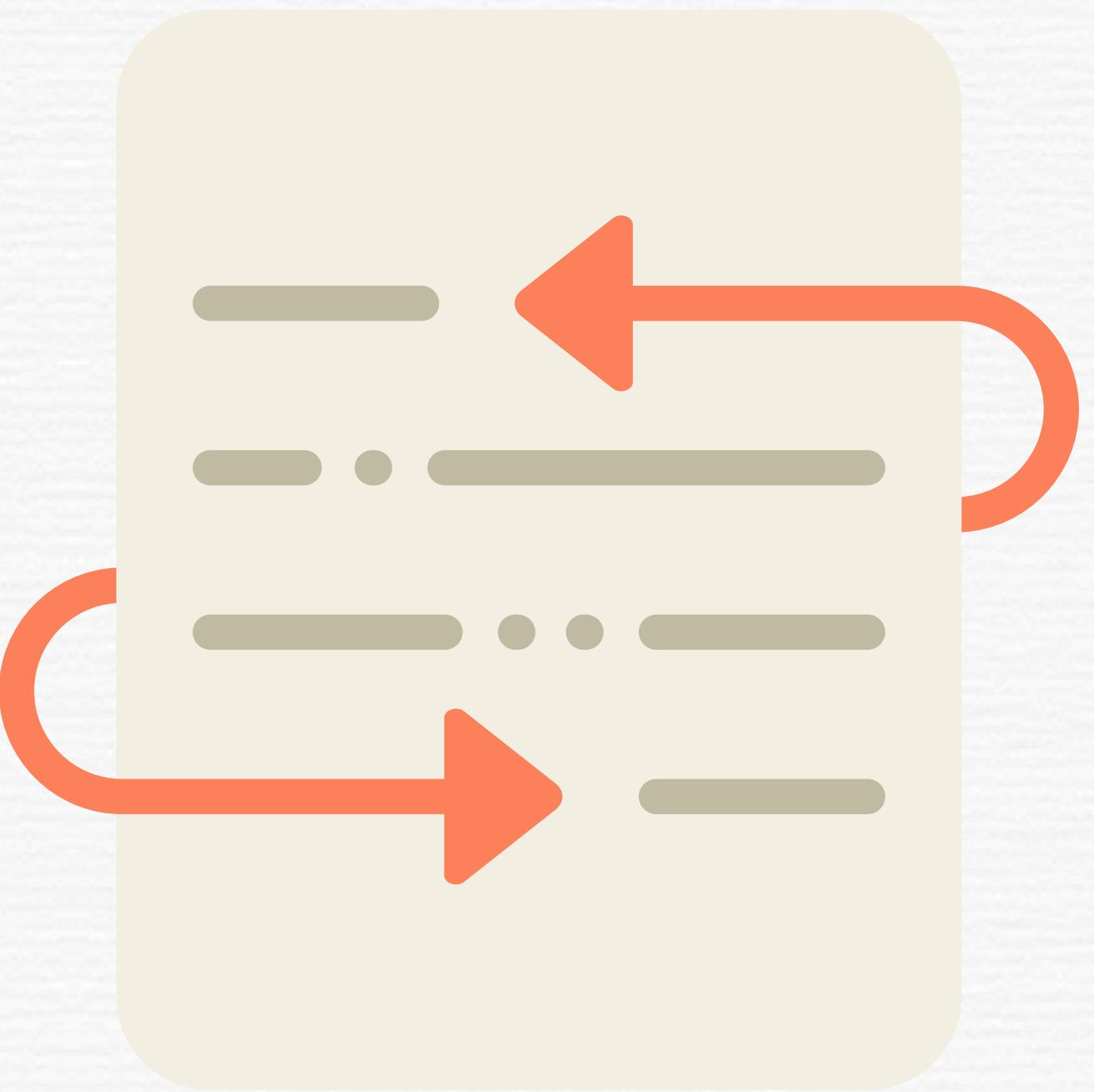
Content 內容

Components 元件

Utilities 通用類別

Extend 擴增

Migration 更版紀錄 



Getting started 快速開始

Layout 排版

Content 內容

Components 元件

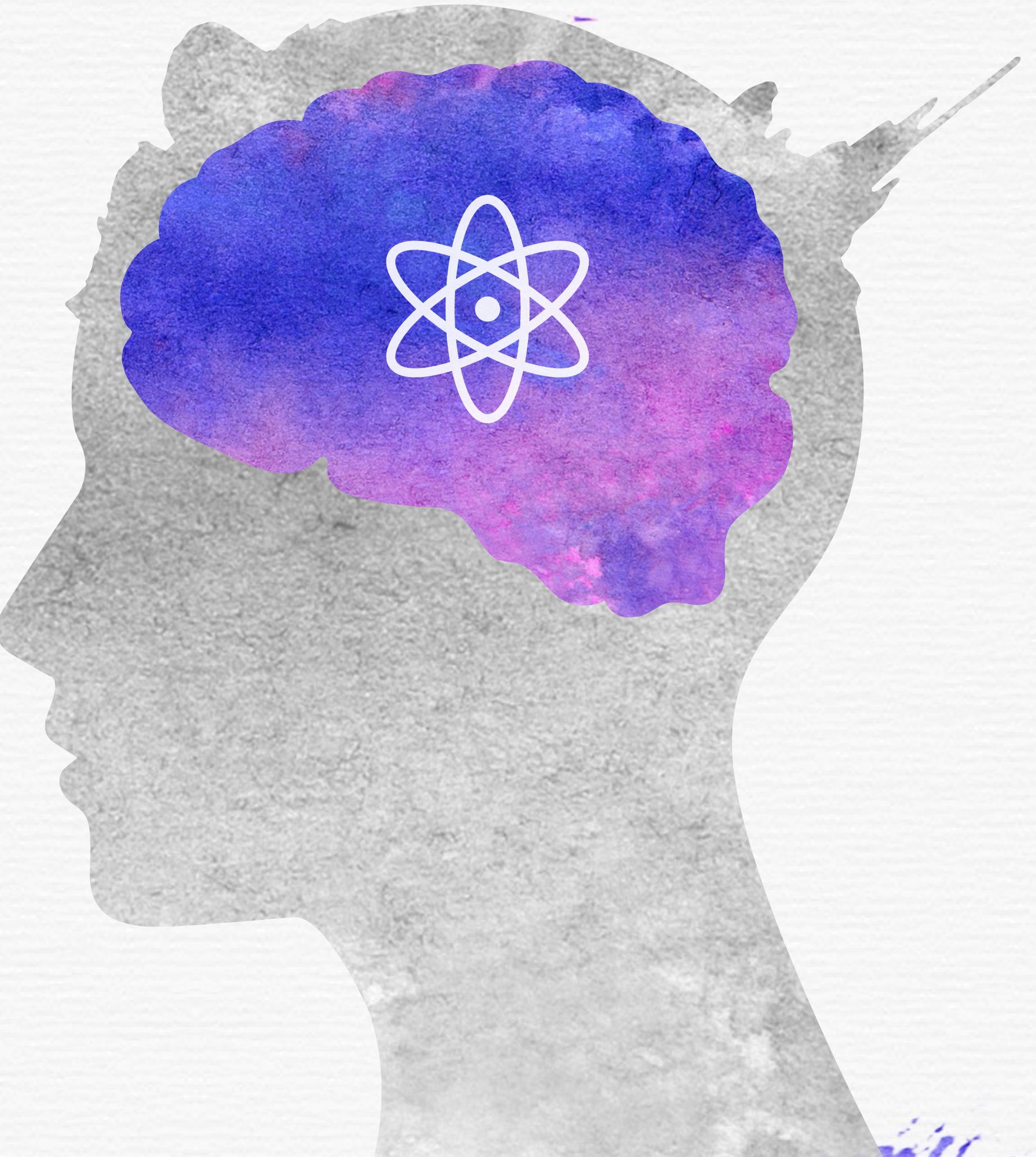
Utilities 通用類別

Extend 擴增

Migration 更版紀錄

補充說明

HTML Class



```
<nav class="navbar navbar-light bg-light">  
  <a class="navbar-brand" href="#">Navbar</a>  
</nav>
```

"Class" 一般稱為 **類別**，
在網頁中主要是套用樣式的

```
<nav class="navbar" class="navbar-light" X
    <a class="navbar-brand" href="#">Navbar</a>
</nav>
```

- 一個 class 內可以用空白隔開多個 class 名稱
- 一個標籤只能有一個 class 屬性

```
<nav class="navbar navbar-expand-lg navbar-light bg-light">
  <a class="navbar-brand" href="#">Navbar</a>
  <button class="navbar-toggler" type="button"
    data-toggle="collapse" data-target="#navbarSupportedContent">
    <span class="navbar-toggler-icon"></span>
  </button>

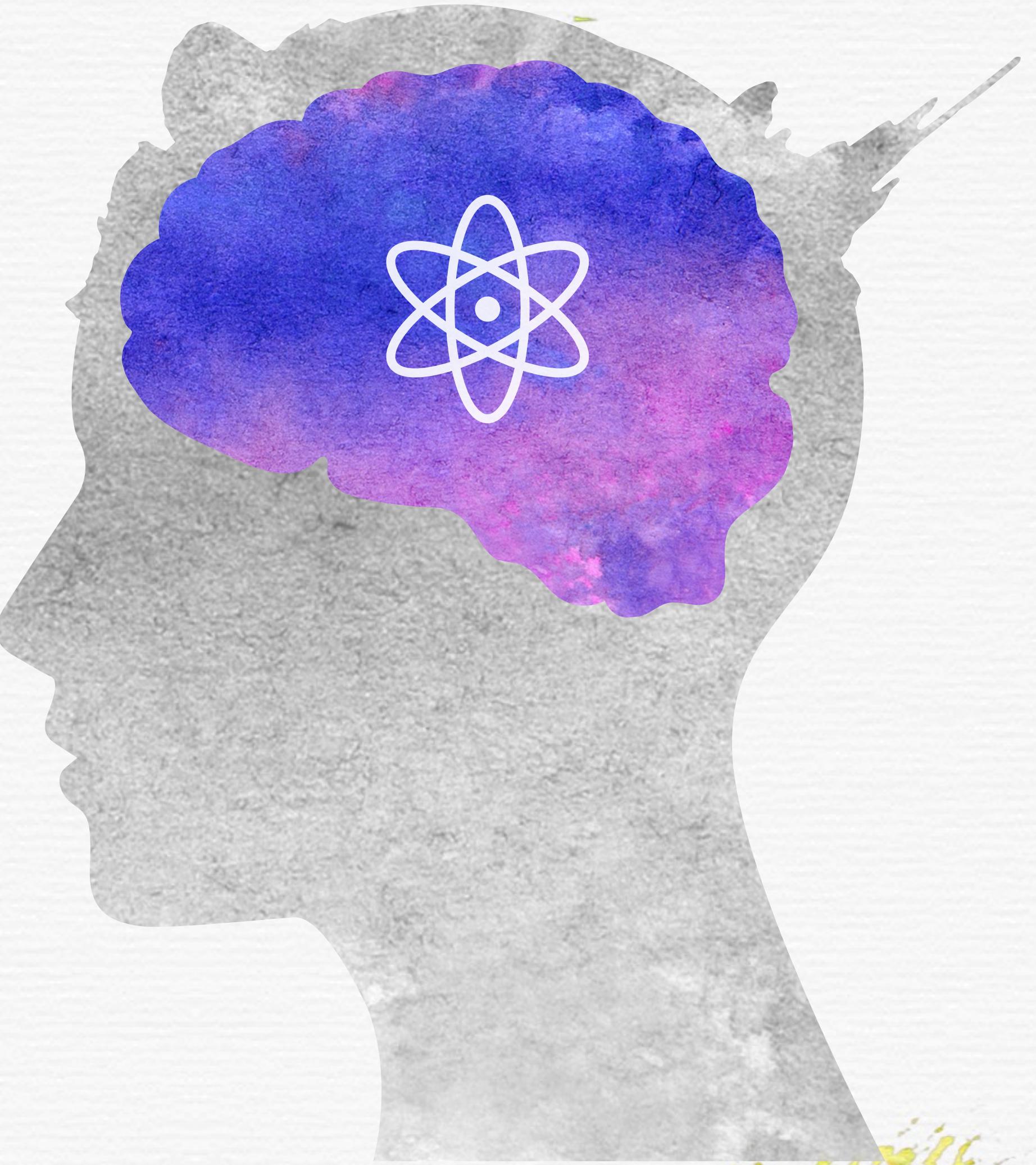
  <div class="collapse navbar-collapse" id="navbarSupportedContent">
    ...
  </div>
</nav>
```



- 必須載入 JavaScript 插件才能運作
- data-toggle="xxx" 通常表示切換的功能
- data-target="xxx" 表示要切換的目標
然後會有另一個 id 作為目標對應

補充說明

系統預設字體



“ “

由於每個作業系統均有合適他最佳閱讀的系統字體，所以 Bootstrap 4 放棄使用 Helvetica Neue, Helvetica, 和 Arial 作為預設的字體。

” ”

系統

Winwdows

Mac OS

iOS

Android

系統預設

-apple-system

-apple-system

英文字體

Segoe UI

San Francisco /
Helvetica Neue

San Francisco /
Helvetica Neue

Roboto

中文字體

Microsoft JhengHei /
微軟正黑體

蘋方(PingFang) /
Heiti TC

蘋方(PingFang) /
Heiti TC

Droidsansfallback

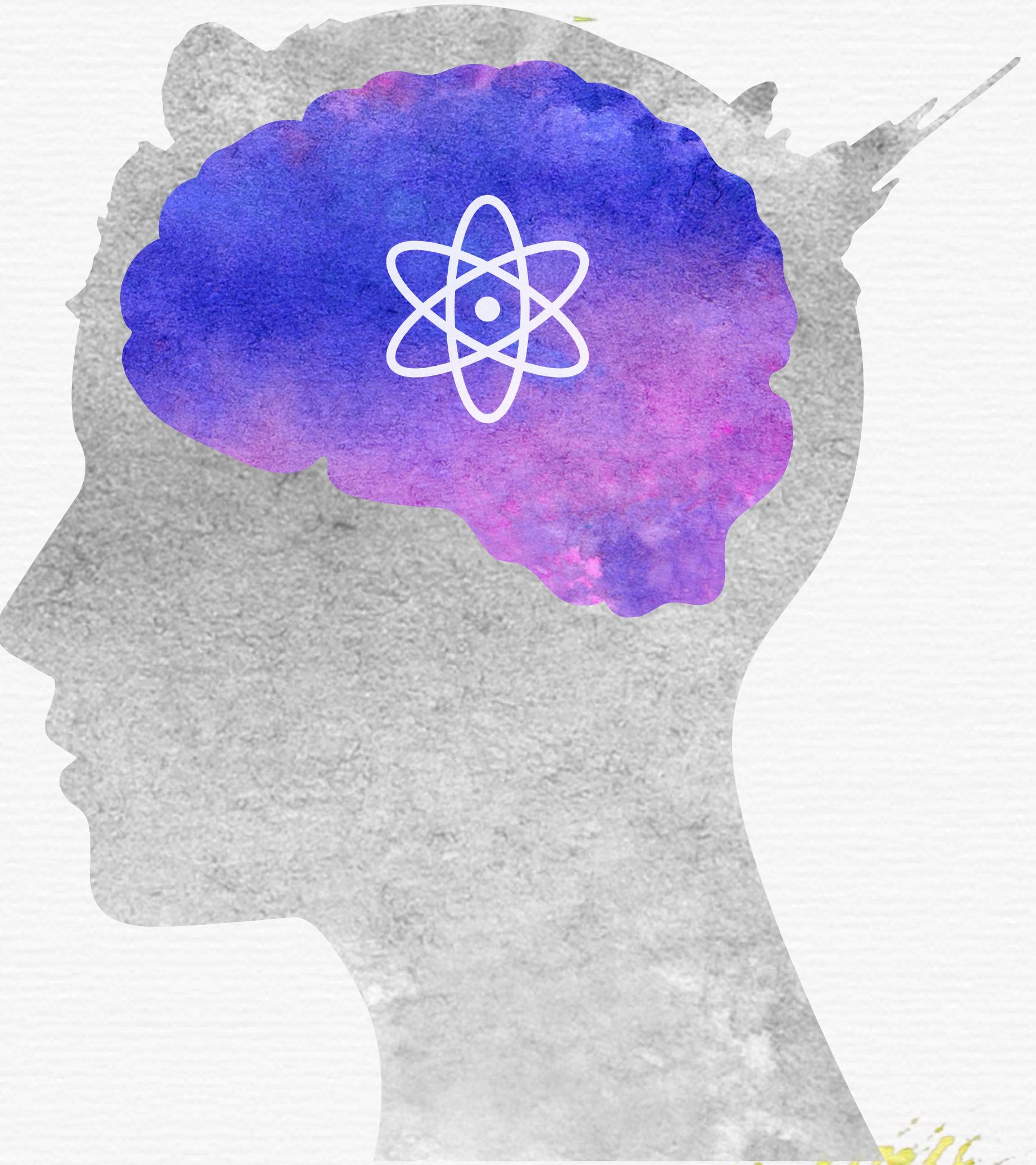
font-family:

```
/* 1 */ -apple-system, BlinkMacSystemFont,  
/* 2 */ "Segoe UI", "Roboto", "Ubuntu", "Droid Sans",  
/* 3 */ "Helvetica Neue", sans-serif;
```

1. 使用系統預設的字體
2. 指定已知的系統 UI 字體
3. 備援的字體

補充說明

CSS Box-sizing



“ “

由於 padding 及 border 會改變元素運算後的寬度，
避免麻煩的計算，Bootstrap 預設載入 box-sizing: border-box

定義的寬度 = 實際呈現的寬度

” ”

```
div {  
  width: 300px;  
  height: 300px;  
  padding: 50px;  
  border: 10px solid green;  
  margin: 50px;  
}
```

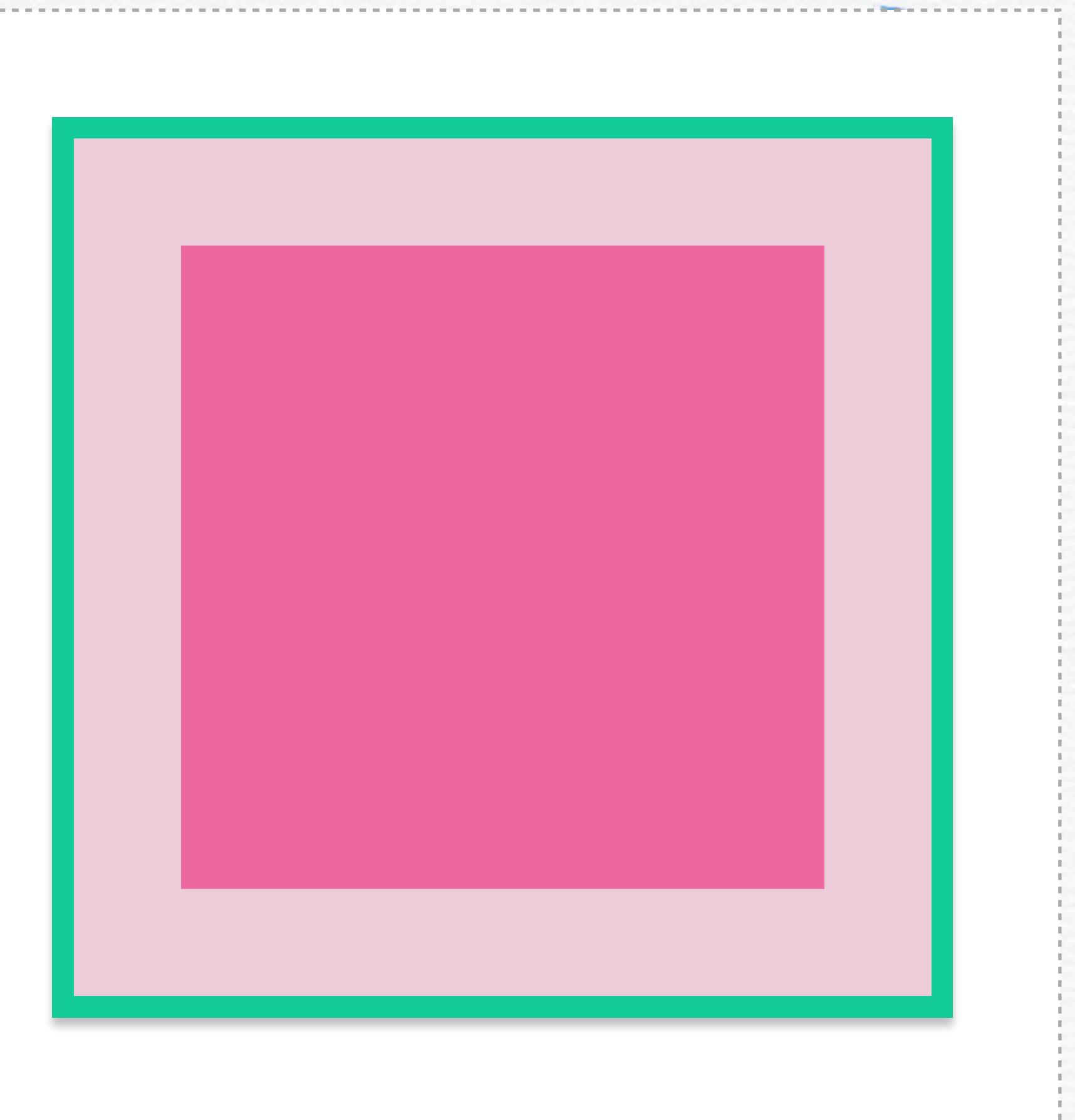
width: 300px;

height: 300px;

padding: 50px;

border: 10px solid green;

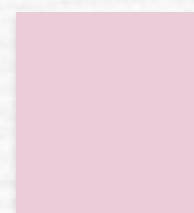
margin: 50px;

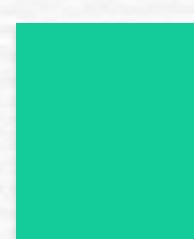


$$300\text{px} + 50*2\text{px} + 10*2\text{px} = 420\text{px}$$

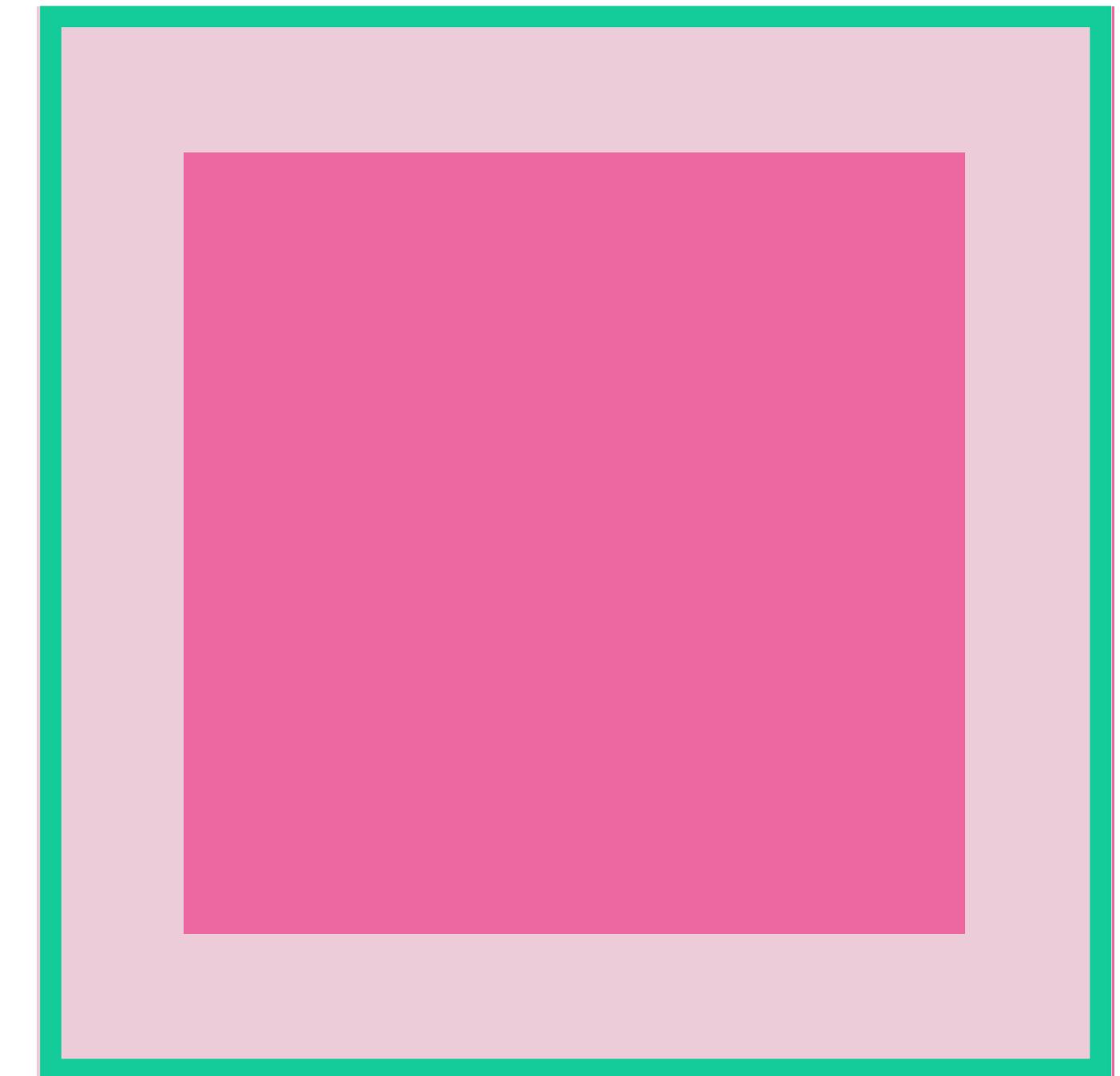
```
div {  
  width: 300px;  
  height: 300px;  
  border: 10px solid green;  
  padding: 50px;  
  margin: 50px;  
  box-sizing: border-box;  
}
```

 width: 300px;
height: 300px;

 padding: 50px;

 border: 10px solid green;

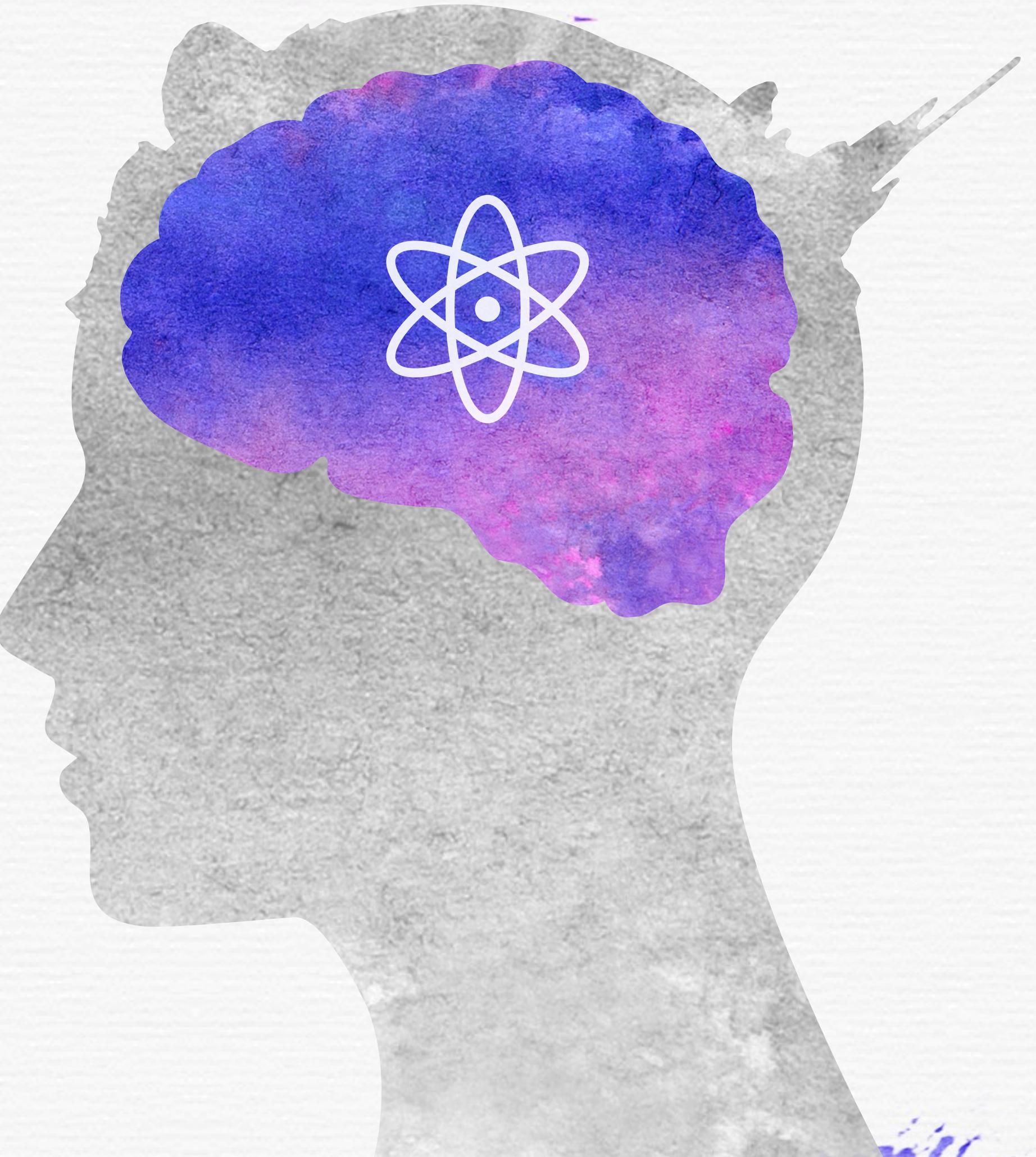
 margin: 50px;



$$300\text{px} = X + 50*2\text{px} + 10*2\text{px}$$

補充說明

Bootstrap Container



“ “

Bootstrap 的 container Class 主要是用來定義最外層的容器
在使用上分為兩大類：

分別為應對滿版寬度及階段固定寬度兩種

” ”

container-fluid

1200px 992px 768px 575px



width: auto

“ “

如果網頁內容不需要嚴謹的定義最大寬度
可以使用 **container-fluid**

對於網頁內容寬度的階段美感都很要求
且需要最大寬度的限制可使用 **container**

” ”

container

1200px 992px 768px 575px



低於 575px
width: auto

container

1200px 992px 768px 575px



大於 576px
width: 540px

container

1200px 992px 768px 575px



大於 768px
width: 720px

container

1140px 960px 720px 540px



大於 1200px
width: 1140px

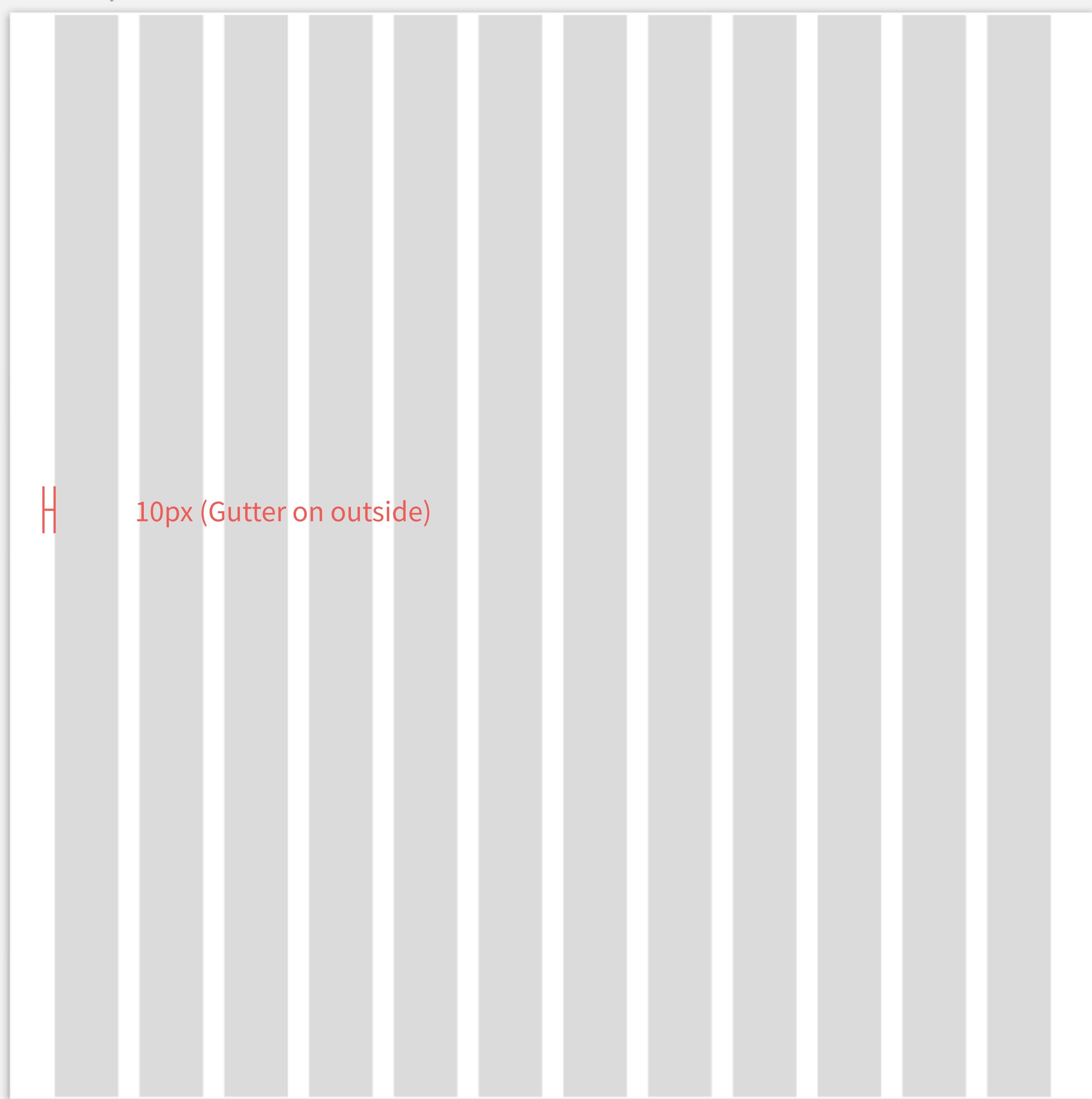
container

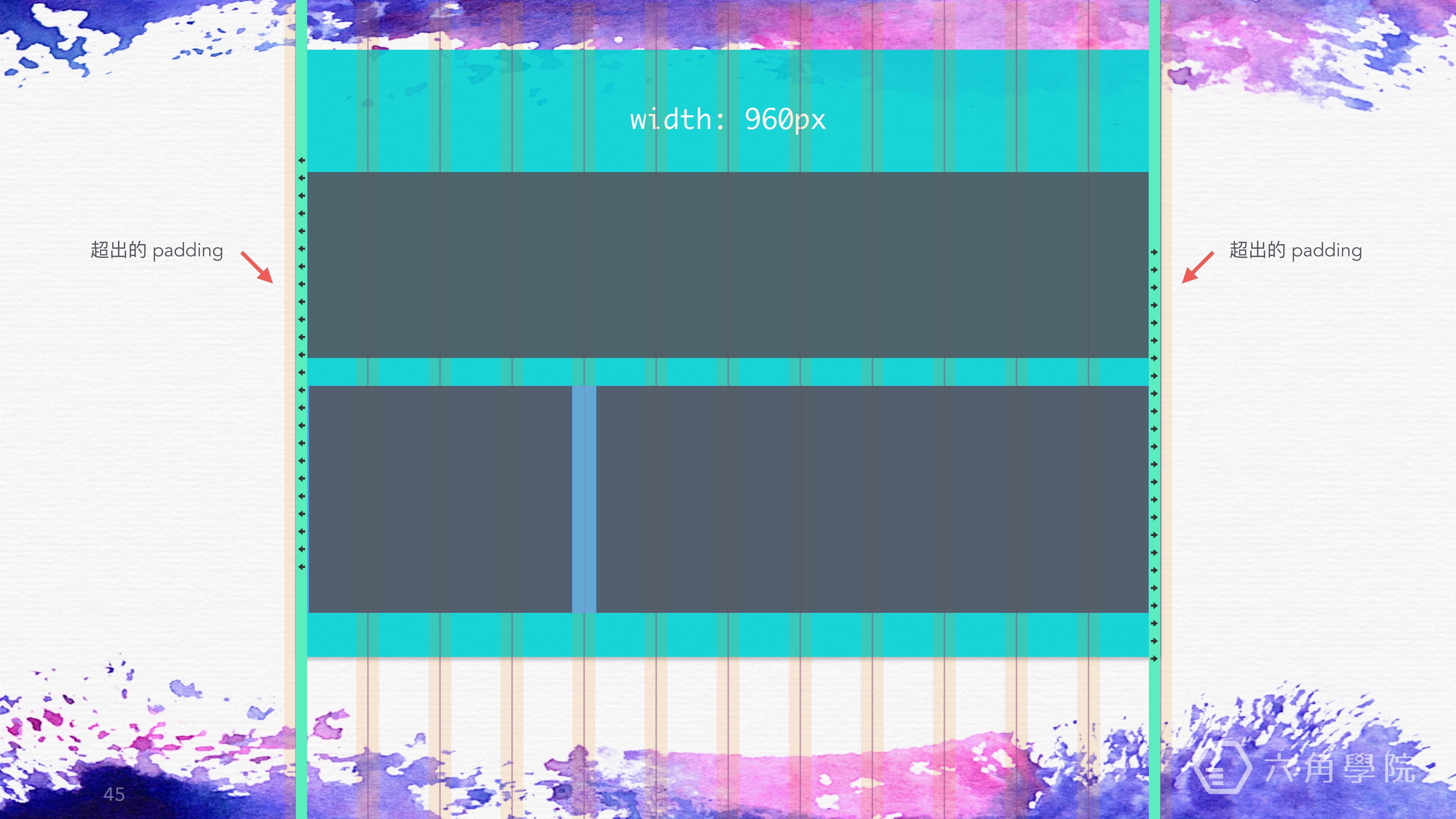
1200px 992px 768px 575px



大於 992px
width: 960px

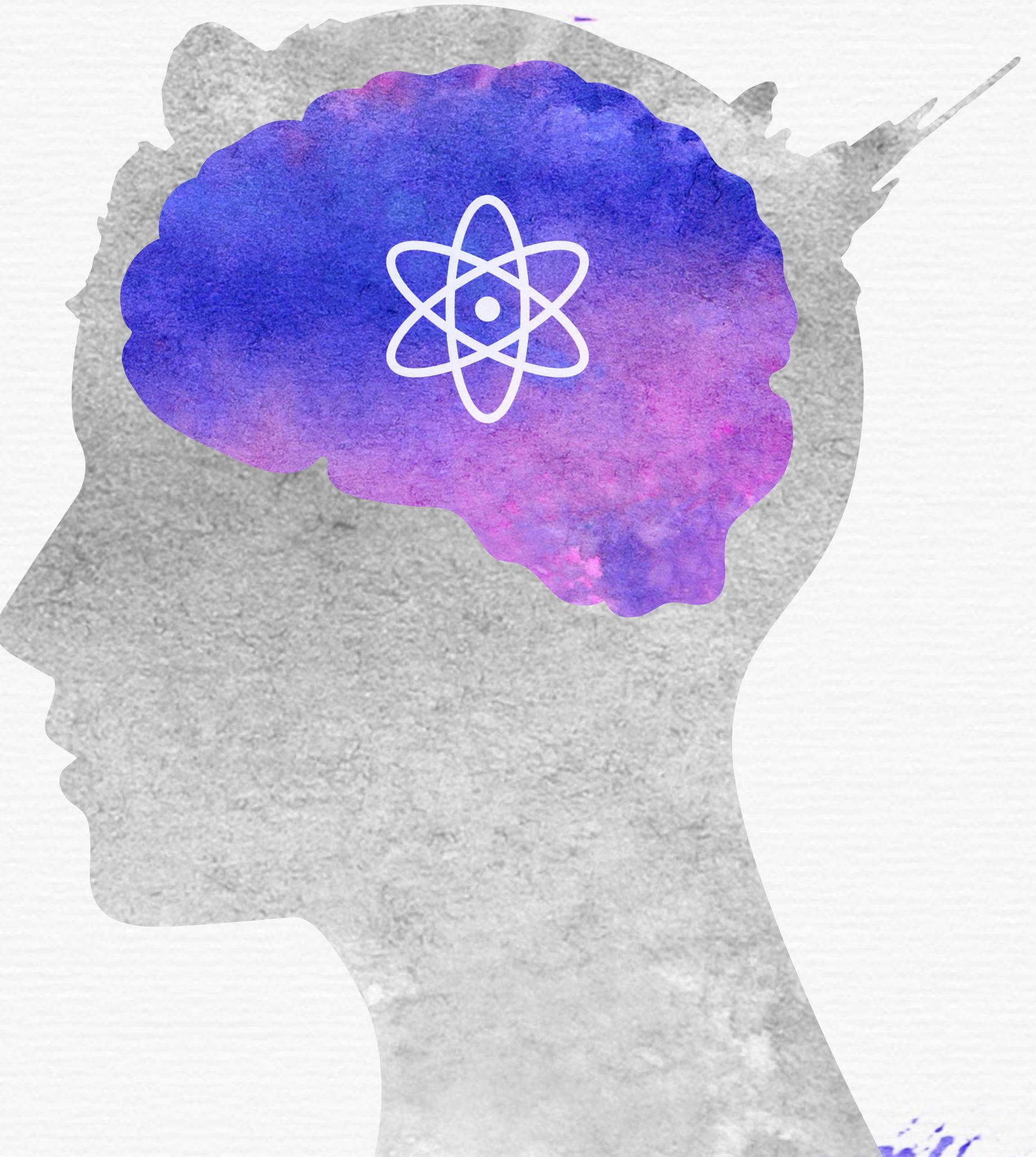
Desktop

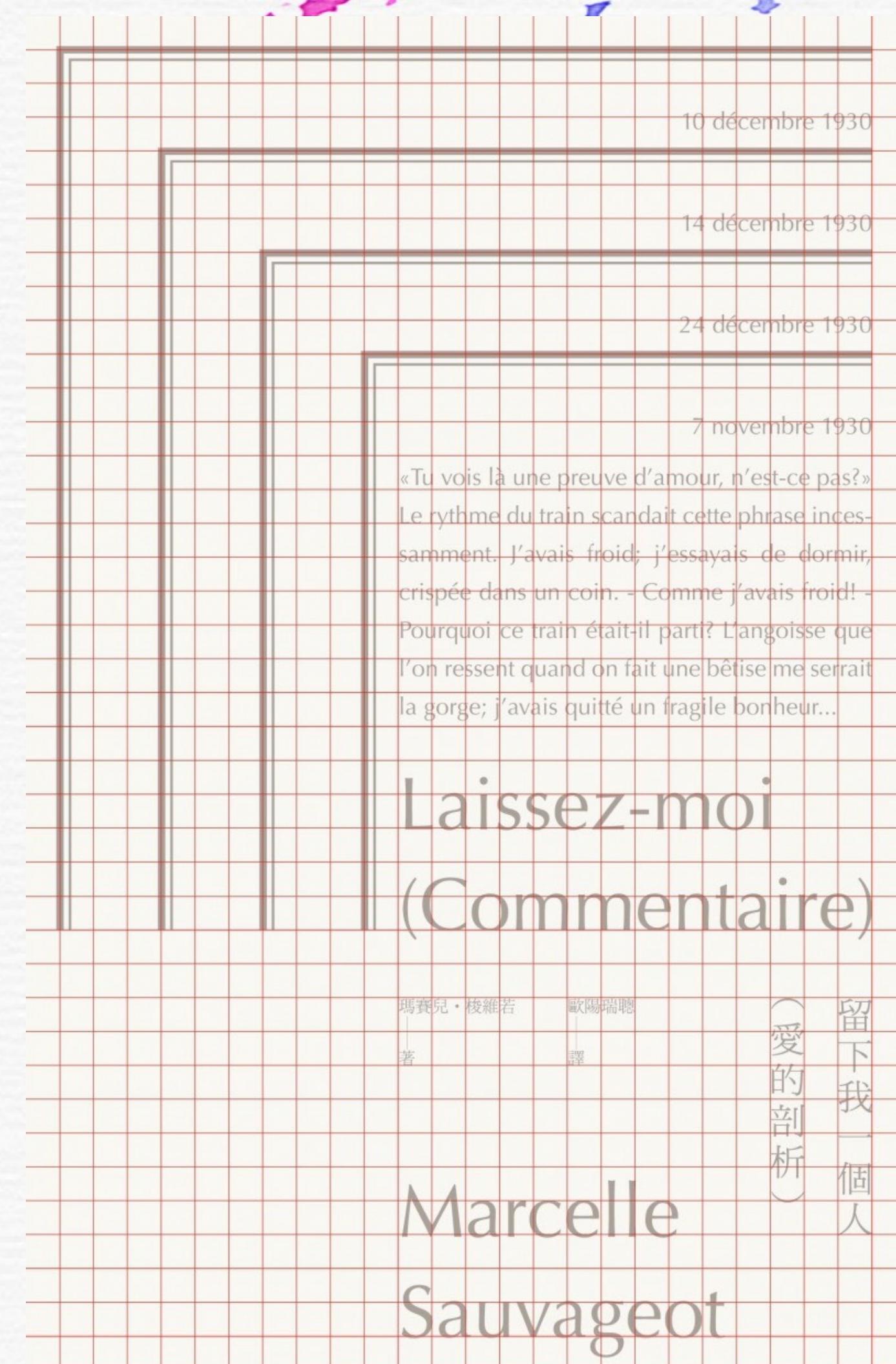




補充說明

網格系統

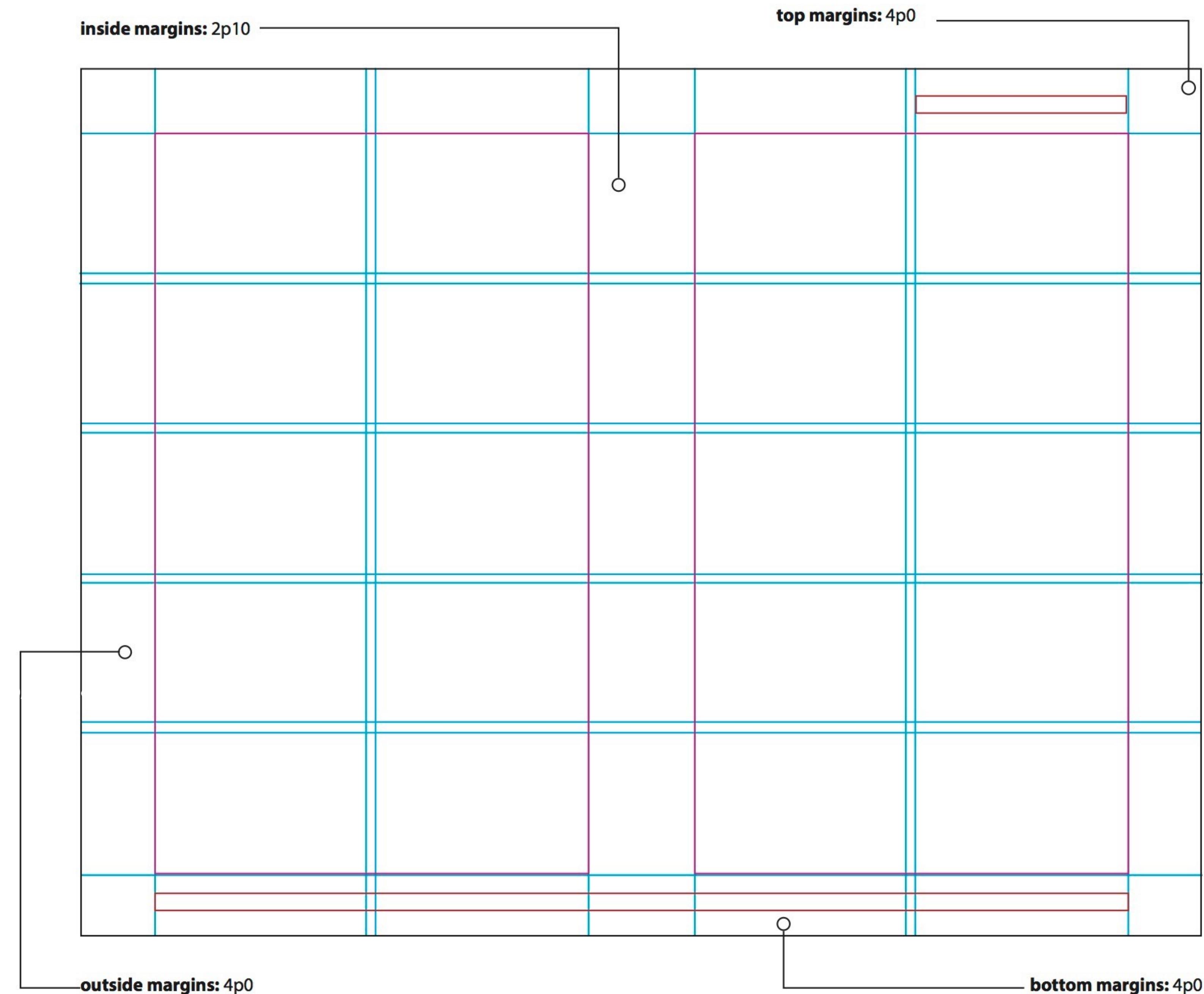




<http://okapi.books.com.tw/article/3718>



裝幀設計/王志弘 (攝影/無相生)



“ “

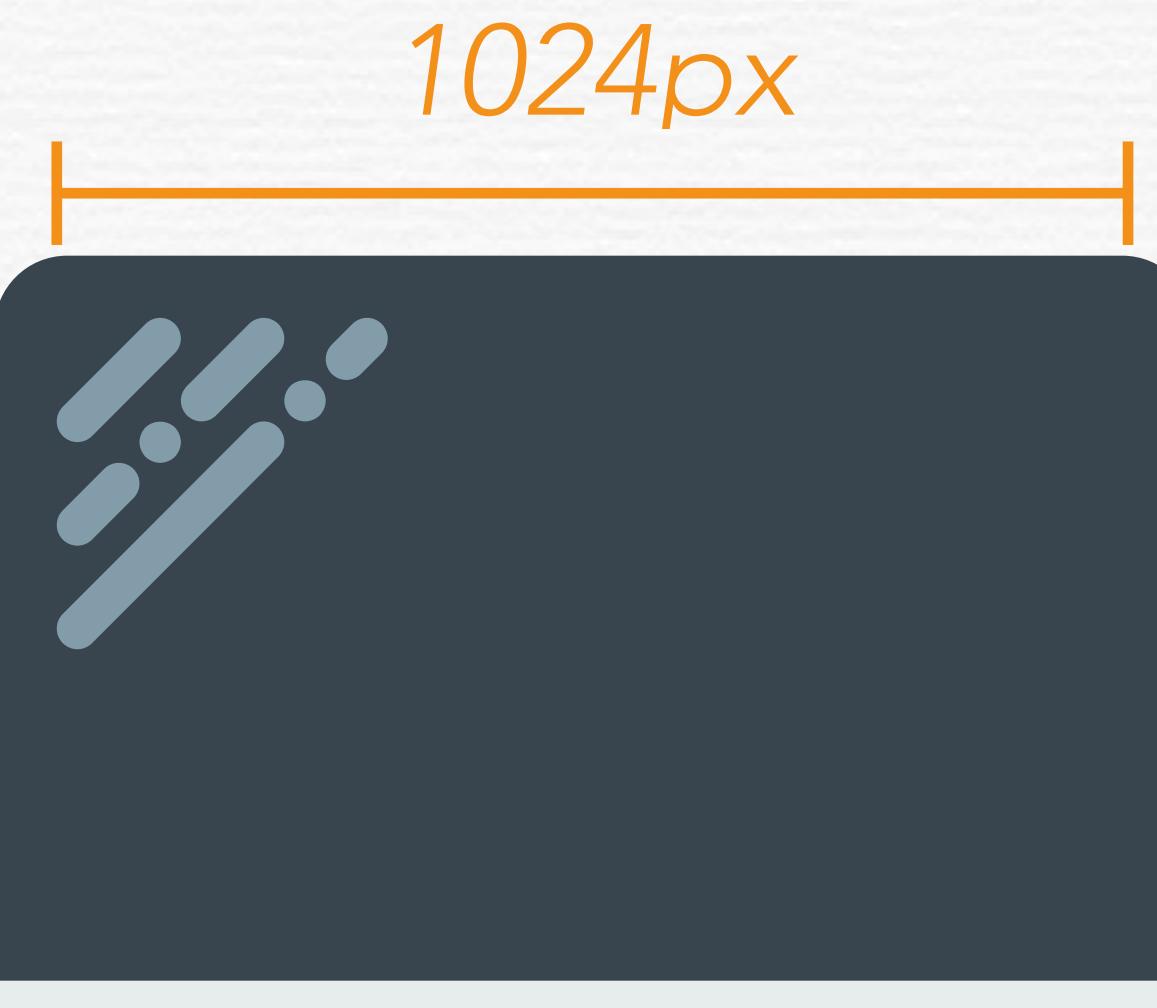
但是網頁並不像平面設計是靜止不動的，會因為使用者的裝置大小、
瀏覽器甚至是操作方式，都會改變內容或者排版。

所以說，在網頁設計上的格線尺寸該如何分割？

” ”

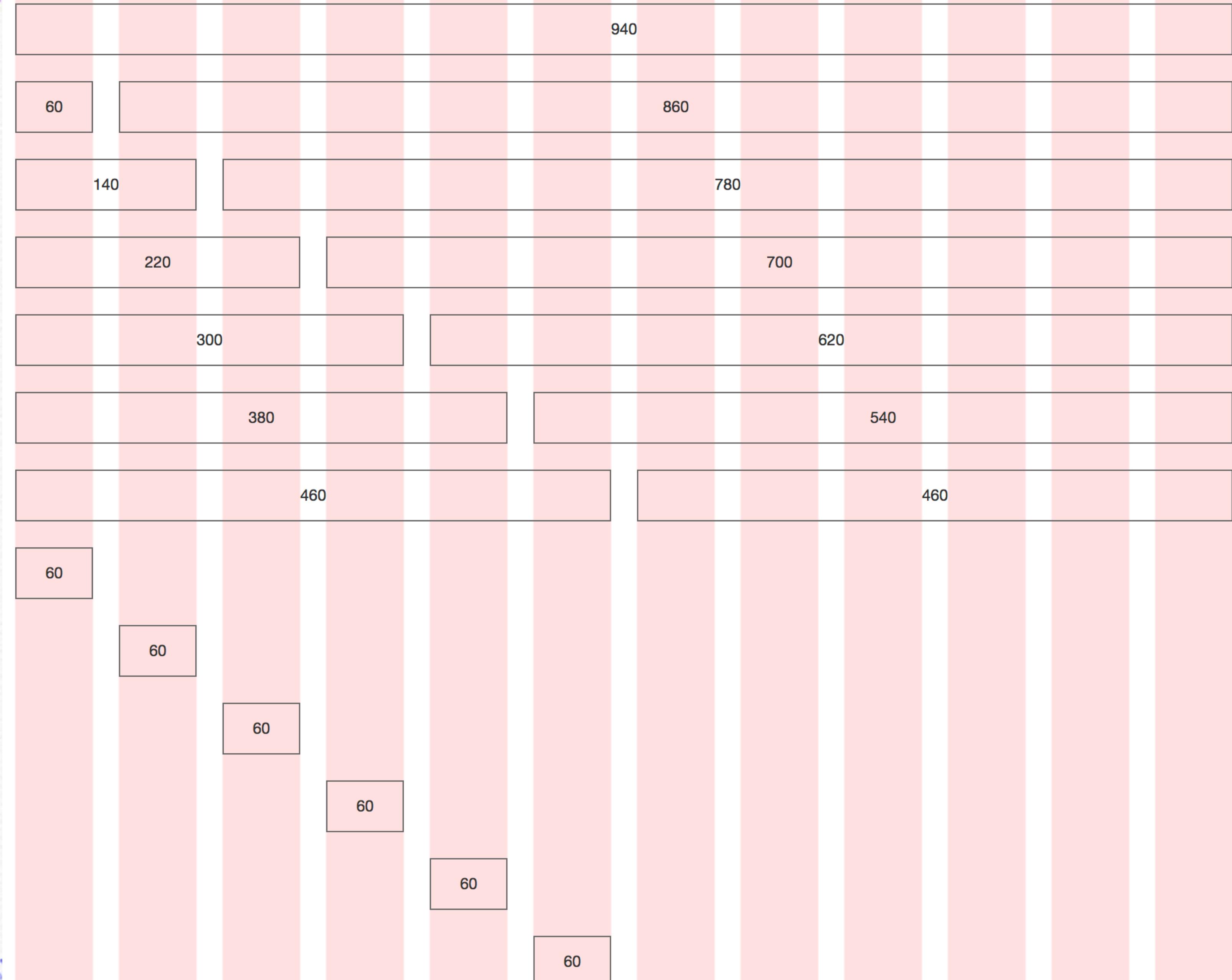
會以 960px 為基準，也是因為早期電腦螢幕通常為 1024px，960px 的設計是最為剛好。

而 12 欄則是較多數字的公倍數。



50

12 Column Grid



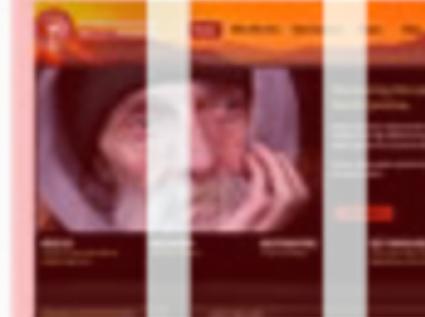
 **BRAND RICH MEDIA**
CREATIVE, TECHNICAL & DEPENDABLE

CREATIVE, TECHNICAL & DEPENDABLE

Brand Rich Media creates authentic, compelling – often clever – web and print media for emerging and established brands.

MY SERVICES
... and recent work

WEB & INTERACTIVE


BRAND IDENTITIES


PRINT DESIGN


WHO I'VE WORKED WITH

COMMERCIAL	NON-PROFTS
<ul style="list-style-type: none"> Arise Eagle IFP Company Alliance Virtual Office Younger Interiors Leading Leaders Abetterance 	<ul style="list-style-type: none"> Calvary Church European Initiative Christ Nations Crosses Across Nations Jennifer Claire Ministries Firstchurch (Apostolic Ministries)

... and what they're saying

"Brandon delivered a website better than I visioned. It was on time and on budget too. I have been amazed at about what the proper web presence has done for my business."

Black Estate

Black

[Top](#)
[Vineyard](#)
[Wines](#)
[Stockists](#)
[Black List](#)
[Contact](#)
[Region](#)

Black Estate is a remarkable place for wine.

A family owned vineyard in the warm, sunny slopes of the Waipara Valley, where the vines grow through clay and limestone soils to produce intense wines completely expressive of this site.

Our wines are hand crafted using artisan techniques and a dedication to creating exceptional Waipara Pinot Noir, Chardonnay and Riesling.

Vineyard

Omihi, Waipara, New Zealand.

Latest News





Layout Settings

These settings apply to selected Pages or Artboards only.

Columns:

Total Width: 960px

Offset: 0px

Center

Number of Columns: 12

Gutter on outside

Gutter Width: 20px

Column Width: 60px

Rows:

Gutter Height: 12px

Row Height is 5 x Gutter Height

Draw all horizontal lines

Visuals: Fill Grid

Stroke Outline

Colors:



Dark



Light

Make Default

Cancel

OK

Desktop

Layout Settings
These settings apply to selected Pages or Artboards only.

Columns: Total Width: **960px**

Offset: **0px** **Center**

Number of Columns: **12**

Gutter on outside

Gutter Width: **20px**

Column Width: **60px**

Rows: Gutter Height: **12px**

Row Height is **5** x Gutter Height

Draw all horizontal lines

Visuals: **Fill Grid**
 Stroke Outline

Colors:

940px (Total Width)

60px (Column Width)

20px (Gutter Width)

10px (Gutter on outside)

53

六角學院

Bootstrap 4 也是由這個基礎概念作為發展。

.col-12 .col-md-8

.col-6 .col-md-4

.col-6 .col-md-4

.col-6 .col-md-4

.col-6 .col-md-4

.col-6

.col-6

Copy
<!-- Stack the columns on mobile by making one full-width and the other half-width --></p>

```
<div class="row">
  <div class="col-12 col-md-8">.col-12 .col-md-8</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
</div>
```

><!-- Columns start at 50% wide on mobile and bump up to 33.3% wide on desktop --></p>

```
<div class="row">
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</div>
</div>
```

><!-- Columns are always 50% wide, on mobile and desktop --></p>

```
<div class="row">
  <div class="col-6">.col-6</div>
  <div class="col-6">.col-6</div>
</div>
```

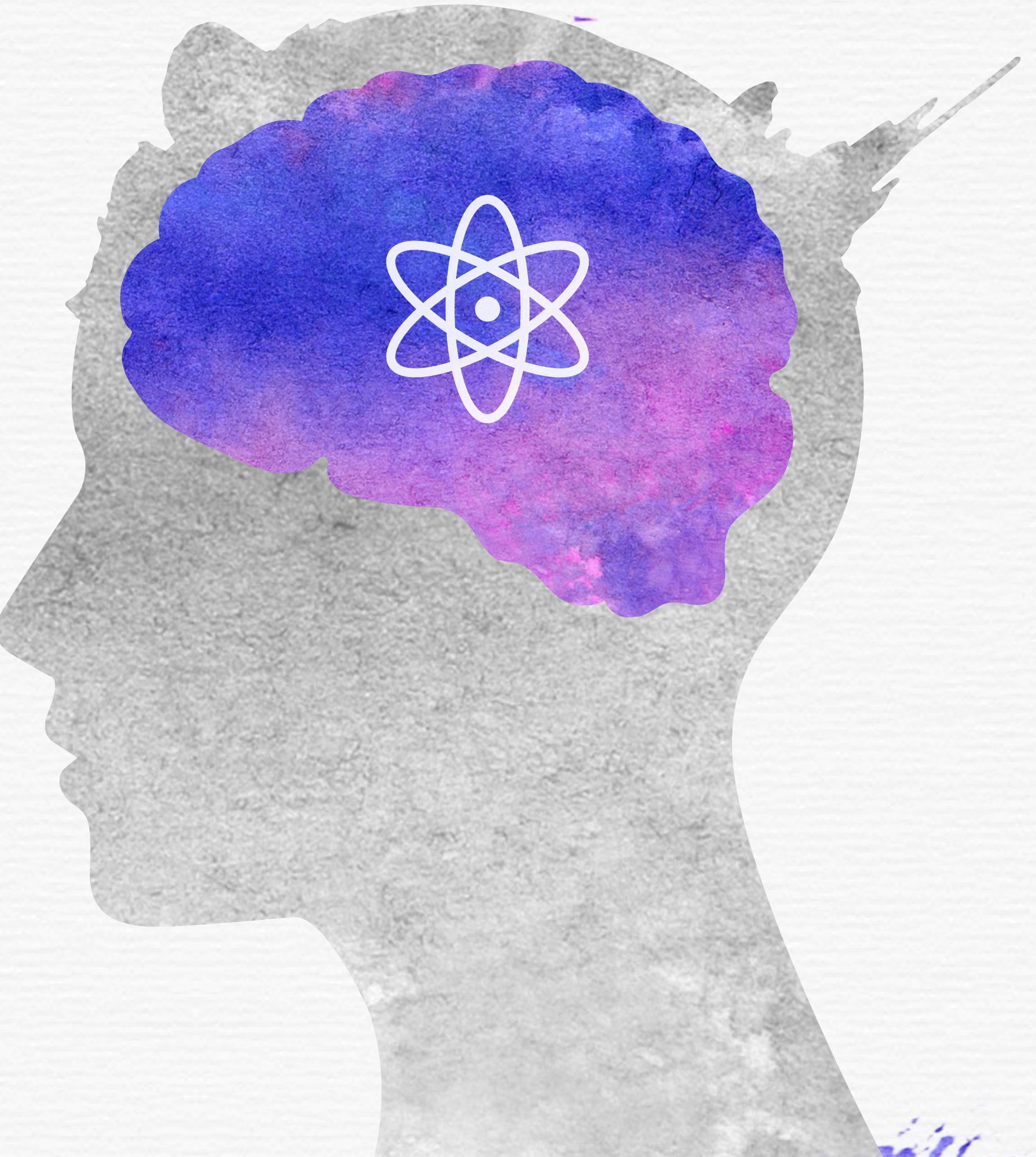
“ “

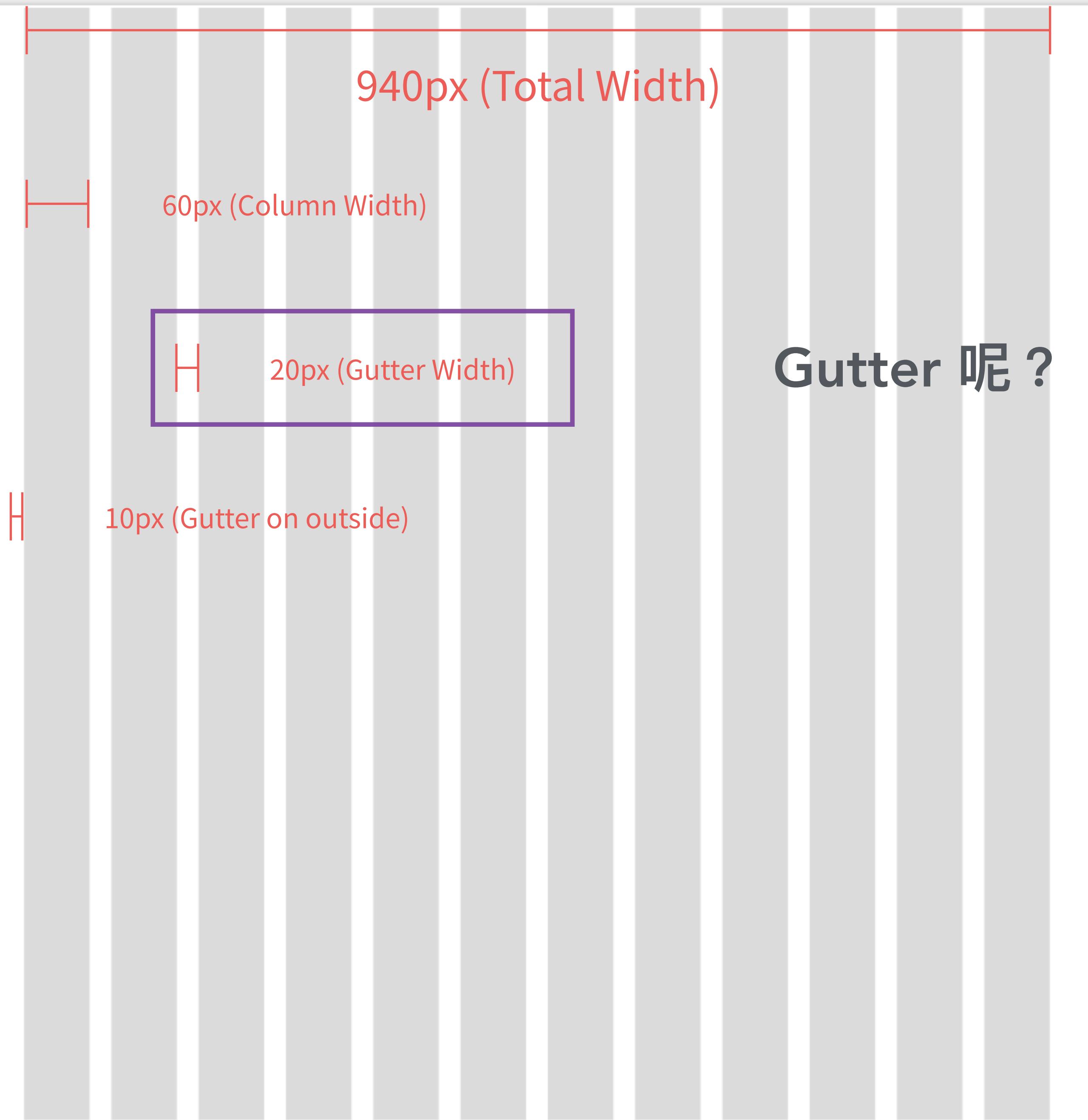
章節重點：Bootstrap 總欄數為 **12**

” ”

補充說明

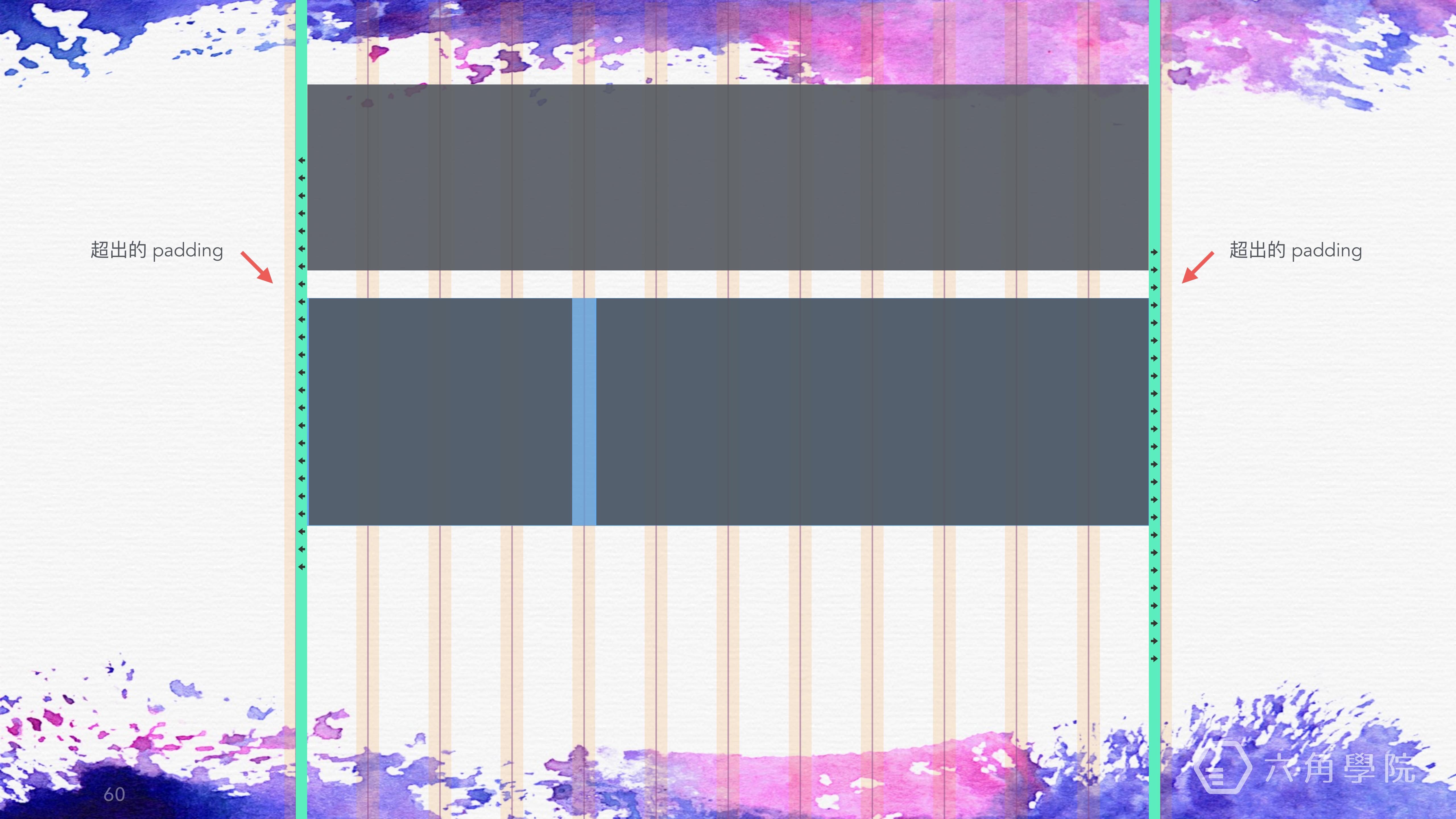
Bootstrap 的網格系統





Gutter 呢？

```
.col-* {  
  padding-right: 15px;  
  padding-left: 15px;  
}
```

超出的 padding

超出的 padding

```
.row {  
  margin-right: -15px;  
  margin-left: -15px;  
}  
  
.col-* {  
  padding-right: 15px;  
  padding-left: 15px;  
}
```



1. **class="col-xx"** 外層是 **class="row"**
2. **class="row"** 裡面是 **class="col-xx"**
3. 頁面內容請放在 **class="col-xx"** 的內層

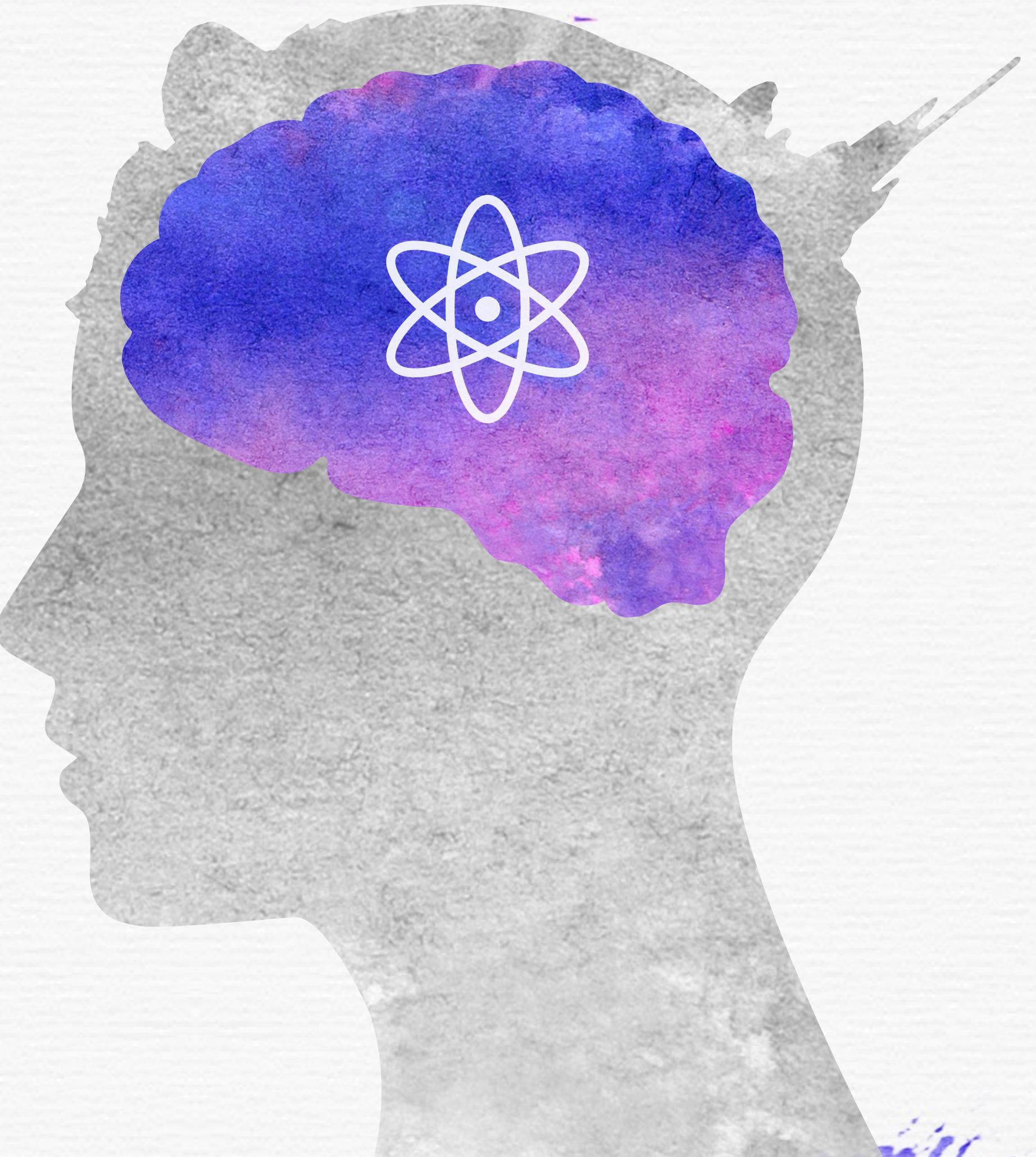
很重要，別弄錯了喔

(主要原因為空間補回及 **flex**)



補充說明

Bootstrap 的中斷點



“ “

Bootstrap 是設計來行動優先的框架，
透過許多 **media queries** 來設立中斷點
並製作具彈性的排版

” ”

Bootstrap 的 media queries

```
// Small devices (landscape phones, 576px and up)
@media (min-width: 576px) { ... }

// Medium devices (tablets, 768px and up)
@media (min-width: 768px) { ... }

// Large devices (desktops, 992px and up)
@media (min-width: 992px) { ... }

// Extra large devices (large desktops, 1200px and up)
@media (min-width: 1200px) { ... }
```

當寬度超過該數值以上時會套用樣式



Bootstrap 預設斷點

Bootstrap 預設斷點

| BS 3 / BS4 | -- / xs | xs / sm | sm / md | md / lg | lg / xl |
|--------------------|--------------------|------------------------------|------------------------------|-------------------------------|-------------------|
| Bootstrap 4 | <= 575px | 576px
~
767px | 768px
~
991px | 992px
~
1199px | >= 1200 |
| column | col-* | col-sm-* | col-md-* | col-lg-* | col-xl-* |

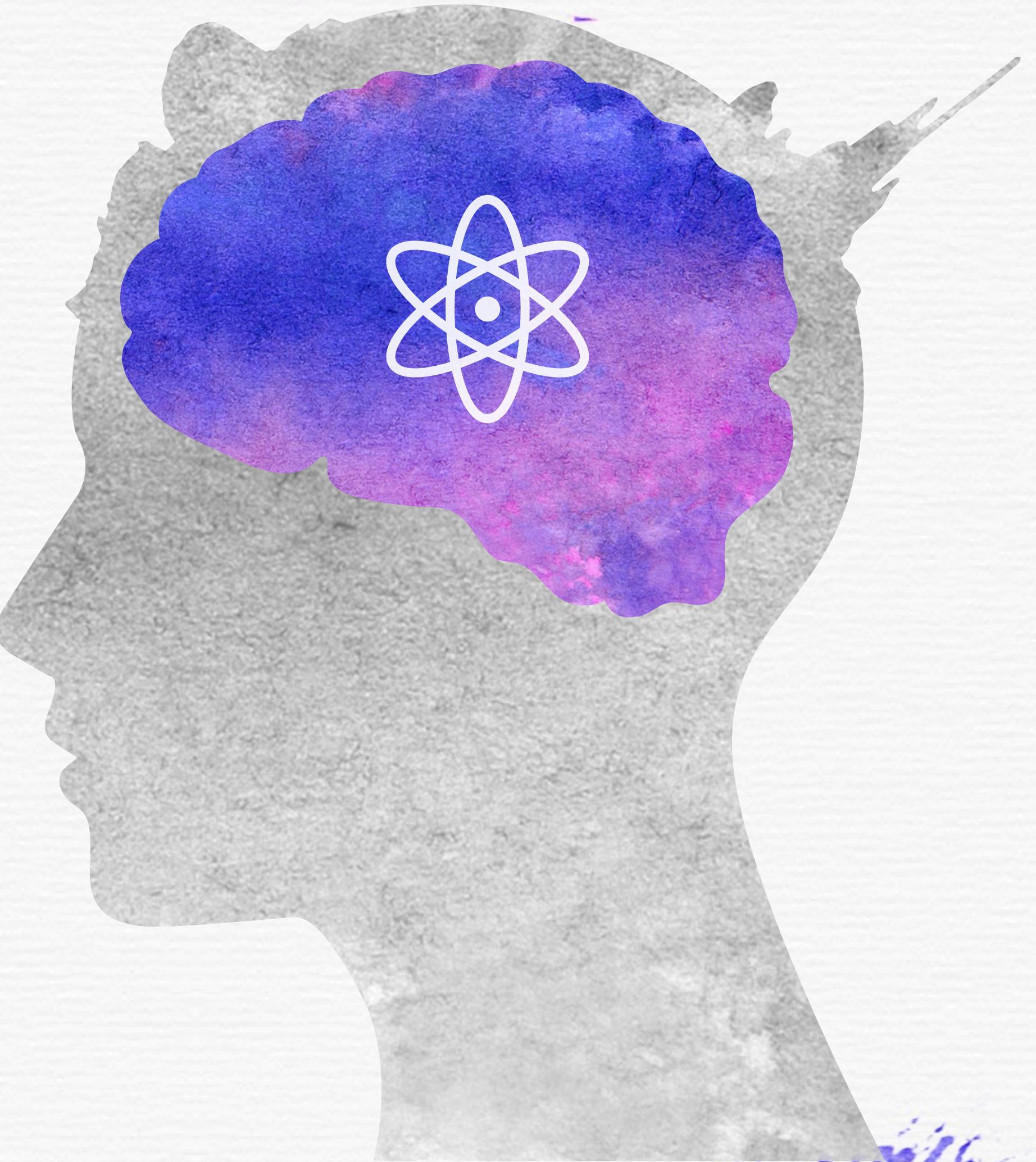
“ “

記得是使用 **xs(省略)、sm、md、lg、xl**
來調整不同視圖下的欄寬度

” ”

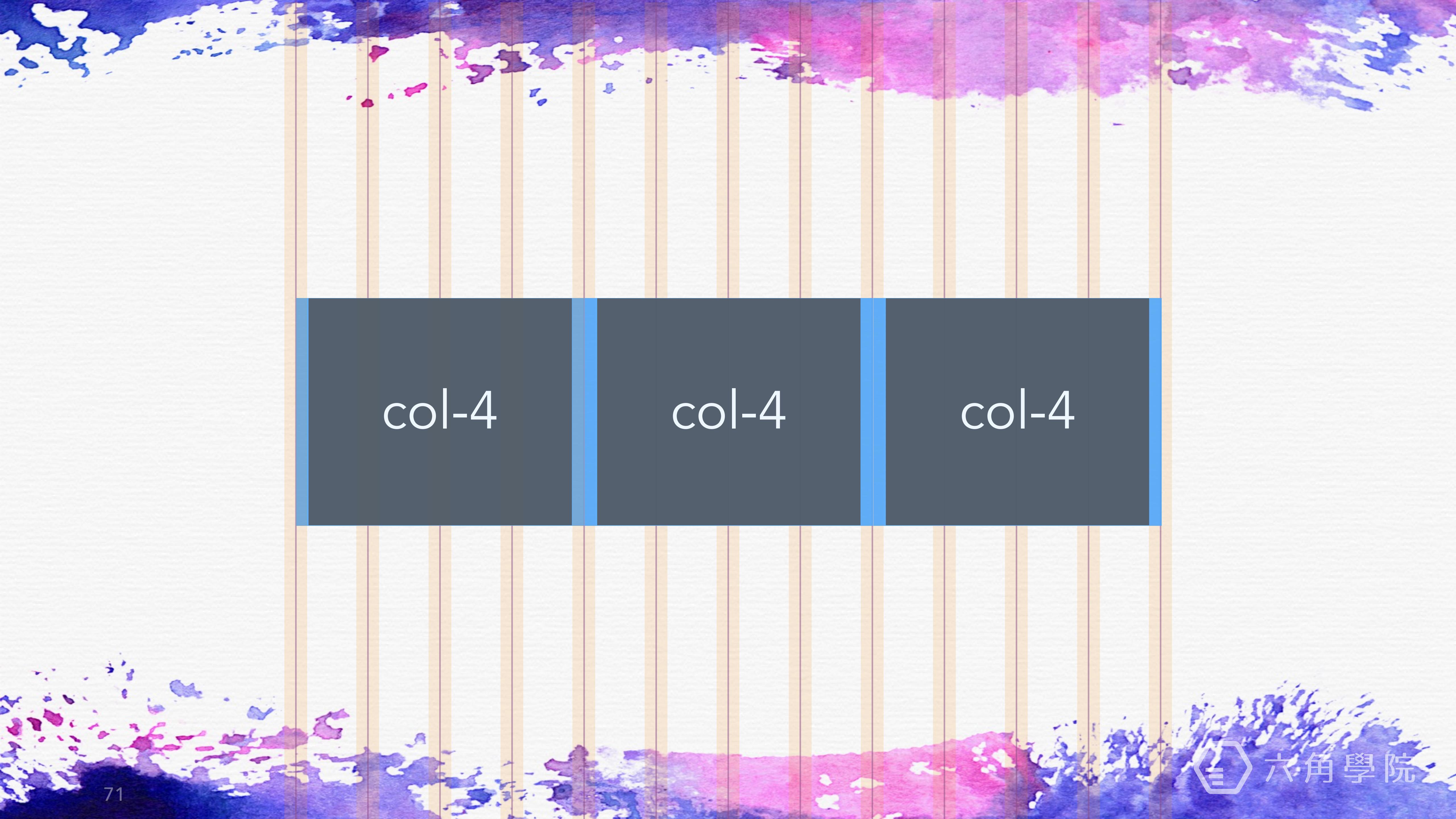
補充說明

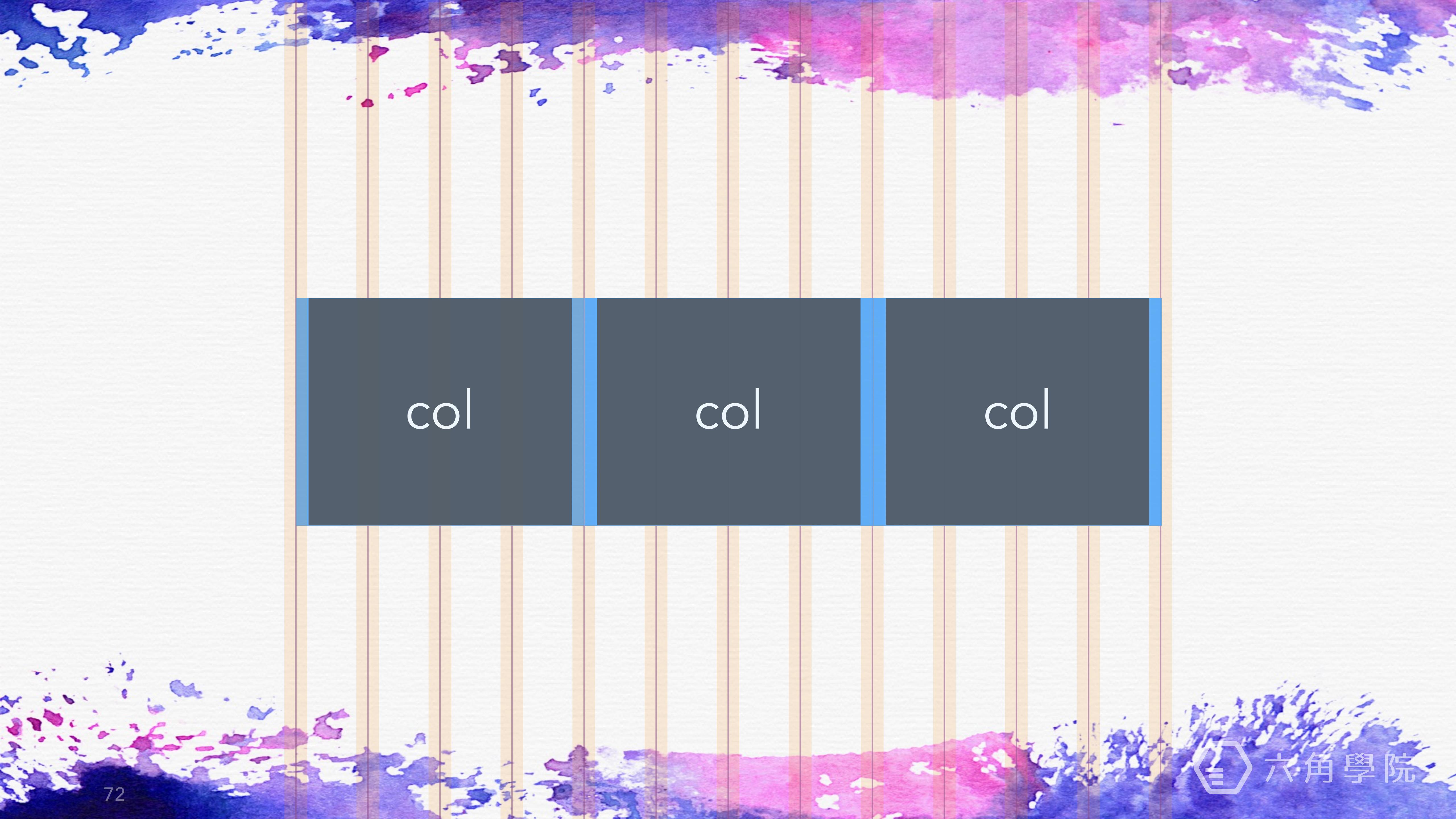
Bootstrap 的 Flex 小說明

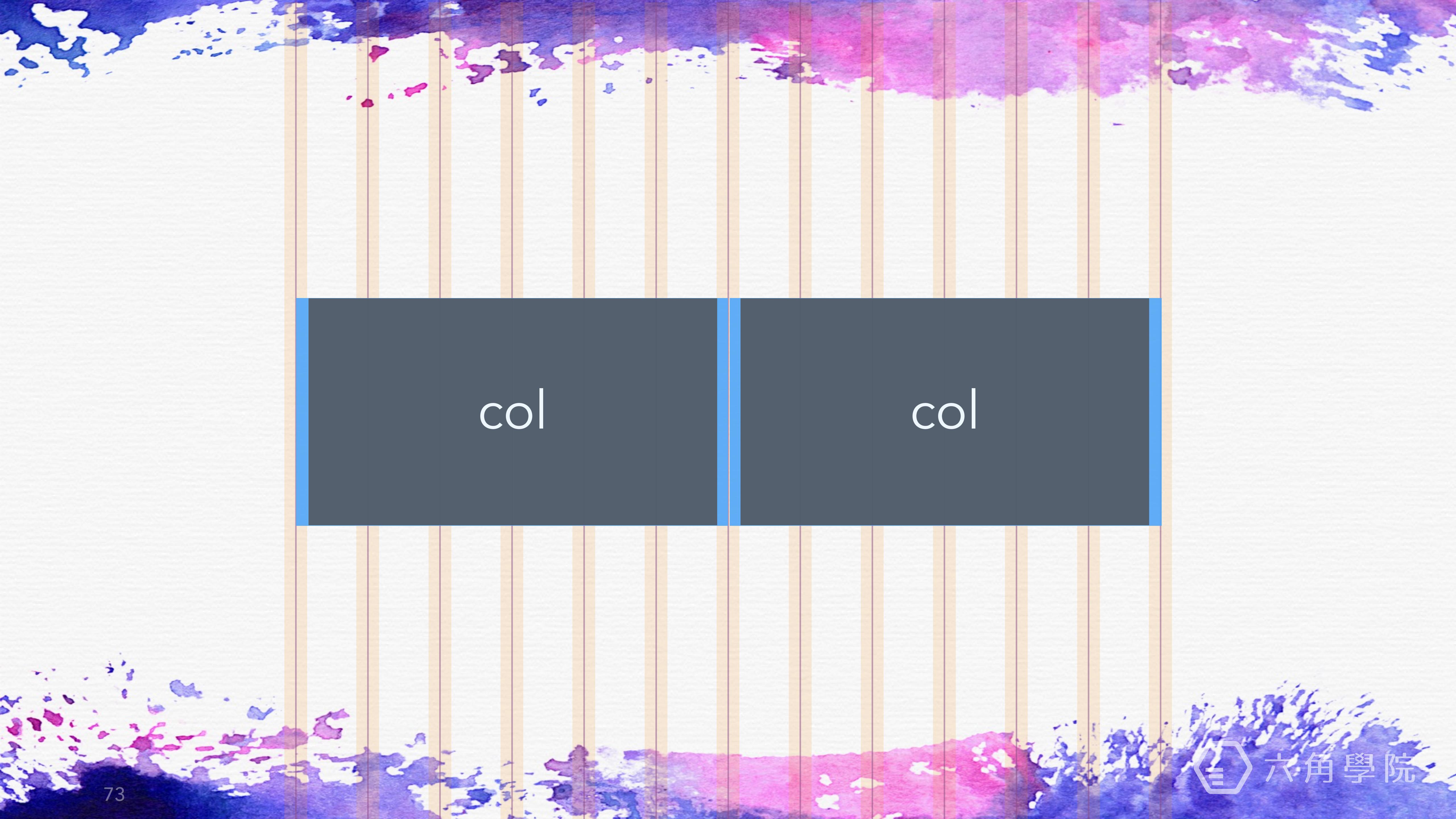


Bootstrap 4 和前一版最大的差別在於 Flex







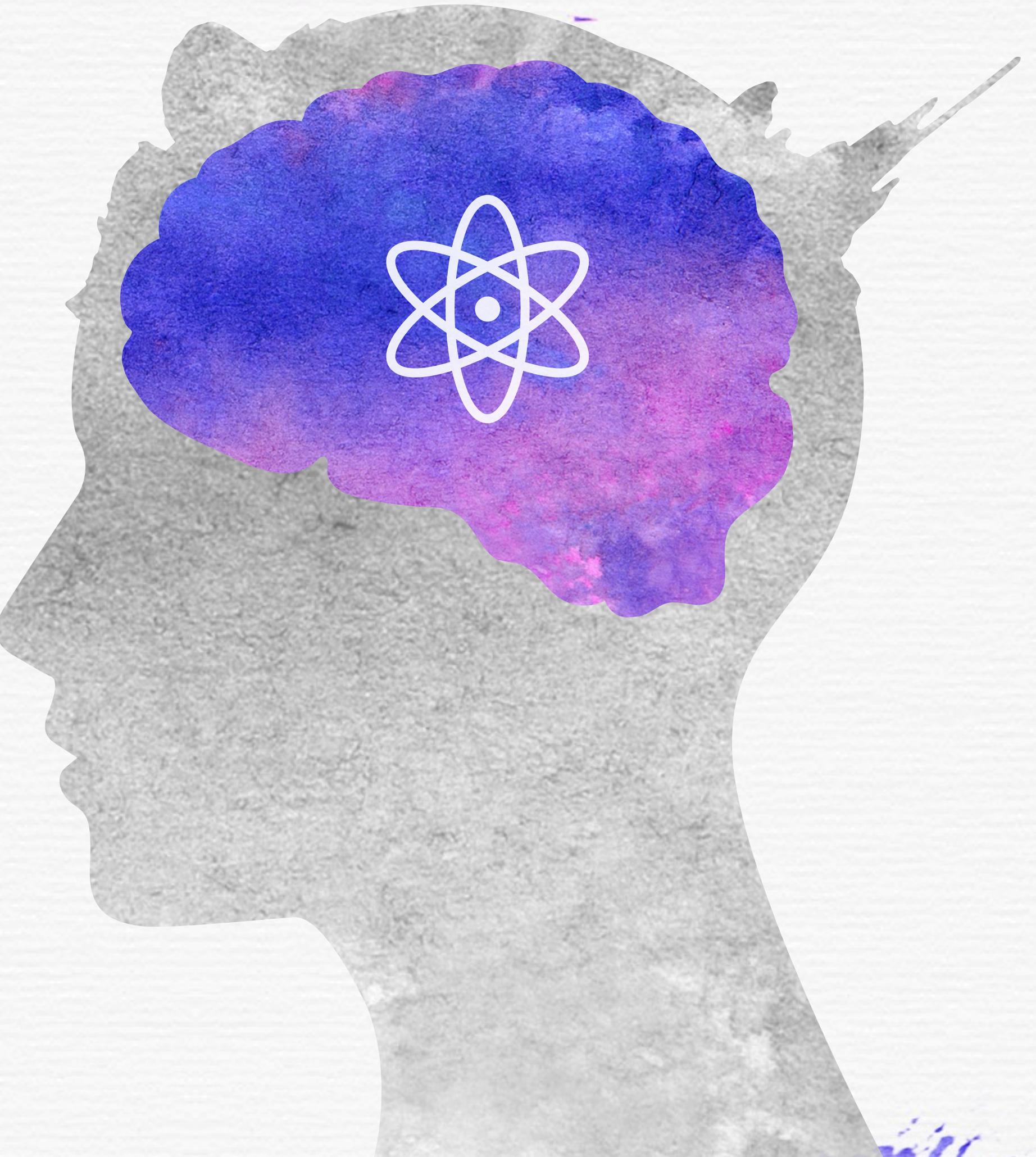


col

col

補充說明

Flex 完整介紹



CSS3 彈性排版屬性

FLEX



六角學院

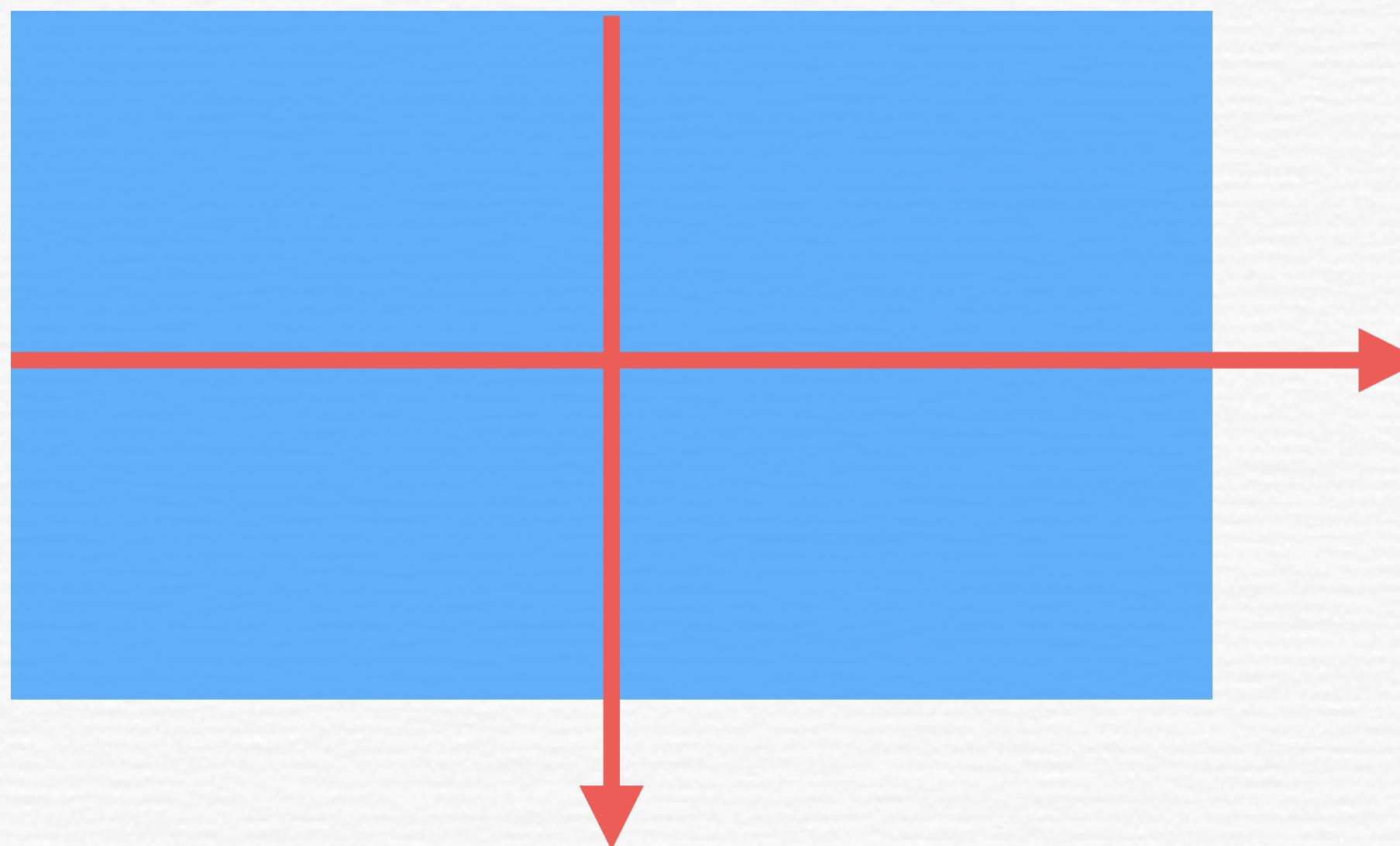
“ “

傳統的 float 排版就如同水一樣可以左右的流動，但這概念無法應對現在多元的排版方式，如：置中、垂直、等距等等。

Flex 不只解決這樣問題，並且具有更優於 float 的彈性。

” ”

FLEX 需要了解的



- 軸線的觀念
- 相關屬性
- 對齊方法
- Bootstrap 使用到的方法

FLEX 需要了解的

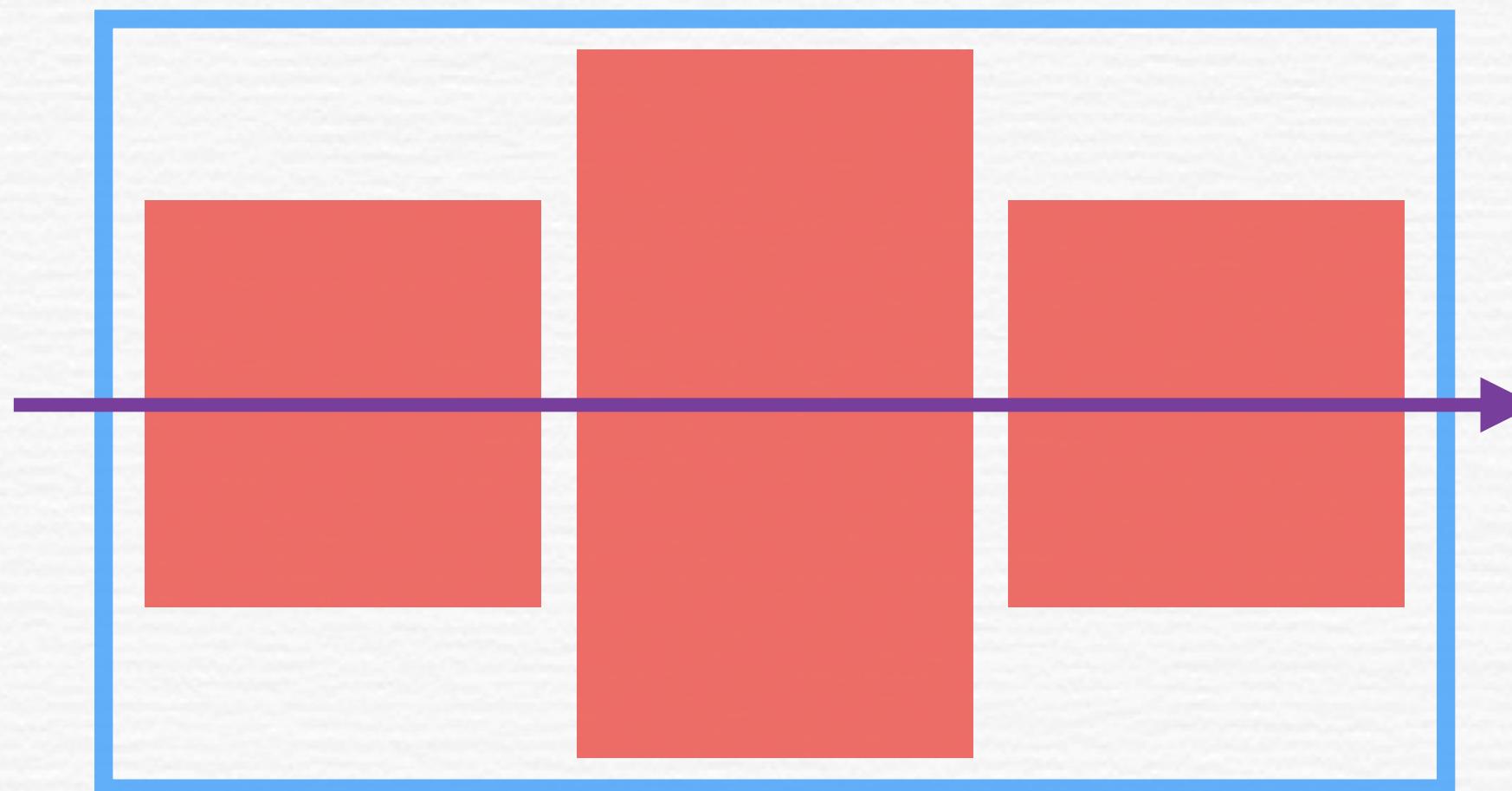
外層屬性



內層屬性

- 軸線的觀念
- 相關屬性
- 對齊方法
- Bootstrap 使用到的方法

FLEX 需要了解的



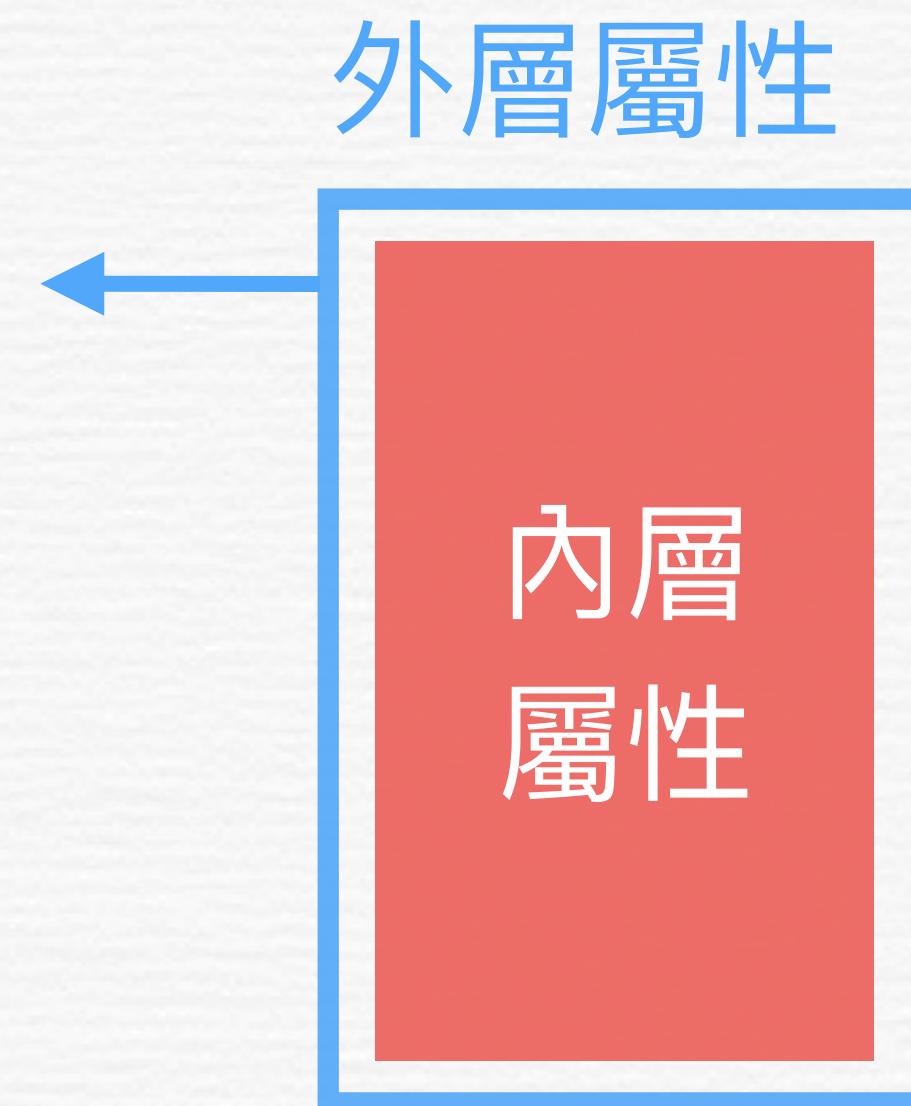
- 軸線的觀念
- 相關屬性
- 對齊方法
- Bootstrap 使用到的方法

FLEX 需要了解的



- 軸線的觀念
- 相關屬性
- 對齊方法
- Bootstrap 使用到的方法

- display : 必備屬性
- flex-flow
 - flex-direction : 決定 flex 軸線
 - flex-wrap : 決定換行的屬性
- justify-content : 主要軸線的對齊
- align-items : 交錯軸線的對齊



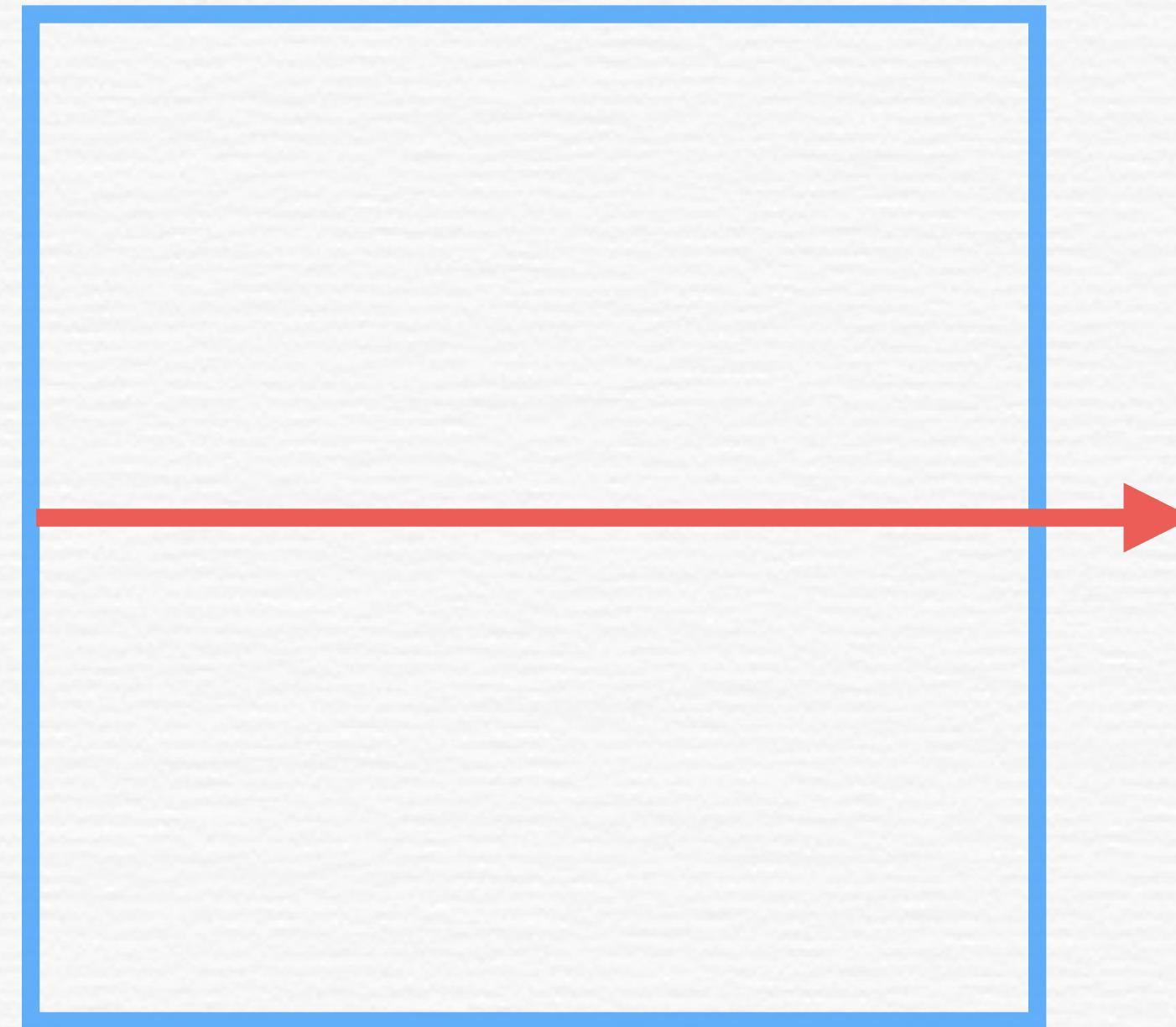
- flex
 - flex-grow : 伸展比
 - flex-shrink : 收縮比
 - flex-basis : 絶對值
- order : 排序
- align-self : 單一個物件的交錯軸對齊

- **display** : 必備屬性
- flex-flow
 - **flex-direction** : 決定 flex 軸線
 - flex-wrap : 決定換行的屬性
- **justify-content** : 主要軸線的對齊
- **align-items** : 交錯軸線的對齊



- flex
 - flex-grow : 伸展比
 - flex-shrink : 收縮比
 - flex-basis : 絶對值
- order : 排序
- **align-self** : 單一個物件的交錯軸對齊

主軸

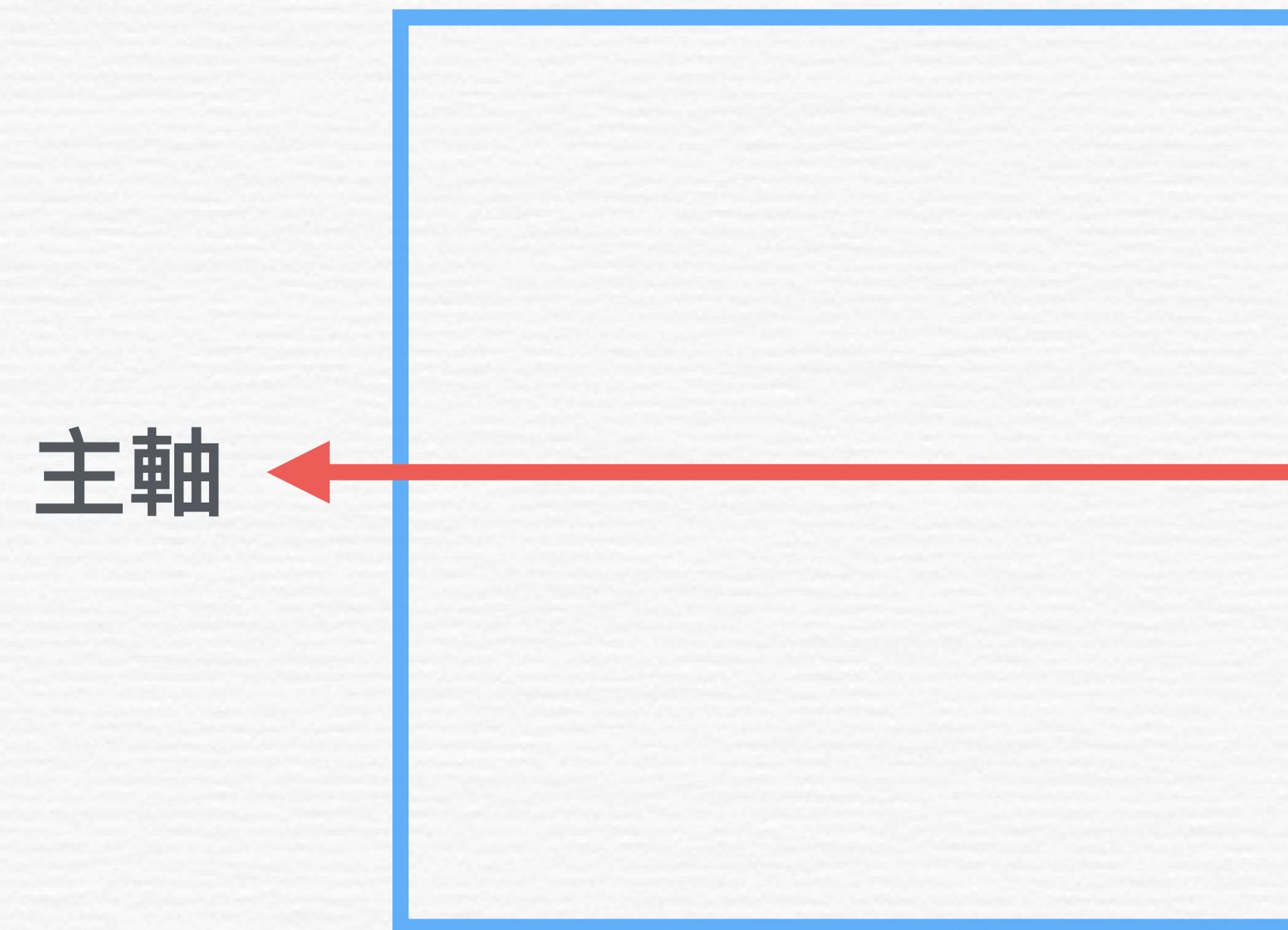


flex-direction: row (default)

flex-direction: row-reverse

flex-direction: column

flex-direction: column-reverse

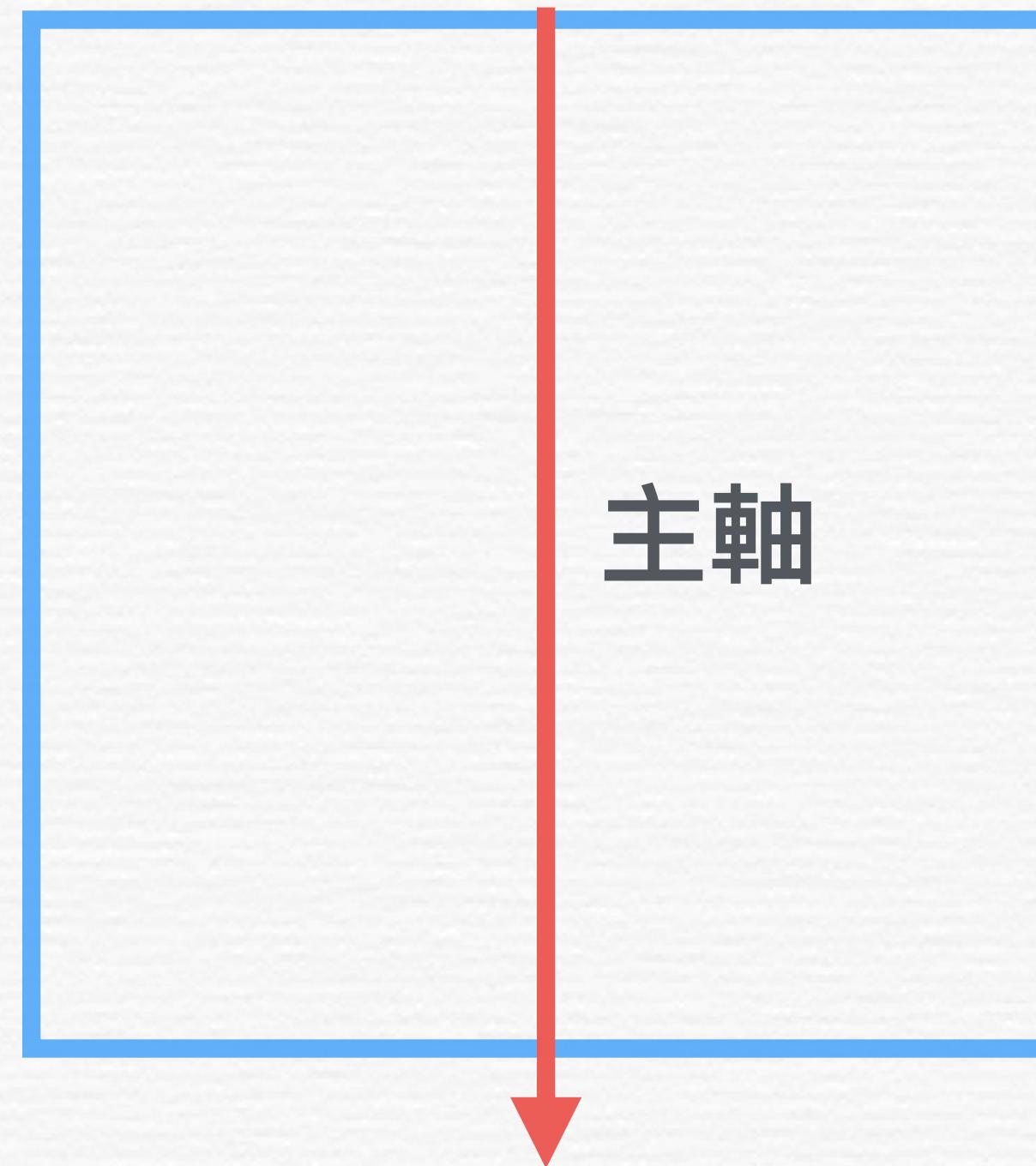


flex-direction: row (default)

flex-direction: row-reverse

flex-direction: column

flex-direction: column-reverse



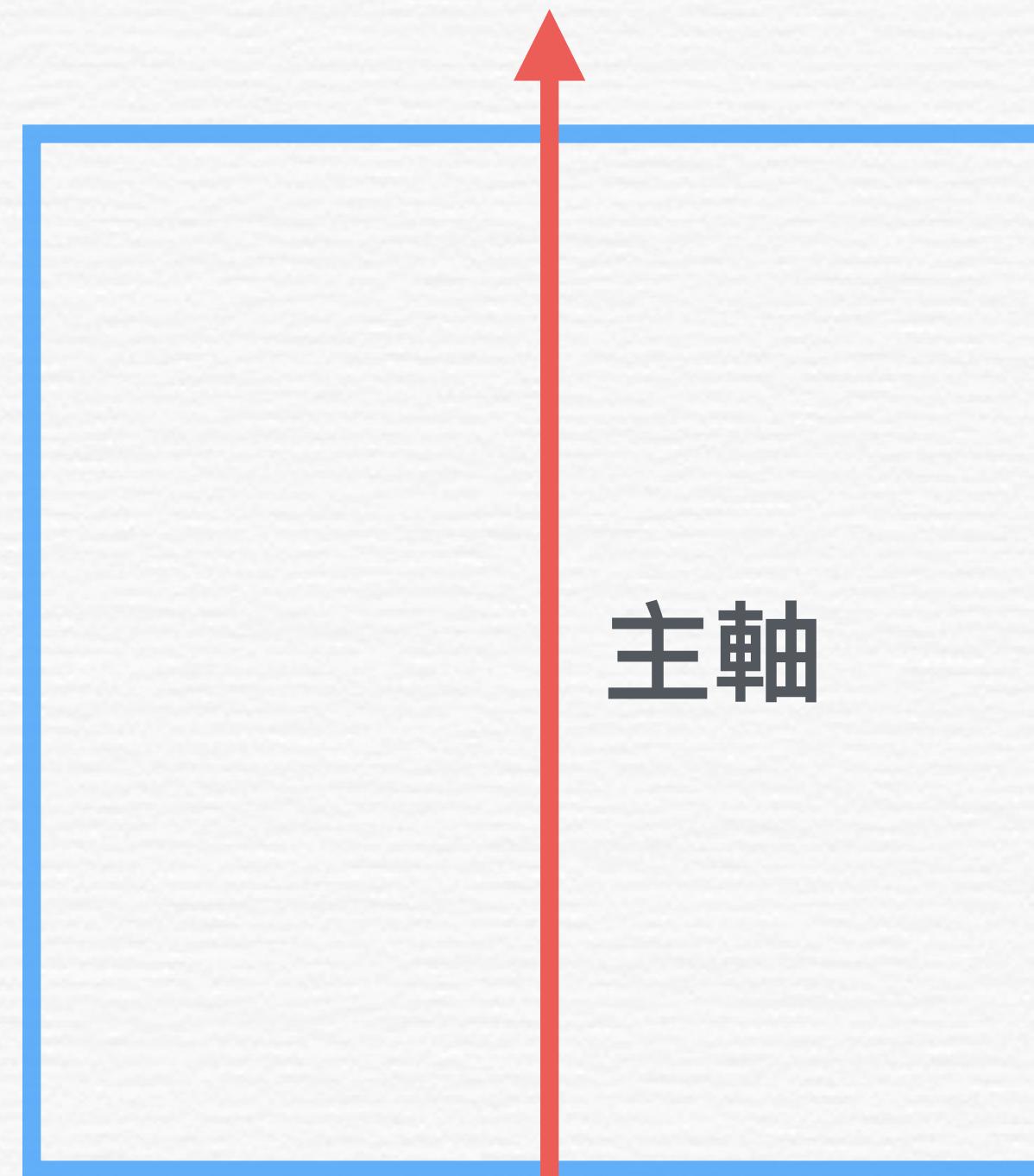
主軸

flex-direction: row (default)

flex-direction: row-reverse

flex-direction: column

flex-direction: column-reverse

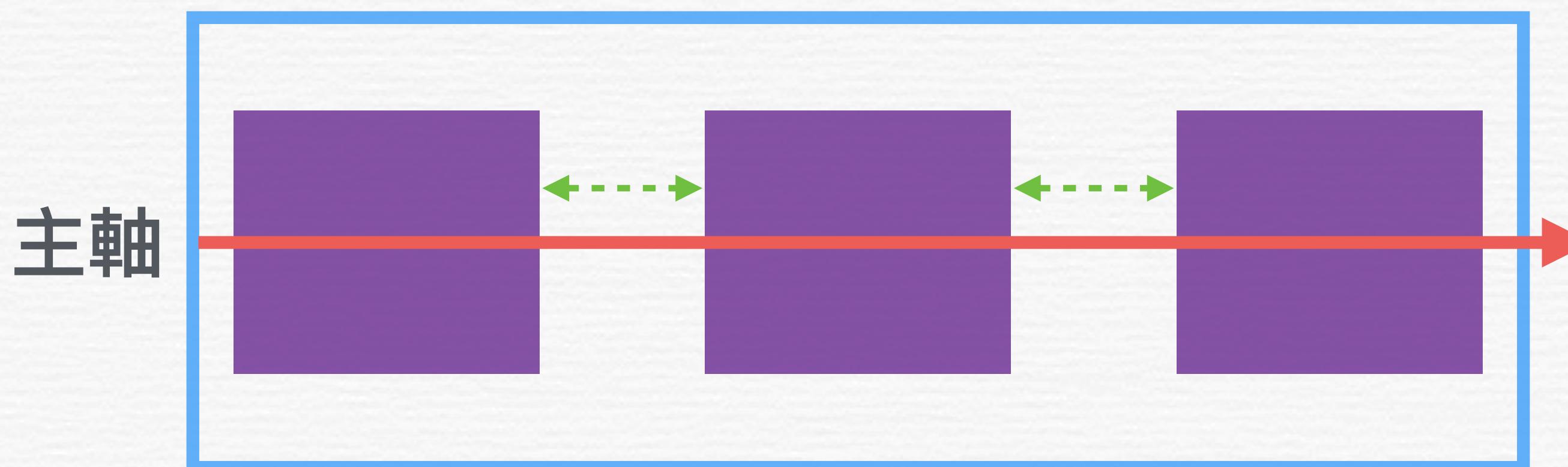


`flex-direction: row (default)`

`flex-direction: row-reverse`

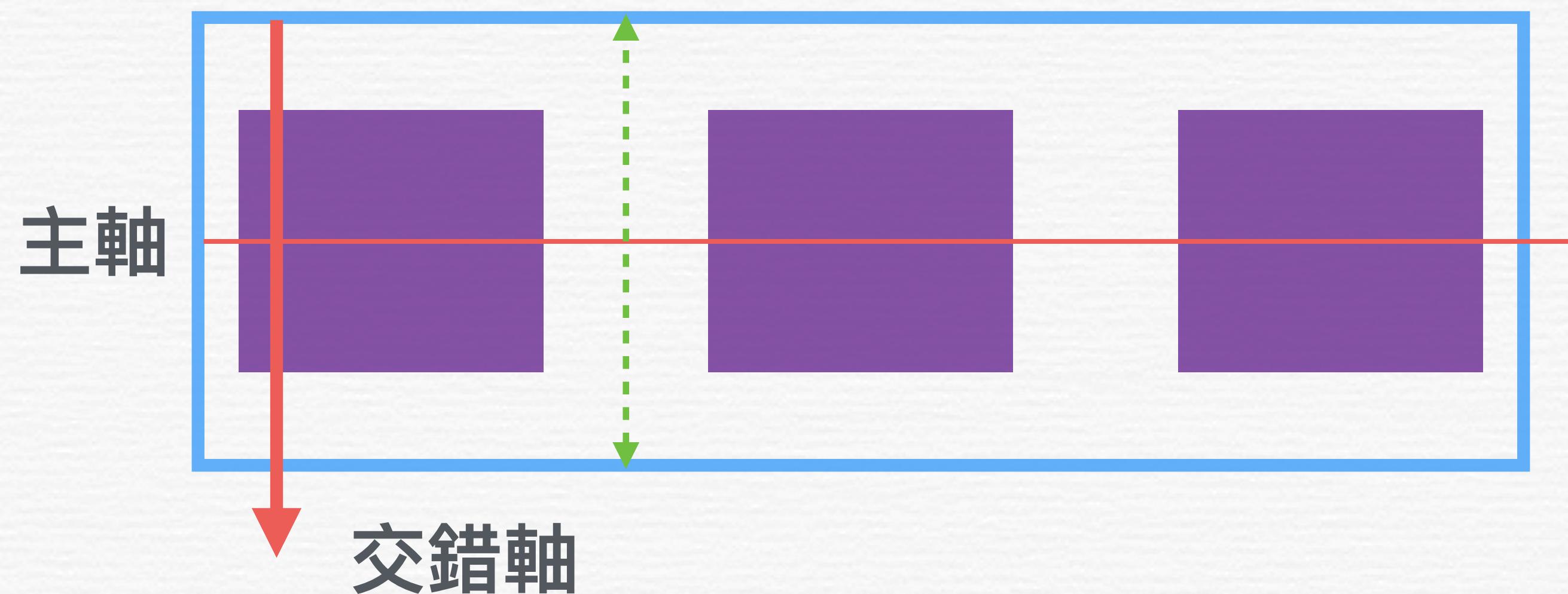
`flex-direction: column`

`flex-direction: column-reverse`



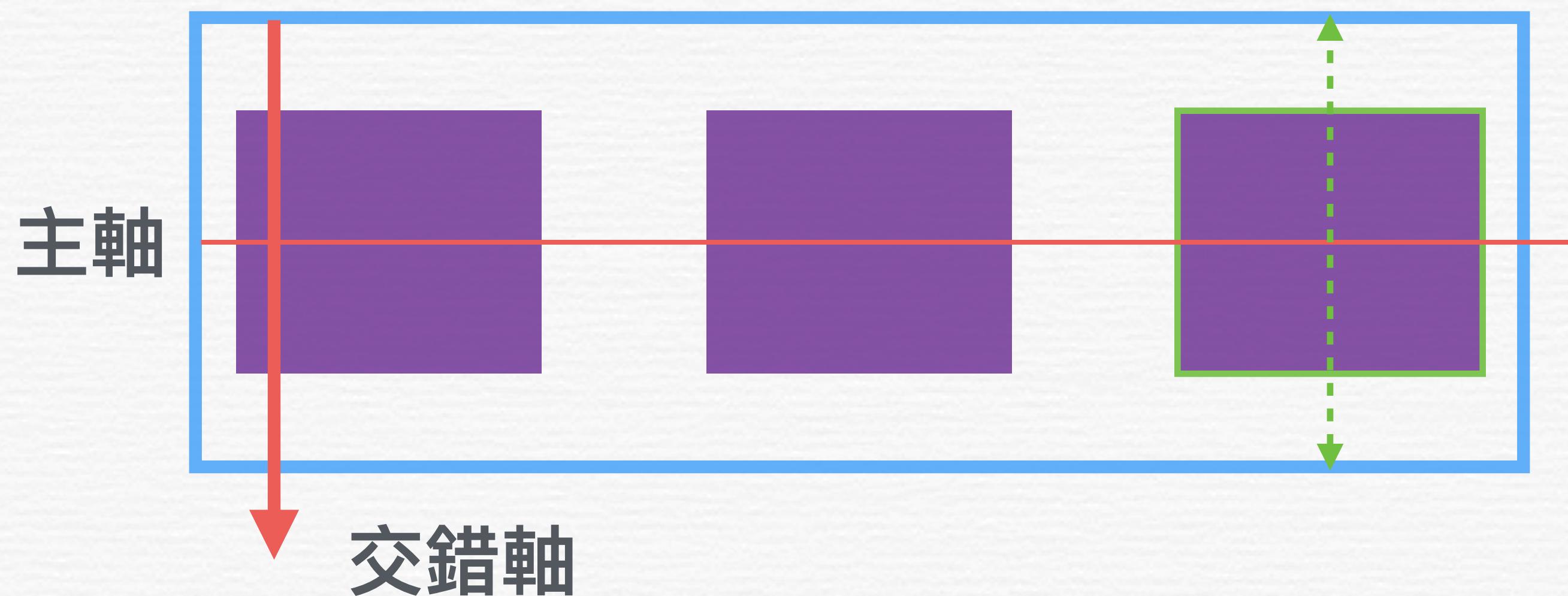
主軸對齊(外層)

`justify-content` 是依據主軸的軸線
決定物件之間的間隔方法。



交錯軸對齊(外層)

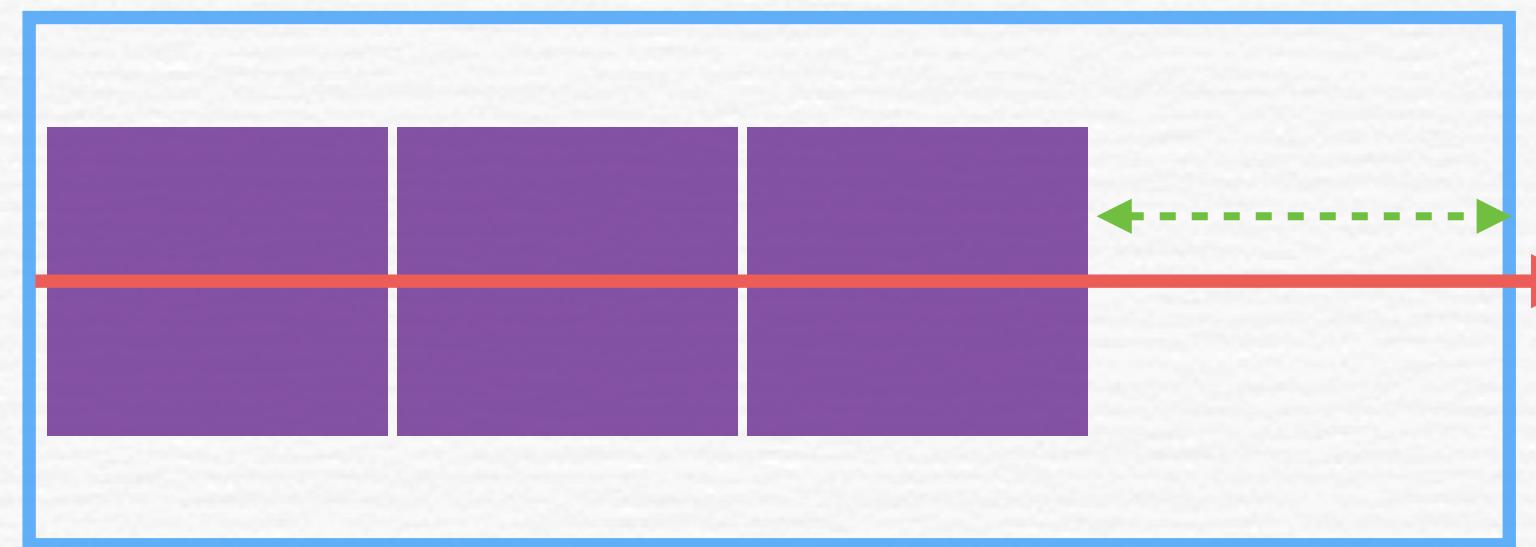
align-items 是垂直於主軸的對齊方法。



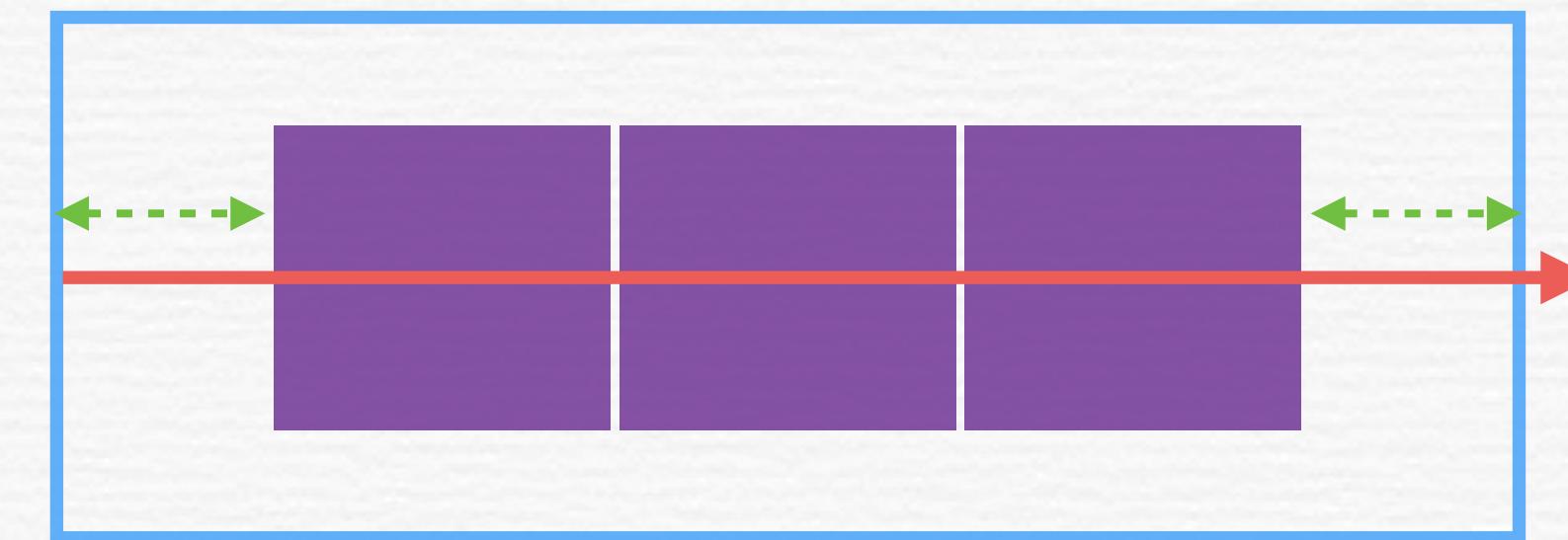
交錯軸對齊(內層)

align-self 是**內元件本身**垂直於主軸的對齊方法。

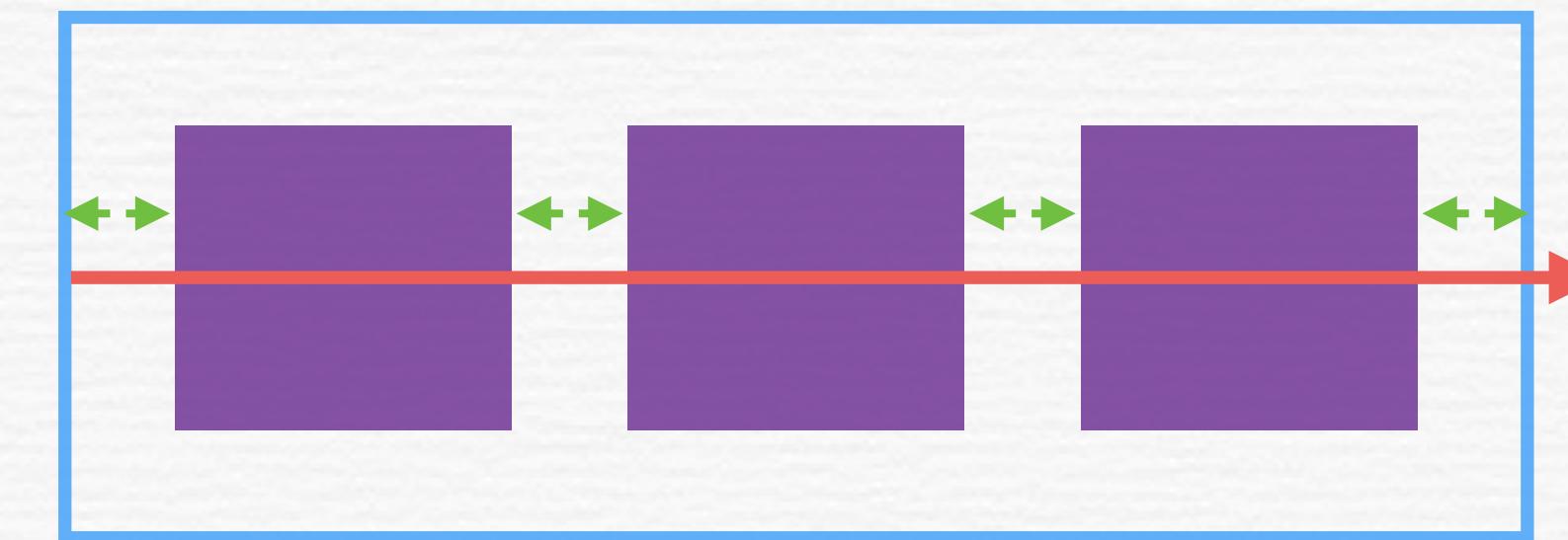
對齊方法



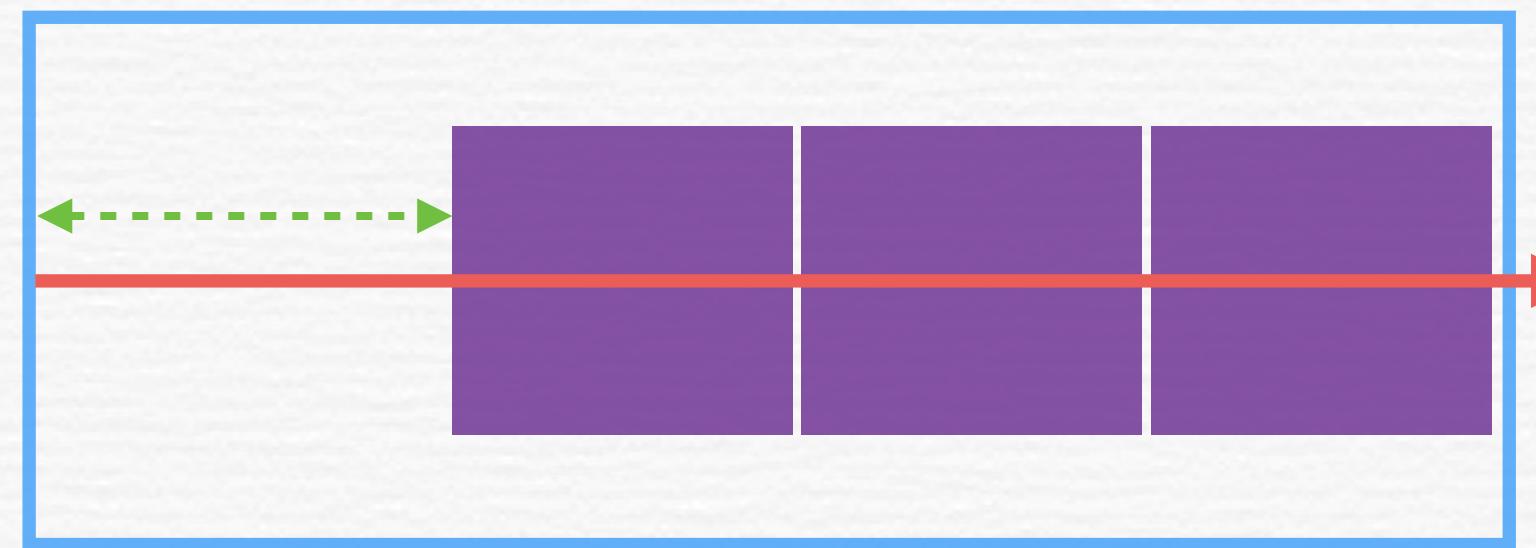
justify-content: flex-start



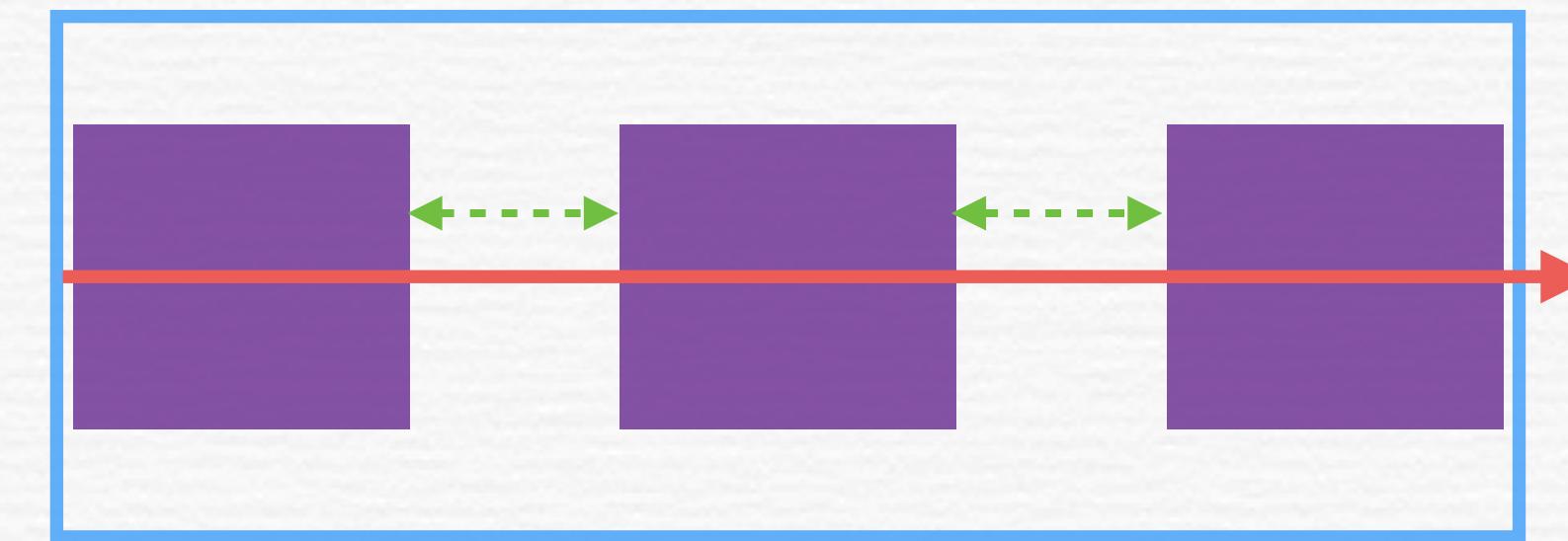
justify-content: center



justify-content: space-around

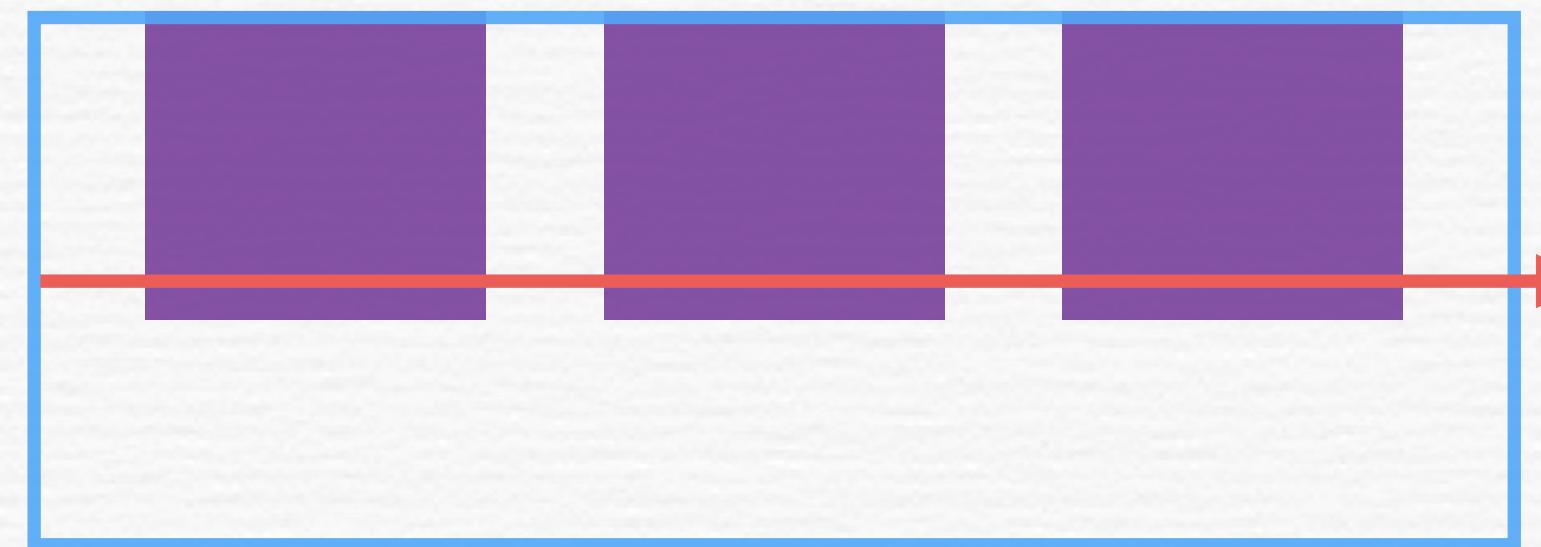


justify-content: flex-end

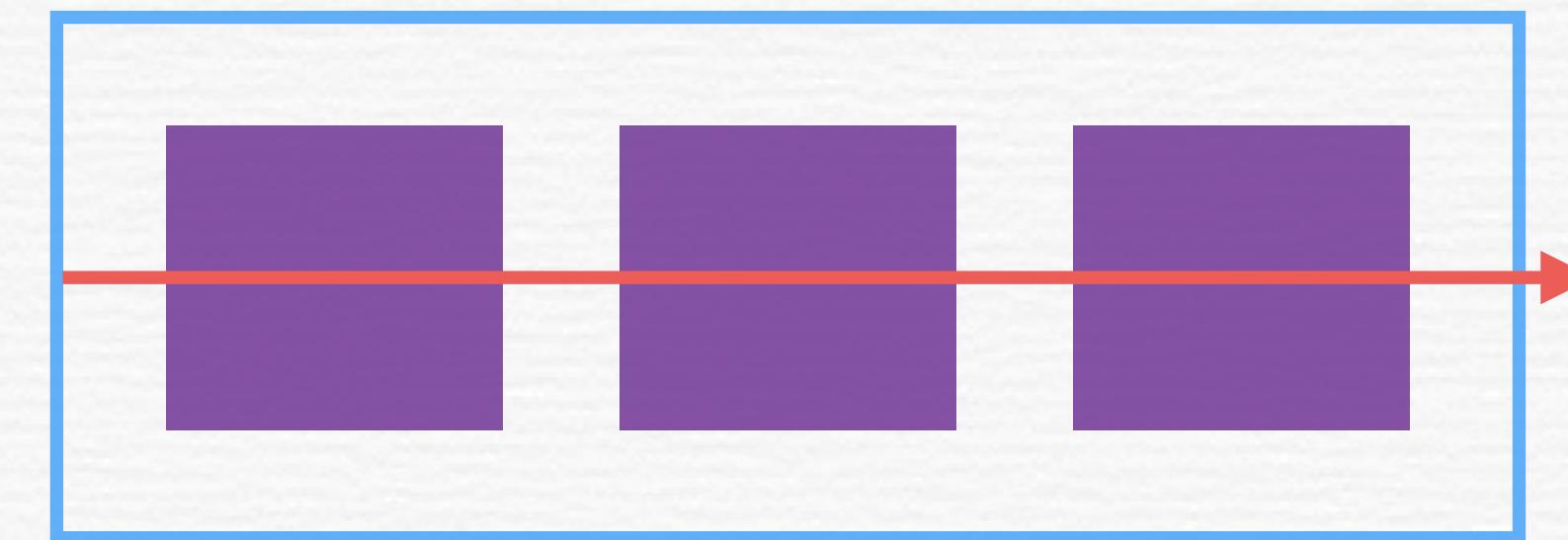


justify-content: between

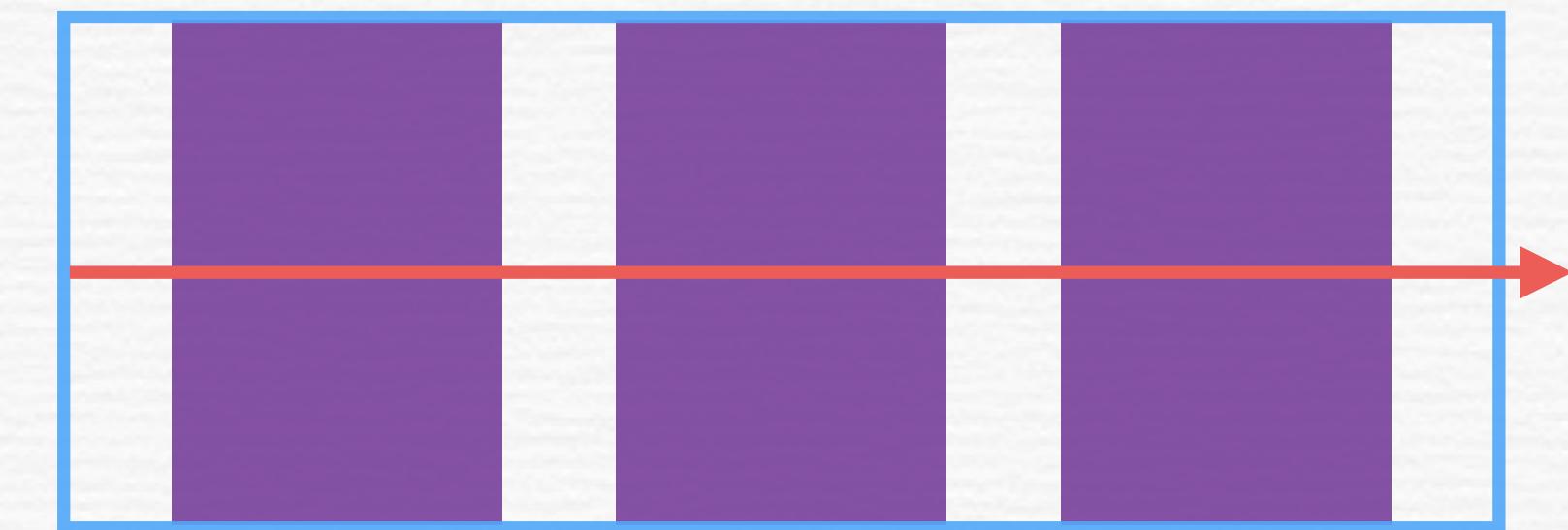
對齊方法



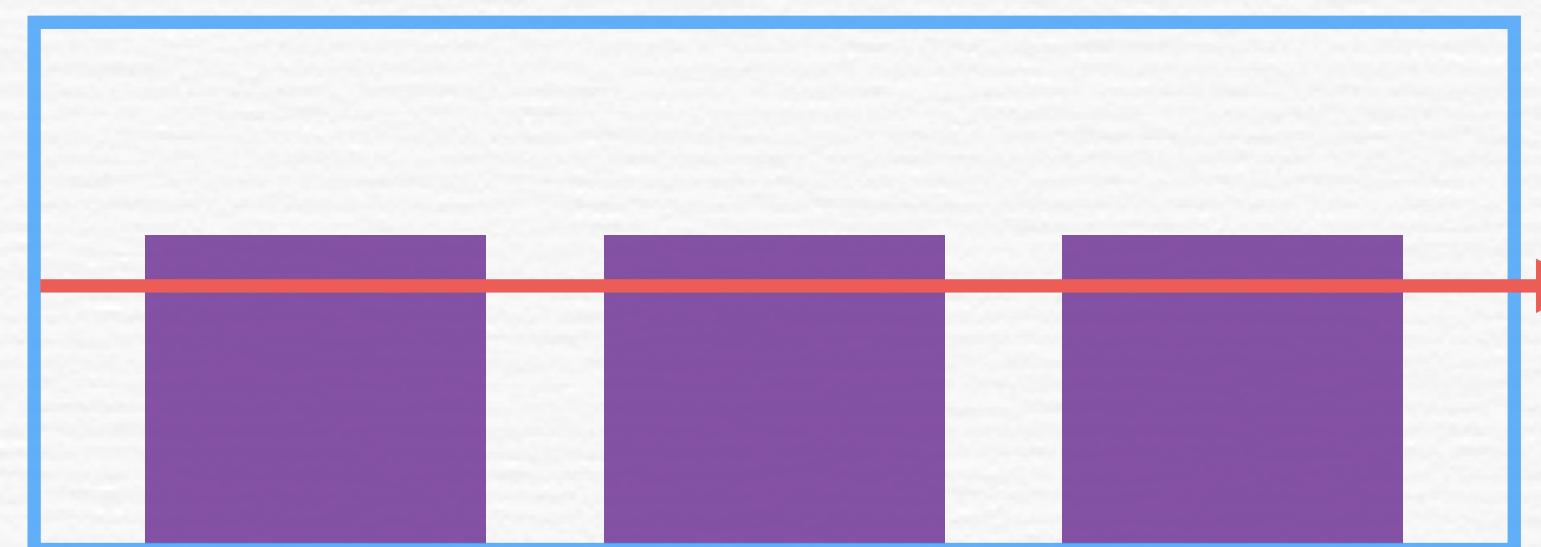
align-items: flex-start



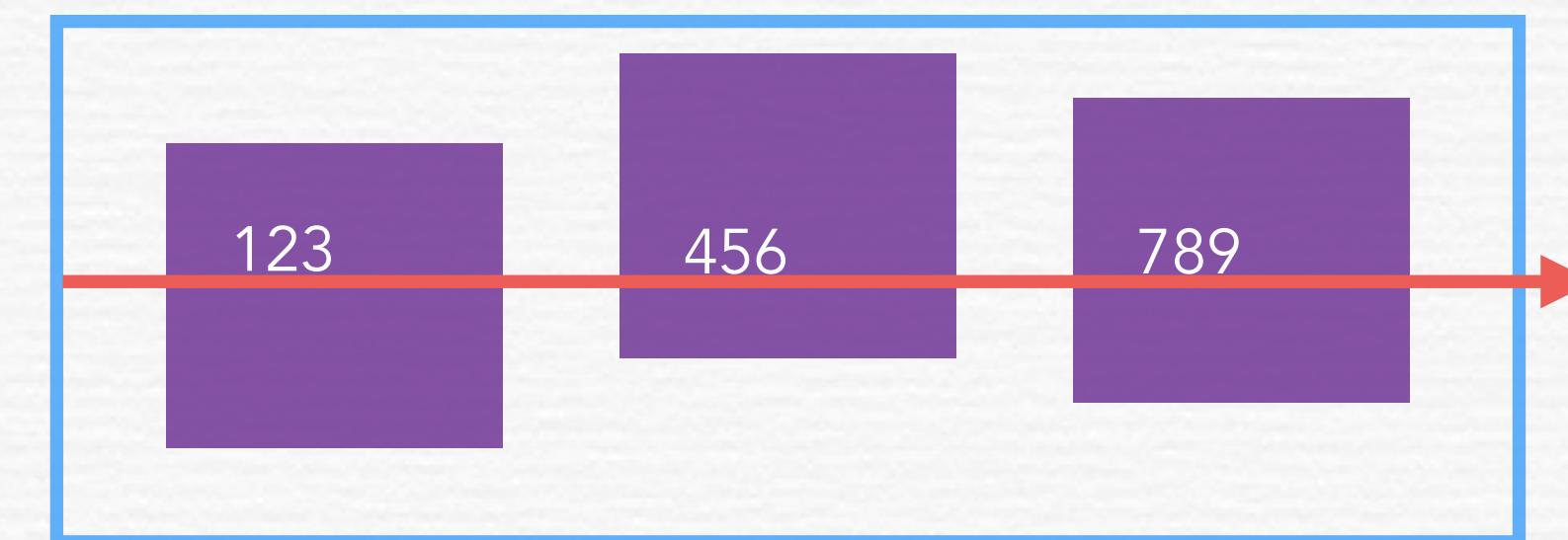
align-items: center



align-items: stretch

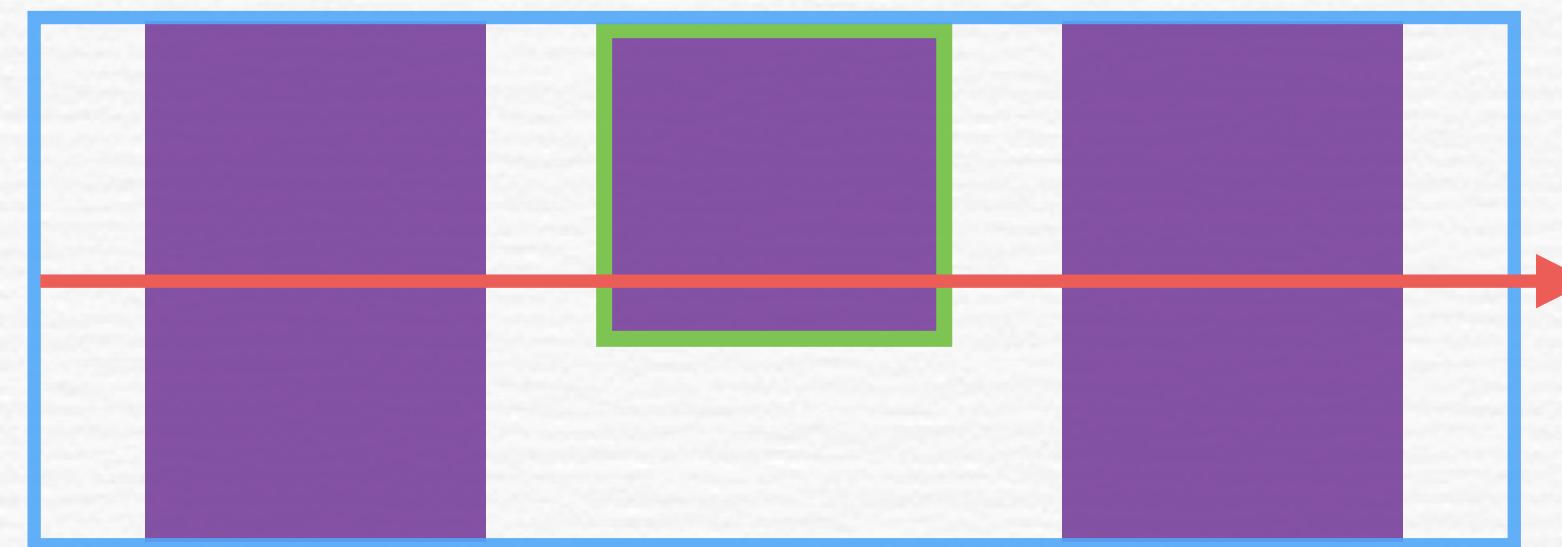


align-items: flex-end

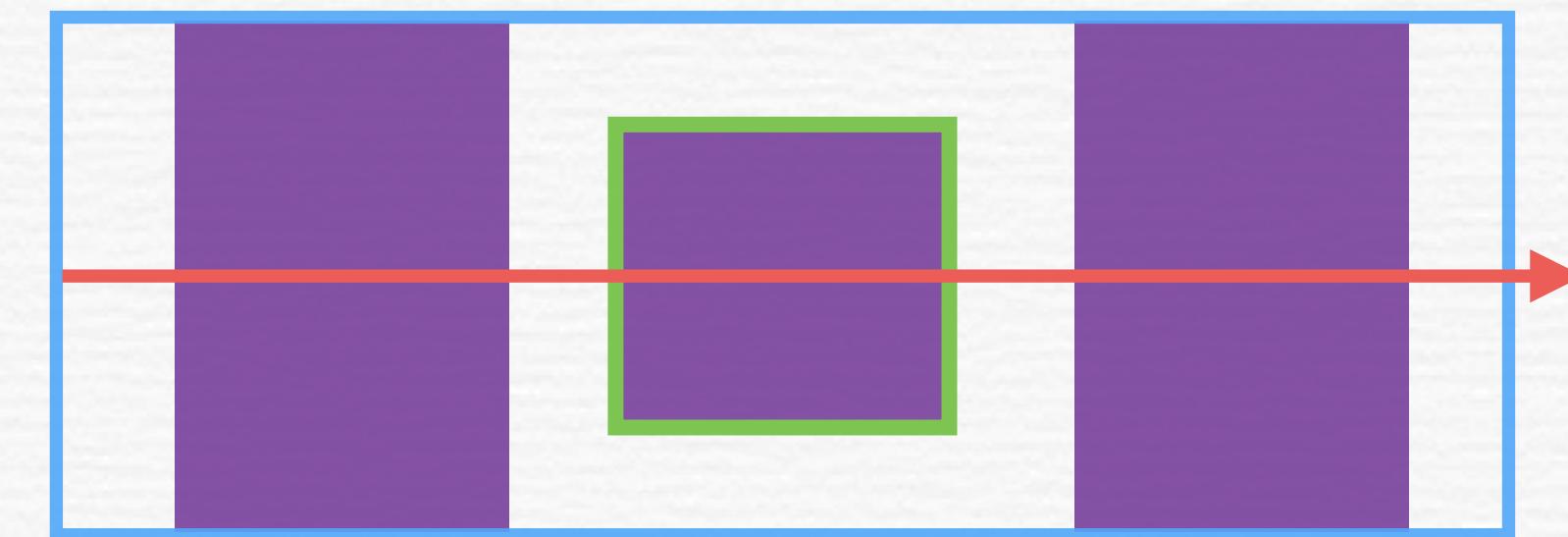


align-items: baseline

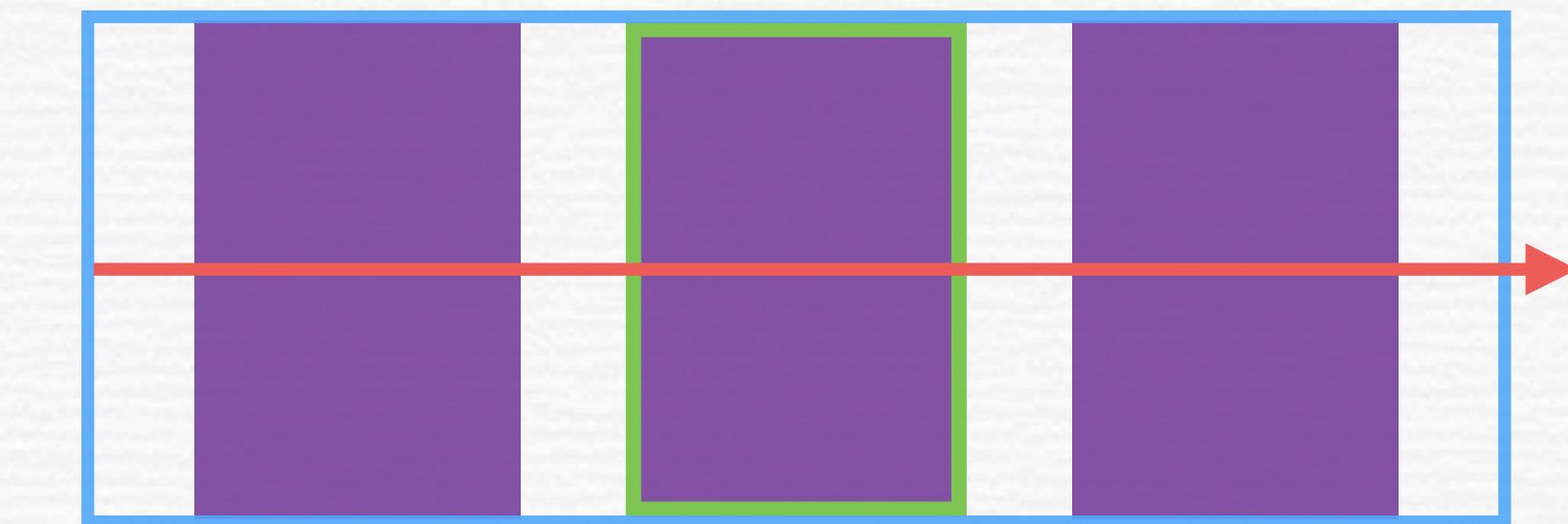
對齊方法



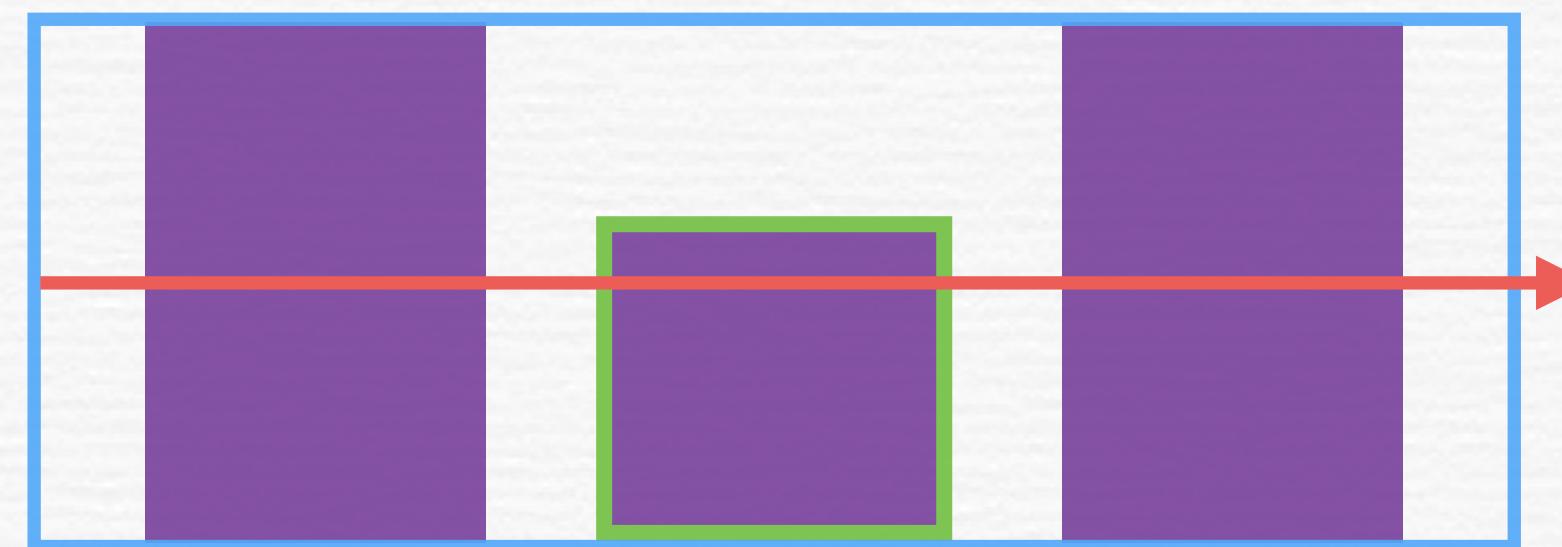
align-self: flex-start



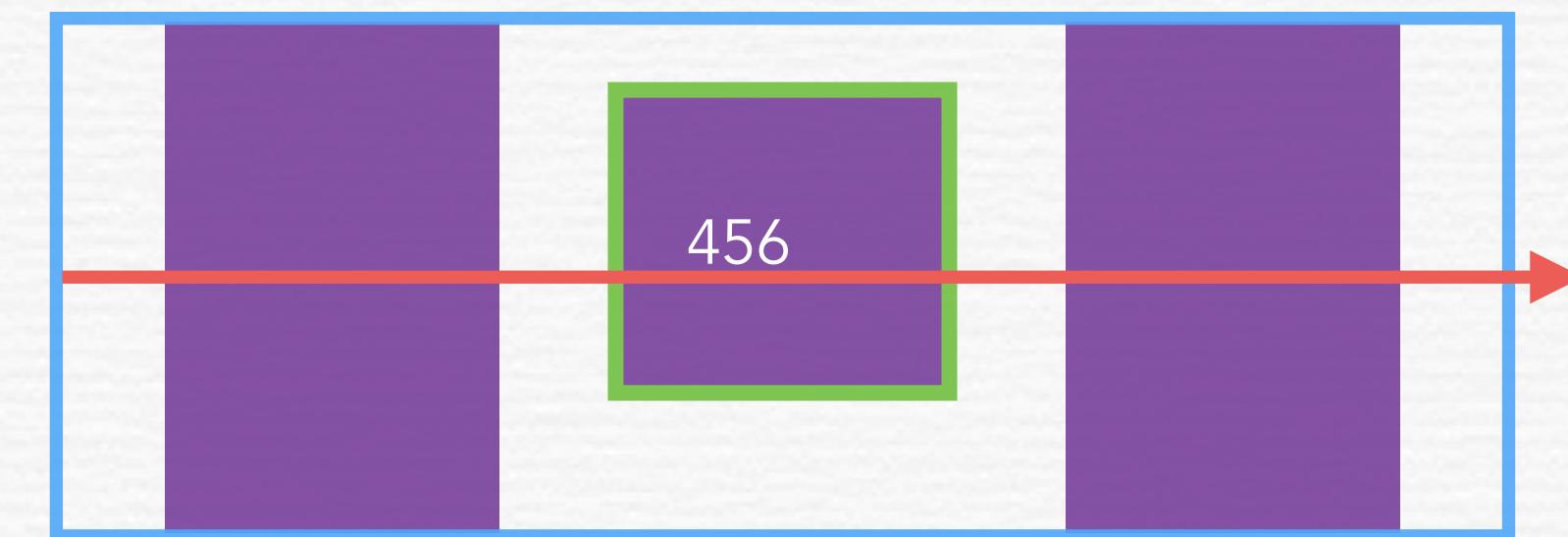
align-self: center



align-self: stretch



align-self: flex-end



align-self: baseline

BOOTSTRAP 元件概念

COMPONENT

“ “

元件，是 Bootstrap 為何受歡迎的主要原因，
他提供大量現成的組件讓開發者可以輕鬆組合變化

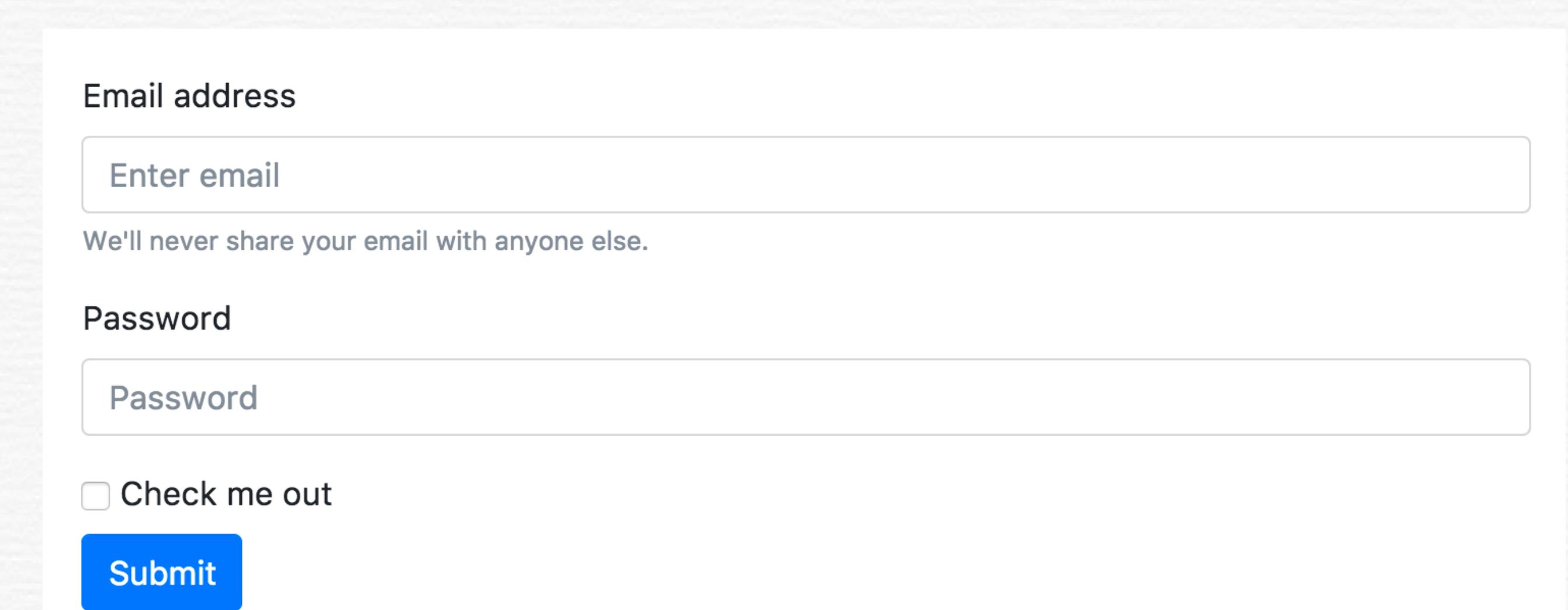
” ”

文件閱讀

- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混合作用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼

文件閱讀

- **基本元件範例**
- **元件樣式變化**
 - 元件的變化
 - grid 或 Utilities 等混合作用
 - 網頁親和性
- **元件與 JavaScript**
- **編譯說明文件**
 - 錢字號開頭的程式碼



Email address

Enter email

We'll never share your email with anyone else.

Password

Password

Check me out

Submit

文件閱讀

- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混合作用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼

Large select

Default select

Small select

Primary

Secondary

Success

Danger

Warning

Info

Light

Dark

Link

Primary

Secondary

Success

Danger

Warning

Info

Light

Dark

文件閱讀

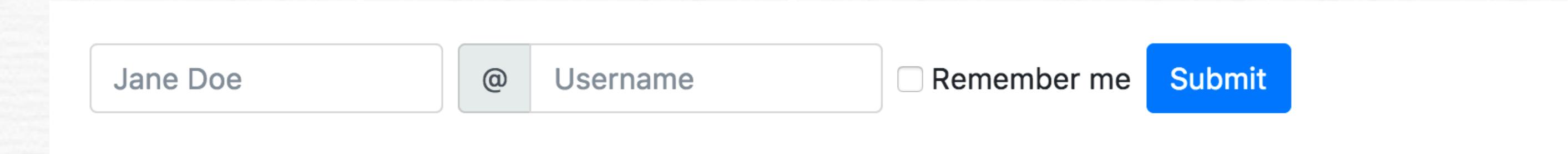
- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混和使用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼



```
<form>
  <div class="form-row">
    <div class="col-7">
      <input type="text" class="form-control" placeholder="City">
    </div>
    <div class="col">
      <input type="text" class="form-control" placeholder="State">
    </div>
    <div class="col">
      <input type="text" class="form-control" placeholder="Zip">
    </div>
  </div>
</form>
```

文件閱讀

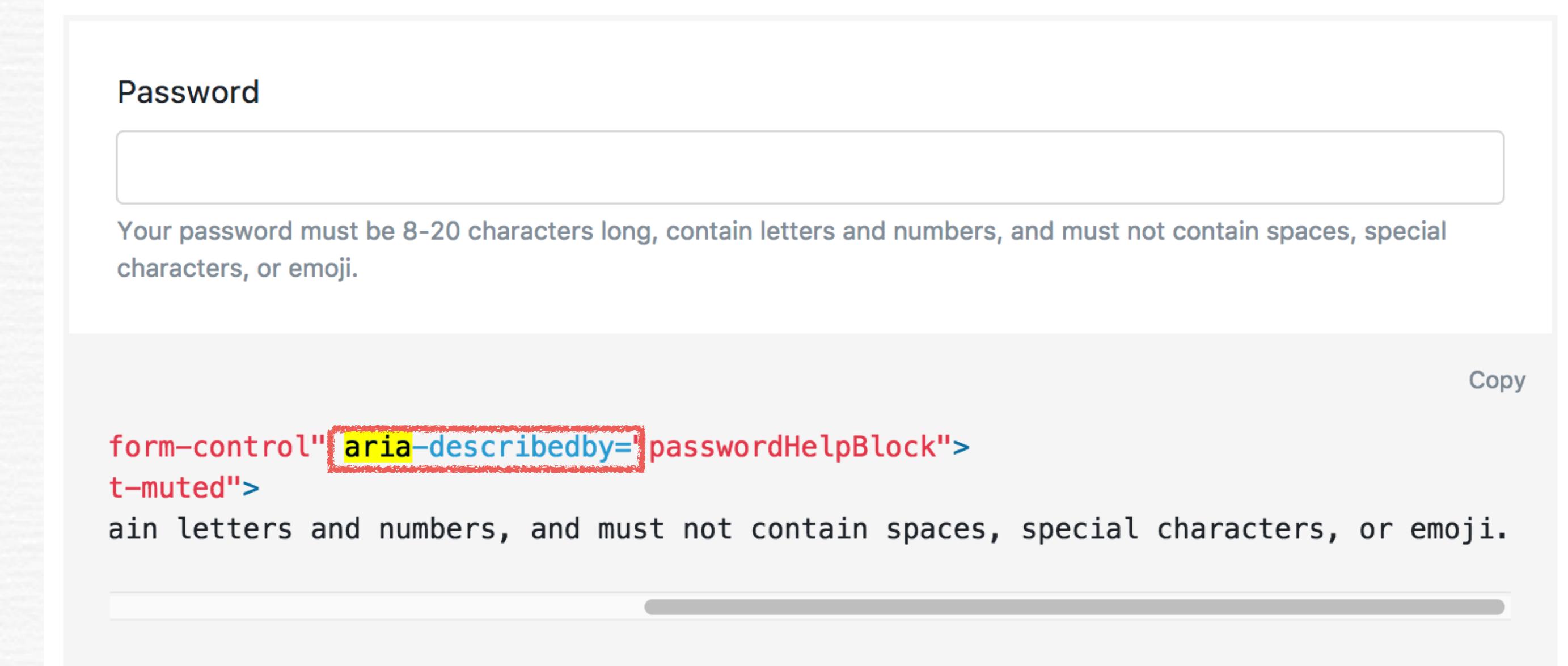
- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混和使用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼



```
<form class="form-inline">
  <label class="sr-only" for="inlineFormInputName2">Name</label>
  <input type="text" class="form-control mb-2 mr-sm-2 mb-sm-0" id="inlineFormInputName2" placeholder="Name" value="Jane Doe" data-bbox="430 280 570 320" data-type="text">
  @
  <label class="sr-only" for="inlineFormInputGroupUsername2">Username</label>
  <div class="input-group mb-2 mr-sm-2 mb-sm-0" data-bbox="570 280 750 320" data-type="group">
    <div class="input-group-addon">@</div>
    <input type="text" class="form-control" id="inlineFormInputGroupUsername2" placeholder="Username" data-bbox="750 280 800 320" data-type="text">
  </div>
  <div class="form-check mb-2 mr-sm-2 mb-sm-0" data-bbox="800 280 900 320" data-type="checkbox">
    <label class="form-check-label">
      <input class="form-check-input" type="checkbox" value="Remember me" checked="checked" data-bbox="800 280 850 320" data-type="checkbox"> Remember me
    </label>
  </div>
  <button type="submit" class="btn btn-primary" data-bbox="900 280 980 320" data-type="button">Submit</button>
</form>
```

文件閱讀

- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混合作用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼



Password

Your password must be 8-20 characters long, contain letters and numbers, and must not contain spaces, special characters, or emoji.

[Copy](#)

```
form-control" aria-describedby="passwordHelpBlock">  
t-muted">  
ain letters and numbers, and must not contain spaces, special characters, or emoji.
```

文件閱讀

- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混合同使用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼

Custom styles

For custom Bootstrap form validation messages, you'll need to add the `novalidate` boolean attribute to your `<form>`. This disables the browser default feedback tooltips, but still provides access to the form validation APIs in **JavaScript**. Try to submit the form below; our **JavaScript** will intercept the submit button and relay feedback to you.

When attempting to submit, you'll see the `:invalid` and `:valid` styles applied to your form controls.

| | | |
|--|------------------------------------|----------------------------------|
| First name | Last name | |
| <input type="text" value="Mark"/> | <input type="text" value="Otto"/> | |
| City | State | Zip |
| <input type="text" value="City"/> | <input type="text" value="State"/> | <input type="text" value="Zip"/> |
| <small>Please provide a valid city.</small> | | |
| <small>Please provide a valid state.</small> | | |
| <small>Please provide a valid zip.</small> | | |
| <input type="button" value="Submit form"/> | | |

文件閱讀

- 基本元件範例
- 元件樣式變化
 - 元件的變化
 - grid 或 Utilities 等混合同使用
 - 網頁親和性
- 元件與 JavaScript
- 編譯說明文件
 - 錢字號開頭的程式碼

Translating or customizing the strings

The `:lang()` pseudo-class is used to allow for easy translation of the “Browse” and “Choose file...” text into other languages. Simply override or add entries to the `$custom-file-text` SCSS variable with the relevant `language tag` and localized strings. The English strings can be customized the same way. For example, here’s how one might add a Spanish translation (Spanish’s language code is `es`):

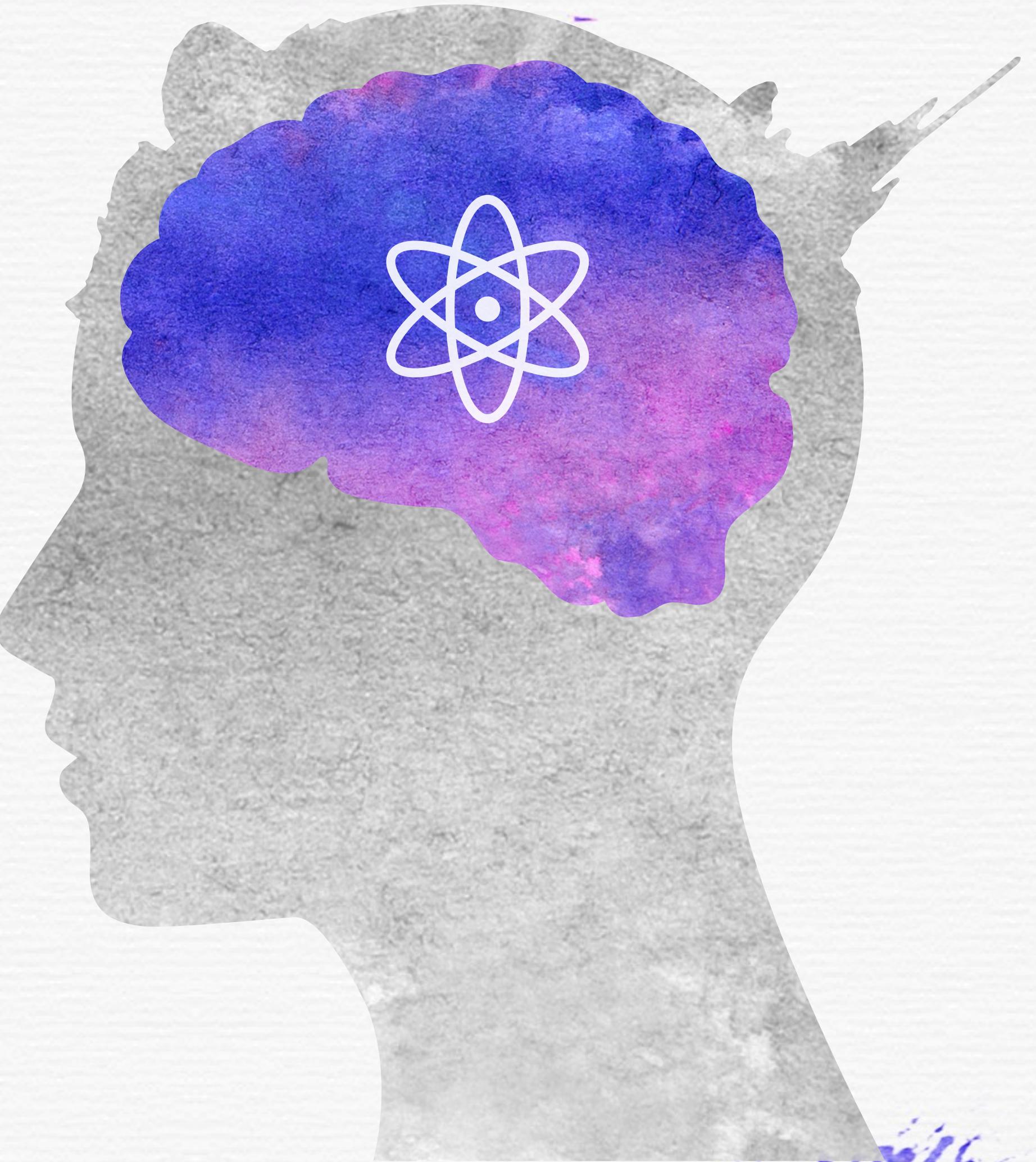
```
$custom-file-text: (  
  placeholder: (  
    en: "Choose file...",  
    es: "Seleccionar archivo..."  
  ),  
  button-label: (  
    en: "Browse",  
    es: "Navegar"  
  )  
);
```

Copy

You’ll need to set the language of your document (or subtree thereof) correctly in order for the correct text to be shown. This can be done using the `lang` attribute or the `Content-Language` HTTP header, among other methods.

補充說明

Bootstrap 與 Sass 介紹



“ “

Sass 是 CSS 預處理工具
可以讓 Bootstrap 更有模組化的架構

” ”

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

| |
|----------------------|
| └ _alert.scss |
| └ _badge.scss |
| └ _breadcrumb.scss |
| └ _button-group.scss |
| └ _buttons.scss |
| └ _card.scss |
| └ _carousel.scss |
| └ _close.scss |
| └ _code.scss |
| └ _custom-forms.scss |
| └ _dropdown.scss |



SASS



bootstrap.css

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

```
$font-stack: Helvetica, sans-serif;  
$primary-color: #333;
```

```
body {  
  font: 100% $font-stack;  
  color: $primary-color;  
}
```

```
body {  
  font: 100% Helvetica, sans-serif;  
  color: #333;  
}
```

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

```
@mixin border-radius($radius) {  
  -webkit-border-radius: $radius;  
  -moz-border-radius: $radius;  
  -ms-border-radius: $radius;  
  border-radius: $radius;  
}  
  
.box { @include border-radius(10px); }  
  
-----  
  
.box {  
  -webkit-border-radius: 10px;  
  -moz-border-radius: 10px;  
  -ms-border-radius: 10px;  
  border-radius: 10px;  
}
```

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

```
// _reset.scss

html,
body,
ul,
ol {
  margin: 0;
  padding: 0;
}

// base.scss

@import 'reset';

body {
  font: 100% Helvetica, sans-serif;
  background-color: #efefef;
}
```

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

```
article[role="main"] {  
  float: left;  
  width: 600px / 960px * 100%;  
}
```

```
aside[role="complementary"] {  
  float: right;  
  width: 300px / 960px * 100%;  
}
```

```
article[role="main"] {  
  float: left;  
  width: 62.5%;  
}
```

```
aside[role="complementary"] {  
  float: right;  
  width: 31.25%;  
}
```

- 是 CSS 前置語言
- 讓 CSS 更容易被管理
 - 變數
 - @include
 - @import
- 讓 CSS 更像程式語言
 - 具有運算能力
 - 有函式庫可以運用
(Bootstrap)

可自行調整



```
@import "functions";  
@import "variables";  
@import "bootstrap";
```

“ “

同學，對於 Sass 後面章節會有完整介紹
這邊只要先知道有 Sass 即可

” ”

為什麼 Bootstrap 有這樣大的魅力

DIFFERENCES BETWEEN BOOTSTRAP 3 AND 4



六角學院



卡斯伯
(王志誠)



保證**持續更新**

保證**不額外收費**

開始學習

Bootstrap!!

更多的詳細介紹：<https://goo.gl/7JuNST>