



Bootstrap

網格系統

Layout-Grid

➡ **.container (1200px) | .container-fluid**

➡ **.row**

➡ **.col**

➡ **中斷點**

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

Layout-Grid

col-12											
col-1	col-1	col-1	col-1	col-1	col-1	col-1	col-1	col-1	col-1	col-1	col-1
col-2		col-2		col-2		col-2		col-2		col-2	
col-3			col-3			col-3			col-3		
col-4				col-4				col-4			
col-5					col-7						
col-6						col-6					
col (自動)											

- ➡ 使用前需使用.row
- ➡ .col-中斷點-欄位數
- ➡ .col-欄位數

Layout-Grid

➡ 中斷點 (行動優先)

➡ xs (省略)

➡ sm

➡ md

➡ lg

➡ xl

```
// 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) { ... }
```

xl

lg

md

sm

xs

桌上電腦

平板

手機橫放

手機

1200px

992px

768px

575px

Layout-Grid

➡ 範例

➡ `<div class="container">`

➡ `<div class="row">`

➡ `<div class="col-中斷點-欄位數"></div>`

➡ ...

➡ `</div>`

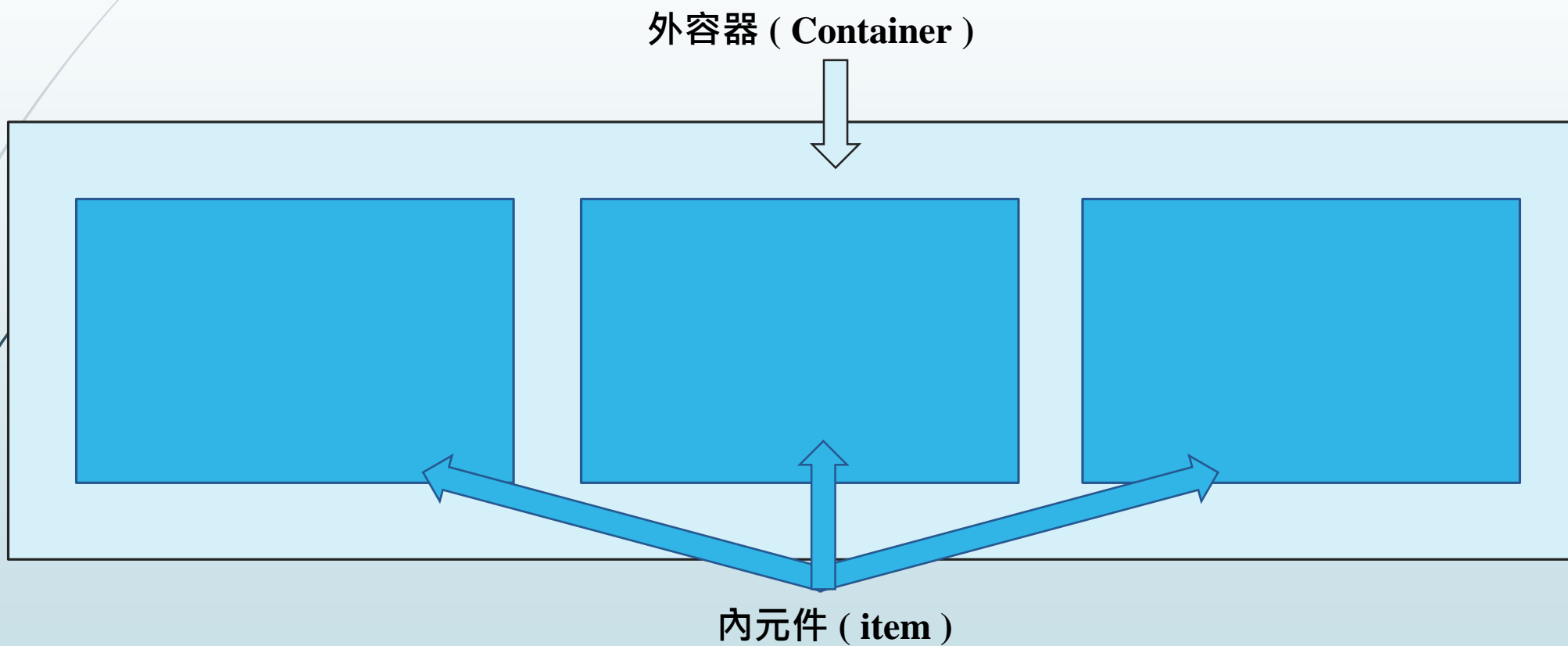
➡ `</div>`

Layout-Gutters

- ➡ 間距使用方法
 - ➡ `.col > 子標籤`
- ➡ `.col` 間距修正方式 (預設padding: 0 15px;)
 - ➡ `.p-數字`
 - ➡ `.p-中斷點-數字`
 - ➡ `.no-gutters`
- ➡ `.container > .row`
 - ➡ `.container (padding : 0 15px;)`
 - ➡ `.row (margin : 0 -15px;)`

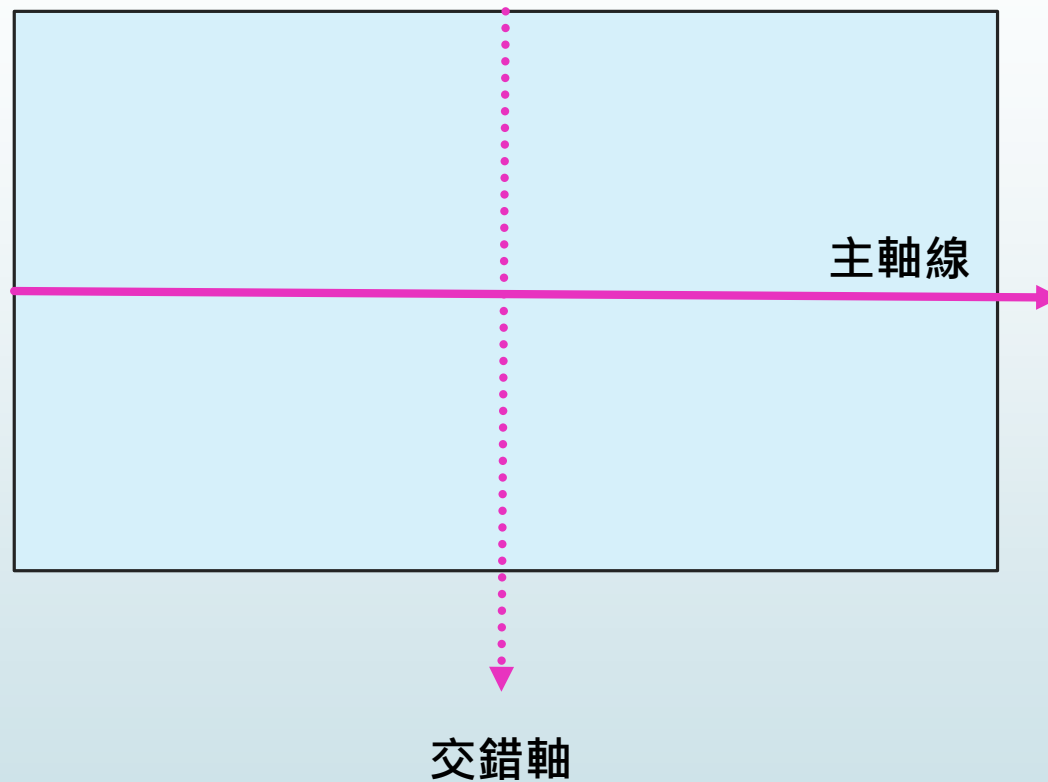
CSS3 Flexbox

Flex 外容器與內元件



CSS3 Flex 外容器屬性

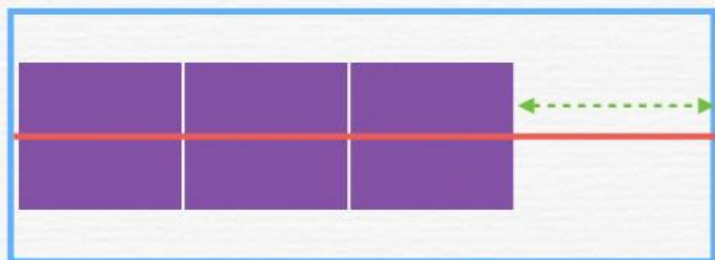
- **display : flex**
 - **flex-direction** (主軸線)
 - **row**
 - **row-reverse**
 - **column**
 - **column-reverse**
 - **flex-wrap** (換行)
 - **nowrap**
 - **wrap**
 - **wrap-reverse**
 - **justify-content** (主軸線對齊)
 - **flex-start** | **flex-end** | **center** | **space-between** | **space-around**
 - **align-items** (交錯軸對齊)
 - **flex-start** | **flex-end** | **center** | **baseline** | **stretch**



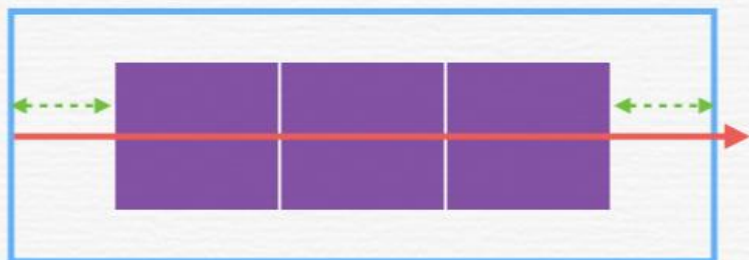
CSS3 Flex 內元件屬性

- ➡ **flex**
 - ➡ **flex-grow** (等分)
 - ➡ **flex-shrink** (元件的收縮性)
 - ➡ **flex-basis** (元件的基準值)
- ➡ **align-self** (交錯軸對齊)
 - ➡ **auto** | **flex-start** | **flex-end** | **center** | **baseline** | **stretch**
- ➡ **order**
 - ➡ 數值

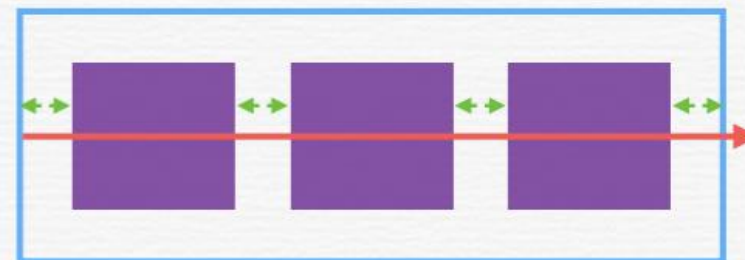
CSS3 Flex 主軸線對齊



`justify-content: flex-start`



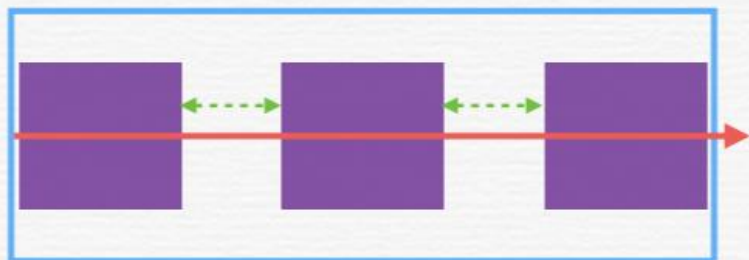
`justify-content: center`



`justify-content: space-around`



`justify-content: flex-end`

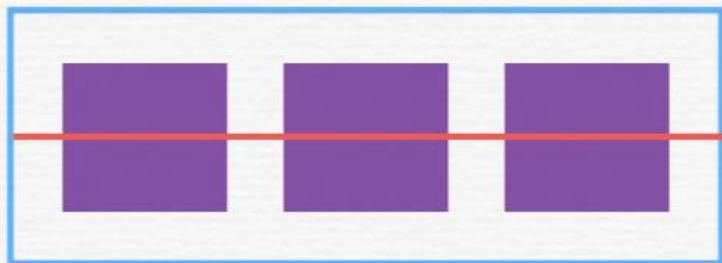


`justify-content: between`

CSS3 Flex 交錯軸對齊



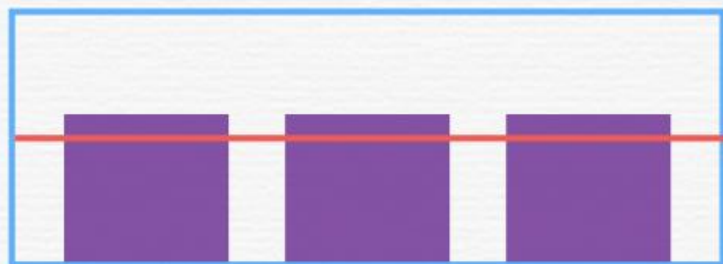
align-items: flex-start



align-items: center



align-items: stretch

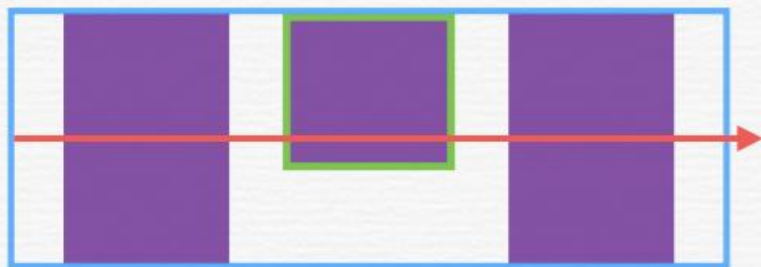


align-items: flex-end

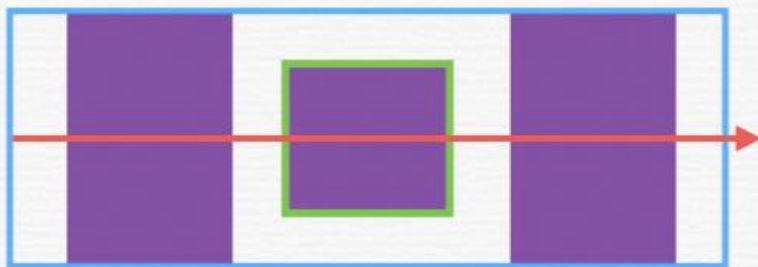


align-items: baseline

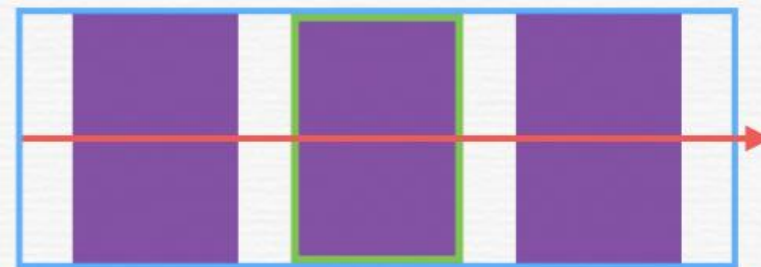
CSS3 Flex 內元件對齊



align-self: flex-start



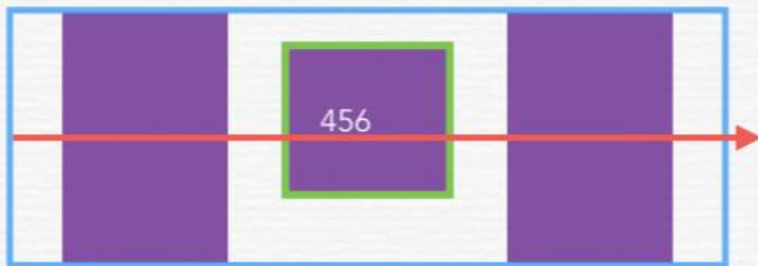
align-self: center



align-self: stretch



align-self: flex-end



align-self: baseline

Bootstrap Flex

- ➡ 使用CSS Flex系統
- ➡ **.d-flex** (display : flex)
 - ➡ **.row**

Bootstrap Flex 主軸線

- 設定方向
 - `.flex-row`
 - `.flex-row-reverse`
 - `.flex-column`
 - `.flex-column-reverse`
 - `.flex-中斷點-方向`
- 對齊
 - `.justify-content-start`
 - `.justify-content-end`
 - `.justify-content-center`
 - `.justify-content-between`
 - `.justify-content-around`
 - `.justify-content-中斷點-對齊方式`

Bootstrap Flex 交錯軸

➡ 對齊

➡ **.align-items-start**

➡ **.align-items-end**

➡ **.align-items-center**

➡ **.align-items-baseline**

➡ **.align-items-stretch**

➡ **.align-items-中斷點-對齊方式**

Bootstrap Flex 內元件

➡ 對齊

➡ **.align-self-start**

➡ **.align-self-end**

➡ **.align-self-center**

➡ **.align-self-baseline**

➡ **.align-self-stretch**

➡ **.align-self-中斷點-對齊方式**

➡ 排序

➡ **.order-中斷點-排序**

➡ **1~12**

Bootstrap Flex

- 其他元素套用時
 - **.d-flex**
 - **.flex-wrap / .flex-nowrap**
 - 對齊方式(整體元件)
 - **.align-content-start**
 - **.align-content-end**
 - **.align-content-center**
 - **.align-content-around**
 - **.align-content-stretch**

Bootstrap Utilities for layout

- margin / padding
 - .m方向-中斷點-數值
 - 方向
 - t
 - b
 - l
 - r
 - x => 左右
 - y => 上下
 - 數值
 - 1~5
 - auto

Bootstrap Utilities for layout

- ➡ 大小
 - ➡ width / height / viewport
 - ➡ **.w/.h/.v**-百分比
 - ➡ 25
 - ➡ 50
 - ➡ 75
 - ➡ **100**
 - ➡ **auto**

Bootstrap Flex

➡ 相簿排版

