



前端網絡開發人員證書

# 4. HTML: Advanced

Presented by Krystal Educational Platform



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# 4.1 Revise

## 4.1 Revise



- What are the tags and attributes for table?
- How to create a tooltip?
- Can you name any special effects?
  - What are their tags and attributes?



## 4.2 What is Bootstrap (BS)?

## 4.2 What is Bootstrap (BS)?



- The latest version is BS5
- It is the most popular free CSS Framework for developing responsive and mobile-first websites
- For reference, <https://www.w3schools.com/bootstrap4/default.asp>
- <https://getbootstrap.com/2.3.2/components.html#dropdowns>



## 4.3 Bootstrap elements



## 4.3 Bootstrap elements

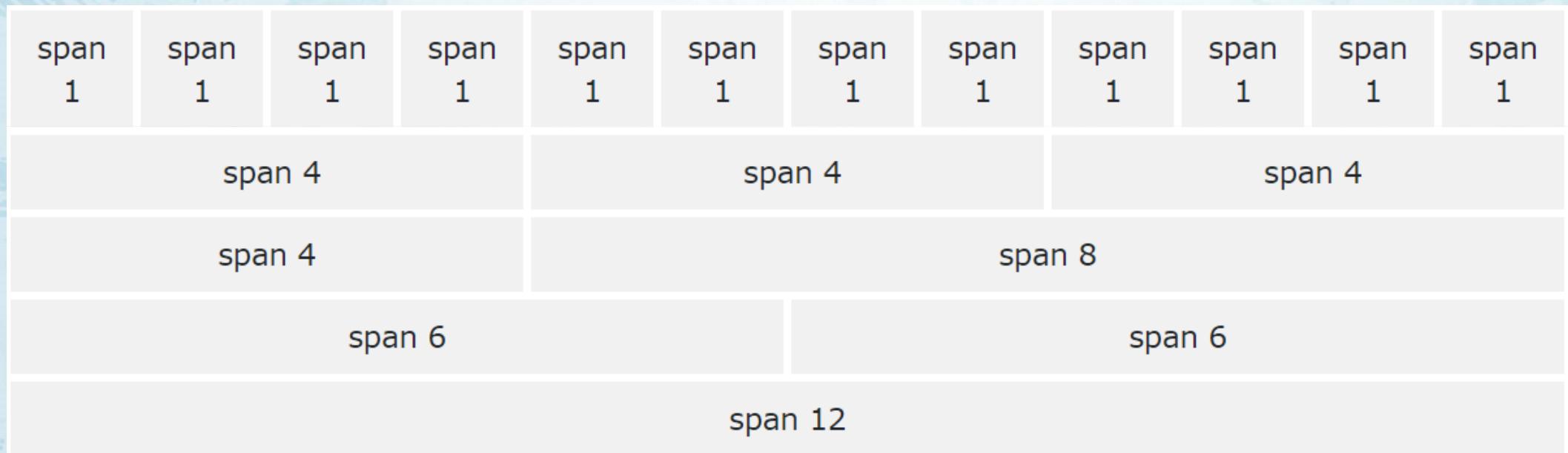


- Grid
- Alerts
- Spinner
- Table

## 4.3.1 Grid



- BS4's grid system allows up to 12 columns across the page



## 4.3.1 Grid



- BS4 grid system has 5 classes:
  1. .col- (extra small devices - screen width less than 576px)
  2. .col-sm- (small devices - screen width equal to or greater than 576px)
  3. .col-md- (medium devices - screen width equal to or greater than 768px)
  4. .col-lg- (large devices - screen width equal to or greater than 992px)
  5. .col-xl- (xlarge devices - screen width equal to or greater than 1200px)

## 4.3.1 Grid



- Copy these in <head> as JS and CSS reference for BS4

```
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@1.16.0/dist/umd/popper.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
```

## 4.3.1 Grid



- Resize the browser to see the effect
- The columns will automatically stack on each other when the screen is less than 576px wide

```
<!-- Grid -->
<h3>Grid</h3>
<h4>Responsive Columns</h4>
<div class="row">
  <div class="col-sm-3">.col-sm-3</div>
  <div class="col-sm-3">.col-sm-3</div>
  <div class="col-sm-3">.col-sm-3</div>
  <div class="col-sm-3">.col-sm-3</div>
</div>
```

col-sm-3  
col-sm-3  
col-sm-3  
col-sm-3

## 4.3.1 Grid



- Resize the browser to see the effect
- They are responsive but do not stack on each other

```
<h4>Equal width columns</h4>
<div class="row">
  <div class="col">.col</div>
  <div class="col">.col</div>
  <div class="col">.col</div>
</div>
```

col

.col

.col

## 4.3.1 Grid: Try on your own



- Try to add more columns!

```
<div class="col">.col</div>
```

## 4.3.1 Grid



- You can assign the grid by putting numbers in class by yourself
- Make sure the sum is  $\leq 12$

```
<h4>Unequal width columns</h4>
<div class="row">
    <div class="col-6">.col-6</div>
    <div class="col-6">.col-6</div>
</div>
```

.col-6

.col-6

## 4.3.1 Grid



```
<div class="row">
    <div class="col-1">.col-1</div>
    <div class="col-11">.col-11</div>
</div>
```

.col-1     .col-11

- As they only used up 5+1 columns, the 6 columns on the right side will be empty:

```
<div class="row">
    <div class="col-5">.col-5</div>
    <div class="col-1" style="background-color: #grey;">.col-1</div>
</div>
```

.col-5

.col-1

## 4.3.1 Grid: Try on your own



- Try to add more rows with different column span!

## 4.3.2 Alerts

- 8 types of alert:

```
<!-- Alerts -->
<h3>Alerts</h3>
<p>Alerts are created with the .alert class, followed by a contextual color classes:</p>
<div class="alert alert-success">
  <strong>Success!</strong> This alert box could indicate a successful or positive action.
</div>
<div class="alert alert-info">
  <strong>Info!</strong> This alert box could indicate a neutral informative change or action.
</div>
<div class="alert alert-warning">
  <strong>Warning!</strong> This alert box could indicate a warning that might need attention.
</div>
<div class="alert alert-danger">
  <strong>Danger!</strong> This alert box could indicate a dangerous or potentially negative action.
</div>
<div class="alert alert-primary">
  <strong>Primary!</strong> Indicates an important action.
</div>
<div class="alert alert-secondary">
  <strong>Secondary!</strong> Indicates a slightly less important action.
</div>
<div class="alert alert-dark">
  <strong>Dark!</strong> Dark grey alert.
</div>
<div class="alert alert-light">
  <strong>Light!</strong> Light grey alert.
</div>
```



### Alerts

Alerts are created with the .alert class, followed by a contextual color classes:

**Success!** This alert box could indicate a successful or positive action.

**Info!** This alert box could indicate a neutral informative change or action.

**Warning!** This alert box could indicate a warning that might need attention.

**Danger!** This alert box could indicate a dangerous or potentially negative action.

**Primary!** Indicates an important action.

**Secondary!** Indicates a slightly less important action.

**Dark!** Dark grey alert.

**Light!** Light grey alert.

## 4.3.2 Alerts: .alert-link



- Add `<a class="alert-link">` to create links
- You may put any hyperlinks or other HTML file to the attribute href

```
<div class="alert alert-success">
  <strong>Success!</strong> Click <a href="#" class="alert-link">here</a> to read.
</div>
```

Success! Click **here** to read.

## 4.3.2 Alerts: Close button



- The button with class="close" and data-dismiss="alert" is used to close the alert box
- The alert-dismissible class adds extra padding to the close button

```
<div class="alert alert-success alert-dismissible">
  <button type="button" class="close" data-dismiss="alert">&times;</button>
  <strong>Success!</strong> Click <a href="#" class="alert-link">here</a> to read.
</div>
```

Success! Click **here** to read.



## 4.3.2 Alerts: Fade out



- The fade and show classes add fade out effect when closing the alert

```
<div class="alert alert-success alert-dismissible fade show">
  <button type="button" class="close" data-dismiss="alert">&times;</button>
  <strong>Success!</strong> Click <a href="#" class="alert-link">here</a> to read.
</div>
```

Success! Click **here** to read.



## 4.3.3 Spinners



- Also called loader
- Can be created by adding .spinner-border

```
<!-- Spinners -->
<h3>Spinners</h3>
<div class="spinner-border"></div>
```



## 4.3.3 Spinners



- Other 9 types of spinner:

```
<div class="spinner-border text-muted"></div>
<div class="spinner-border text-primary"></div>
<div class="spinner-border text-success"></div>
<div class="spinner-border text-info"></div>
<div class="spinner-border text-warning"></div>
<div class="spinner-border text-danger"></div>
<div class="spinner-border text-secondary"></div>
<div class="spinner-border text-dark"></div>
<div class="spinner-border text-light"></div>
```

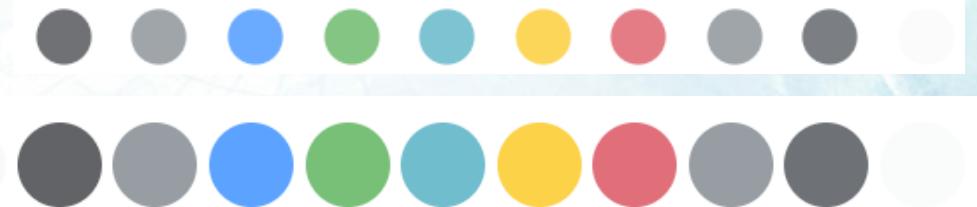


### 4.3.3 Spinners: Growing



- .spinner-grow
- Grow instead of spin

```
<div class="spinner-grow"></div>
<div class="spinner-grow text-muted"></div>
<div class="spinner-grow text-primary"></div>
<div class="spinner-grow text-success"></div>
<div class="spinner-grow text-info"></div>
<div class="spinner-grow text-warning"></div>
<div class="spinner-grow text-danger"></div>
<div class="spinner-grow text-secondary"></div>
<div class="spinner-grow text-dark"></div>
<div class="spinner-grow text-light"></div>
.
```



## 4.3.3 Spinners: Small



- Add .spinner-border-sm / .spinner-grow-sm to create small spinners

```
<div class="spinner-border spinner-border-sm"></div>
<div class="spinner-grow spinner-grow-sm"></div>
```



### 4.3.3 Spinners: Buttons



- Stores spinner in a button

```
<button class="btn btn-primary">
  <span class="spinner-border spinner-border-sm"></span>
</button>
```



- Stores spinner in a disabled button

```
<button class="btn btn-primary" disabled>
  <span class="spinner-grow spinner-grow-sm"></span>
  Loading..
</button>
```



## 4.3.4 Table



- We have learnt <table>, but BS4 has a better design of it!

```
<!-- Table -->
<h3>Table</h3>
<table class="table">
  <thead>
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Email</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Saint</td>
      <td>Mary</td>
      <td>saint@email.com</td>
    </tr>
    <tr>
      <td>John</td>
      <td>Goofy</td>
      <td>john@email.com</td>
    </tr>
    <tr>
      <td>April</td>
      <td>Dairy</td>
      <td>april@email.com</td>
    </tr>
  </tbody>
</table>
```

Table		
Firstname	Lastname	Email
Saint	Mary	saint@email.com
John	Goofy	john@email.com
April	Dairy	april@email.com

## 4.3.4 Table: Stripe



- Add .table-striped to make the table zebra-stripes

```
<table class="table table-striped">
```

Firstname	Lastname	Email
Saint	Mary	saint@email.com
John	Goofy	john@email.com
April	Dairy	april@email.com



## 4.3.4 Table: Border



- Add .table-bordered to add border to every cell

```
<table class="table table-striped table-bordered">
```

Firstname	Lastname	Email
Saint	Mary	saint@email.com
John	Goofy	john@email.com
April	Dairy	april@email.com

## 4.3.4 Table: Borderless



- Replace .table-bordered with .table-borderless to make every cells borderless

```
<table class="table table-striped table-borderless">
```

Firstname	Lastname	Email
Saint	Mary	saint@email.com
John	Goofy	john@email.com
April	Dairy	april@email.com

## 4.3.4 Table: Hover effect



- Add .table-hover for interactive hover effect

```
<table class="table table-striped table-bordered table-hover">
```

Firstname	Lastname	Email
Saint	Mary	saint@email.com
John	Goofy	john@email.com
April	Dairy	april@email.com

## 4.3.4 Table



- Add .table-dark to make that table dark

```
<table class="table table-striped table-bordered table-hover table-dark">
```

Firstname	Lastname	Email
Saint	Mary	saint@email.com
John	Goofy	john@email.com
April	Dairy	april@email.com

## 4.3.4 Table: Contextual



- 10 total types of table (like the alerts/spinners):

<pre>&lt;/table&gt; &lt;table class="table"&gt;   &lt;thead&gt;     &lt;tr&gt;       &lt;th&gt;Firstname&lt;/th&gt;       &lt;th&gt;Lastname&lt;/th&gt;       &lt;th&gt;Email&lt;/th&gt;     &lt;/tr&gt;   &lt;/thead&gt;   &lt;tbody&gt;     &lt;tr&gt;       &lt;td&gt;Default&lt;/td&gt;       &lt;td&gt;Lastname&lt;/td&gt;       &lt;td&gt;def@email.com&lt;/td&gt;     &lt;/tr&gt;     &lt;tr class="table-primary"&gt;       &lt;td&gt;Primary&lt;/td&gt;       &lt;td&gt;Lastname&lt;/td&gt;       &lt;td&gt;joe@email.com&lt;/td&gt;     &lt;/tr&gt;     &lt;tr class="table-success"&gt;       &lt;td&gt;Success&lt;/td&gt;       &lt;td&gt;Lastname&lt;/td&gt;       &lt;td&gt;john@email.com&lt;/td&gt;     &lt;/tr&gt;   &lt;/tbody&gt; &lt;/table&gt;</pre>	<pre>&lt;tr class="table-danger"&gt;   &lt;td&gt;Danger&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;mary@email.com&lt;/td&gt; &lt;/tr&gt; &lt;tr class="table-info"&gt;   &lt;td&gt;Info&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;july@email.com&lt;/td&gt; &lt;/tr&gt; &lt;tr class="table-warning"&gt;   &lt;td&gt;Warning&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;bo@email.com&lt;/td&gt; &lt;/tr&gt; &lt;tr class="table-active"&gt;   &lt;td&gt;Active&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;act@email.com&lt;/td&gt; &lt;/tr&gt;</pre>	<pre>&lt;tr class="table-secondary"&gt;   &lt;td&gt;Secondary&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;sec@email.com&lt;/td&gt; &lt;/tr&gt; &lt;tr class="table-light"&gt;   &lt;td&gt;Light&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;angie@email.com&lt;/td&gt; &lt;/tr&gt; &lt;tr class="table-dark text-dark"&gt;   &lt;td&gt;Dark&lt;/td&gt;   &lt;td&gt;Lastname&lt;/td&gt;   &lt;td&gt;bo@example.com&lt;/td&gt; &lt;/tr&gt; &lt;/tbody&gt; &lt;/table&gt;</pre>
---	---	--

## 4.3.4 Table: Contextual



- 10 total types of table (like the alerts/spinners):

Firstname	Lastname	Email
Default	Lastname	def@email.com
Primary	Lastname	joe@email.com
Success	Lastname	john@email.com
Danger	Lastname	mary@email.com
Info	Lastname	july@email.com
Warning	Lastname	bo@email.com
Active	Lastname	act@email.com
Secondary	Lastname	sec@email.com
Light	Lastname	angie@email.com
Dark	Lastname	bo@example.com



## 4.4 Exercise

## 4.4 Exercise

### 4. HTML: Advanced

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Navbar    [Google](#)    [Yahoo](#)

**Notice!** Click [here](#) to read.



Don't use style, use grid to put me in the center

New In

ID	Items	Price
001	Double Layer Tee	£ 239
002	Blocking Pocket Tee	£ 258
003	Graphic Print Tee	£ 258

- Grid
- Span 5

- Grid
- Span 4

- Grid
- Span 3

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## 4.4 Exercise: Suggested answer



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>Exercise4</title>
5     <meta charset="UTF-8">
6     <meta http-equiv="refresh" content="30">
7     <meta name="viewport" content="width=device-width, initial-scale=1.0">
8     <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
9     <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
10    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/umd/popper.min.js"></script>
11    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
12 </head>
```

## 4.4 Exercise: Suggested answer



```
20      <!-- Nav -->
21      <nav>
22          <span class="col">Navbar</span>
23          <span class="col">
24              <a href="https://www.google.com/" alt="Google">Google</a>
25          </span>
26          <span class="col">
27              <a href="https://hk.yahoo.com/" alt="Yahoo">Yahoo</a>
28          </span>
29      </nav>
```

## 4.4 Exercise: Suggested answer



```
30      <!-- Alert -->
31  <div class="alert alert-warning alert-dismissible fade show">
32    <button type="button" class="close" data-dismiss="alert">&times;</button>
33    <strong>Notice!</strong> Click <a href="#" class="alert-link">here</a> to read.
34  </div>
```

## 4.4 Exercise: Suggested answer



```
35      <!-- Spinner -->
36      <div class="row">
37          <div class="col-6"></div>
38          <div class="spinner-border text-primary" style="font-size: 4em;">0</div>
39          <p>Don't use style, use grid to put me in the center</p>
40          <div class="col-6"></div>
41      </div>
```

## 4.4 Exercise: Suggested answer



```
48      <table class="table table-dark table-hover table-bordered">
49          <thead>
50              <tr>
51                  <th>ID</th>
52                  <th>Items</th>
53                  <th colspan="2">Price</th>
54          </tr>
55      </thead>
56      <tbody>
57          <tr>
58              <td>001</td>
59              <td>Double Layer Tee</td>
60              <td>฿356;</td>
61              <td>239</td>
62          </tr>
63          <tr>
64              <td>002</td>
65              <td>Blocking Pocket Tee</td>
66              <td>฿356;</td>
67              <td>258</td>
68      </tr>
```

## 4.4 Exercise: Suggested answer



```
69          <tr>
70            <td>003</td>
71            <td>Graphic Print Tee</td>
72            <td>฿8356;</td>
73            <td>258</td>
74          </tr>
75        </tbody>
76      </table>
77      <div class="row">
78        <div class="col-5">
79          <ul>
80            <li>Grid</li>
81            <li>Span 5</li>
82          </ul>
83        </div>
```

## 4.4 Exercise: Suggested answer



```
84         <div class="col-4">
85             <ul>
86                 <li>Grid</li>
87                 <li>Span 4</li>
88             </ul>
89         </div>
90         <div class="col-3">
91             <ul>
92                 <li>Grid</li>
93                 <li>Span 3</li>
94             </ul>
95         </div>
96     </div>
97 </main>
```

## 4.4 Exercise: Suggested answer



```
100      <!-- copyright -->
101      <div style="text-align: center;">@ 2021 Copyright: Krystal Institute</div>
102    </footer>
103  </body>
104  </html>
```

# Reference



- W3Schools (2021). *Bootstrap 4 Tutorial* [online] available from <<https://www.w3schools.com/bootstrap4/default.asp>> [20 May 2021]
- W3Schools (2021). *HTML Tutorial* [online] available from <<https://www.w3schools.com/html/default.asp>> [20 May 2021]