



CHIANG MAI UNIVERSITY
Bachelor of Science (Software Engineering)
College of Arts, Media and Technology
2nd Semester / Academic Year 2019
SE 104 Web UI Design and Development

Bootstrap Layout

Name ID


Objective

This lab you will use the CSS event to change the CSS regarding the event. In addition, the tools which is used to debug or finding the CSS selector is also used

Hint The symbol + and – in front of the source code is to show that you have to remove the source code and add the source code only. There is not a part of the source code. In addition, ignore the grey word in the source code as it is my IDE generation code to assist my coding experience.

1. Start Bootstraps
 - 1.1. Start the project by open the bootstrap introduction page here
<https://getbootstrap.com/docs/4.4/getting-started/introduction/>
 - 1.2. Scroll down to starter template, and then copy the template to the new html file.

Starter template

Be sure to have your pages set up with the latest design and development standards. That means using an HTML5 doctype and including a viewport meta tag for proper responsive behaviors. Put it all together and your pages should look like this: 

```
<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.

    <title>Hello, world!</title>
  </head>
  <body>
    <h1>Hello, world!</h1>

    <!-- Optional JavaScript -->
```

Copy

You should create a new file in the new folder name it as bootstrap.html

1.3. You should create a new file in the new folder name it as bootstrap.html

And show to the staff

2. Using the container

There are two types of containers. The container is the placeholder which used as placeholder for other components.

2.1. Try the container , remove the Hello world text, and use this code instead

```
<body>
  <div class="container" style="background-color: #aqua;">
    test
  </div>
```

2.2. Try the container-fluid, see the change

```
<div class="container" style="background-color: #aqua;">
  test
</div>
<div class="container-fluid" style="background-color: #red; margin-top: 10px;">
  test fluid
</div>
```

And show to the staff

3. Grid

Bootstrap grid using a row which contains 12 columns, you can see the reference here

<https://getbootstrap.com/docs/4.0/layout/overview/>

3.1. Adding the css, to see the border of each grid

```
.col {
  border: 1px solid black;
```

Then add this code in container and container-fluid

```

<div class="row">
  <div class="col">
    1 of 2
  </div>
  <div class="col">
    2 of 2
  </div>
</div>
<div class="row">
  <div class="col">
    1 of 3
  </div>
  <div class="col">
    2 of 3
  </div>
  <div class="col">
    3 of 3
  </div>
</div>

```

See the code layout

- 3.2. Manage the code to have the space on both size when resize the windows as shown

| | | | |
|--------|--------|--------|--------|
| 1 of 2 | | 2 of 2 | |
| 1 of 3 | 2 of 3 | | 3 of 3 |

Show result to the staff

4. Using col class
 - 4.1. Try to add more than 12 cols with the col 1 (now we will work only with the container class, you can delete the container-fluid now)

```

<div class="container" style="background-color: #aqua;">
  <div class="row">
    <div class="col-1">
      1 of 13
    </div>
    <div class="col-1">
      2 of 13
    </div>
    <div class="col-1">
      3 of 13
    </div>
    <div class="col-1">
      4 of 13
    </div>
    <div class="col-1">
      5 of 13
    </div>
    <div class="col-1">
      6 of 13
    </div>
    <div class="col-1">
      7 of 13
    </div>
    <div class="col-1">
      8 of 13
    </div>
    <div class="col-1">
      9 of 13
    </div>
    <div class="col-1">
      10 of 13
    </div>
    <div class="col-1">
      11 of 13
    </div>
    <div class="col-1">
      12 of 13
    </div>
    <div class="col-1">
      13 of 13
    </div>
  </div>
</div>

```

4.2. You may need to update the css file to see the border

```

.col,
.col-1 {
  border: 1px solid black;
}

```

You, 4 hours ago • add col

- 4.3. We can make the column size longer than one column using col-* class. Update the code to the given code.

```
<body>
  <div class="container" style="background-color: #aqua;">
    <div class="row">
      <div class="col-3">
        1
      </div>
      <div class="col-5">
        2
      </div>
      <div class="col-2">
        3
      </div>
      <div class="col-6">
        4
      </div>
    </div>
  </div>
```

The border is missing, and boring to add a new class every time, you can update the css file to this value

- 4.4. We can make the column size longer than one column using col-* class. Update the code to the given code

```
.col,
.col-1,
div[class*='col-'] {
  border: 1px solid black;
}
```

- 4.5. If we want more row, we can create a new div class row (now we remove the background color of the container, but add the background color for the row so we can see the different easily.)

```

<div class="container">
  <div class=" row " style="background-color: antiquewhite; ">
    <div class="col-3 ">
      1
    </div>
    <div class="col-5 ">
      2
    </div>
    <div class="col-2 ">
      3
    </div>
  </div>
  <div class=" row " style="background-color: lightblue; ">
    <div class="col-2 ">
      4
    </div>
    <div class="col-4 ">
      5
    </div>
    <div class="col-6 ">
      6
    </div>
  </div>
</div>

```

- 4.6. If the col does not fulfill the 12 column, we can set the alignment of column easily, try the given class, try to change the first row to each class and see the output

```

<div class="container">
  <div class=" row justify-content-start " style="backg
    <div class="col-3 ">
      1
    </div>
    <div class="col-5 ">
      2
    </div>
  </div>

```

```

<div class="container">
  <div class="row justify-content-center" style="background-color: #a
    <div class="col-3">
      1
    </div>
    <div class="col-5">
      2
    </div>
  </div>

```

```

<div class="container">
  <div class="row justify-content-end" style="background-color: [
    <div class="col-3">
      1
    </div>
    <div class="col-5">
      2
    </div>
  </div>

```

4.7. Update the code to get this output

| | | | |
|------|----|-------|-------|
| | | Hello | world |
| SE | | 104 | |
| This | is | a | book |

And show to the staffs

5. Set offset column

5.1. If we want to use the column break (start a new row) we can use the given tag

```

<div class="container">
  <div class="row justify-content-center" style=
    <div class="col-3">
      1
    </div>
    <!-- Force next columns to break to new line
    <div class="w-100"></div>
    <div class="col-5">
      2
    </div>

```

This will force the next column to a new line, but the justification is still the same.

- 5.2. We can set the position of each div tag manually using the offset instead of the auto justification

```
<div class=" row " style="background-color: antiquewhite; ">
  <div class="col-3 ">
    1
  </div>
  <div class="col-5 offset-md-3">
    2
  </div>
</div>
```

You, 9 minutes ago • justify content start

Try to resize the browser

And show to the staff

- 5.3. And the row can be nested, the size of the column is based on the side of the wrapper

```
<div class="container">
  <div class=" row " style="background-color: antiquewhite; ">
    <div class="col-3 ">
      1
      <div class=" row " style="background-color: lightblue; ">
        <div class="col-2 ">
          4
        </div>
        <div class="col-4 ">
          5
        </div>
        <div class="col-6 ">
          6
        </div>
      </div>
    </div>
    <div class="col-5 offset-md-3">
      2
    </div>
  </div>
</div>
```

- 5.4. All example can be found in <https://getbootstrap.com/docs/4.0/layout/grid/>
5.5. Now use the grid to layout the html as given

| | | | |
|------------|---------|--|----|
| header | | | |
| image | t1 | | t2 |
| | t3 | | t4 |
| | t5 | | |
| topic name | topic 1 | | |
| | topic 2 | | |
| footer | | | |

And show to the staff

6. With the given Bootstrap component link, create the given page

Hello, Bootstrap!


This is how we learn to use the bootstrap

First we should layout our html, and then add the required component

No Link attached

Menu 1
Menu 2



The data in the first row



Dear Students

Welcome to CAMT, the most amazing faculty in Chiang Mai University.

On behalf of College of Arts, Media & Technology (CAMT), Chiang Mai University, I am delighted to welcome all students and parents to the semester 2019-2020.

วิทยาลัยศิลปะ สื่อ และเทคโนโลยี

College of Arts, Media and Technology

CMU • CEO

Using the given component to create the web site. (you can copy part of code and paste on the specific location.

<https://getbootstrap.com/docs/4.4/components/jumbotron/>

<https://getbootstrap.com/docs/4.4/components/button-group/#vertical-variation>

<https://getbootstrap.com/docs/4.4/components/alerts/>

<https://getbootstrap.com/docs/4.4/components/media-object/>

<https://getbootstrap.com/docs/4.4/content/images/#responsive-images>

Then try to resize the browser to show the result.