

WEB
ENGINEERING
BSE: 5th
SEMESTER

(After Mid)

19/11/24

BOOTSTRAP

- Responsive Website (Adjust according to different screen sizes)
- Mobile First Website.
- For Front-End Designing.

① Breakpoints:

→ Able to define the width adjusting according to different screen size.

→ 6 Breakpoints:

- (i) X-Small ^(575px)
- (ii) Small
- (iii) Medium
- (iv) Large
- (v) Extra-Large
- (vi) Extra extra large (1400[<])

② Bootstrap classes:

→ Font : (i) Font size (.fs-1 - .fs-6)

(ii) Font-Weight (fw-bold, bolder, normal, light, lighter, fnt-italic, fnt-normal)
(font-style)

(iii) Text-Decoration (underline, none)

→ Text-alignment:

- (i) text-start (ii) text-center
- (iii) text-end

○ use of Bootstrap:

→ Download VS-CODE

→ New Project → New File → Index.html.

→ "!" exclamation mark (Default syntax)

→ Server Files (CSS and JS)

→ Ctrl + F5 (Browser Select)

→ can also be directly download

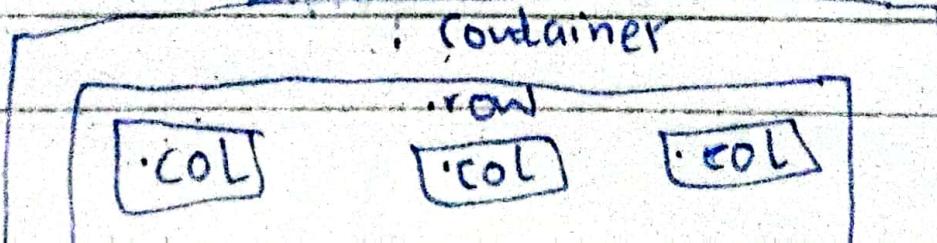
→ used Inline

○ Bootstrap Grid System:

(i) Container (contains all content) (wrap, align, padding)

(ii) Rows (Division of container) (wrap for col of rows)

(iii) Cols (Division of rows) (12 div) (Exist inside inside rows.) (HTML written in column)



④ 12 possible columns in ^{one} row.

○ Containers Type:

(i) Default container (Fixed-width container)
(Max-width)

(ii) Responsive Container (Fixed at certain breakpoints but before changes)

(iii) Fluid container (width not changes) (Remain 100% width)

○ Rows and Columns:

→ Row width takes width as parent

→ Actual content will be added in columns

→ Bootstrap:

③ Column Break-points:

- class = "col-6" , col-3, col-3 (No responsive web)
- class = "col-sm" : Breakpoints defined
- class = "col-sm-6" : Size and Break-point

→ class = "col-sm-6 col-md-6"

→ Two sizes and
Breakpoint
: It will take
6 columns on
medium and
6 columns on
small.

→ Row, Column align:

Vertical

① Row:

→ row bg-info align-items-center : Center

→ " " " " start : Row first row

→ " " " " end : last row

② Column:

→ col align-self-start : only one column

→ col align-self-center

→ col align-self-end

Horizontal:

→ class = "row bg-info justify-content-start border"

class = "col-4 border bg-warning" center end

→ class = "row bg-info justify-content-evenly border"

→ Reordering, offsetting: Columning, Margin

③ Reordering:

Utilities:

<div class = "col-4 order-3 display-5 border bg-info">

: Small order (High priority), Larger order (Small priority)

: Unorder class will always be shown in start.

: Next Tuesday (Front-End)
Also make Google documents

→ For Responsiveness:

<div class="col-4 order-sm-1 display-5 border bg-dark">
order-md-3

① Offsetting:

: Remaining columns will be offset and now
space bg-dark

<div class="col-4 order-sm-2 offset-3
display-5 border bg-light">

<div class="col-4 order-sm-2 offset-md-4
offset-sm-2 display-5 border">

② Margin:

→ 0-5 size of Margin

: <div class="col-4 order-sm-2 ms-3 mt-3 mb-3
me-2 display-5 border bg-light">

: < /> </> </> </> ms-md-3 mb-md-3 mb-md-3

me-md-2 display-5 border bg-light">

: <div class="col-4 order-sm-2 ms-auto">
me-auto

→ Padding Classes, CSS length unit rem,
Padding VS Margins , Gutter Classes:

③ Padding : It adjust Inside Space
of Block.

```
: <div class="container">  
  <div class="row bg-dark display-5borders"  
    <div class="col pt-2 pb-2 ps-2 pe-2  
      bg-info">Col-1</div>
```

② rem:

1rem : 16px

0.5rem
= 8px

2rem : 32px

0.5rem : 8px

```
: <div class="col pt-md-2 pb-md-2 ps-md-2  
      pe-md-2 bg-info>
```

③ Gutter:

→ For Adding space

→ Along x-axis (padding), Along y-axis (margin)

→ <div class="col gx-3 bg-info"> gx
 (1rem) 2
<div class="col gx-3 gy-3 bg-info"> = 16px
 (padding) (Margin) 2
 (outside top) 8px

→ <div class="row bg-dark gx-3 gy-3 display-5
 border">

: First column no gy on first column
 (mt-0)(margin) (Margin)

<div class="row row-cols-1 bg-dark gx-3 gy-3">

(one row → one column)

Implementation of previously Learned concepts:

① Main Content of Page :

1- Header (logo, name, search field)

2 - Main Content

3 - Footer (Address, contact, info etc..)

① Bootstrap - Typography

① Typography:

→ Text setting

→ Lead class (style change
and weight etc ...)

① `.h1(class)`, (`.mark`, `.small`, `.text-decoration`
`.text-decoration-line`
`.underline`
`.through`)

② Images:

→ ``

→ "img-thumbnail"

→ ``

③ Picture:

→ multiple source tag

④ Tables:

`<div class="container">`

" " row

" " col

" table

: `<table class="table-dark`
`table-bordered table-`
`hover" />`

⑤ Form:

From Bootstrap website

① Components:

1- Navbar

4- Spinners

2- Card

5- Scrollspy

3 - Offcanvas

(Hidden side-bar)

② View-Component:

→ Don't require model binding.

→ Dynamic data at multiple places