# Bootstrap Grid System

# Agenda

| 1 | **BootStrap Grid System** |

# Objective

**At the end of this module, you will be able to learn**

- What is a Bootstrap Grid System

- How to work with a Bootstrap Grid System

# BootStrap Grid System

# Bootstrap Grid System

- Bootstrap grid system provides an easy way to create layouts of web pages

- Bootstrap grid system allows up to 12 columns across the page

- If you don't want to use all 12 columns, you can group the columns together to create wider columns

- Bootstrap grid system is responsive and the columns will re-arrange according to the screen size of the device

- In a big screen, the contents will be organized in the respective columns, in smaller screen, the content items will be stacked on top of each other

# Grid system rules

**Some Bootstrap grid system rules:**

- Rows must be placed within a .container (fixed-width) or .container-fluid (full-width) for proper alignment and padding

- Use rows to create horizontal groups of columns

- Content should be placed within columns, and only columns may be immediate children of rows

- Predefined classes like .row and .col-sm-4 are available for quickly making grid layouts

- Columns create gutters (gaps between column content) via padding. That padding is offset in rows for the first and last column via negative margin on .rows

- Grid columns are created by specifying the number of 12 available columns you wish to span. For example, three equal columns would use three .col-sm-4

# Grid classes

The Bootstrap grid system has four classes:

- xs (for phones)
- sm (for tablets)
- md (for desktops)
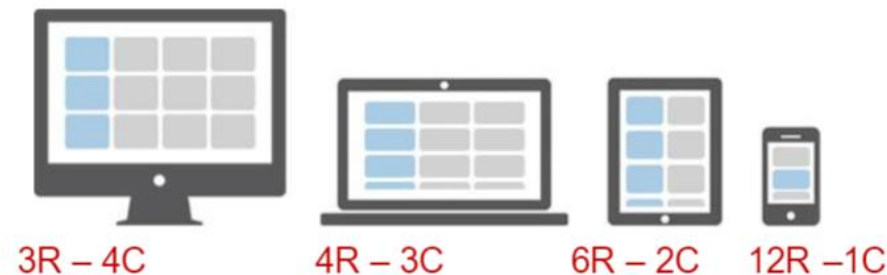- lg (for larger desktops)

The classes above can be combined to create more dynamic and flexible layouts.

# Bootstrap 3 grid system features

| Features<br>Bootstrap 3 Grid System | Extra small devices<br>Phones (<768px) | Small devices<br>Tablets (≥768px) | Medium devices<br>Desktops (≥992px) | Large devices<br>Desktops (≥1200px) |
|---|---|---|---|---|
| Max container width | None (auto) | 750px | 970px | 1170px |
| Class prefix | .col-xs- | .col-sm- | .col-md- | .col-lg- |
| Max column width | Auto | ~62px | ~81px | ~97px |
| Gutter width | 15px on each side of a column (i.e. 30px) | | | |

# Creating layouts with Bootstrap 3 Grid System

- Bootstrap 3 mobile first grid system can easily help you to control how your website layout will render on different types of devices with different screen sized like cell phone, tablet, desktops etc.



3R – 4C        4R – 3C        6R – 2C    12R –1C

- 12 content boxes in total but placement will vary depending on the device.

# Basic structure of Bootstrap Grid

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

# Example: grid system

```
<!DOCTYPE html>

<html>

<head>

<title>Grid System program for medium desktop</title>

<link rel="stylesheet" type="text/css" href="css/bootstrap.min.css"
/>

<script src="js/bootstrap.min.js" type="text/javascript"></script>

<style type="text/css">

p {

padding: 10px;

font-size: 20px;

font-weight: bold;

text-align: center;

color: #000099;

background: #FF0000;

}
```

Bootstrap uses HTML5 doctype

Include above files in the respective folder

Style for paragraph

Activate Windows
Go to Settings to activate Windows.

# Example: grid system

```
h1 {
padding: 50 px;
text-align: center;
padding: 10px;
color: red;
background: yellow;
}
</style>
</head>
```

Style for h1 tag

# Example: grid system

```
<body>
<div class="container">
<div class="row">
<div class="col-lg-12">
<h1>Demo for Bootstrap Grid System</h1>
</div>
</div>
<div class="row">
<br>
<div class="col-lg-2">
<p>2 columns</p>
</div>
<div class="col-lg-8">
<p>8 columns</p>
</div>
    contd..
```

Bootstrap requires a containing element to wrap site contents

First row, the container occupies 12 columns

# Example: grid system (Contd.).

```html
<div class="col-lg-2">
<p>2 columns</p>
</div>
</div>
<div class="row"><br>
<div class="col-lg-4">
<p>4 columns</p>
</div>
<div class="col-lg-4">
<p>4 columns</p>
</div>
<div class="col-lg-4">
<p>4 columns</p>
</div>
</div><body></html>
```
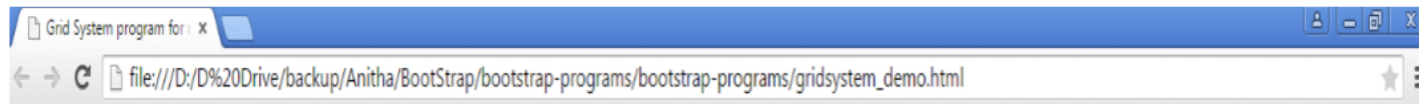
Second row

Third row

# Quiz

1. Bootstrap's grid system allows up to ------ columns across the page

    a. 8 columns

    b. 10 columns

    c. 12 columns

    d. 6 columns

2. Which of the following is a Bootstrap grid system class?

    a. xs

    b. sm

    c. md

    d. lg

# Summary

- In this module, you have learnt

    - What is a Bootstrap Grid System

    - How to work with a Bootstrap Grid System

# Thank You