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WELCOME

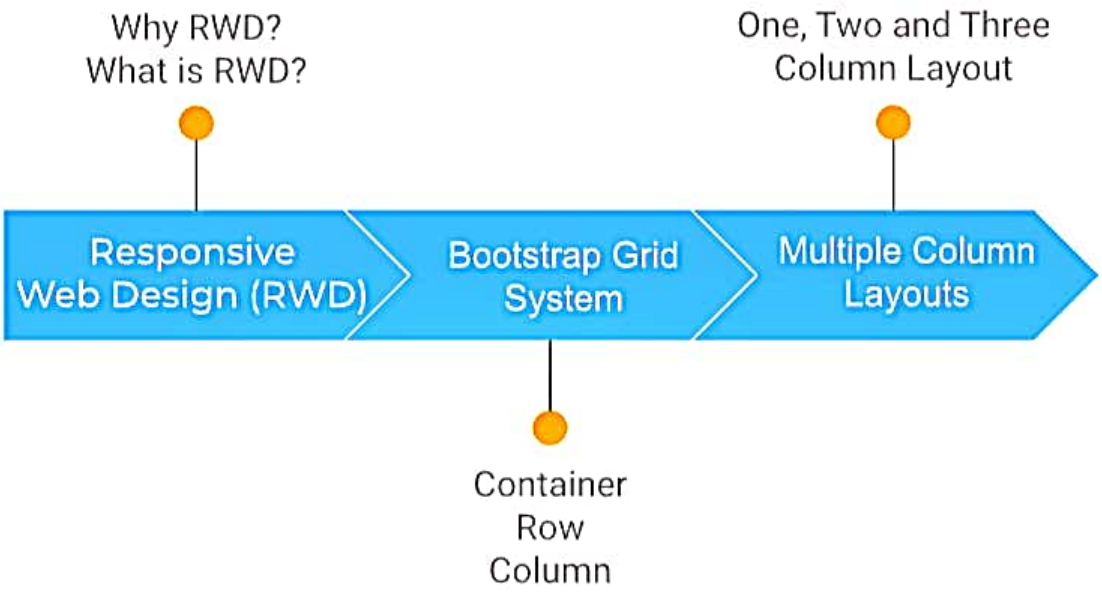
CCBP 4.0

21st Century Skills

Introduction to Responsive Web Design

Agenda

Introduction to Responsive Web Design



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Let's see how
AMAZON
website looks on a mobile

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WAVE

Amazon Website

Mobile Version

Amazon Website

Mobile Version in Desktop

Amazon Website

Desktop Version

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Devices

Wide Variety of Sizes

How to Create Websites with Best User Experience Across all The Devices?

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Responsive Web Design

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Responsive Web Design

What is Responsive Web Design?

Responsive Web Design (RWD) is an approach to make web pages give best user experience in all the devices

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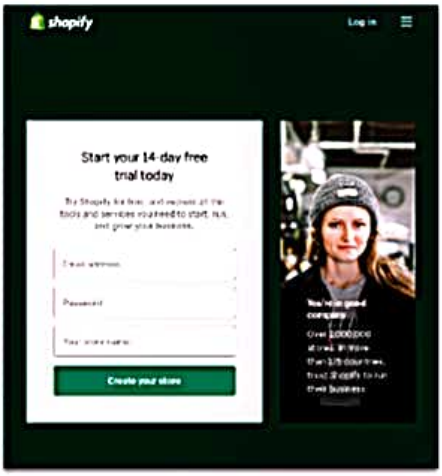
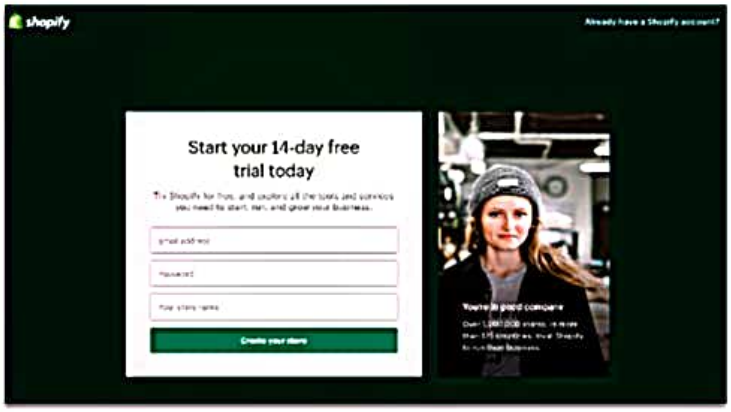
Responsive Web Design

shopify.in

Mobile



Tablet



Desktop

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Responsive Web Design

apple.com

Mobile

Tablet

Desktop

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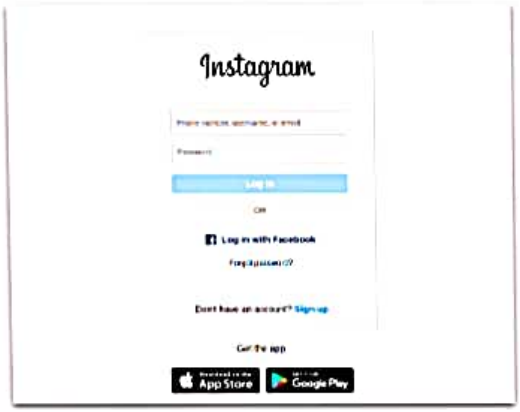
Responsive Web Design

instagram.com

Mobile



Tablet

Desktop

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Responsive Web Design

twitter.com

Mobile

Tablet

Desktop

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How to Build Responsive Websites?

Bootstrap
Grid System

Bootstrap

Grid System

A collection of

Reusable Code Snippets

to create **Responsive Layouts**

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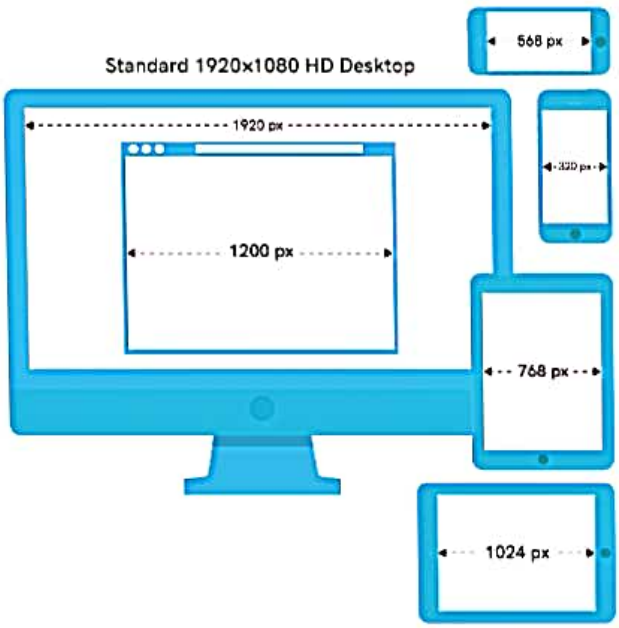
Devices

Wide Variety of Sizes



Bootstrap

Five Responsive Tiers

To make websites responsive,
Bootstrap categorizes devices into
Five Responsive Tiers

These are known as **Responsive Breakpoints**

Device	Device Size(width)
Extra small devices	< 576px
Small devices	>= 576px
Medium devices	>= 768px
Large devices	>= 992px
Extra large devices	>= 1200px

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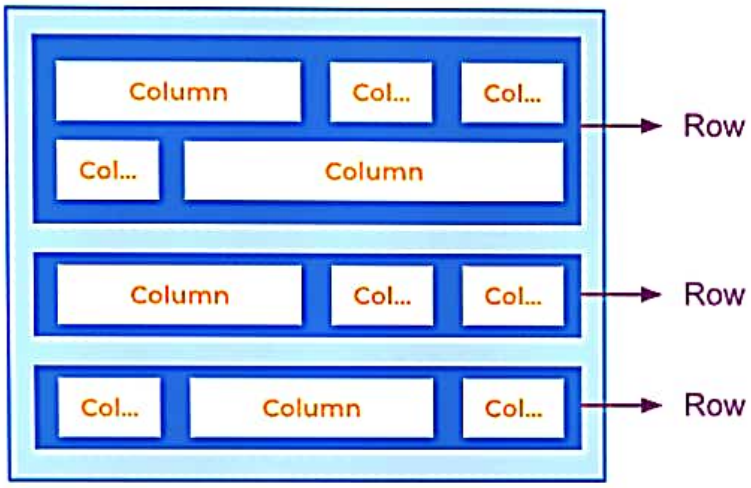
Bootstrap Grid System

How it works

Bootstrap Grid system is made up of 3 things:

- Container
- Rows
- Columns



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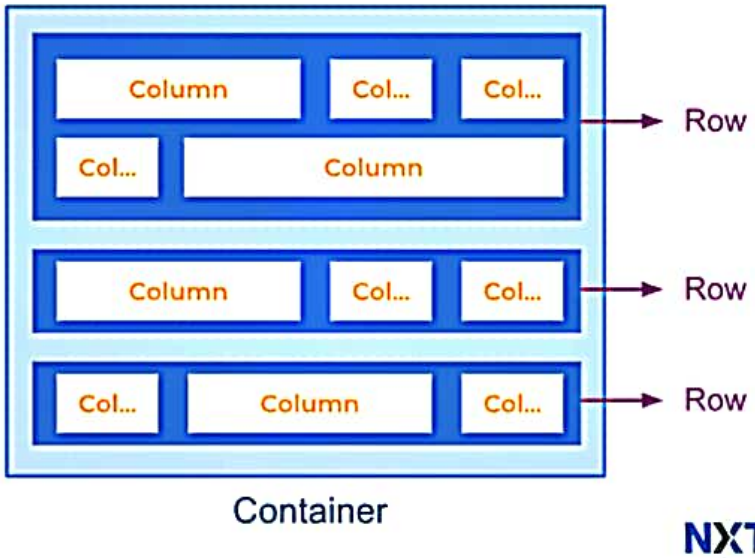
Bootstrap Grid System

How it works

A **Container** consists of Rows and Columns

All the **Content** should be placed inside these Columns



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Bootstrap Grid System

How it works

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Bootstrap

Grid System

Bootstrap Grid System uses **12 column system** for layouting

We can create up to **12 columns** across the page

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Grid System

Different Column Systems

4 Column System

8 Column System

12 Column System

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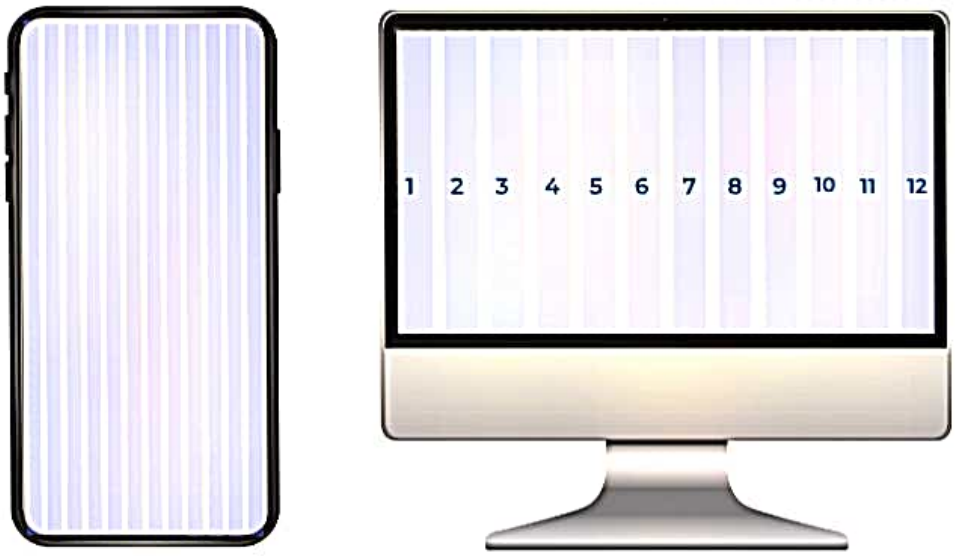
Bootstrap Grid System

12 Column System



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Example Website - Desktop Version

getbootstrap.com

Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery.

Get started | Download

Currently v4.3.1

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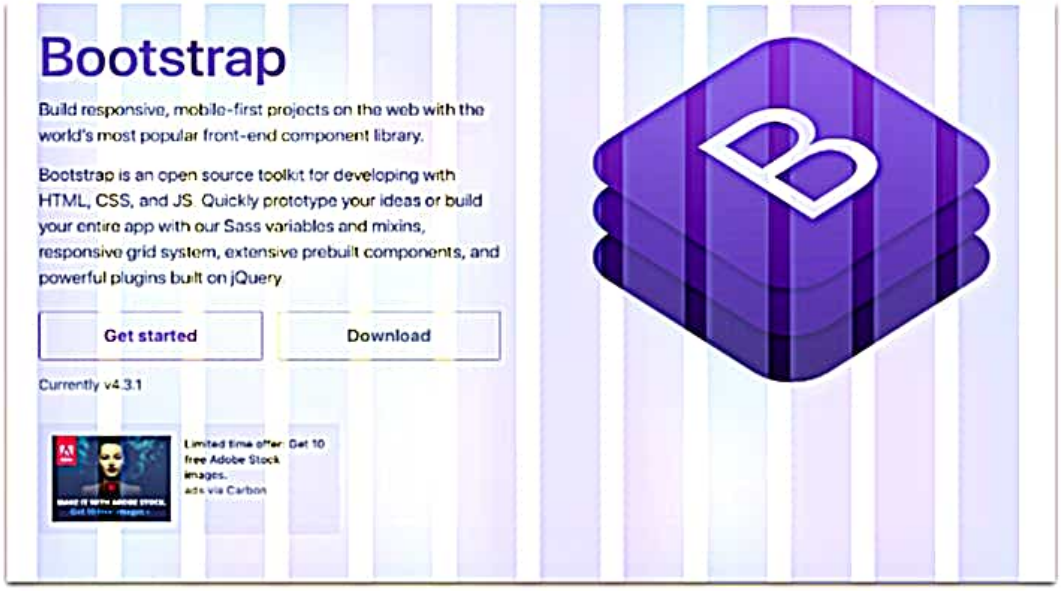
Bootstrap Grid System

Columns Representation



1 2 3 4 5 6 7 8 9 10 11 12

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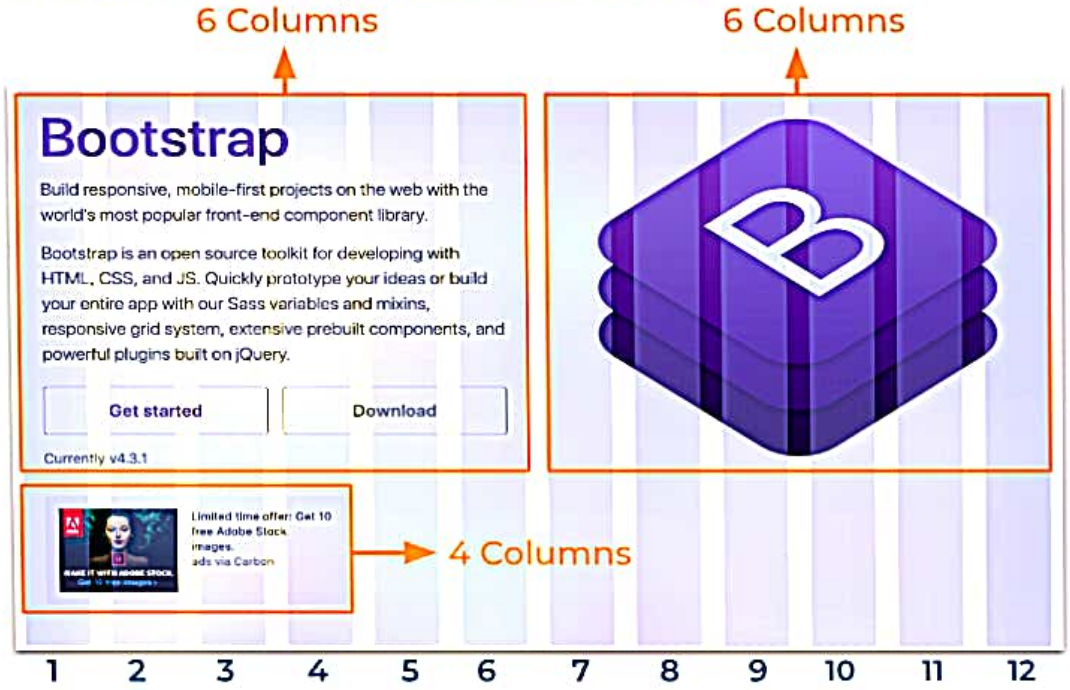
Bootstrap Grid System

Columns Representation



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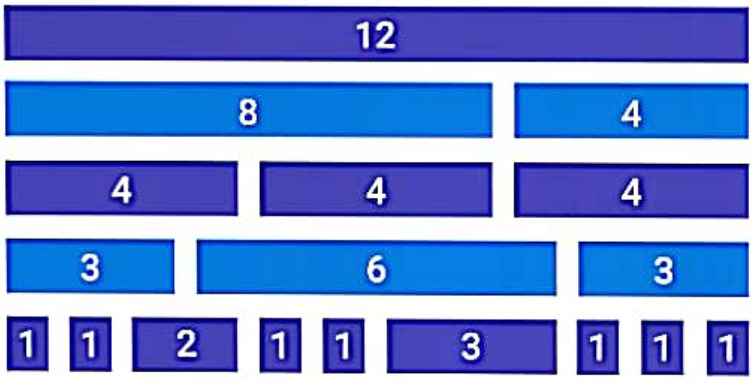
Bootstrap Grid System

Specifying number of Columns

We can specify number of columns our content should occupy in any device

The number of columns we specify should be **any number** in range of **1** to **12**



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How to Create a Layout Using Bootstrap Grid System?

Bootstrap Grid System

Container

A **Container** is a div Element with a class name **container**

The purpose of the Container is to **hold** Rows and Columns

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

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Bootstrap Grid System

Row

A **Row** is a div Element with a classname **row**

The purpose of Row is to **wrap** all the Columns

```
<div class="container">
  <div class="row">
    ...
  </div>
</div>
```

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Bootstrap Grid System

Column

A **Column** is a div Element with a classname **col-***

We place all our **content** inside this Column

```
<div class="container">
  <div class="row">
    <div class="col-12">
      I'm your content inside the grid!
    </div>
  </div>
</div>
```

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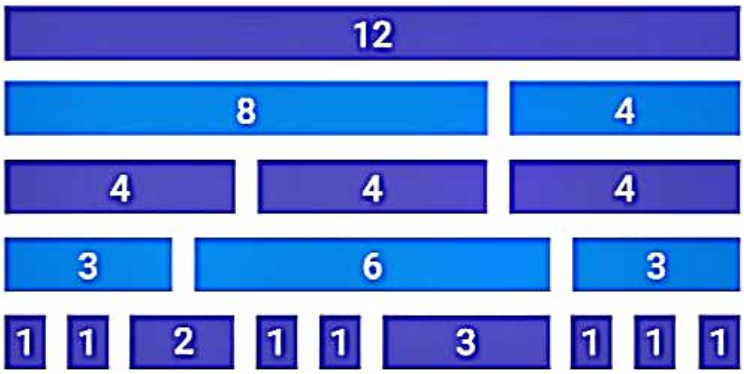
Bootstrap Grid System

Specifying number of Columns

Add a number to **col-*** in classname to specify the number of Columns

If classname is **col-12** it will occupy entire width available inside the **row**



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Creating Multiple Column Layouts

Bootstrap Grid System

One Column Layout

HTML

```
<div class="container">
  <div class="row">
    <div class="col-12">
      <h1 class="heading">Taj Mahal</h1>
      <p>
        The Taj Mahal is an ivory-white...
      </p>
    </div>
  </div>
</div>
```

CSS

```
.heading {
  font-size: 24px;
  font-weight: bold;
}
```

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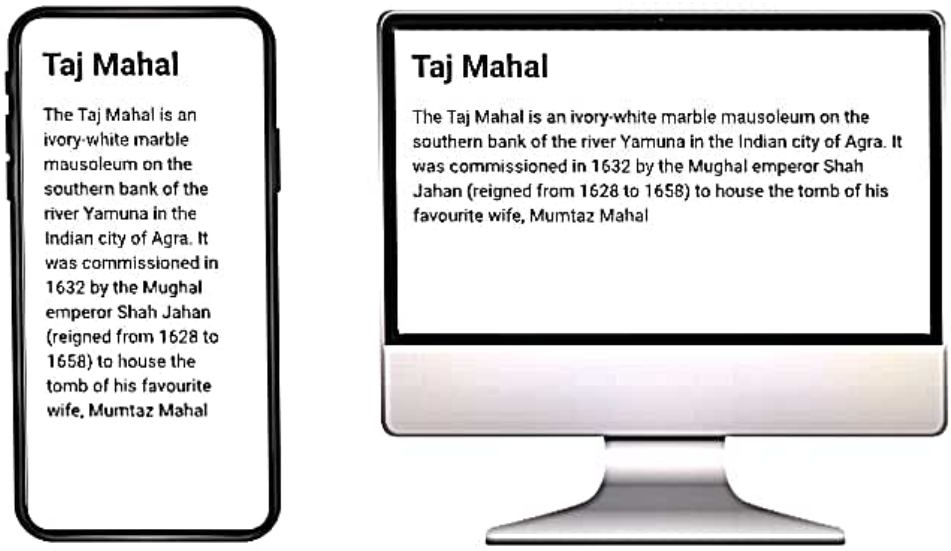
Output in Different Devices

One Column Layout



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Bootstrap Grid System

Two Column Layout

HTML

```
<div class="container">
  <div class="row">
    <div class="col-6">
      ...
    </div>
    <div class="col-6">
      ...
    </div>
  </div>
</div>
```

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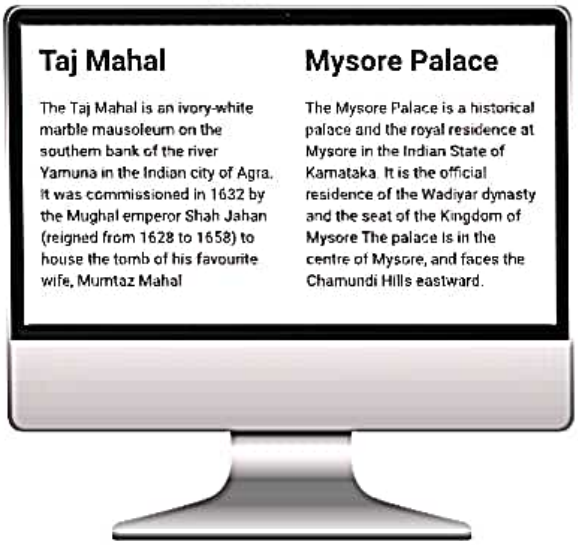
Output in different Devices

Two Column Layout



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Bootstrap Grid System

Three Column Layout

HTML

```
<div class="container">
  <div class="row">
    <div class="col-4">...</div>
    <div class="col-4">...</div>
    <div class="col-4">...</div>
  </div>
</div>
```

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Three Column Layout

Output

Taj Mahal

The Taj Mahal is an ivory-white marble mausoleum on the southern bank of the river Yamuna in the Indian city of Agra. It was commissioned in 1632 by the Mughal emperor Shah Jahan (reigned from 1628 to 1658) to house the tomb of his favourite wife, Mumtaz Mahal

Mysore Palace

The Mysore Palace is a historical palace and the royal residence at Mysore in the Indian State of Karnataka. It is the official residence of the Wadiyar dynasty and the seat of the Kingdom of Mysore The palace is in the centre of Mysore, and faces the Chamundi Hills eastward.

Golden Temple

The Mysore Palace is a historical palace and the royal residence at Mysore in the Indian State of Karnataka. It is the official residence of the Wadiyar dynasty and the seat of the Kingdom of Mysore The palace is in the centre of Mysore, and faces the Chamundi Hills eastward.

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Introduction to Responsive Web Design

Key Takeaways (Part 1/2)

- Responsive Web Design
- Bootstrap Grid System
  - Five Responsive Tiers
  - Container
  - Row
  - Column
- 12 Column System

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Introduction to Responsive Web Design

Key Takeaways (Part 2/2)

- Multiple Column Layouts
  - One Column Layout
  - Two Column Layout
  - Three Column Layout

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Next Session

Bootstrap Grid System

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THANK YOU