**Web Technical Question**

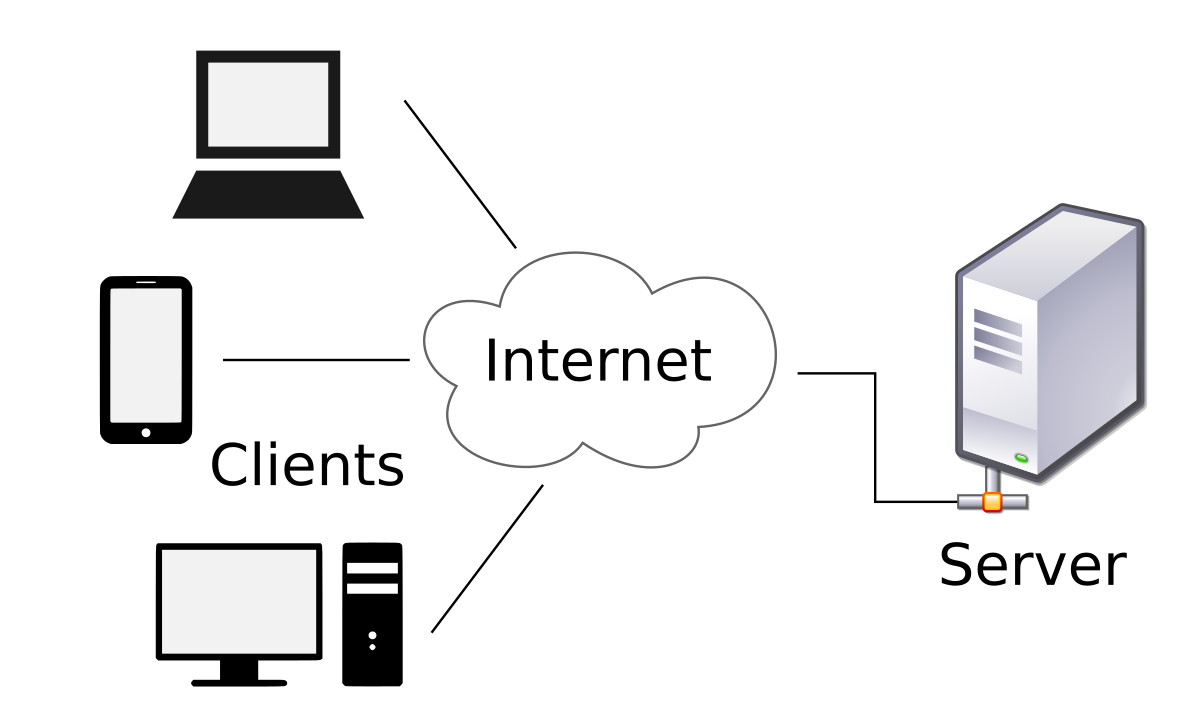
1) What is Website and WWW?

* Website – Everyday you visit on internet
* Follows some rules & regulations i.e. **client-server architecture standard**
* Websites – providing information from anywhere in world
* WWW – world wide web called internet

2) What is client and server architecture ?

client : Request

Server : Response



3) What is web browser ?

google chrome / mozila firefox, opera, safari

4)What is web page ?

Web site contain the many pages that’s called Web Page Web page contain the information related to

5) What is home page ?

(First page of websites) When we open any kind of web site that show the first page and it contain all web pages links and it also show the primary contain in a page.

====================================================================================

Requirement

1. editors : notepad++ /sublime text / vs code

<https://notepad-plus-plus.org/downloads/v8.4/>

<https://www.sublimetext.com/3>

<https://code.visualstudio.com/download>

1. Browser : chrome / safari /mozilla

=================================================================================

8) What is html ?

* HTML (Hypertext Markup Language) is the language used to create web page documents.
* HTML stands for Hyper Text Markup Language
* An HTML file is a text file containing small markup **tags <> <h1> </h1>**  
  The markup tags tell the Web browser how to display the page  
  An HTML file must have an .htm or **.html** file extension  
  An HTML file can be created using a simple **text editor**

**<html>  
 <head>  
 <title>Title of Page</title>  
 </head>  
<body>  
 This is my first homepage.<b> This text is bold</b>  
</body>  
</html>**

* The first tag in your HTML document is <html>. This tag tells your browser that this is the start of an HTML document. The last tag in your document is </html>. This tag tells your browser that this is end of the HTML document.
* The text between the <head> tag and the </head> tag is header information. Header information is not displayed in the browser window. Title tag & favicon & external files
* The text between the <body> tags is the text that will be displayed in your browser.

9) **HTML Tags:**  
 HTML tags are used to mark-up HTML elements  
 HTML tags are surrounded by the two characters < and >  
 The surrounding characters are called angle brackets  
 HTML tags normally come in pairs like <b> and </b>  
 The first tag in a pair is the start tag, the second tag is the end tag  
 The text between the start and end tags is the element content  
 HTML **tags are not case sensitive,** <b> means the same as <B>

<head>/ <HEAD>

==================================================================================

6) What is SEO ?

* SEO (Search Engine Optimisation) involves altering website code, content, and presence in order to increase rankings in search engines
* At least half a billion searches are made worldwide on a daily basis
  + If you are ranked at the top of a search engine, you are essentially running a free marketing campaign.
* Without search engine optimization, your site cannot be found on organic (“free”) search engine results on the major search engines like Google, Yahoo and others.

### Title tag

### Meta description tag / Meta Keywords tag

### Meta robots tag

### Heading (H1-H6) tags

### Image alt text

### Schema markup

### HTML5 semantic tags

### Canonical tag

7) What the biggest challenges in designing

The nature of web design is that there is no guarantee that everyone will see

your page the way you do.

=> Browser : You can see the two different website design view on different browser

=> Resolution :

| **1024 × 768** | **1004 × 597** | **56 %** |
| --- | --- | --- |

10) HTML Anchor Tag

Anchor tag means <a href=”any get the link”;></a>

<a href="http://www.oreilly.com">This is link</a>

11) What is **Attribute :**

* Use with tag like href/src/height/width extra use that call attribute

12) What is Image Tag :

<img src="raj.jpg" height="50px" width="100px">

An ordinary image file (.gif, .jpg/.jpeg, or .png) placed with the img element.

<img src=”sachin.jpg”  **alt=”sachin tendulkar”**>

13) What is Difference between HTML & XHTML ?

* XHTML-Extensible HyperText Markup Language
* XHTML is almost similar to HTML 4.0 this is very strict version of HTML.
* XHTML is HTML defined as an XML application
* **XHTML is supported by all major browsers**
* <!DOCTYPE> is **mandatory**
* The xmlns attribute in <html> is **mandatory**
* <html>, <head>, <title>, and <body> are **mandatory**
* Elements must always be **properly nested**
* Elements must always be **closed**
* Elements must always be in **lowercase**
* Attribute names must always be in **lowercase**
* Attribute values must always be **quoted**
* Attribute minimization is **forbidden**

14) What is **Imagemaps**

**With HTML image maps, you can create clickable areas on an image.**

## Image Maps

**The HTML <map> tag defines an image map. An image map is an image with clickable areas. The areas are defined with one or more <area> tags.**

**<img src="workplace.jpg" alt="Workplace" usemap="#workmap">**

**<map name="workmap">**

**<area shape="rect" coords="34,44,270,350" alt="Computer" href="computer.htm">**

**<area shape="rect" coords="290,172,333,250" alt="Phone" href="phone.htm">**

**<area shape="circle" coords="337,300,44" alt="Coffee" href="coffee.htm">**

**</map>**

15) List type in HTML

| **Tag** | **Description** |
| --- | --- |
| <ol> | Defines an ordered list |
| <ul> | Defines an unordered list |
| <li> | Defines a list item |
| <dl> | Defines a definition list |
| <dt> | Defines a definition term |
| <dd> | Defines a definition description |

<ul style="list-style-type:disc;"> type=disc/ circle/ square /none

<ol type="1"> type=”a” /A/I/i/ i ii iii

<h3>Definition list</h3>

<dl>

<dt>Coffee:</dt>

<dd>Hot Coffee</dd>

<dd>Cold Cofee</dd>

<dt>Tea :</dt>

<dd>Hot Tea</dd>

<dd>Masala Tea</dd>

</dl>

| Tag | Description |
| --- | --- |
| <table> | Defines a table |
| <th> | Defines a table header |
| <tr> | Defines a table row |
| <td> | Defines a table cell |
| <caption> | Defines a table caption |
| <colgroup> | Defines group of table columns |
| <col> | Defines the attribute values of one or more columns in a table |
| <thead> | Defines a table head |
| <tbody> | Defines a table body |

16) Table Tag

rowspan

colspan

<table cellpadding="15">

<table cellpadding="15" cellspacing="15">

===============================================================

17) What is form & explain all input type ?

* A form is an area that can contain form elements.
* Form elements are elements that allow the user to enter information (like text fields, textarea fields, drop-down menus, radio buttons, checkboxes, etc.) in a form.
* A form is defined with the <form> tag.
* Note that the form itself is not visible.

18) What is Event in HTML & also explain Event List ?

An HTML event can be something the browser does, or something a user does.

Here are some examples of HTML events:

* An HTML web page has finished loading
* An HTML inp
* An HTML button was clicked

<button onclick="display()">The time is?</button>

| onchange | An HTML element has been changed |
| --- | --- |
| onclick | The user clicks an HTML element |
| onmouseover | The user moves the mouse over an HTML element |
| onmouseout | The user moves the mouse away from an HTML element |
| onkeydown | The user pushes a keyboard key |
| onload | The browser has finished loading the page |

19) What is <div> & <span>

Both the tags ([<div>](https://www.geeksforgeeks.org/div-tag-html/) and [<span>](https://www.geeksforgeeks.org/span-tag-html/)) are used to represent the part of the webpgage, <div> tag is used a as block part of the webpage and <span> tag is used as a inline part of the webpage like below:

50) **HTML5: what is it?**

HTML5 is the latest and most enhanced version of HTML. Technically,

HTML is not a programming language, but rather a markup language.

HTML5 is the next major revision of the HTML standard superseding

HTML 5 does not have the same syntax rules as XHTML where we needed lower case tag names, quoting our attributes an attribute had to have a value and to close all empty elements.

The DOCTYPE declaration for HTML5 is very simple:

=>But HTML5 is coming with lots of **flexibility** and would support the followings:

**Uppercase tag names.**

**Quotes are optional for attributes <input type=”text” ‘text’ text>**

**Attribute** values are optional.

<link href=”style.css” **type=”text/css”** rel=”stylesheet” >

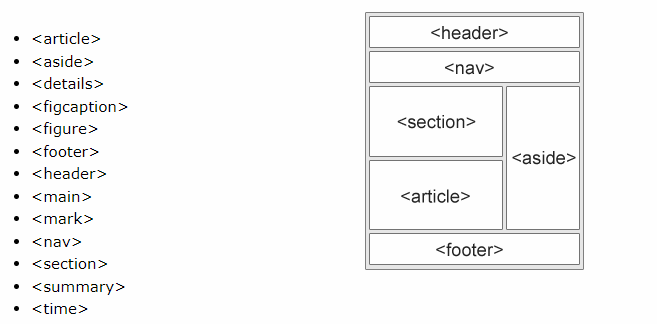
**Closing** empty elements are optional. <h1>hello<h1>

51) What's New Elements in HTML5

New HTML5 Elements

The most interesting new HTML5 elements are:

New **semantic elements** like <header>, <footer>, <article>, and <section>.



New **Form attributes** of form elements like number, date, time, calendar, and range.

<input type="button">

<input type="checkbox">

<input type="color">

<input type="date">

<input type="datetime-local">

<input type="email">

<input type="file">

<input type="hidden">

<input type="image">

<input type="month">

<input type="number">

<input type="password">

<input type="radio">

<input type="range">

<input type="reset">

<input type="search">

<input type="submit">

<input type="tel">

<input type="text">

<input type="time">

<input type="url">

<input type="week">

**Attribute :**

action

method="post/get"

name

id

value

placeholder

readonly

disabled

size

multiple

**Validation Attributes**

**maxlength**

**min**

**max**

**required**

**pattern="[0-9]{10}" title="Three letter country code"**

**pattern="[A-Za-z]{3,8}" title="Three letter country code"**

step

autofocus

<input type="image" src="img\_submit.gif" alt="Submit" width="48" height="48">

input list=""

autocomplete

autocomplete="on" autocomplete="off"

formenctype="multipart/form-data" formenctype attribute works with the following input types: submit and image.

formnovalidate="formnovalidate" on button // remove validation

novalidate on form // remove validation

New **graphic elements:** <svg> and <canvas>.

New **multimedia elements**: <audio> and <video>.

=> Google map : Go on google map/ search / share / Embed a map

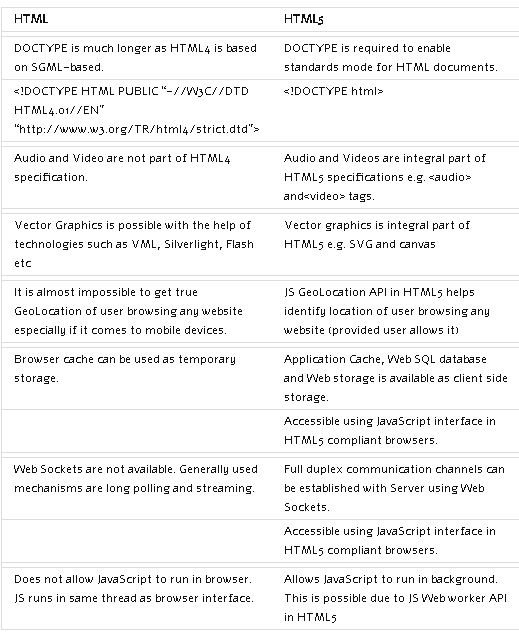
<iframe src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3671.9365803581395!2d72.55469391403005!3d23.026100684951242!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x395e84faa5a36071%3A0x9af325a448f09478!2sTops%20Technologies!5e0!3m2!1sen!2sin!4v1666085828478!5m2!1sen!2sin" width="600" height="450" style="border:0;" allowfullscreen="" loading="lazy" referrerpolicy="no-referrer-when-downgrade"></iframe>

=> Youtube video

youtube => find => share => Embed Video => copy code & paste

<iframe width="560" height="315" src="https://www.youtube.com/embed/tOdJlNKquls" title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture" allowfullscreen></iframe>

52) Difference between HTML and HTML5



**Html Meter tag**

<label >Disk usage D:</label>

<meter value="0.6">60%</meter>

Downloading now. Progress...

<progress value="50" min="1" max="100"> </progress>

## 

## 

## HTML Symbols : <https://www.w3schools.com/charsets/ref_utf_punctuation.asp>

currency /arrow / math / emoji /

========================================================================

20 **What is CSS?**

* CSS stands for Cascading Style Sheets
* Styles define how to display HTML elements
* Styles are normally stored in Style Sheets
* Styles were added to HTML 4.0 to solve a problem
* External Style Sheets can save you a lot of work
* External Style Sheets are stored in CSS files
* Multiple style definitions will cascade into one

21) Type OF CSS ? Explain each ?

1)Inline CSS: use in direct tag by style attribute

2) Internal CSS : use for one page

<head>

<style>

p{ color:red }

</style>

</head>

3) External : create external page .css & load in <head> all websites page

style.css

**<link href="style.css" type="text/css" rel="stylesheet">**

<p style="color:red"></p>

22) what The Font Properties in css

The font property is a shorthand property for:

* [font-style](https://www.w3schools.com/cssref/pr_font_font-style.asp)
* [font-variant](https://www.w3schools.com/cssref/pr_font_font-variant.asp): small-caps
* [font-weight](https://www.w3schools.com/cssref/pr_font_weight.asp)
* [font-size](https://www.w3schools.com/cssref/pr_font_font-size.asp)/[line-height](https://www.w3schools.com/cssref/pr_dim_line-height.asp)
* [font-family](https://www.w3schools.com/cssref/pr_font_font-family.asp)

23) What text property in CSS;

* The color property is used to set the **color** of a text.
* The direction property is used to set the **text-direction**.
* The **letter-spacing** property is used to add or subtract space between the letters that make up a word.
* The **word-spacing** property is used to add or subtract space between the words of a sentence.
* The **text-indent** property is used to indent the text of a paragraph.
* The **text-align** property is used to align the text of a document.
* The **text-decoration** property is used to underline, overline, and strikethrough text.
* The **text-transform** property is used to capitalize text or convert text to uppercase or lowercase letters.
* The**white-space** property is used to control the flow and formatting of text.
* The **text-shadow** property is used to set the text shadow around a text.

24) What is border property.

* [border-width](https://www.w3schools.com/cssref/pr_border-width.asp)
* [border-style](https://www.w3schools.com/cssref/pr_border-style.asp) (required)
* [border-color](https://www.w3schools.com/cssref/pr_border-color.asp)

h1 {  
  border: 5px solid red;  
}

25) What is border outline property.

* outline-style
* outline-color
* outline-width
* outline-offset
* Outline

p.ex1 {

border: 1px solid black;

outline-style: solid;

outline-color: red;

}

26) What is Float ?

floating and positioning are the CSS methods for breaking out of the flow and arranging elements on the page. Floating an element moves it to the left or right, and allows the following text to wrap around it. Positioning is a way to specify the location of an element anywhere on the page with pixel precision.

float

Values: left | right | none | inherit

27) What is **position** property

The position property specifies the type of positioning method used for an element.

There are five different position values:

static This is the normal positioning scheme in which elements are positioned as they occur in the normal document flow.

* Static : default
* Relative Relative positioning moves the box relative to its original position in the flow. The distinctive behavior of relative positioning is that the space the element would have occupied in the normal flow is preserved.
* fixed The distinguishing characteristic of fixed positioning is that the element stays in one position in the window even when the document scrolls. Fixed elements are removed from the document flow and positioned relative to the browser window (or other viewport). rather than another element in the document.
* absolute : Absolutely positioned elements are removed from the document flow entirely and positioned relative to a containing element (we’ll talk more about this later). Unlike relatively positioned elements, the space they would have occupied is closed up. In fact, they have no influence at all on the layout of surrounding elements.
* sticky : An element with position: sticky; is positioned based on the user's scroll position.A sticky element toggles between relative and fixed, depending on the scroll position. It is positioned relative until a given offset position is met in the viewport - then it "sticks" in place (like position:fixed).

28) What is Stacking order

* Absolutely positioned elements overlap other elements, so it follows that multiple positioned elements have the potential to stack up on one another.
* By default, elements stack up in the order in which they appear in the document, but you can change the stacking order with the **z-index property.**

**z-index**

*Values: (number) |* ***auto | inherit***

29) Page Layout Strategies

**Three general page layout approaches:**

**Liquid** pages resize along with the browser window.

**Fixed** pages put the content in a page area that stays a specific pixel width regardless of the browser’s dimensions.

**Elastic** pages have areas that get larger or smaller when the text is resized. Line length and line break stay the same / em

30) CSS Comment

**CSS Comments**

Comments are used to explain your code, and may help you when you edit the source code at a later date. A comment will be ignored by browsers. A CSS comment begins with "/\*", and ends with "\*/", like this:

<!-- → HTML

/\* This is a comment \*/ CSS

p

{

text-align: center;

/\* This is another comment \*/

color: black;

font-family: arial

}

// /\* \*/ JAVASCRIPT

31) CSS Box Model

Explanation of the different parts:

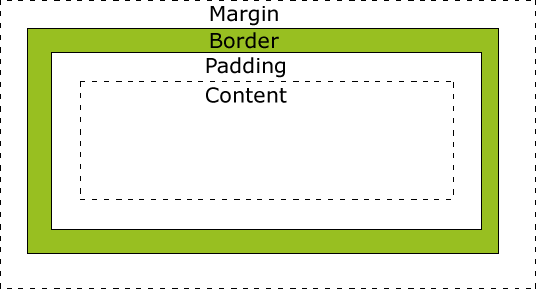
**Margin** - Clears an area around the border. The margin does not have a background color, it is completely transparent

**Border** - A border that goes around the padding and content. The border is affected by the background color of the box

**Padding** - Clears an area around the content. The padding is affected by the background color of the box

**Content** - The content of the box, where text and images appear

In order to set the width and height of an element correctly in all browsers, you need to know how the box model works.



32) The CSS background properties

The CSS background properties are used to define the background effects for elements.

In these chapters, you will learn about the following CSS background properties:

* background-color
* background-image
* background-repeat
* background-attachment
* background-position

body {  
  background-image: url("img\_tree.png");  
  background-repeat: no-repeat;  
  background-position: right top;  
  background-attachment: fixed;  
}

## CSS background - Shorthand property

To shorten the code, it is also possible to specify all the background properties in one single property. This is called a shorthand property.

## body {   background: #ffffff url("img\_tree.png") no-repeat right top; }

## 33) What are Pseudo-classes?

## 1. Link pseudo-classes: Used to style hypertext links. Although primarily associated with color, you can actually use any CSS property to set off links and provide user feedback during interaction.

link / hover / active / visited

a:link {  
  color: #FF0000;  
}  
  
/\* visited link \*/  
a:visited {  
  color: #00FF00;  
}  
  
/\* mouse over link \*/  
a:hover {  
  color: #FF00FF;  
}  
  
/\* selected link \*/  
a:active {  
  color: #0000FF;  
}

## 2. Dynamic pseudo-classes: Used to style any element on the screen depending on how the user is interacting with it.

## 3. Pseudo-elements: Used to style the first letter or first line in a block of text.

p:first-child{

## color: #0000FF;

}

## What are Pseudo-Elements?

## A CSS pseudo-element is used to style specified parts of an element.

## For example, it can be used to:

## Style the first letter, or line, of an element

| [::after](https://www.w3schools.com/cssref/sel_after.asp) | p::after | Insert something after the content of each <p> element |
| --- | --- | --- |
| [::before](https://www.w3schools.com/cssref/sel_before.asp) | p::before | Insert something before the content of each <p> element |
| [::first-letter](https://www.w3schools.com/cssref/sel_firstletter.asp) | p::first-letter | Selects the first letter of each <p> element |
| [::first-line](https://www.w3schools.com/cssref/sel_firstline.asp) | p::first-line | Selects the first line of each <p> element |
| [::selection](https://www.w3schools.com/cssref/sel_selection.asp) | p::selection | Selects the portion of an element that is selected by a user |

## Insert content before, or after, the content of an element

## 34) CSS Icons

## Font Awesome Icons

## To use the Font Awesome icons, add the following line inside the <head> section of your HTML page:

## <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.7.0/css/all.css" integrity="sha384-lZN37f5QGtY3VHgisS14W3ExzMWZxybE1SJSEsQp9S+oqd12jhcu+A56Ebc1zFSJ" crossorigin="anonymous">

## <i class="fas fa-cloud"></i> <i class="fas fa-heart"></i> <i class="fas fa-car"></i> <i class="fas fa-file"></i> <i class="fas fa-bars"></i>

## 35) CSS Counters

## CSS counters are "variables" maintained by CSS whose values can be incremented by CSS rules (to track how many times they are used). Counters let you adjust the appearance of content based on its placement in the document.

## body {   counter-reset: section; } h2::before {   counter-increment: section;   content: "Section " counter(section) ": "; }

## ==================================================================================

## 36) CSS3 introduction

## CSS3 is the latest standard for CSS.

## CSS3 is completely backwards-compatible with earlier versions of CSS.

## This section teaches you about the new features in CSS3!

## Most of the CSS3 Modules are W3C Recommendations, and most of the new CSS3 properties are already implemented in modern browsers.

* Due to Media Queries We can create all type responsive website

## 37) CSS border-radius Property

The CSS border-radius property defines the radius of an element's corners.

## Tip: The border-radius property is actually a shorthand property for

## border-radius

## border-top-left-radius,

## border-top-right-radius,

## border-bottom-right-radius

## border-bottom-left-radius properties

## border-radius: 15px 50px 30px 5px;

## 38) CSS Shadow Effects

* text-shadow
* box-shadow

## text-shadow: 2px 2px 5px red;

## box-shadow: 10px 10px 5px grey;

## 38) CSS Border Images

## With the CSS border-image property, you can set an image to be used as the border around an element.

## #borderimg {   border: 10px solid transparent;   padding: 15px;   border-image: url(border.png) 30 round; }

# 39) CSS Multiple Backgrounds

* background-origin

The CSS background-origin property specifies where the background image is positioned.

The property takes three different values:

* border-box - the background image starts from the upper left corner of the border
* padding-box - (default) the background image starts from the upper left corner of the padding edge
* content-box - the background image starts from the upper left corner of the content
* background-clip

The CSS background-clip property specifies the painting area of the background.

The property takes three different values:

* border-box - (default) the background is painted to the outside edge of the border
* padding-box - the background is painted to the outside edge of the padding
* content-box - the background is painted within the content box
* Multiple Background Images

## #example1 {   background-image: url(img\_flwr.gif), url(paper.gif);   background-position: right bottom, left top;   background-repeat: no-repeat, repeat; }

## #example1 {   background: url(img\_flwr.gif) right bottom no-repeat, url(paper.gif) left top repeat; }

* Background Gradients

CSS gradients let you display smooth transitions between two or more specified colors.

CSS defines two types of gradients:

* Linear Gradients (goes down/up/left/right/diagonally)
* Radial Gradients (defined by their center)

40) Text Effect

* In this chapter you will learn about the following properties:
* **text-overflow**
* p.test1 {  
    white-space: nowrap;  
    width: 200px;  
    border: 1px solid #000000;  
    overflow: hidden;  
    text-overflow: clip;  
  }  
    
  p.test2 {  
   **white-space**: nowrap;  
    width: 200px;  
    border: 1px solid #000000;  
    overflow: hidden;  
    text-overflow: ellipsis;  
  }
* **word-wrap**
* p {  
    word-wrap: break-word;  
  }
* p.test1 {  
    word-break: keep-all;  
  }  
    
  p.test2 {  
    word-break: break-all;  
  }
* **writing-mode**
* span.test2 {  
    writing-mode: vertical-rl;  
  }

41) CSS @font-face Rule

When you have found/bought the font you wish to use, just include the font file on your web server, and it will be automatically downloaded to the user when needed.

**TrueType Fonts (TTF)**

**OpenType Fonts (OTF)**

**The Web Open Font Format (WOFF)**

**The Web Open Font Format (WOFF 2.0)**

@font-face {

font-family: myFirstFont;

src: url(sansation\_light.woff);

}

div {

font-family: myFirstFont;

}

42) CSS Transitions

CSS transitions allows you to change property values smoothly, over a given duration.

we can add an effect when changing from one style to another, without using Flash animations or JavaScript's.

<style>

div {

width: 100px;

height: 100px;

background: red;

transition: width 2s,height 2s;

}

div:hover {

width: 300px;

height: 300px;

}

</style>

43) CSS 2D AND 3D transform

## CSS 2D Transforms

CSS transforms allow you to move, rotate, scale, and skew elements.

Mouse over the element below to see a 2D transformation:

With the CSS transform property you can use the following 2D transformation methods:

* translate()
* rotate()
* scaleX()
* scaleY()
* scale()

## CSS 3D Transforms Methods

With the CSS transform property you can use the following 3D transformation methods:

* rotate(20)/rotateZ()
* rotateX()
* rotateY()

44) CSS Animations

@keyframesRule

The @keyframesrule is where the animation is created. Specify a CSS style inside the @keyframesrule and the animation will gradually change from the current style to the new style.

Property

• @keyframes:- Specifies the animation

•**Animation-name** :- Specifies the name of the @keyframesanimation

•**Animation-duration**:- Specifies how many seconds or milliseconds an animation takes to complete one cycle. Default 0

•**Animation-timing-function**:- Describes how the animation will progress over one cycle of its duration. Default "ease

•**Animation-delay**:- Specifies when the animation will start. Default 0

• **Animation-iteration-count**:- Specifies the number of times an animation is played. Default 1

•**Animation-direction**:- Specifies whether or not the animation should play in reverse on alternate cycles. Default "normal“

•Animation-play-state:- Specifies whether the animation is running or paused. Default "running"

•Browser Support

div {

width: 100px;

height: 100px;

position: relative;

background-color: red;

animation-name: example;

animation-duration: 4s;

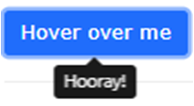
animation-iteration-count: 2;

animation-direction: reverse / alternate-reverse;

}

45) CSS Tooltip

A tooltip is often used to specify extra information about something when the user moves the mouse pointer over an element:



46) Responsive Images & images properties

Responsive images will automatically adjust to fit the size of the screen.

Resize the browser window to see the effect:

radius border image

img {

border-radius: 8px;

}

Responsive image

img {

max-width: 100%;

height: auto;

}

center image

img {

display: block;

margin-left: auto;

margin-right: auto;

width: 50%;

}

Opacity image

img {

opacity: 0.5;

}

Text on images by using absolute

.topleft {

position: absolute;

top: 8px;

left: 16px;

font-size: 18px;

}

img {

width: 100%;

height: auto;

opacity: 0.3;

}

Image Filters

img {

filter: grayscale(100%);

}

47) CSS Multi-column Layout

The CSS multi-column layout allows easy definition of multiple columns of text - just like in newspapers:

•column-count:- Specifies the number of columns an element should be divided

•column-fill:- Specifies how to fill columns

•column-gap:-Specifies the gap between the columns

•column-rule:- A shorthand property for setting all the column-rule

•column-rule-color:- Specifies the color of the rule between columns

•column-rule-style:- Specifies the style of the rule between columns

•column-rule-width:- Specifies the width of the rule between columns

•column-width:- Specifies the width of the columns

•Columns:- A shorthand property for setting column-width and column-count

48)What is a Media Query?

Media query is a CSS technique introduced in CSS3.

It uses the @media rule to include a block of CSS properties only if a certain condition is true.

@media only screen and (max-width: 600px) {

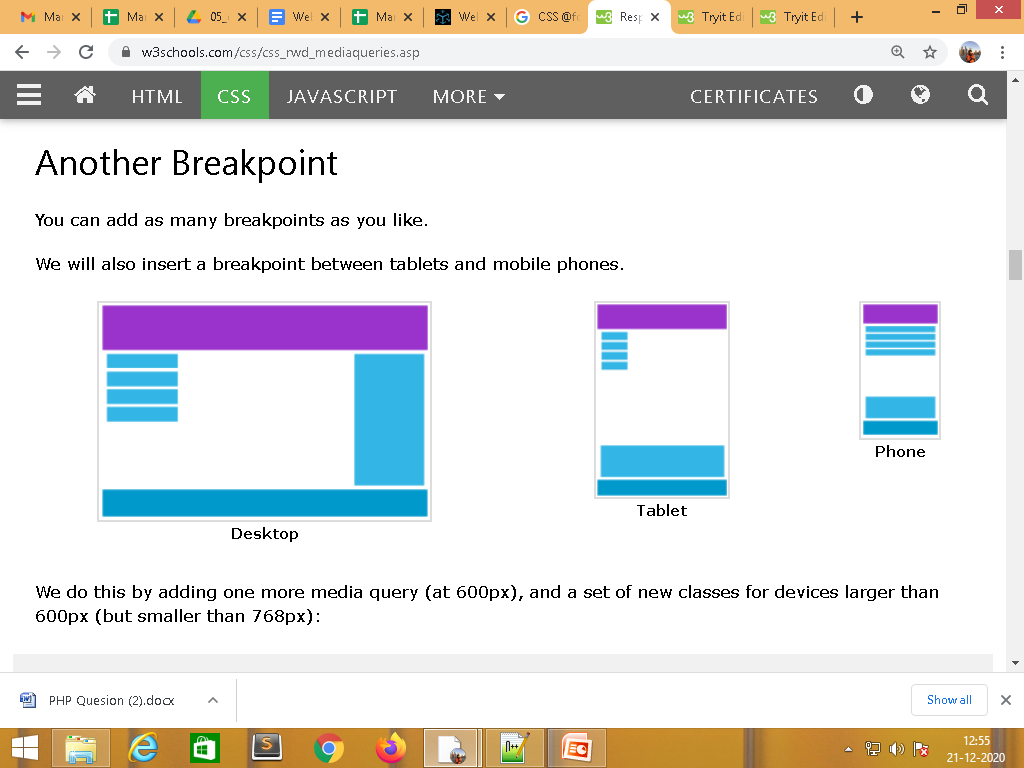
body {

background-color: lightblue;

}

}

Media queries can help with that. We can add a breakpoint where certain parts of the design will behave differently on each side of the breakpoint.



/\* For mobile phones: \*/

[class\*="col-"] {

width: 100%;

}

@media only screen and (min-width: 600px) {

/\* For tablets: \*/

.col-s-1 {width: 8.33%;}

.col-s-2 {width: 16.66%;}

.col-s-3 {width: 25%;}

.col-s-4 {width: 33.33%;}

.col-s-5 {width: 41.66%;}

.col-s-6 {width: 50%;}

.col-s-7 {width: 58.33%;}

.col-s-8 {width: 66.66%;}

.col-s-9 {width: 75%;}

.col-s-10 {width: 83.33%;}

.col-s-11 {width: 91.66%;}

.col-s-12 {width: 100%;}

}

@media only screen and (min-width: 768px) {

/\* For desktop: \*/

.col-1 {width: 8.33%;}

.col-2 {width: 16.66%;}

.col-3 {width: 25%;}

.col-4 {width: 33.33%;}

.col-5 {width: 41.66%;}

.col-6 {width: 50%;}

.col-7 {width: 58.33%;}

.col-8 {width: 66.66%;}

.col-9 {width: 75%;}

.col-10 {width: 83.33%;}

.col-11 {width: 91.66%;}

.col-12 {width: 100%;}

}

\* {

box-sizing: border-box;

}

.row::after {

content: "";

clear: both;

display: table;

}

[class\*="col-"] {

float: left;

padding: 15px;

}

## Typical Device Breakpoints

/\* Extra small devices (phones, 600px and down) \*/

@media only screen and (max-width: 600px) {...}

/\* Small devices (portrait tablets and large phones, 600px and up) \*/

@media only screen and (min-width: 600px) {...}

/\* Medium devices (landscape tablets, 768px and up) \*/

@media only screen and (min-width: 768px) {...}

/\* Large devices (laptops/desktops, 992px and up) \*/

@media only screen and (min-width: 992px) {...}

/\* Extra large devices (large laptops and desktops, 1200px and up) \*/

@media only screen and (min-width: 1200px) {...}

============================================================================

============================================================================

var simple / array /object /

condi stat if /

if else /

looping /

basic function

date function

50) What is Javascript?

JavaScript is the world's most popular programming language.

JavaScript is the programming language of the Web.

JavaScript is easy to learn.

JavaScript is mainly used in client side

JavaScript is used in client side and also server side

JavaScript is the Programming Language for the Web.

JavaScript can update and change both HTML and CSS.

JavaScript can calculate, manipulate and validate data.

Syntex : **<script> </script>**

files save as .js extension & call in head

**<script type="text/javascript" src="file.js"> </script>**

javascript code add in head section and body section

**Javascript Variable**

**variable declared with var keyword or without**

var a=10;

var b=20;

var c=a+b;

window.write(c)

**Javascript Variable**

var c=”hello”;

document.write("Yes i m fine ");

document.getElementById("test").innerHTML="yes i am aryaN";

window.alert(“hi i am alert”);

window.alert("hi i am alert"); //in alert box

51) What Can Javascript Do?

JavaScript gives HTML designers a programming tool

JavaScript can put dynamic text into an HTML page

JavaScript can react to events

JavaScript can read and write HTML elements

JavaScript can be used to validate input data

JavaScript can be used to detect the visitor's browser

JavaScript Improve Appearance

Especially graphics

Visual Feedback

JavaScript Perform Calculation

**Javascript Introduction**

**Javascript Variable :** var / let / const

**Javscriot cond Statement :** if /if else / if elseif else / nested / switch

**Looping :** while / do while / for

Operators / arith/assignment/logical/conditional-comparison/ incre-decre /

**Dom Manipulation**

write("string") writes the given string on the doucment.

writeln("string") writes the given string on the doucment with newline character at the end.

getElementById() returns the element having the given id value.

document.getElementById('mylocation').innerHTML=data;

document.getElementById('myloca').innerText=msg;

document.getElementById('myloca').value=”raj”

getElementsByName() returns all the elements having the given name value.

getElementsByTagName() returns all the elements having the given tag name.

getElementsByClassName() returns all the elements having the given class name.

if(document.myForm1.userPass.value.length>5) // document.forms["myform"]["ufn"].value;

=======================extra

document.getElementById('test').id;

document.getElementById('test').name;

document.getElementById('test').value;

document.getElementById('test').innerHTML;

document.getElementById('test').type;

document.getElementById('test').style;

document.getElementById('test').images.lenghth;

document.getElementById('test').disabled="true";

document.getElementById('test').lenghth;

document.getElementById('test').forms;

document.getElementById("frm1").action;

document.getElementById("mySelect").size = 2;

document.getElementById("mySelect").multiple = true;

document.getElementById("myAnchor").href;

document.getElementById("myframe").src;

**Javascript Function / build in & User define**

=> array function/method exa : sort/reverse/pop/push/shift/unshift

**string function/method**

=> exa : slice/toUppercase/toLowerCase/substr/replace/match/search/indexOf

**popup Box / Notification :** alert / confirm / prompt

**number function/method**

=> parseFloat/parseInt/toFixed/toString/isInteger/isFinite

**Date Function**

=> Date()/getDate/Month/Year/Hour/seconds/minute

=>setDate/Month/Year/Hour/seconds/minute

=> toLocaleDateString/toLocaleTimeString/toLocaleString/toDateString()

=> setTimeout/setInterval

**Object / json**

obj={name:”Raj” , age: “31”} single object

print : obj.name / loop : for in

arrobj = [

{ name:”Raj” , age: “31” },

{ name:”Raj” , age: “31” },

{ name:”Raj” , age: “31” }

]

print : obj[0].name

**loop object arr / arr** = for of / map / foreach / for / filter / every

**object to json and json to object** => jsonParse/jsonStringfy

=>obj={name:”Raj” , age: “31”}

=>json={“name”:”Raj” , “age”: “31”}}

**API :**

**REST FULL API => URL / json**

**SOAP API : XAML FORMAT**

**object loop :** map/filter/every/for/for of / for in

**OOPS :** class / object / encapsulation / inheritance / polymorphism

**extra Task : calculation / Add Cart / Form Validation**

**=========================================================================**

**React Javascript**

**fetch()**

**fetch('https://jsonplaceholder.typicode.com/todos/1')**

**.then(jsonres => jsonres.json())**

**.then(object => console.log(object))**

**Note : fetch gives only object / map.object**

**Axios : install : npm i axios**

**axio.get(`api`);**

**axios.get('https://jsonplaceholder.typicode.com/todos/1')**

**.then(object => console.log(object.data))**

Note : its gives lots of property : status / data / header

map.**object.data**

**Method : POSTMAN**

get select single data / multiple data

post insert data

delete delete data

patch single / multiple update data

put update single data

**Promises :**

============================================================================

**49) What is Jquery ?**

jQuery is a lightweight, "write less, do more", JavaScript library.

The purpose of jQuery is to make it much easier to use JavaScript on your website.

jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

The jQuery library contains the following features:

HTML/DOM manipulation

CSS manipulation

HTML event methods

Effects and animations

AJAX

Utilities

Tip: In addition, jQuery has plugins for almost any task out there.

Why jQuery?

There are lots of other JavaScript libraries out there, but jQuery is probably the most popular, and also the most extendable.

Many of the biggest companies on the Web use jQuery, such as:

Google

Microsoft

IBM

Netflix

There are several ways to start using jQuery on your web site. You can:

Method-1

Download the jQuery library from jQuery.com

Downloading jQuery

There are two versions of jQuery available for downloading:

Production version - this is for your live website because it has been minified and compressed

Development version - this is for testing and development (uncompressed and readable code)

Both versions can be downloaded from jQuery.com.

The jQuery library is a single JavaScript file, and you reference it with the HTML <script> tag (notice that the <script> tag should be inside the <head> section):

<head>

<script src="jquery-3.5.1.min.js"></script>

</head>

Method-2 Include jQuery from a CDN, like Google

jQuery CDN

If you don't want to download and host jQuery yourself, you can include it from a CDN (Content Delivery Network).

Google is an example of someone who host jQuery:

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

</head>

The Document Ready Event

You might have noticed that all jQuery methods in our examples, are inside a document ready event:

<script>

$(document).ready(function(){

// jQuery methods go here...

});

</script>

This is to prevent any jQuery code from running before the document is finished loading (is ready).

jQuery Syntax

The jQuery syntax is tailor-made for selecting HTML elements and performing some action on the element(s).

Basic syntax is: $(selector).action()

A $ sign to define/access jQuery

A (selector) to "query (or find)" HTML elements

A jQuery action() to be performed on the element(s)

Examples:

$(this).hide() - hides the current element.

$("p").hide() - hides all <p> elements.

$(".test").hide() - hides all elements with class="test".

$("#test").hide() - hides the element with id="test".

-->

Build in Function In Jquery

html/text/val

hide/show/toggle

fadeIn/fadeOut/fadeToggle

slideUp/slideDown/slideToggle

css / addClass/removeClass/toggleClass

animate/

remove/empty

**callback Function** : hide(‘slow’, function(){ alert(‘ hi ’) })

**event :**

click / keypress / submit / load / dblclick / keydown / change / resize / mouseenter / hover / keyup / focus / scroll / mouseleave / blur / unload

Extra Plugin

slider :

https://bxslider.com/install/

https://kenwheeler.github.io/slick/

dromenu : easymenu

Validation : bvalidator

============================================================================

53) What is Bootstrap?

* Bootstrap is a free front-end framework for faster and easier web development
* Bootstrap includes HTML and CSS based design templates for **typography**, **forms**, **buttons**, **tables**, **navigation**, **modals**, **image carousels** and many other, as well as optional JavaScript plugins
* Bootstrap also gives you the ability to easily create responsive designs

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

54)Why Use Bootstrap?

Advantages of Bootstrap:

* **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
* **Responsive features**: Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
* **Mobile-first approach**: In Bootstrap, mobile-first styles are part of the core framework
* **Browser compatibility:** Bootstrap 4 is compatible with all modern browsers (Chrome, Firefox, Internet Explorer 10+, Edge, Safari, and Opera)

55)**Bootstrap 4 vs. Bootstrap 5**

Bootstrap 5 is the newest version of Bootstrap; with new components, faster stylesheet and more responsiveness.

Bootstrap 5 supports the latest, stable releases of all major browsers and platforms.

Bootstrap 3-4 used jquery in backend but now Bootstrap 5 used Javscript in backend

56)Where to Get Bootstrap 5?

There are two ways to start using Bootstrap 4 on your own web site.

You can:

* Include Bootstrap 5 from a CDN
* Download Bootstrap 5 from getbootstrap.com

<!-- Latest compiled and minified CSS -->

Include Bootstrap 4 from a CDN(**content delivery network**)

<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

<!-- jQuery library -->

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

<!-- Popper JS -->

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.16.0/umd/popper.min.js"></script>

<!-- Latest compiled JavaScript -->

<script src="<https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js>"></script>

If you want to download and host Bootstrap 4 yourself, go to <https://getbootstrap.com/>, and follow the instructions there

57)Create First Web Page With Bootstrap 5

1. **Add the HTML5 doctype**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

</head>

</html>

2. Bootstrap 5 is mobile-first

<meta name="viewport" content="width=device-width, initial-scale=1">

Bootstrap 4 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, add the following <meta> tag inside the <head> element:

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

58) What is Containers

You learned from the previous chapter that Bootstrap requires a containing element to wrap site contents.

Containers are used to pad the content inside of them, and there are two container classes available:

1. The .container class provides a responsive fixed width container
2. The .container-fluid class provides a full width container, spanning the entire width of the viewport

59)Bootstrap 5 Grid System

Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.

If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

* Grid Classes
* The Bootstrap 5 grid system has six classes:
* .col- (extra small devices - screen width less than 576px)
* .col-sm- (small devices - screen width equal to or greater than 576px)
* .col-md- (medium devices - screen width equal to or greater than 768px)
* .col-lg- (large devices - screen width equal to or greater than 992px)
* .col-xl- (xlarge devices - screen width equal to or greater than 1200px)
* .col-xxl- (xxlarge devices - screen width equal to or greater than 1400px)
* The classes above can be combined to create more dynamic and flexible layouts.
* Example: Mobile, tablet, desktop
* col-md-6 offset-md-4

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

Tip: Each class scales up, so if you wish to set the same widths for sm and md, you only need to specify sm.

60) Bootstrap 5 Colors

The classes for text colors are: .text-muted, .text-primary, .text-success, .text-info, .text-warning, .text-danger, .text-secondary, .text-white, .text-dark, .text-body (default body color/often black) and .text-light:

The classes for background colors are: .bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark and .bg-light.

61) Bootstrap 5 Basic Table

The .**table** class adds basic styling to a table:

The .**table table-striped** class adds zebra-stripes to a table:

The **.table table-bordered** class adds borders on all sides of the table and cells:

The .**table table-hover** class adds a hover effect (grey background color) on table rows:

The .**table table-dark** class adds a black background to the table:

The **.table table-borderless** class removes borders from the table:

## Contextual Classes

Contextual classes can be used to color the whole table (<table>), the table rows (<tr>) or table cells (<td>).

.table table-primary

## Responsive Tables

The **.table-responsive** class adds a scrollbar to the table when needed (when it is too big horizontally):

62) Bootstrap 5 Images

The **.rounded** class adds rounded corners to an image:

The **.rounded-circle** class shapes the image to a circle:

The **.img-thumbnail** class shapes the image to a thumbnail (bordered):

## Aligning Images

Float an image to the right with the .float-end class or to the left with .float-start:

<div class="float-start">Float start on all viewport sizes</div><br>

<div class="float-end">Float end on all viewport sizes</div><br>

## Centered Image mx-auto d-block

Center an image by adding the utility classes .mx-auto (margin:auto) and .d-block (display:block) to the image:

<img src="paris.jpg" class="mx-auto d-block">

## Responsive Images .img-fluid

Images come in all sizes. So do screens. Responsive images automatically adjust to fit the size of the screen.

Create responsive images by adding an .img-fluid class to the <img> tag. The image will then scale nicely to the parent element.

The .**img-fluid** class applies **max-width: 100%; and height: auto;** to the image

63) Bootstrap 5 Jumbotron / Not Supported in Bootstrap 5

A jumbotron indicates a big grey box for calling extra attention to some special content or information.

Use a <div> element with class .jumbotron to create a jumbotron:

Jumbotron not working in bootstrap 5

!--

Jumbotrons are no longer supported in Bootstrap 5.

<div class="mt-4 p-5 bg-primary text-white rounded">

<h1>Jumbotron Example</h1>

<p>Lorem ipsum...</p>

</div>

-->

64) Bootstrap 5 Alerts

Bootstrap 5 provides an easy way to create predefined alert messages:

Alerts are created with the .alert class, followed by one of the contextual classes .alert-success, .alert-info, .alert-warning, .alert-danger, .alert-primary, .alert-secondary, .alert-light or .alert-dark:

Add the alert-link class to any links inside the alert box to create "matching colored links":

To close the alert message, add a .alert-dismissible class to the alert container. Then add class="close" and data-dismiss="alert" to a link or a button element (when you click on this the alert box will disappear).

<div class="alert alert-success alert-dismissible">

<button type="button" class="close" data-dismiss="alert">&times;</button>

<strong>Success!</strong> Indicates a successful or positive action.

</div>

65) Bootstrap 5 Buttons

Bootstrap 5 provides different styles of buttons:

**btn btn-primary** with all colors

**btn btn-outline-primary** with all color

## Button Sizes

Use the **.btn-lg** class for large buttons or **.btn-sm** class for small buttons:

## Block Level Buttons

Add class .btn-block to create a block level button that spans the entire width of the parent element.

Full-Width Button

## Active/Disabled Buttons

A button can be set to an active (appear pressed) or a disabled (unclickable) state: .active .disabled

# Bootstrap 4 Button Groups

Use a <div> element with class .btn-group to create a button group:

## Vertical Button Groups

Use the class .btn-group-vertical to create a vertical button group:

66) Bootstrap 5 **Badges/ Progress Bar / Spinner**

Badges are used to add additional information to any content. Use the .badge class together with a contextual class (like .badge-secondary) within <span> elements to create rectangular badges. Note that badges scale to match the size of the parent element (if any):

<span class="badge badge-secondary">New</span>

Use the .badge-pill class to make the badges more round:

## Basic Progress Bar

A progress bar can be used to show a user how far along he/she is in a process.

To create a default progress bar, add a .progress class to a container element and add the .progress-bar class to its child element. Use the CSS width property to set the width of the progress bar:

## Progress Bar Height

The height of the progress bar is 16px by default. Use the CSS height property to change it. Note that you must set the same height for the progress container and the progress bar:

## Colored Progress Bars

<!-- Green -->

<div class="progress">

<div class="progress-bar bg-success" style="width:20%"></div>

</div>

## Striped Progress Bars

Use the .progress-bar-striped class to add stripes to the progress bars:

## Animated Progress Bar

Add the .progress-bar-animated class to animate the progress bar:

## Spinners

To create a spinner/loader, use the .spinner-border class:

<div class="spinner-border text-muted"></div>

<div class="spinner-border text-primary"></div>

## Growing Spinners

Use the .spinner-grow class if you want the spinner/loader to grow instead of "spin":

<div class="spinner-grow text-muted"></div>

<div class="spinner-grow text-primary"></div>

67) Basic **Pagination / Breadcrumbs**

If you have a website with lots of pages, you may wish to add some sort of pagination to each page.

If you have a web site with lots of pages, you may wish to add some sort of pagination to each page.

To create a basic pagination, add the .pagination class to an <ul> element. Then add the .page-item to each <li> element and a .page-link class to each link inside <li>:

Add class .pagination-lg for larger blocks or .pagination-sm for smaller blocks:

<ul class="pagination" style="color:red">

<li class="page-item"><a href="#" class="page-link">Pre</a></li>

<li class="page-item active" ><a href="#" class="page-link">1</a></li>

<li class="page-item"><a href="#" class="page-link">2</a></li>

</ul>

**Pagination Alignment**

class="pagination justify-content-center"

class="pagination justify-content-end"

**Breadcrumbs**

Another form for pagination, is breadcrumbs:

The .breadcrumb and .breadcrumb-item classes indicates the current page's location within a navigational hierarchy:

68)Bootstrap 5 List Groups

he most basic list group is an unordered list with list items:

To create a basic list group, use an <ul> element with class .list-group, and <li> elements with class .list-group-item:

With hover : class="list-group-item list-group-item-action" also with .active and disabled

<ul class="list-group">

<li class="list-group-item">PHP</li>

<li class="list-group-item">JAVA</li>

<li class="list-group-item">.NET</li>

<li class="list-group-item">DESIGNING</li>

<li class="list-group-item">PYTHON</li>

</ul>

============================================================================

69) Card for product

A card in Bootstrap 4 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.

<div class="card">

<div class="card-header">Header</div>

<div class="card-body">Content</div>

<div class="card-footer">Footer</div>

</div>

Use .card-title to add card titles to any heading element. The .card-text class is used to remove bottom margins for a <p> element if it is the last child (or the only one) inside .card-body. The .card-link class adds a blue color to any link, and a hover effect.

Add .card-img-top or .card-img-bottom to an <img> to place the image at the top or at the bottom inside the card. Note that we have added the image outside of the .card-body to span the entire width:

Add the .stretched-link class to a link inside the card, and it will make the whole card clickable and hoverable (the card will act as a link):

Turn an image into a card background and use .card-img-overlay to add text on top of the image:

<div class="card" style="width:500px">

<img class="card-img-top" src="img\_avatar1.png" alt="Card image">

<div class="card-img-overlay">

<h4 class="card-title">John Doe</h4>

<p class="card-text">Some example text.</p>

<a href="#" class="btn btn-primary">See Profile</a>

</div>

</div>

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HTML

CSS

CSS3

HTML 5

Project : 1 === <https://www.fmodern.jp/> with media queries

Project : 2 === With bootstrap