**Cascading Style Sheets**

**1.What is CSS**

* CSS is the language we use to style an HTML document.
* CSS describes how HTML elements should be displayed.
* CSS stands for Cascading Style Sheets.
* CSS describes how HTML elements are to be displayed on screen, paper, or in other media.
* CSS saves a lot of work. It can control the layout of multiple web pages all at once.
* External stylesheets are stored in CSS files.
* CSS Syntax: Selector{Declarattion1(Property:value);Declaration2(Property:value);}.
* The selector points to the HTML element you want to style.
* The declaration block contains one or more declarations separated by semicolons. Each declaration includes a CSS property name and a value, separated by a colon.

**2.What is CSS Selector**

* A CSS selector selects and are used to "find" the HTML element(s) you want to style.
* We can divide CSS selectors into five categories:

**1.** Simple selectors (select elements based on name, id, class)

**2.** [Combinator selectors](https://www.w3schools.com/css/css_combinators.asp) (select elements based on a specific relationship between them)

**3.** [Pseudo-class selectors](https://www.w3schools.com/css/css_pseudo_classes.asp) (select elements based on a certain state)

**4.** [Pseudo-elements selectors](https://www.w3schools.com/css/css_pseudo_elements.asp) (select and style a part of an element)

**5.** [Attribute selectors](https://www.w3schools.com/css/css_attribute_selectors.asp) (select elements based on an attribute or attribute value)

**2.What is CSS Element Selector.**

* The element selector selects HTML elements based on the element name.

**3.What is CSS Id Selector.**

* The Id selector selects HTML elements based on their id attribute.
* To select an element with a specific id, write a hash (#) character, followed by the id of the element. The id of an element is unique within a page, so the id selector is used to select one unique element!

**4.What is CSS Class Selector.**

* The class selector selects HTML elements with a specific class attribute.
* To select elements with a specific class, write a period (.) character, followed by the class name.You can select multiple elements through a single class name

**5.What is CSS Universal Selector.**

* The universal selector (\*) selects all HTML elements on the page.

**6.What is CSS Grouping Selector.**

* The grouping selector selects all the HTML elements with the same style definitions.

**7.How to add CSS to a element.**

* There are three ways of inserting a style sheet:
* External CSS
* Internal CSS
* Inline CSS

**8.What is External CSS.**

* With an External CSS you can create a external CSS file with .css extension and then add the file in between the <link> tag inside the head section of HTML page.
* Through External CSS you can controll the layout of multiple webpages at once.

**9.What is Internal CSS.**

* The internal CSS is defined inside the <style> element, inside the head section of HTML page.
* It only used for one single webpage.

**10.What is Inline CSS.**

* An inline CSS is defined inside the start tag of an element with a style attribute that includes the CSS property and its value
* An inline CSS may be used to apply a unique style for a single element.

**11.What is CSS Comments.**

* Comments are used to explain the code and also ignored by browsers., and may help when you edit the source code at a later date.
* A CSS comment is placed inside the <style> element, and starts with /\* and ends with \*/

**12.What is CSS Background.**

* The CSS background properties are used to add background effects for elements.
* The background-color property specifies the background color of an element.
* The background-image property specifies an image to use as the background of an element.
* By default, the background-image property repeats an image both horizontally and vertically. To repeat an image vertically, set background-repeat: repeat-y. To repeat an image Horizontaly, set background-repeat: repeat-y; Showing the background image only once is also specified by the background-repeat property with value no-repeat.
* The background-position property is used to specify the position of the background image.
* The background-attachment property specifies whether the background image should scroll or be fixed (will not scroll with the rest of the page)

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

* Sh:\_background-color/image/repeat/attachment/position
* The opacity property specifies the opacity/transparency of an element. It can take a value from 0.0 - 1.0. The lower value, the more transparent

**13.What is CSS Border.**

* The CSS border properties allow you to specify the style, width, and color of an element's border.
* The border-style property specifies what kind of border to display: dotted,solid,dashed,double,groove,ridge,outset,inset
* In CSS, there are also properties for specifying each of the borders (top, right, bottom, and left): border-style: dotted solid;
* The border-width property specifies the width of the four borders. The border-width property can have from one to four values (for the top border, right border, bottom border, and the left border). border-width: 25px 10px 4px 35px;
* The border-color property is used to set the color of the four borders.

**14.What is CSS Margin.**

* Margins are used to create space around elements, outside of any defined borders.
* There are properties for setting the margin for each side of an element (top, right, bottom, and left).
* You can set the margin property to auto to horizontally center the element within its container.
* Margin collapse: Top and bottom margins of elements are sometimes collapsed into a single margin that is equal to the largest of the two margins.

**14.What is CSS Padding.**

* Padding are used to create space around elements content, inside of any defined borders.
* There are properties for setting the padding for each side of an element (top, right, bottom, and left).

**15. What is Box Model.**

* The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content. It want to define us that  when you set the width and height properties of an element with CSS, you just set the width and height of the **content area**. To calculate the full size of an element, you must also add padding, borders and margins.

**16. What is html outline.**

* An outline is a line that is drawn around elements, OUTSIDE the borders, to make the element "stand out".

**17. What is outline-offset prperty.**

* The outline-offset property adds space between an outline and the edge/border of an element. The space between an element and its outline is transparent. outline: 1px solid red;outline-offset: 15px;

**18. What is Text-align property.**

* The text-align property is used to set the horizontal alignment of a text.
* A text can be left or right aligned, centered, or justified.
* When the text-align property is set to "justify", each line is stretched so that every line has equal width, and the left and right margins are straight (like in magazines and newspapers).
* The text-align-last property specifies how to align the last line of a text. It may be right,left,center,justify.

**19. What is Text-direction property.**

* The direction and unicode-bidi properties can be used to change the text direction of an element:

p {  
  direction: rtl;  
  unicode-bidi: bidi-override;  
}

**20. What is vertical-align property.**

* The vertical-align property sets the vertical alignment of an element.

img{  
  vertical-align: baseline/text-top/text-bottom/sub/sup;  
}

**21. What is Text-decoration property.**

* The text-decoration-line property is used to add a decoration line to text.
* The text-decoration-color property is used to set the color of the decoration line.
* The text-decoration-style property is used to set the style of the decoration line.
* The text-decoration-thickness property is used to set the thickness of the decoration line.

h1 {  
  text-decoration-line: overline/underline/line-through;  
  text-decoration-style: solid/dotted/dashed/inset etc…;

text-decoration-color: red;

  text-decoration-thickness: auto/5px/25%;  
}

**22. What is Text-transfrom property.**

* The text-transform property is used to specify uppercase and lowercase letters in a text.
* It can be used to turn everything into uppercase or lowercase letters, or capitalize the first letter of each word:

p{  
  text-transform: uppercase/lowercase/capitalize;  
}

**23. What is text spacing.**

* The text-indent property is used to specify the indentation of the first line of a text
* The letter-spacing property is used to specify the space between the characters in a text.
* The line-height property is used to specify the space between lines
* The word-spacing property is used to specify the space between the words in a text.
* The white-space property specifies how white-space inside an element is handled.

h1 {  
  letter-spacing: 5px;

text-indent: 50px;

line-height: 0.8;

word-spacing: 10px;

  white-space: nowrap/ wrap;  
}

**24. What is text shadow.**

* The text-shadow property adds shadow to text The
* In its simplest use, you only specify the horizontal shadow and the vertical shadow.

h1 {color: white;  
  text-shadow: 2px 2px 4px #000000; //horz vert blur color  
}

**25. What are the attributes of fonts.**

* The font-style property is mostly used to specify italic text.
* The font-weight property specifies the weight of a font.
* The font-size property sets the size of the text.
* The font-variant property specifies whether or not a text should be displayed in a small-caps font. In a small-caps font, all lowercase letters are converted to uppercase letters. However, the converted uppercase letters appears in a smaller font size than the original uppercase letters in the text.

p {  
 font-family: Tahoma, Verdana, sans-serif;

font-style: normal/italic/oblique;

font-weight: normal/bold/400/900/600;

font-size: 30px;

font-variant: normal/small-caps;  
 }

**26. What are the properties of list.**

* The list-style-type property specifies the type of list item marker.
* The list-style-image property specifies an image as the list item marker
* The list-style-position property specifies the position of the list-item markers (bullet points).

ul{  
  list-style-position: outside/inside;

 list-style-image: url('sqpurple.gif');

list-style-type:none/circle/upper-roman/lower-alpha;  
}

**27. What are the properties of table.**

* The border-collapse property sets whether the table borders should be collapsed into a single border
* If you only want a border around the table, only specify the border property for <table>,not for th and td.
* The width and height or size of a table,tr,th,td are defined by the width and height properties.
* The vertical-align property sets the vertical alignment (like top, bottom, or middle) of the content in <th> or <td>.
* The text-align property sets the horizontal alignment (like left, right, or center) of the content in <th> or <td>.
* To control the space between the border and the content in a table, use the padding property on <td> and <th> elements:
* Use the :hover selector on <tr> to highlight table rows on mouse over.
* For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:

tr:nth-child(even) {background-color: #f2f2f2;}

* A responsive table will display a horizontal scroll bar if the screen is too small to display the full content. Add a container element (like <div>) with overflow-x:auto around the <table> element to make it responsive.

**28. What is CSS Display Property.**

* The display property specifies if/how an element is displayed, not what kind of element it is.
* Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline, however, you can override this.
* display: none; is commonly used to hide and show elements without deleting and recreating them.

**29. What is Display inline-block property.**

* Compared to display: inline, the major difference is that display: inline-block allows to set a width and height on the element.
* Also, with display: inline-block, the top and bottom margins/paddings are respected, but with display: inline they are not.
* Compared to display: block, the major difference is that display: inline-block does not add a line-break after the element, so the element can sit next to other .
* One common use for display: inline-block is to display list items horizontally instead of vertically.

**30. What is CSS Position Property.**

* The position property specifies the type of positioning method used for an element. There are five different position values: static, relative, fixed, absolute, sticky
* Elements are then positioned using the top, bottom, left, and right properties. However, these properties will not work unless the position property is set first. They also work differently depending on the position value.
* HTML elements are positioned static by default. it is always positioned according to the normal flow of the page
* An element with position: relative; is positioned relative to its normal position. Setting the top, right, bottom, and left properties of a relatively-positioned element will cause it to be adjusted away from its normal position. Other content will not be adjusted to fit into any gap left by the element.
* An element with position: fixed; means it always stays in the same place even if the page is scrolled.
* An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed). However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling. Absolute positioned elements are removed from the normal flow, and can overlap elements.
* An element with position: sticky; is positioned based on the user's scroll position.

**31. What is Z-index.**

* When elements are positioned, they can overlap other elements. The z-index property specifies the stack order of an element (which element should be placed in front of, or behind, the others).
* An element can have a positive or negative stack order.
* z-index only works on [positioned elements](https://www.w3schools.com/css/css_positioning.asp) (position: absolute, position: relative, position: fixed, or position: sticky) and [flex items](https://www.w3schools.com/css/css3_flexbox.asp) (elements that are direct children of display: flex elements).

**32. What is CSS Overflow.**

* The overflow property specifies whether to clip the content or to add scrollbars when the content of an element is too big to fit in the specified area.
* The overflow property has the following values:

visible - Default. The overflow is not clipped. The content renders outside the element's box

hidden - The overflow is clipped, and the rest of the content will be invisible

scroll - The overflow is clipped, and a scrollbar is added to see the rest of the content

The overflow-x and overflow-y properties specifies whether to change the overflow of content just horizontally or vertically (or both).

auto - Similar to scroll, but it adds scrollbars only when necessary

* The overflow property only works for block elements with a specified height.

**33. What is CSS Overflow.**

* The CSS float property specifies how an element should float.
* The CSS clear property specifies what elements can float beside the cleared element and on which side.
* The float property is used for positioning and formatting content e.g. let an image float left to the text in a container.

**34. What is CSS Align.**

* To horizontally center a block element (like <div>), use margin: auto; Center aligning has no effect if the width property is not set (or set to 100%).
* To just center the text inside an element, use text-align: center;
* To center an image, set left and right margin to auto and make it into a block element through CSS.
* One method for aligning elements is to use position: absolute;:
* Another method for aligning elements is to use the float property
* There are many ways to center an element vertically in CSS. A simple solution is to use top and bottom padding.
* To center both vertically and horizontally, use padding and text-align: center.
* You can also use flexbox to center things. Just note that flexbox is not supported in IE10 and earlier versions.

**35. What is CSS Combinator.**

* A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator.
* A combinator is something that explains the relationship between the selectors.
* There are four different combinators in CSS:

Descendant selector (space): The descendant selector matches all elements that are descendants of a specified element.

Child selector (>):The child selector selects all elements that are the children of a specified element

Adjacent sibling selector (+):The adjacent sibling selector is used to select an element that is directly after another specific element.

Adjacent sibling selector (+):The general sibling selector selects all elements that are next siblings of a specified element.

**35. What are Pseudo Classes.**

* A pseudo-class is used to define a special state of an element. it can be used to: Style an element when a user mouses over it,Style visited and unvisited links differently, Style an element when it gets focused.
* The :first-child pseudo-class matches a specified element that is the first child of another element.
* The :lang pseudo-class allows you to define special rules for different languages.

**35. What are Pseudo Element.**

* A CSS pseudo-element is used to style specified parts of an element.It can be used to: 1.Style the first letter, or line, of an element, 2.Insert content before, or after, the content of an element.
* The ::first-line pseudo-element is used to add a special style to the first line of a text. It can be applied to only block level element.
* The ::first-letter pseudo-element is used to add a special style to the first letter of a text. It can be applied to only block level element.
* The ::before pseudo-element can be used to insert some content before the content of an element.
* The ::after pseudo-element can be used to insert some content after the content of an element.
* The ::marker pseudo-element selects the markers of list items. ::marker {color: red; font-size: 23px;}
* The ::selection pseudo-element matches the portion of an element that is selected by a user. ::selection {color: red;background: yellow;}
* Several pseudo-elements can also be combined.

p::first-letter {  
  color: #ff0000;  
  font-size: xx-large;  
}  
  
p::first-line {  
  color: #0000ff;  
  font-variant: small-caps;  
}

**36. What are Image Sprite.**

* An image sprite is a collection of images put into a single image.
* A web page with many images can take a long time to load and generates multiple server requests. Using image sprites will reduce the number of server requests and save bandwidth.

**37. What are Attribute Selector.**

* The [attribute] selector is used to select elements with a specified attribute.
* The [attribute="value"] selector is used to select elements with a specified attribute and value.

a[target="\_blank"] {background-color: yellow;}

* The [attribute~="value"] selector is used to select elements with an attribute value containing a specified word.

[title~="flower"] {border: 5px solid yellow;}

* The [attribute|="value"] selector is used to select elements with the specified attribute, whose value can be exactly the specified value, or the specified value followed by a hyphen (-).

[class|="top"] {background: yellow;}

* The [attribute$="value"] selector is used to select elements whose attribute value ends with a specified value. The value does not have to be a whole word!

[class$="test"] {background: yellow;}

* The [attribute\*="value"] selector is used to select elements whose attribute value contains a specified value.  The value does not have to be a whole word!

[class\*="te"] {background: yellow;}

**38. What is CSS Counter.**

* 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.
* More is in w3 school………………………………………….

**39. What is CSS Absolute and Relative length units.**

* Absolute: cm,mm,in,px,pt,pc
* Relative: em,vh,vw,rem,%

**40. What is CSS !important.**

* The !important rule in CSS is used to add more importance to a property/value than normal.
* In fact, if you use the !important rule, it will override ALL previous styling rules for that specific property on that element!.

**41. What is CSS Border Image Property.**

* With the CSS border-image property, you can set an image to be used as the border around an element.
* The property has three parts: The image to use as the border, Where to slice the image, Define whether the middle sections should be repeated or stretched.

#borderimg {  
  border: 10px solid transparent;  
  padding: 15px;  
  border-image: url(border.png) 30/50% round/stretch/repeat;  
}

**42. What are Background-size values and Explain.**

* The contain keyword scales the background image to be as large as possible (but both its width and its height must fit inside the content area). As such, depending on the proportions of the background image and the background positioning area, there may be some areas of the background which are not covered by the background image.
* The cover keyword scales the background image so that the content area is completely covered by the background image (both its width and height are equal to or exceed the content area). As such, some parts of the background image may not be visible in the background positioning area.

**43. What is Background-clip property.**

* 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

#example1 {  
  border: 10px dotted black;  
  padding: 35px;  
  background: yellow;  
  background-clip: content-box/border-box/padding-box;  
}

**44. What is color gradient.**

* CSS gradients let you display smooth transitions between two or more specified colors. CSS defines three types of gradients:

Linear**(goes down/up/left/right/diagonally)**,

radial**(defined by their center)**,

conic**(rotated around a center point)**.

* To create a linear gradient you must define at least two color stops. Color stops are the colors you want to render smooth transitions among. You can also set a starting point and a direction (or an angle) along with the gradient effect.

**44. What is CSS Text-Shadow effects.**

* With CSS shadow effect you can add shadow to text and to elements.
* The CSS text-shadow property applies shadow to text. In its simplest use, you only specify the horizontal shadow (2px) and the vertical shadow (2px). Next, add a blur effect to the shadow(5px). Then, add a color to the shadow.

h1 {  
  text-shadow: 2px 2px 5px red;  
}

* To add more than one shadow to the text, you can add a comma-separated list of shadows.

h1 {  
  text-shadow: 0 0 3px #FF0000, 0 0 5px #0000FF;  
}

* You can also use the text-shadow property to create a plain border around some text (without shadows):

h1 {  
  color: coral;  
  text-shadow: -1px 0 black, 0 1px black, 1px 0 black, 0 -1px black;  
}

**45. What is CSS Box-Shadow effects.**

* The CSS box-shadow property is used to apply one or more shadows to an element. The default color of the shadow is the current text-color.
* In its simplest use, you only specify the horizontal shadow (5px) and the vertical shadow (5px). Next, add a blur effect to the shadow(2px).
* Again The spread parameter defines the spread radius(12px). A positive value increases the size of the shadow, a negative value decreases the size of the shadow.
* Again, add a color to the shadow.
* The inset parameter changes the shadow from an outer shadow (outset) to an inner shadow.

div {  
  box-shadow: 5px 5px 2px 12px lightblue inset;  
}

* To add more than one shadow to the text, you can add a comma-separated list of shadows.

**46. What is CSS Text effects.**

* The CSS text-overflow property specifies how overflowed content that is not displayed should be signaled to the user. It can be clipped or it can be rendered as an ellipsis (...):

p {  
  white-space: nowrap;  
  width: 200px;  
  border: 1px solid #000000;  
  overflow: hidden;  
  text-overflow: ellipsis/clip;  
}

* The CSS word-wrap property allows long words to be able to be broken and wrap onto the next line.

p {  
  word-wrap: break-word;  
}

* The CSS word-break property specifies line breaking rules.

p{  
  word-break: keep-all/ break-all;  
}

* The CSS writing-mode property specifies whether lines of text are laid out horizontally or vertically.
* p {  
    writing-mode: horizontal-tb/ vertical-rl/ vertical-lr;  
  }

**47. What is CSS 2D Transform.**

* CSS transforms allow you to move, rotate, scale, and skew elements.
* With the CSS transform property you can use the following 2D transformation methods: translate()/rotate()/scaleX()/scaleY()/scale()/skewX()/SkewY()/skew()/matrix()
* The translate() method moves an element from its current position to another position according to the parameters given for the X-axis and the Y-axis.

p {  
  transform: translate(50px, 100px)/translateX()/translateY();  
}

* The rotate() method rotates an element clockwise or counter-clockwise according to a given degree.

div {  
  transform: rotate(20deg)/rotate(-20deg);  
}

* The scale() method increases or decreases the size of an element according to the parameters given for the width and height.

div {  
  transform: scale(2, 3)/scaleX(only width)/scaleY(only height);  
}

* The skew() method skews an element along the X and Y-axis by the given angles.

div {  
  transform: skew(20deg)/skewX(along X-axis)/ skewX(along Y-axis);  
}

* The matrix() method combines all the 2D transform methods into one.

matrix(scaleX(),skewY(),skewX(),scaleY(),translateX(),translateY())

div {  
  transform: matrix(1, -0.3, 0, 1, 0, 0);  
}

**48. What is CSS 3D Transform Method.**

* With the CSS transform property you can use the following 3D transformation methods: rotateX()/rotateY()/rotateZ().
* The rotateX() method rotates an element around its X-axis at a given degree.
* The rotateY() method rotates an element around its Y-axis at a given degree.
* The rotateZ() method rotates an element around its Z-axis at a given degree:

#myDiv {  
  transform: rotateZ(90deg)/rotateX()/rotateY();  
}

**49. What is CSS Transition Method.**

* CSS transitions allows you to change property values smoothly, over a given duration.
* To create a transition effect, you must specify two things: the CSS property you want to add an effect to && the duration of the effect.

div {transition: width 2s, height 4s;}

* The transition-delay property specifies a delay (in seconds) for the transition effect. div {transition-delay: 1s;}
* We can add a transition effect to the transformation: see ex in w3s
* The transition-timing-function property specifies the speed curve of the transition effect. It can have following values.

ease - specifies a transition effect with a slow start, then fast, then end slowly (this is default).

linear - specifies a transition effect with the same speed from start to end.

ease-in - specifies a transition effect with a slow start.

ease-out - specifies a transition effect with a slow end.

ease-in-out - specifies a transition effect with a slow start and end.

#div1 {transition-timing-function: linear;}

**50. What is CSS Animation.**

* An animation lets an element gradually change from one style to another.
* To use CSS animation, you must first specify some keyframes for the animation. Keyframes hold the styles that element will have at certain times.
* When you specify CSS styles inside the @keyframes rule, the animation will gradually change from the current style to the new style at certain times.
* To get an animation to work, you must bind the animation to an element.
* The animation-duration property defines how long an animation should take to complete. If the animation-duration property is not specified, no animation will occur, because the default value is 0s (0 seconds).
* The animation-delay property specifies a delay for the start of an animation.
* The animation-iteration-count property specifies the number of times an animation should run.
* The animation-timing-function property specifies the speed curve of the animation.
* The animation-direction property specifies whether an animation should be played forwards(normal)/backwards(reverse)/alternate cycles.
* The animation-fill-mode property specifies a style for the target element when the animation is not playing (before it starts, after it ends, or both). It has values like: none/forrowards/backwords/both
* It is also possible to use percent. By using percent, you can add as many style changes as you like.

@keyframes example {  
  0%   {background-color: red;}  
  25%  {background-color: yellow;}  
  50%  {background-color: blue;}  
  100% {background-color: green;}  
}  
  
/\* The element to apply the animation to \*/  
div {  
  width: 100px;  
  height: 100px;  
  background-color: red;  
  animation-name: example;  
  animation-duration: 4s;  
}

 SH:animation: example 5s linear 2s infinite alternate;

**51. What is CSS Tooltip.**

* A tooltip is often used to specify extra information about something when the user moves the mouse pointer over an element.
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**52. What is CSS Style Images.**

* Use the border-radius property to create rounded images:

img{border-radius: 8px}

* Use the border property to create thumbnail images:

img {border: 1px solid #ddd;border-radius: 4px;padding: 5px;  
  width: 150px;}

* If you want an image to scale down if it has to, but never scale up to be larger than its original size, add the following:

img {max-width: 100%; height: auto;}.

* To center an image, set left and right margin to auto and make it into a block element.
* The CSS filter property adds visual effects (like blur and saturation) to an element.

**53. What is CSS image reflection.**

* The box-reflect property is used to create an image reflection.
* The value of the box-reflect property can be: below, above, left , or right. img {-webkit-box-reflect: below;}

img {  
  -webkit-box-reflect: below 20px; // 20px offset  
}

**54. What is CSS object fit properties.**

* The CSS object-fit property is used to specify how an <img> or <video> should be resized to fit its container.
* This property tells the content to fill the container in a variety of ways; such as "preserve that aspect ratio" or "stretch up and take up as much space as possible".

img {  
  width: 200px;  
  height: 300px;  
  object-fit: cover/fill/content/cover/scroll-down/none;  
}

**55. What is CSS object position properties.**

* The CSS object-position property is used to specify how an <img> or <video> should be positioned within its container.
* img { width: 200px;height: 300px;object-fit: cover;object-position: 80% 100%;}

**56. What is CSS Multicoloumn layouts.**

* The CSS multi-column layout allows easy definition of multiple columns of text - just like in newspapers.
* The column-count property specifies the number of columns an element should be divided into.
* The column-gap property specifies the gap between the columns.
* The column-rule-style property specifies the style of the rule between columns. The column-rule-width property specifies the width of the rule between columns. The column-rule-color property specifies the color of the rule between columns.
* The column-span property specifies how many columns an element should span across.
* The column-width property specifies a suggested, optimal width for the columns.

div {

column-count: 3;

column-gap: 40px;

column-rule-style: solid;

column-rule-width: 1px;

column-rule-color: lightblue;

column-width: 100px;

}

**57. What is CSS Box-Sizing.**

* The CSS box-sizing:border-box; property allows us to include the padding and border in an element's total width and height.
* When you set the width/height of an element, the element often appears bigger than you have set (because the element's border and padding are added to the element's specified width/height).That we use bordersizing property.

**57. What is CSS Flexbox.**

* The Flexible Box Layout Module, makes it easier to design flexible responsive layout structure without using float or positioning.
* To start using the Flexbox model, you need to first define a flex container.
* The flex-wrap property specifies whether the flex items should wrap or not.
* The flex-flow property is a shorthand property for setting both the flex-direction and flex-wrap properties.
* The justify-content property is used to align the flex items horizontaly.

The center value aligns the flex items at the center of the container

The flex-start value aligns the flex items at the beginning of the container (this is default) and flex-end at the end of the container.

The space-around value displays the flex items with space before, between, and after the lines. The space-between value displays the flex items with space between the lines

.flex-container {display: flex;justify-content: center/flex-start/flex-end/space-around/space- between;}

* The align-items property is used to align the flex items vertically.

.flex-container { // stretches the flex items to fill the container   
  display: flex; //flexend- At the bottom of container  
  height: 200px; // flexstart- At the bottom of container  
  align-items: flex-start/flex-end/center/stretch/baseline;  
}

* The order property specifies the order of the flex items.

<div style="order: 3">1</div>

* The flex-grow property specifies how much a flex item will grow relative to the rest of the flex items.

<div class="flex-container">  
  <div style="flex-grow: 1">1</div>  
  <div style="flex-grow: 1">2</div>  
  <div style="flex-grow: 8">3</div>  
</div>

* The flex-shrink property specifies how much a flex item will shrink relative to the rest of the flex items.
* The flex-basis property specifies the initial length of a flex item.

<div class="flex-container">  
  <div>1</div>  
  <div>2</div>  
  <div style="flex-basis: 200px">3</div>  
  <div>4</div>  
</div>

* The flex property is a shorthand property for the flex-grow, flex-shrink, and flex-basis properties.

<div style="flex: 0 0 200px">3</div>

* The align-self property specifies the alignment for the selected item inside the flexible container. The align-self property overrides the default alignment set by the container's align-items property.
* For more follow W3school.com