Introduction to Css3.

1.   Css level 1 was released in 1997 to 2001 content: html 4.0
2.   Css level 2 was appeared in 2001 to 2006   content: xhtml1
3.   Css3 was Published on 2007   content: html5

Advantage of Css3

1. Box-sizing property (To subtract padding and margin to a specific height and width)
2. Easy Maintenance
3. Fast Webpage loading
4. Search Engine Friendly (We use external style sheet and html code is clean and it will create better search Engine rankings)
   5. Printer Friendly   Eg: printing tickets..
   6. Responsive (Mobile Friendly)
   7. Font-face-attribute (Used to load custom font from locally or external server) etc...

Difference between Css and Css3

Animation Was written in js and jquery	Using CSS3 We can use it by Css property
Css is not divided into modules	Css3 is divided into modules
Not Responsive Design	Responsive Design
Unique colors	Supports Rgba, Hsla,HSL

Features

Rounded-corners and gradients : Developers need to design the rounded images and upload it into the server	Border-radius:20px; Gradbg{background-linear:gradient(red,black)}
Text-Effects Animation are written in js and jquery. It has no special effects such as shadow texting and text animation	Text-shadow make it easy to design text
Multi column layout: We should use div in order to make separate columns	Multi Column Layout: It has multiple column without the use of div s,
Multiple backgrounds cannot be used.	Multiple backgrounds: Css3 allows to add multiple backgrounds. And make opaque

Features

Border-image: no border image for styling	**Border-image:** Border-image:url(""); used to style border by image
Compatible: It is not compatible with css3	**Compatible:** Css3 is backward compatible even with css.

1.Responsive Design

1. Include `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

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

 body {background-color: lightblue;}

}

We design Always for mobile first

1. It means designing for mobile first before designing for desktop and load faster on smaller device

2.RGBA colors

- **Colors:** New color formats like RGBA(Red, Green, Blue, Alpha), HSL(Hue, Saturation, Lightness), HSLA(Hue, Saturation, Lightness, Alpha) were added. It helps to apply styling and different color effects into pages. The gradient and opacity properties were also added.
- https://www.w3schools.com/html/html_colors_hsl.asp

3.Rounded Corners

It rounds the corner of the

Outer edge of image and

Div element, On setting

Single radius we can make

Circle,eclipse etc,...

This is a box with rounded corners.

Syntax: { border-radius:10px; }

An effect that required photoshop work to achieve before. Now it is easy to do more on css3

4.Box-sizing:border-box (Alignment)

Padding and border inside the box(included in the content) <mark>Except margin</mark>

Eg: {width:350px;border:10px solid black;} it renders it as 350px wide ,

The border and padding subtract in the content and hence content will be 330px wide

Dimensions : width=border+padding+width of the content Except margin

Box-sizing:content-box; by default

box-sizing

*

{box-sizing:border-box;} We can set as a universal

It reduces alignment problem ,developers can give appropriate size to div's using properties like padding margin etc,... Css grid helps in creating responsive without using table and columns

5.Faster Execution (Js Independent)

Earlier developer mixed css with js to provide simple decoration like text-shadow. By the introduction of css3 It became js Independent and loads faster.

6.Modules (divided into modules)

1. Css3 has been divided into smaller modules makes easier for the use to run compatibility test and test a particular part individually.
2. Easy to find the bug easily , Executes faster because it need not to render the whole css file. And hence it loads faster
3.

```
import buttons from "./buttons.css";
import padding from "./padding.css";

element.innerHTML = `<div class="${buttons.red} ${padding.large}">`;
```

7.Display property(grid,flex) in css3

Display: grid; | display:inline-block; | display:flex;

1.Display:grid; - Grid based layout system with rows and columns makes easier to develop without the use of float and positioning property.
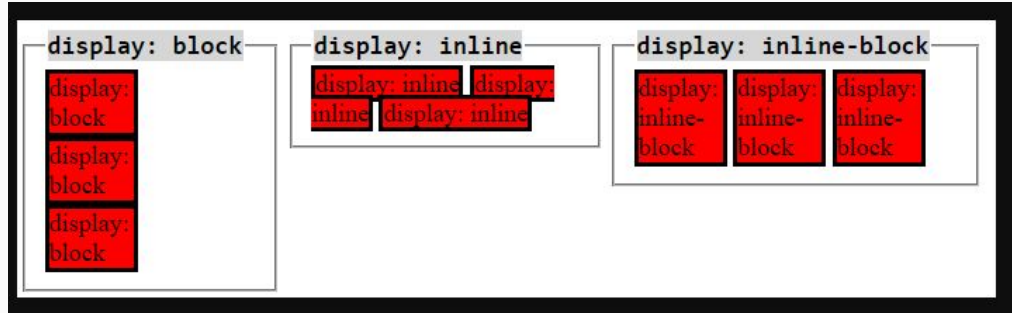
2.Display:flex; - before that block,inline,float,positioned property is used as layout modes Now flex property is used to make responsive layout structure without the float and positioned property.

Display:inline-block

3.display:inline-block

a) Inline-block does not line break after the element so an element sit next to the block

b) It allows to set width and height of the element as compared to inline property

c) The top and bottom margin and paddings are included as compared to inline property

Display property

8.Animations

Developer has to create animation using javascript earlier but now css3 introduced animation feature like text-shadow. Made easier quick to develop.

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

Output:

9.Multi column text block

It is a module of css adds ==support== for multi column layout like how content should flow from column to column,gap sizes , column dividing lines

==It is used to separate columns without use of div==

Example:

Column-count:3;

The content is arranged into three columns with equal sizes.

https://www.w3schools.com/css/css3_multiple_columns.asp

10.Supported by modern browsers

CSS3 effects and transforms are supported in *current* versions of all major browsers, but Safari, Firefox, and Opera require different code prefixes to make CSS3 effects and transforms work in their browsers.

Some css rule does not work without vendor prefix

Mozilla browser : -moz

Webkit Browser (Safari Chrome) - webkit

Supported by modern browsers

Opera -o

Internet explorer -ms

11. New Selectors

1. Ul~table

All ul element is inside the table element and both have a common parent

2. [attribute^=value] all elements with attribute"lastname" starting with "L" letter

eg: `<span id="Lastname">`Duck.`</span>`

`<ul id="`Listfriends`>`

- `<li>`Goofy`</li>`

`</ul>`

selectors

3.[attribute$=value] all element with id attribute value <mark>ending</mark> with last value prefix value

4.[attribute*=value] all element with id "attribute"containing the string "value"

Link :
https://www.w3schools.com/cssref/trysel.asp?selector=ul%20~%20table