

Day 23

CSS Web layout:-

CSS can be used to enhance a web page by modifying

- ① fonts
- ② colors
- ③ layout
- ④ size

CSS units of measurement

Absolute unit -

- Q - Quarter millimeters
- mm - Millimeters
- cm - Centimeters
- in - inches
- pc - Picas
- pt - points
- px - pixel

Relative Values

- em - font size of the parent where present
- ex - x-co-ordinate
- ch - width of the font character
- rem - font size of root element
- lh - Value computed for line height of parent element
- rth - Value computed for line height of root element which is
- vw - 1% of the viewport width
- vh - 1% of the viewport height
- vmin - 1% of the smaller dimension of viewport
- vmax - 1% of larger dimension of viewport
- % - Denotes a percentage value in relation to its parent element.

* Grid

Syntax -

```

selector {
    display : grid
}
    
```

Properties :- Grid shorthand consists of the following properties with default value.

- 1) grid
- 2) grid-template-rows : none
- 3) grid-template-column : none
- 4) grid-template-areas : none
- 5) grid-auto-columns : auto
- 6) grid-auto-flow : row
- 7) column-gap : normal
- 8) row-gap : normal

Grid properties for container :-

- 1) grid-template-columns : measurement units /
% units / repeat ()
- 2) grid-template-rows : measurement units /
% units / repeat ()
- 3) grid-auto-column : measurement unit (fixed
value for all column)
- 4) grid-auto-rows : measurement unit (fixed value
for all rows)
- 5) grid-template : "header header" auto
"main right" 75h
"footer footer" 20rem

Gap

- 1) grid-row-gap : m-unit-1 m-unit-2
- 2) grid-column-gap : measurement units
- 3) grid-gap : measurement units

★ Alignment

- 1) justify-items : start / center / end / stretch
- 2) align-items : start / center / end / stretch
- 3) place-items : start / stretch

★ Justification -

- 1) justify-content : start / center / end / stretch
space-between / space-evenly / space-around
- 2) place-content : center / start
- 3) align-content : start / center / end / stretch /
space-between / space-evenly / space-around

positioning

- 1) grid-auto-flow : row / column / dense
- 2) grid-auto-columns : measurement units
- 3) grid-auto-rows : measurement units

Grid properties for items (child) -

- 1) grid-column : column position
- 2) grid-column-start : column start position
- 3) grid-column-end : column end position
- 4) grid-row : row position
- 5) grid-row-start : row start position
- 6) grid-row-end : row end position

justification and alignment

- 1) justify-self : start / center / end / stretch
- 2) align-left : start / center / end / stretch
- 3) place-self : start / stretch

* Flexbox:- syntax

```

selector {
    display : flex / inline-flex
}
    
```

- Flex attributes -
- ① Attribute selector
 - ② Class selector
 - ③ ID selector
 - ④ Type selector
 - ⑤ Universal selector

Properties for flexbox container

- 1) flex-direction : row / row-reverse / column / column-reverse

- ① row :- organized from left to right
- ② row-reverse :- organized from right to left
- ③ column :- organized from top to bottom
- ④ column-reverse :- organized from bottom to top

2) flex-wrap : wrap / nowrap

- ① wrap :- Automatically wrap the items with as the window gets smaller
- ② Nowrap :- Default setting

3) align-items : flex-start / flex-end / center / stretch

- ① flex-start :- Similar to standard writing items starts at top left hand corner and positioned from left to right
- ② flex-end :- position begins in the bottom right hand corner
- ③ center :- item is positioned from center
- ④ stretch :- item expands to fill the container.

4) justify-content : flex-start / flex-end / center / space-between / space-around / space-between / space-around

- ① flex-start :- goes from right to left along the main axis
- ② flex-end :- goes from left to right along the main axis
- ③ center - starting at middle alignment expands from there.

- ④ Space-between :- first and last a item are flush with left and right wall respectively every other item is evenly spaced
- ⑤ Space-evenly :- each item is equidistant from each other and boundary wall

Properties for Flexbox items (child)

- 1) flex-grow : factor of flex's main size
- 2) flex-shrink : factor of flex's main size
- 3) flex-basis : auto / factor of main's size / measurement unit.
- 4) order : position in flex
- 5) align-self : start / center / end / stretch