the Box Model

Border

All boxes have borders even if invisible or 0px wide. It separates the edge of one box from another.

Padding

Padding is the space btw the border + any content contained within it. More padding increases the readability of its contents.

Margin

Margins sit outside the edge of the border. You can set the width to create a gap btw borders of adjacent boxes.

Content

Correspondence School

Ray Johnson

Correspondence School
Ray Johnson

Correspondence School
Ray Johnson

肥了包商瘦了技工

掛空頭賣勞力問題不少

搞套匯吃佣金全是騙局

盜用記頭・尤須有效

【本報記者特稿】經濟部貿易局昨天邀集各有關機關會商「不肖廠商偽造防機品輸出許可證及其他特種發票案」，感覺此項問題極棘手，除了重罰外，必須有效的查才能防止。

主要工業國家用盡對防機品及設限後，出口配額或為廠商，在深少發多的情況下，品配額出口的事件層出不久的非法匯款，

[illegible]

[illegible]

[illegible]

肥了包商瘦了技工

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盜用記頭・尤須有效

【本報記者特稿】

PLEASE ADD TO & RETURN TO RAY JOHNSON
44 WEST 7 ST., LOCUST VALLEY, N.Y. 11560

Mail Art
Ray Johnson

Mail Art
Ray Johnson

net.art

Vuk Cosic 1995

Simple Net Art Diagram

MTAA, 1997

My Boyfriend Came Back From War, 1996
Olia Lialina

My Boyfriend Came Back From War, 1996
Olia Lialina

Auriea Harvey (Entropy8) + Michaël Samyn (Zuper!)
Entropy8Zuper!

skinonskinonskin, 1999
Auriea Harvey (Entropy8) + Michaël Samyn (Zuper!)
Entropy8Zuper!

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Auriea Harvey (Entropy8) + Michaël Samyn (Zuper!)
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Entropy8Zuper!

skinonskinonskin, 1999
Auriea Harvey (Entropy8) + Michaël Samyn (Zuper!)
Entropy8Zuper!

http://xn--10kaaaaaaaaaaaaaaaaaaaaaaaaaa.xn--10k.net/

jodi.org, 1999 - 2001

jodi.org, 1999 - 2001

http://we-link.chronusartcenter.org/, 2020

New York Apartment

whitney.org/artport-commissions/new-york-apartment/index.html

NEW YORK APARTMENT

FOR SALE

$43,869,676,331

65,764 bedrooms
55,588 bathrooms
36,672,535 sq ft

Are you constantly frustrated with seeing the same low grade renovations and design choices in townhouses?

Are you in love with pre-war?

Are you looking for a charming well-priced 1 Bedroom home in a sought-after area?

Are you looking for a cozy, elegant home close to all that is held dear to a New Yorker?

Are you looking for a deal?

Are you looking for a great investment home?

Are you looking for a loft-like open space with both light, view, and luxury condo services?

Are you looking for Beautiful Open Views?

Are you looking for that House that is in your Price Range, is DETACHED, has 3 Bedrooms, 4 Bathrooms, Den, Garage, & a Yard all in the Princess Bay Section of Staten Island with Water View & NOT in a FLOOD ZONE surrounded by Million Dollar Homes?

Are you looking for that perfect balance of convenience and serenity?

Are you looking for the perfect primary residence, pied a terre or investment property?

Are you looking to do a Lease or Rent to Own Home?

Are you looking to get into a home?

Are you our discerning home buyer?

Are you priced out of other neighborhoods?

Are you ready for the next level?

Bedrooms 1 of 20753

Bathrooms 1 of 17596

Kitchens 1 of 14333

Dining Rooms 1 of 8093

About the listing

THE APARTMENT IS AVAILABLE.

The apartment abounds with marvelous Beaux-Arts elements, which include a unique grand circular dining room located within one of the building's iconic rounded corner towers, oversized windows along all three of the home's exposures, and herringbone hardwood flooring.

The apartment allows for a comfortable living room and formal dining room if desired, perfect for entertaining.

The apartment also boasts a galley kitchen with full-sized appliances, new lighting, hardwood floors, a walk-in entrance closet, linen closet and new thru-the-wall AC for year round comfort.

The apartment also boasts a very large coat closet near the entry, as well as a linen closet.

The apartment also boasts a washer/dryer.

The apartment also boasts an additional oversized closet and coat closet at the entryway along with a separate linen closet.

The apartment also comes equipped with an in-unit washer/dryer.

The apartment also comes with 1 parking spot.

The apartment also comes with 2 storage bins in the basement.

The apartment also comes with a large storage cage in the basement.

The apartment also comes with a storage area, through wall AC and washer dryer.

The apartment also comes with a terrific outfitted work space in the gallery and an enlarged outfitted walk-in closet in the master bedroom, as well as other tasteful built-ins, custom blackout shades and a Bosch washer and dryer.

The apartment also comes with additional storage space.

The apartment also comes with its own private storage unit.

The apartment also comes with two deeded storage rooms.

The apartment also contains an all-weather air conditioning system.

The apartment also enjoys the luxury of an in unit Washing Machine & Dryer and great attic that could be utilized as a storage space.

The apartment also features 11 ft high ceilings and a full size Samsung front load washer and dryer!

The apartment also features 9' ft ceilings in living room, oak flooring, solid wood core doors, electronic window shades, additional customized closets, a washer/ dryer, and central air.

The apartment also features 9-foot beamed ceilings and generous South and West exposures, bathing the space in natural sunlight throughout the day.

The apartment also features Bosh washer and dryer and private storage.

The apartment also features Lutron lighting, wood floors, custom cabinetry and through wall air-conditioning.

The apartment also features a 212 Sq Ft private terrace, not included in the above square footage, with breathtaking City views and lovely backlit stained glass window.

The apartment also features a Bosch washer/dryer, a generous entry coat closet, linen closet, and oak engineered wood flooring throughout.

The apartment also features a Bosch washer/dryer.

The apartment also features a Frigidaire washer/dryer set, herringbone floor, powder room, great closet space, and entry foyer.

The apartment also features a beautifully appointed kitchen, beautifully detailed hardwood floors, 10.5' ceilings, and 2 wood-burning fireplaces.

The apartment also features a butler staircase for basement access and/or yard access.

The apartment also features a customized lighting control system allowing you to set different scenes and moods, and an open chef's kitchen with beautiful appliances and granite countertops.

The apartment also features a guest powder room, a full laundry room along with 3 zones Central AC and a private storage in the basement.

The apartment also features a guest powder room, a full laundry room along with 3 zones Central AC.

The apartment also features a hardwood floors throughout, French doors, unusually high ceilings, classic moldings, custom made radiator covers, lots of windows allowing for plenty of light throughout the day and ample closet space.

The apartment also features a huge second bedroom with en suite bathroom and ample closet space.

The apartment also features a huge walk-in closet and a renovated ½ bath for you or your guests to easily access.

New York Apartment, 2020

Tega Brain + Sam Levine

WE=LINK: | TEN EASY PIECES

Get Well Soon!

getwellsoon.labr.io

About

All my best wishes and prayers for you to get well soon.
All my best....
All my love to such a beautiful boy
All my love to you xxxx
All my aloha is being sent to you.
All my art is in storage now since we're trying to sell the house but we will definitely try to make it to a few shows just to reconnect with artist friends.
All my best
All my best to you.
All my best and get well soon.
All my best and most positive wishes to you and your family!
All my best blessing to you
All my best brother.
All my best darlin
All my best dear friend
All my best during the tragic time.
All my best for health and happiness!
All my best for a full and speedy recovery.
All my best for a great run!
All my best for a speedy recovery!
All my best for a speedy recovery.
All my best for this worthy cause.
All my best for your full recovery!
All my best from a long time ago friend.
All my best hopes and prayers!
All my best in this trying time.
All my best mate.
All my best pal!
All my best thoughts and prayers are directed towards you!
All my best thoughts and prayers to you.
All my best thoughts go out to you and your beautiful family.
All my best to all of you.
All my best to both.
All my best to the entire family.
All my best to the family.
All my best to the whole family.
All my best to them during this sad and difficult time.
All my best to you all!
All my best to you and to your fiance.
All my best to you and your family during this difficult time!
All my best to you and your family!
All my best to you and your family.
All my best to you and yours
All my best to you and yours.
All my best to you as you go through this challenging ordeal.
All my best to you as you heal through this process.
All my best to you in this trying time
All my best to you!
All my best to you, my friend.
All my best to you.
All my best to you... you are a warrior through and through!
All my best to your beautiful family!
All my best to your family
All my best to your family!
All my best to your family.
All my best to your father.
All my best to your great sprit!
All my best to your sister.
All my best wished for health to you both!
All my best wishes
All my best wishes to you ❤
All my best wishes & love
All my best wishes and prayers for your healing!
All my best wishes and prayers to you guys and your best friend.
All my best wishes and regards to a speedy recovery.
All my best wishes are with you!

All the best guys
All the absolute best dude.
All the absolute very best!
All the angels and saints will be at your side.
All the bast baby girl
All the beat hunny.
All the beat!
All the bedt to you and the family mags
All the bes
All the best
All the best
All the best :)
All the best xx
All the best !
All the best !!
All the best !!!
All the best "cousin"
All the best & enjoy every moment you have
All the best & good luck!
All the best & in our prayers.
All the best & take care.
All the best (haha).
All the best , always !
All the best , blessings to you and your family
All the best , hope everything goes well xxx
All the best , keep fighting
All the best ,,be positive ,take care ,:)
All the best - big hugs.
All the best - good luck and enjoy - a great cause
All the best - hope this cloud passes soon.
All the best - keeping you in my thoughts.
All the best - see you soon!
All the best - stay strong.
All the best - to your family as well - and may the future hold great promise for you.
All the best ----ian
All the best .
All the best ...
All the best ....
All the best .we will keep you in our prayers.
All the best :)
All the best :) x
All the best :-)
All the best ;-)
All the best =)
All the best _/_
All the best amber.
All the best amico!
All the best amy and family from all at lushious extensions
All the best and stay strong
All the best and a quick recovery!
All the best and all my love.
All the best and congrats on the new family member.
All the best and congrats on your move.
All the best and continued prayers being sent!
All the best and enjoy the game.
All the best and get well soon!
All the best and get well soon.
All the best and good luck
All the best and good luck ...
All the best and good luck for your recovery
All the best and good luck mate!
All the best and good luck!
All the best and good luck!!
All the best and good luck.
All the best and goodluck :)
All the best and here's hoping.
All the best and here's to healing for everyone.
All the best and hope for speedy recovery
All the best and hope for the future.

Best of luck for you and your beautiful boys x
Best of luck to all of you.
Best of all in your health needs with prayers.
Best of all is seeing your beautiful & inspiring smile with all you have gone thru and are going thru.
Best of all you can fly over any of the buildings you want.
Best of all, is your positive attitude toward life.
Best of blessings to you and your family!
Best of blessings to you ❤️
Best of care to you.
Best of care!
Best of every luck on your healing journey ❤️
Best of everything
Best of everything and many prayers your way.
Best of everything for the future of your family
Best of everything to you and your family.
Best of everything to you for your health and happiness.
Best of everything to you!
Best of everything to you.
Best of everything with your surgery which is sure to happen soon!
Best of everything!
Best of everything!!!
Best of everything, big guy.
Best of good fortune.
Best of good luck!
Best of health
Best of health and a long life.
Best of health and fortunes for you my friend.
Best of health buddy!
Best of health to yor baby!!!
Best of health to you and yours
Best of health to you both.
Best of health to you dear
Best of health to you.
Best of holidays to all of you through these trying times,
Best of hope..
Best of hopes and results.
Best of like to you friend.
Best of love and best of luck
Best of love and hope for a good recovery.
Best of love and light to you and your family!
Best of love and luck.
Best of love and prayers to you and your family during this critical time.
Best of love, luck and wishes!
Best of luck
Best of luck with your health.
Best of luck x
Best of luck you have my prayers.
Best of luck ❤
Best of luck !
Best of luck !!
Best of luck & health to you.
Best of luck & hopefully this nightmare time will be over soon x
Best of luck & many prayer and blessings always for your family.
Best of luck & prayers
Best of luck & so happy to be able to help.
Best of luck - coming off anyway.
Best of luck - hurry back before the white stuff hits- going to miss you!
Best of luck - it will change your life.
Best of luck - many are rooting for you.
Best of luck - sending love your way!
Best of luck - stay strong
Best of luck - you all deserve it!
Best of luck - you will be wonderful parents!
Best of luck - you'll smash it.

Best wishes and prayers
Best wishes for speedy and full recovery.
Best wishes to all of you
Best wishes to your family during your troubled times.
Best wishes x x beth
Best wishes ❤️
Best wishes !
Best wishes !!
Best wishes !!!
Best wishes #cpfc
Best wishes & a speedy recovery!
Best wishes & best of luck for the future
Best wishes & good luck gorgeous girl, thinking of you.
Best wishes & keep your spirits high.
Best wishes & lots of love xxx
Best wishes & loving thoughts.
Best wishes & positive energy your way.
Best wishes & positive vibes!
Best wishes & prayers
Best wishes & prayers coming too!
Best wishes & prayers for continued health
Best wishes & prayers to you & your family!
Best wishes & safe travels!
Best wishes & speedy recovery
Best wishes)
Best wishes , hope all goes well with your treatment.
Best wishes , keep fighting
Best wishes , you are lucky to have such great friends and family.
Best wishes -
Best wishes - be well.
Best wishes - keep believing!
Best wishes - so proud to live in a community that so clearly cares about teachers, neighbors, and friends.
Best wishes - stay strong
Best wishes - stay strong and steadfast.
Best wishes - stay strong!
Best wishes - the hertford family
Best wishes - we are all praying for you.
Best wishes - wishing you healing and sending big hugs.
Best wishes - you are in our thoughts and prayers
Best wishes - you've got this.
Best wishes -- we'll send love, prayers, and positive thoughts your way!
Best wishes .
Best wishes .. keep fighting
Best wishes ...
Best wishes ....
Best wishes :)
Best wishes :)
Best wishes :-)
Best wishes ;)
Best wishes <3 <3
Best wishes =)
Best wishes a great cause
Best wishes a healing thoughts are being sent your way.
Best wishes across the ocean!
Best wishes all
Best wishes all!
Best wishes always
Best wishes always !
Best wishes always for treatment results and patience.
Best wishes always for your daughter.
Best wishes always!
Best wishes always!!
Best wishes always!!!
Best wishes always, please take care, hope this helps.
Best wishes always, to a fighter!
Best wishes always.
Best wishes and a complete healing!

Can't wait :)
Can't wait for all the many, many
Can't wait for her to finally have o
Can't wait for her to run laps arou
her!
Can't wait for him to get his glasse
Can't wait for more music, mobilit
Can't wait for more picture of this
Can't wait for more pluckers trivia!
Can't wait for our get together!
Can't wait for our little boys to gro
Can't wait for the book that is bor
Can't wait for the book!
Can't wait for the building invite !
Can't wait for the end of treatment
Can't wait for the happy ending!
Can't wait for the healing party!
Can't wait for the little ones to pla
Can't wait for the next one!
Can't wait for the next update.
Can't wait for the opening.
Can't wait for the party!
Can't wait for the pictures.
Can't wait for the release!
Can't wait for the show.
Can't wait for the sparkle to be ba
Can't wait for the studio tour.
Can't wait for the teachings.
Can't wait for the travel blog!!
Can't wait for the updates.
Can't wait for them to be home!
Can't wait for this journey !!
Can't wait for this peanut!!!
Can't wait for this to be behind yo
where you belong!
Can't wait for this to be behind yo
Can't wait for this to happen for y
Can't wait for this, best of luck
Can't wait for those dreads to disa
Can't wait for updates post surge
Can't wait for y'all to add a sweet
:)
Can't wait for you to be able to go
Can't wait for you to be back at w
Can't wait for you to be back x
Can't wait for you to be on the oth
Can't wait for you to be well again
Can't wait for you to beat this and
Can't wait for you to come back c
Can't wait for you to come back!
Can't wait for you to come home a
again we miss you!
Can't wait for you to feel better!
Can't wait for you to feel better.
Can't wait for you to finally have y
Can't wait for you to get better an
Can't wait for you to get better so
city!
Can't wait for you to get started o
Can't wait for you to get these!!!
Can't wait for you to get well enou
dinner.
Can't wait for you to get your dog.
Can't wait for you to get your drea
Can't wait for you to get your glas
Can't wait for you to get your new
Can't wait for you to go home and
family.
Can't wait for you to have the glas
Can't wait for you to have your bu

Get Well Soon, 2020

screen time clock, 2020
Helmut Smith

screen time clock, 2020
Helmut Smith

Display Property

```
display: none;   —- html elements default visible

                 —- override default html position
display: inline;
display: block;

          —- responsive way to deal with positioning
display: flex;
display: grid;
```

Overriding Default Display

Changing an inline element to a block element, or vice versa, can be useful for making the page look a specific way, and still follow the web standards.

```
li {
    display: inline;
}

span {
    display: block;
}
```

Note: Setting the display property of an element only changes how the element is displayed, NOT what kind of element it is. So, an inline element with display: block; is not allowed to have other block elements inside it.

responsive

"A pixel is not a pixel"

— Peter Paul Koch

“If the pixel density of the output device is very different from that of a typical computer display, the user agent should rescale pixel values. It is recommended that the pixel unit refer to the whole number of device pixels that best approximates the reference pixel. It is recommended that the reference pixel be the visual angle of one pixel on a device with a pixel density of 96dpi and a distance from the reader of an arm's length.” — w3 consortium

```
<!
—  - Tells the browser to match the device's width for the viewport
    - Sets an initial zoom value -->

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

<!- Moving forward this line of code should be in EVERY web page you author. —>

<meta name="viewport" content="width=device-width, initial-scale=1.0”>

```html
<!DOCTYPE html>
<html>

 <head>
  <title> 🖥️ Web Dev Week 06</title>
  <link href="https://fonts.googleapis.com/css?family=Spartan|Trade+Winds&display=swap" rel="stylesheet">
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" type="text/css" href="theStyle.css">
 </head>

 <body>
```

```html
<!-- upcoming question - what is this? -->
```

<meta charset=“utf-8”>

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

without

with

Metadata: `viewport`

The user's visible area of a web page

HTML5 introduced a method to let web designers take control over the viewport, through the **<meta>** tag.

Let's breakdown the `content` value:

+ Values are comma separated, letting you specify a list of values for `content`
+ The `width` value is set to `device-width`. This will cause the browser to render the page at the same width of the device's screen size.
+`initial-scale` set to `1` indicates the "zoom" value if your web page when it is first loaded. `1` means "no zoom."

There are other values you can specify for the `content` list -

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

Metadata: `viewport`

There are other values you can specify for the `content` attribute -

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

500px

minimum-scale
maximum-scale
user-scalable

```html
<!DOCTYPE html>
<html>

<head>
<title> 🖥️ Web Dev Week 06</title>
<link href="https://fonts.googleapis.com/css?family=Spartan|Trade+Winds&display=swap" rel="stylesheet">
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" type="text/css" href="theStyle.css">
</head>

<body>
```

what is unicode?

```html
<!DOCTYPE html>
<html>

<head>
<title> 🖥️ Web Dev Week 06</title>
<link href="https://fonts.googleapis.com/css?family=Spartan|Trade+Winds&display=swap" rel="stylesheet">
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" type="text/css" href="theStyle.css">
</head>

<body>
```

<meta charset="utf-8">

css layout

— Learn Enough CSS + Layout

So basically up until now I've instructed to do things a particular way. Bc w/ html, git, unix, etc there is only one way to do something (or a piece of software over the process). W/ CSS - there is no "right" answer. When designing websites many solutions to yr problem will exist - which means subjective judgment is the rule rather than the exception.

— Learn Enough CSS + Layout

You have to get used to the idea that no site is going to be exactly the same when viewed by different people. You'll learn to design (or implement other people's designs) in a way that allows room for CSS's inherent ambiguity. Unlike the tightly constrained world of print design, getting things to look exactly the same in every browser and on every operating system is just something you have to give up worrying about.

— Learn Enough CSS + Layout

css units of measurement:

Absolute length units

The following are all **absolute** length units — they are not relative to anything else, and are generally considered to always be the same size.

Unit	Name	Equivalent to
`cm`	Centimeters	1cm = 38px = 25/64in
`mm`	Millimeters	1mm = 1/10th of 1cm
`Q`	Quarter-millimeters	1Q = 1/40th of 1cm
`in`	Inches	1in = 2.54cm = 96px
`pc`	Picas	1pc = 1/6th of 1in
`pt`	Points	1pt = 1/72th of 1in
`px`	Pixels	1px = 1/96th of 1in

https://developer.mozilla.org/en-US/docs/Learn/CSS/Building_blocks/Values_and_units

Relative length units

Relative length units are relative to something else, perhaps the size of the parent element's font, or the size of the viewport. The benefit of using relative units is that with some careful planning you can make it so the size of text or other element scales relative to everything else on the page. Some of the most useful units for web development are listed in the table below.

Unit	Relative to
`em`	Font size of the parent, in the case of typographical properties like `font-size`, and font size of the element itself, in the case of other properties like `width`.
`ex`	x-height of the element's font.
`ch`	The advance measure (width) of the glyph "0" of the element's font.
`rem`	Font size of the root element.
`lh`	Line height of the element.
`vw`	1% of the viewport's width.
`vh`	1% of the viewport's height.
`vmin`	1% of the viewport's smaller dimension.
`vmax`	1% of the viewport's larger dimension.

https://developer.mozilla.org/en-US/docs/Learn/CSS/Building_blocks/Values_and_units

VIEWPORT WIDTH // VIEWPORT HEIGHT

- Use units **vh** and **vw** to set height and width to the percentage of the viewport's height and width, respectively

- 1vh = 1/100th of the viewport height
- 1vw = 1/100th of the viewport width

```
div {
  width:10vw;
  height: 10vw;
}
```

responsive text

The text size can be set with a "vw" unit, which means the "viewport width".

That way the text size will follow the size of the browser window.

```
div {
 font-size:10vw
 }
```

Media Queries

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

So this:

```
@media only screen and (max-width: 500px)  {
    body {
        background-color: light blue;
    }
}
```

Translates to:

```
if (the maximum width of the web page is 500 pixels) {
        then do this stuff
}
```

Media Queries

Breakpoint

```
/* For mobile phones: */
[class*="col-"] {
    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%;
}
```

add a **breakpoint** where certain parts of the design will behave differently on each side of the breakpoint

many examples: https://www.w3schools.com/Css/css_rwd_mediaqueries.asp

Mobile-first! (Images)

```
/* For width smaller than 400px: */
body {
    background-image: url(‘void_newspaper.jpg’);
}

/* For width 400px and larger: */
@media only screen and (min-width: 400px) {
    body {
        background-image: url('void.jpg');
    }
}
```

flex display

Flex - different rendering model

When you set a container to **display: flex**, the direct children in that container are **flex items** + follow a new set of rules.

Flex items are not block or inline; they have different rules for their height, width + layout.

- The **contents** of a flex item follow the usual block/inline rules, relative to the flex item's boundary.

Flex Basics

Flex layouts are composed of:

a **Flex container**, which contains one or more:

Flex item(s)

To make an element a flex container, change display:

- Block container: display: flex;
- Inline container: display: inline-flex;

Flex Basics

```html
</head>

<body>

    <div id="flexBox">
     <div class="flexThing"></div>
     <div class="flexThing"></div>
     <div class="flexThing"></div>

   </div>
  </body>
```

```css
#flexBox {
    display: flex;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    border-radius: 10px;
    background-color: pink;
    height: 50px;
    width: 50px;
    margin: 5px;
}
```

Flex Basics: justify-content

You can control where the item is horizontally in the box by setting **justify-content** in the flex container.

```
#flexBox {
    display: flex;
    border: 4px solid Green;
    justify-content: flex-start;
    padding: 10px;
    height: 150px;
}
```

Flex Basics: justify-content

You can control where the item is horizontally in the box by setting **justify-content** in the flex container.

```
#flexBox {
    display: flex;
    justify-content: flex-end;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics: justify-content

You can control where the item is horizontally in the box by setting **justify-content** in the flex container.

```
#flexBox {
    display: flex;
    justify-content: center;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics: align-items

You can control where the item is vertically in the box by setting **align-items** in the flex container.

```
#flexBox {
    display: flex;
    align-items: flex-start;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics: align-items

You can control where the item is vertically in the box by setting **align-items** in the flex container.

```
#flexBox {
    display: flex;
    align-items: flex-end;
    padding: 10px;
    height: 150px;
    border: 4px solid
}
```

Flex Basics: align-items

You can control where the item is vertically in the box by setting **align-items** in the flex container.

```
#flexBox {
    display: flex;
    align-items: center;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics:

justify-content: space-between + space-around

```
#flexBox {
    display: flex;
    justify-content: space-between;
    align-items: center;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics:

justify-content: space-between + space-around

```
#flexBox {
    display: flex;
    justify-content: space-around;
    align-items: center;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics: flex-direction

```
#flexBox {
    display: flex;
    flex-direction: column;
    padding: 10px;
    height: 150px;
    border: 4px solid Green;
}
```

Flex Basics: flex-direction

```
#flexBox {
    display: flex;
    flex-direction: column;
    justify-content: center;
    padding: 10px;
    height: 300px;
    border: 4px solid Green;
}
```

Now **justify-content** controls where the column is vertically in the box.

Flex Basics: flex-direction

```
#flexBox {
    display: flex;
    flex-direction: column;
    justify-content: space-around;
    padding: 10px;
    height: 300px;
    border: 4px solid Green;
}
```

And you can also lay out columns instead of rows.

Now **justify-content** controls where the column is vertically in the box.

Flex Basics: flex-direction

```
#flexBox {
    display: flex;
    flex-direction: column;
    align-items: flex-end;
    padding: 10px;
    height: 300px;
    border: 4px solid Green;
}
```

And you can also lay out columns instead of rows.

Now **align-items** controls where the column is horizontally in the box.

Flex Basis

Flex items have an initial width*, which, by default is either:

- The content width, or
- The explicitly set **width** property of the element, or
- The explicitly set **flex-basis** property of the element

This initial width* of the flex item is called the **flex basis**.

The explicit width of a flex item is respected **for all flex items**, regardless of whether the flex item is inline, block, or inline-block.*

*width in the case of rows; height in the case of columns

Flex Basis

If we unset the height and width, our flex items disappears, because the **flex basis** is now the content size, which is empty:

```html
<div id="flexBox">
 <span class="flexThing"></span>
 <div class="flexThing"></div>
 <span class="flexThing"></span>

</div>
```

```css
#flexBox {
    display: flex;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    border-radius: 10px;
    background-color: pink;
    margin: 5px;
}
```

flex-shrink

The width* of the flex item can automatically shrink **smaller** than the **flex basis** via the **flex-shrink** property:

flex-shrink:

- If set to **1**, the flex item shrinks itself as small as it can in the space available
- If set to **0**, the flex item does not shrink.

Flex items have **flex-shrink**: **1 by default**.

*width in the case of rows;
height in the case of columns

flex-shrink

```
#flexBox {
    display: flex;
    align-items: flex-start;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    width: 500px;
    height: 50px;
    border-radius: 10px;
    background-color: pink;
    margin: 5px;
}
```

The flex items' widths all shrink to fit the width of the container.

flex-shrink

```
.flexThing {
    width: 500px;
    height: 50px;
    flex-shrink: 0;
    border-radius: 10px;
    background-color: pink;
    margin: 5px;
}
```

Setting **flex-shrink**: **0**; undoes the shrinking behavior, and the flex items do not shrink in any circumstance:

flex-grow

The width* of the flex item can automatically **grow larger** than the **flex basis** via the **flex-grow** property:

flex-grow:

- If set to **1**, the flex item grows itself as large as it can in the space remaining
- If set to **0**, the flex item does not grow

Flex items have **flex-grow**: **0 by default**.

*width in the case of rows;
height in the case of columns

flex-grow

Let's unset the height + width of our flex items again.

```html
<div id="flexBox">
 <span class="flexThing"></span>
 <div class="flexThing"></div>
 <span class="flexThing"></span>

</div>
```

```css
#flexBox {
    display: flex;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    border-radius: 10px;
    background-color: pink;
    margin: 5px;
}
```

flex-grow

if we set **flex-grow: 1;**
the flex items fill the empty space.

```
#flexBox {
    display: flex;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    flex-grow: 1;
    border-radius: 10px;
    background-
    margin: 5px
}
```

flex item height**?

note that **flex-grow** only controls width*

So why does the height** of the flex items seem to ‘grow’ as well?

```
#flexBox {
    display: flex;
    border: 4px solid green;
    height: 150px;
}

.flexThing {
    flex-grow: 1;
    border-radius: 1
    background-color
    margin: 5px;
}
```

*width in the case of rows; height in the case of columns
**height in the case of rows; width in the case of columns

align-items: stretch;

The default value of **align-items** is stretch, which means every flex item grows vertically* to fill the container by default.

(This will not happen if the height on the flex item is set)

```
#flexBox {
    display: flex;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    flex-grow: 1;
    border-radius: 10px;
    background-color: pink;
    margin: 5px;
}
```

*veritcally in the case of rows; horizontally in the case of columns

align-items: stretch;

If we set another value for align-items, the flex items disappear again because the height is now content height, which is 0:

```
#flexBox {
    display: flex;
    align-items: flex-start;
    border: 4px solid Green;
    height: 150px;
}

.flexThing {
    flex-grow: 1;
    border-radius: 10px;
    background-color: pink;
    margin: 5px;
}
```

css grids

Flexbox & CSS Grid

"The basic difference between CSS Grid Layout and CSS Flexbox Layout is that flexbox was designed for layout in one dimension - either a row or a column. Grid was designed for two-dimensional layout - rows, and columns at the same time. The two specifications share some common features, however, and if you have already learned how to use flexbox, the similarities should help you get to grips with Grid."

MDN

The flex-direction property defines in which direction the container wants to stack the flex items - either flex-direction: row or flex-direction: column. However, by using flex-wrap property. Read all about CSS Flexbox @ W3.

CSS Grid

A grid is an intersecting set of horizontal and vertical lines - one set defining columns and the other rows. Elements can be placed onto the grid, respecting these column and row lines.

How Grid Layout Works

The process for using the CSS Grid Layout Module is fundamentally simple:

+ Use the display property to turn an element into a grid container. The element's children automatically become grid items.
+ Set up the columns and rows for the grid. You can set them up explicitly and/or provide directions for how rows and columns should get created on the fly (the css grid is very flexible).
+ Assign each grid item to an area on the grid. If you don't assign them explicitly, they flow into the cells sequentially.

The element that has the display: **grid property** applied to it becomes the grid container and defines the context for grid formatting. All of its direct child elements automatically become grid items that end up positioned in the grid. You can define an explicit grid with grid layout but the specification also deals with the content added outside of a declared grid, which adds additional rows and columns when needed. Features such as adding "as many columns that will fit into a container" are included.

Grid line

The horizontal and vertical dividing lines of the grid are called grid lines.

Grid cell

The smallest unit of a grid is a grid cell, which is bordered by four adjacent grid lines with no grid lines running through it.

Grid area

A grid area is a rectangular area made up of one or more adjacent grid cells.

Grid track

The space between two adjacent grid lines is a grid track, which is a generic name for a grid column or a grid row. Grid columns are said to go along the block axis, which is vertical (as block elements are stacked) for languages written horizontally. Grid rows follow the inline (horizontal) axis.

The structure established for the grid is independent from the number of grid items in the container. You could place 4 grid items in a grid with 12 cells, leaving 8 of the cells as 'whitespace.' That's the flexibility of grids. You can also set up a grid with fewer cells than grid items, and the browser adds cells to the grid to accommodate them.

Grid line

The horizontal and vertical dividing lines of the grid are called grid lines. They can be either vertical ("column grid lines") or horizontal ("row grid lines") and reside on either side of a row or column. Here the yellow line is an example of a column grid line.

Grid track

The space between two adjacent grid lines is a grid track, which is a generic name for a grid column or a grid row. Grid columns are said to go along the block axis, which is vertical (as block elements are stacked) for languages written horizontally. Grid rows follow the inline (horizontal) axis. Here's the grid track between the second and third row grid lines.

Grid cell

The smallest unit of a grid is a grid cell, which is bordered by four adjacent grid lines with no grid lines running through it. It's a single "unit" of the grid. Here's the grid cell between row grid lines 1 and 2, and column grid lines 2 and 3.

Grid area

A grid area is a rectangular area made up of one or more adjacent grid cells. A grid area may be comprised of any number of grid cells. Here's the grid area between row grid lines 1 and 3, and column grid lines 1 and 3.

Grid Container Properties:

- display
- grid-template-columns
- grid-template-rows
- grid-template-areas
- grid-template
- grid-column-gap
- grid-row-gap
- grid-gap
- justify-items
- align-items
- place-items
- justify-content
- align-content
- place-content
- grid-auto-columns
- grid-auto-rows
- grid-auto-flow
- grid

CSS Tricks w/ links!

Grid Item Properites

grid-column-start

grid-column-end

grid-row-start

grid-row-end

grid-column

grid-row

grid-area

justify-self

align-self

place-self