What is Flexbox?

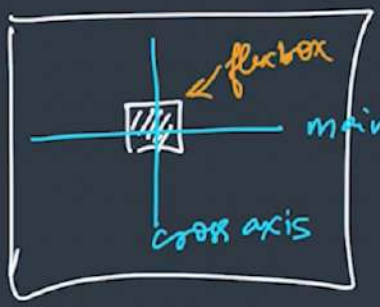
responsive

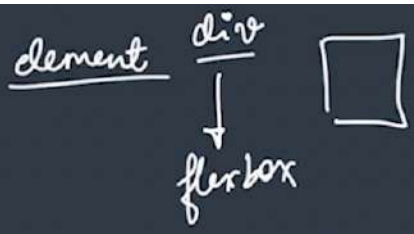
Flexible Box Layout

It is a one-dimensional layout method for arranging items in rows or columns.

The Flex Model

direction = row





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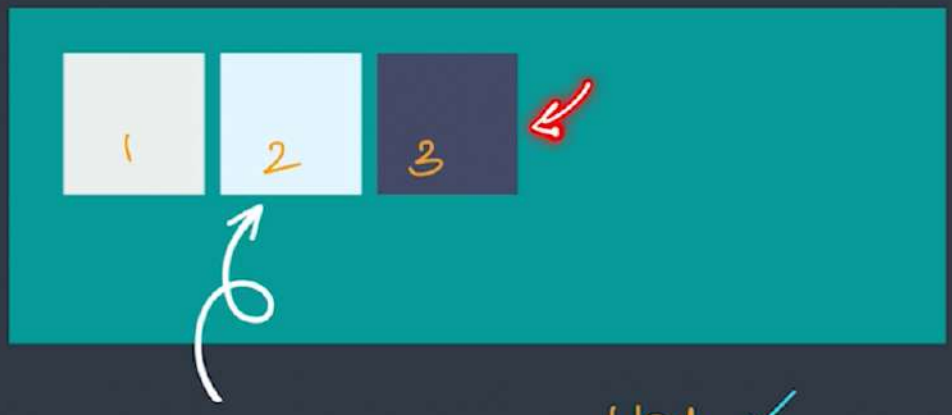
General Example



flex container

flex item

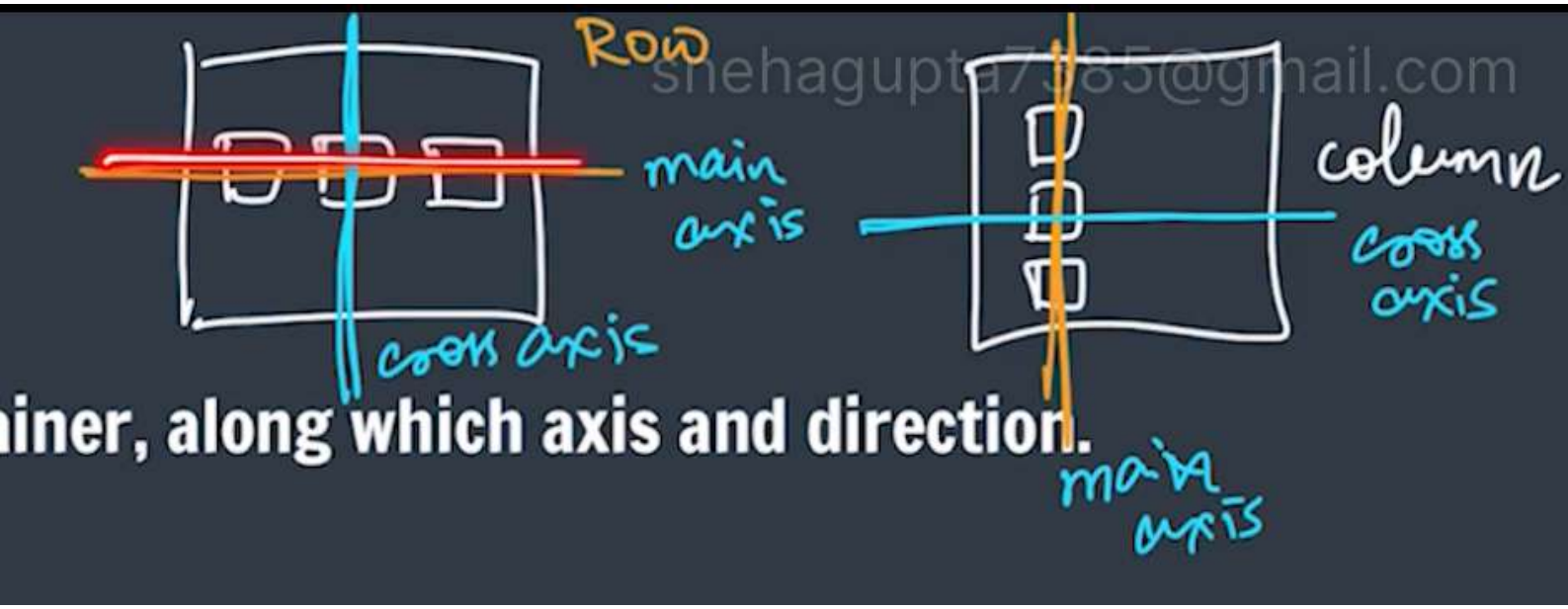
display: flex

block ✓
inline ✓
inline-block —

Flexbox Direction

It sets how flex items are placed in the flex container, along which axis and direction.

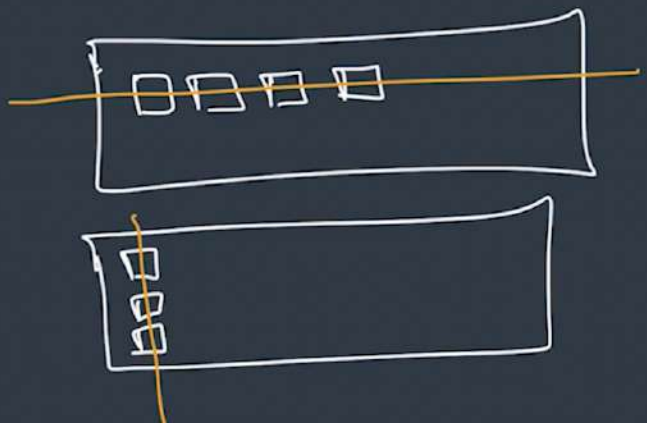
- flexbox-direction : row; main axis, left to right
- flexbox-direction : row-reverse; main axis, right to left
- flexbox-direction : column; cross axis, top to bottom
- flexbox-direction : column-reverse; cross axis, bottom to top


Row
main axis
cross axis
column
cross axis
main axis
iner, along which axis and direction.

Justify Content

Tells how the browser distributes space between and around content items along the main-axis

- justify-content : flex-start;
- justify-content : flex-end;
- justify-content : center;



Justify Content

- justify-content : space-between;
- justify-content : space-around;
- justify-content : space-evenly;

Flex Wrap

Sets whether flex items are forced onto one line or can wrap onto multiple lines

- flex-wrap : nowrap;
- flex-wrap : wrap;
- flex-wrap : wrap-reverse;

Align Items

Distributes our items along the cross axis

- justify-content : flex-start;
- justify-content : flex-end;
- justify-content : center;

Align Items

- justify-content : baseline;

Align Content

it sets the distribution of space between and around content items along a flexbox's cross-axis

- align-content : flex-start / flex-end / center
- align-content : space-between / space-around / evenly
- align-content : baseline;

Align Self

Aligns an item along the cross axis

- align-self : flex-start;
- align-self : flex-end;
- align-self : center;
- align-self : baseline;

Align Self
individual
align items (groups)

align self

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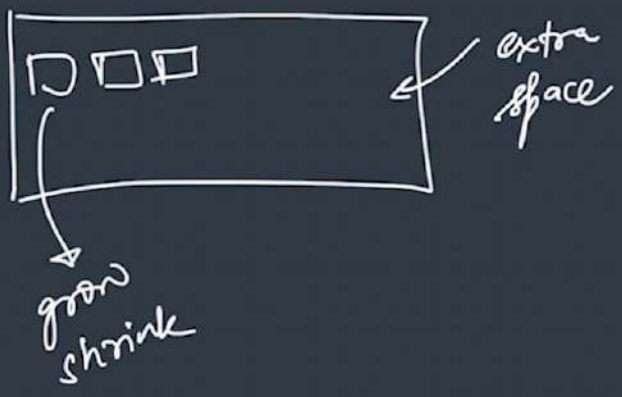
Flex Sizing

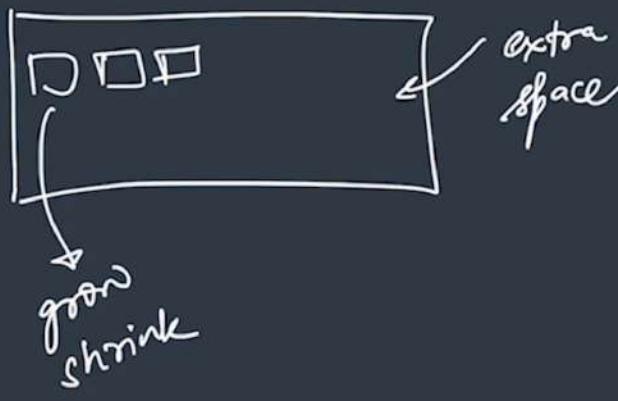
- **flex-basis**

  It sets the initial main size of a flex item.




```
flex-basis : 100px;
```

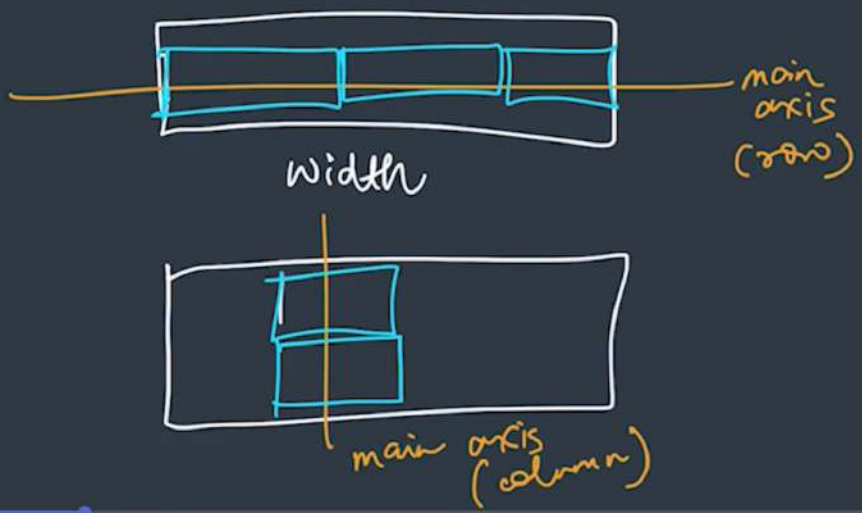
Flex Sizing



- **flex-basis**

  It sets the initial main size of a flex item.

  flex-basis : 100px;



Flex Sizing

- **flex-grow**

  It specifies how much of the flex container's remaining space should be assigned to the flex item's main size

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flex-grow : 1 (default)

Flex Sizing

- **flex-shrink**

  It sets the flex shrink factor of a flex item.

  flex-shrink : 1

Flex Shorthand

- flex-grow | flex-shrink | flex-basis

  flex : 2 2 100px;

- flex-grow | flex-basis

  flex : 2 100px;

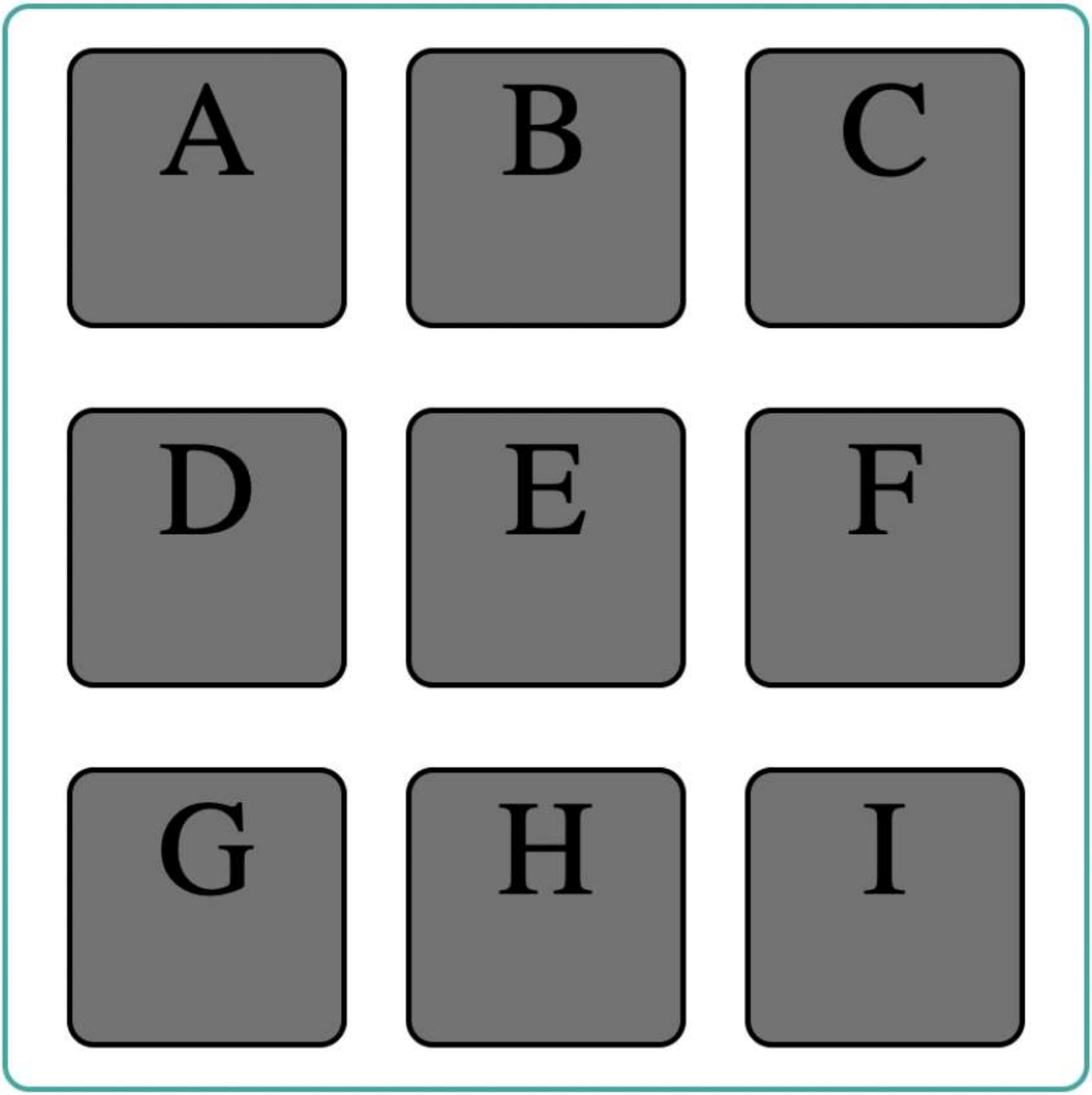
- flex-grow (unitless)

  flex : 2;

- flex-basis

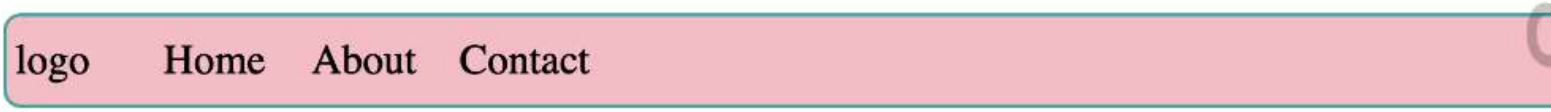
  flex : 100px;

Qs. Re-create the following layout using flexbox as closely as possible :



- Take the container height & width as 400px & child height & width as 100px.
- Font size of text as 50px.

Qs. Re-create the following layout using flexbox as closely as possible :



- Take the container height & width as(50px, 900px) & child height & width a (50px, 80px).
- Use font-size as 24px

Qs. Try solving a few Flexbox based games here :
https://codingfantasy.com/games/flexboxadventure

CSS (Part 5)

Practice Solutions

Answers

HTML Code

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width,
initial-scale=1.0" />
<title>CSS Assignment</title>
<link rel="stylesheet" href="style.css" />
</head>
<body>
<div id="container">
<div class="box">A</div>
<div class="box">B</div>
<div class="box">C</div>
<div class="box">D</div>
<div class="box">E</div>
<div class="box">F</div>
<div class="box">G</div>
<div class="box">H</div>
<div class="box">I</div>
```

```
</div>
<br>
<div id="navbar">
<div class="option">logo</div>
<div class="option">Home</div>
<div class="option">About</div>
<div class="option">Contact</div>
</div>
</body>
</html>
```

CSS Code

```
/* Ans 1 */
#container {
 height: 400px;
 width: 400px;
 background-color: white;
 border: 2px solid lightseagreen;
 border-radius: 10px;
 display: flex;
 flex-wrap: wrap;
 justify-content: space-evenly;
 align-items: center;
}

.box {
 height: 100px;
 width: 100px;
```

```
 background-color: grey;
 border: 2px solid black;
 border-radius: 10px;
 font-size: 50px;
 text-align: center;
}

/* Ans 2 */
#navbar {
 height: 50px;
 width: 900px;
 background-color: pink;
 border: 2px solid lightseagreen;
 border-radius: 10px;
 display: flex;
 justify-content: flex-start;
 align-content: center;
}

.option {
 height: 50px;
 width: 80px;
 border-radius: 10px;
 margin-left: 5px;
 font-size: 24px;
 line-height: 50px;
}
```

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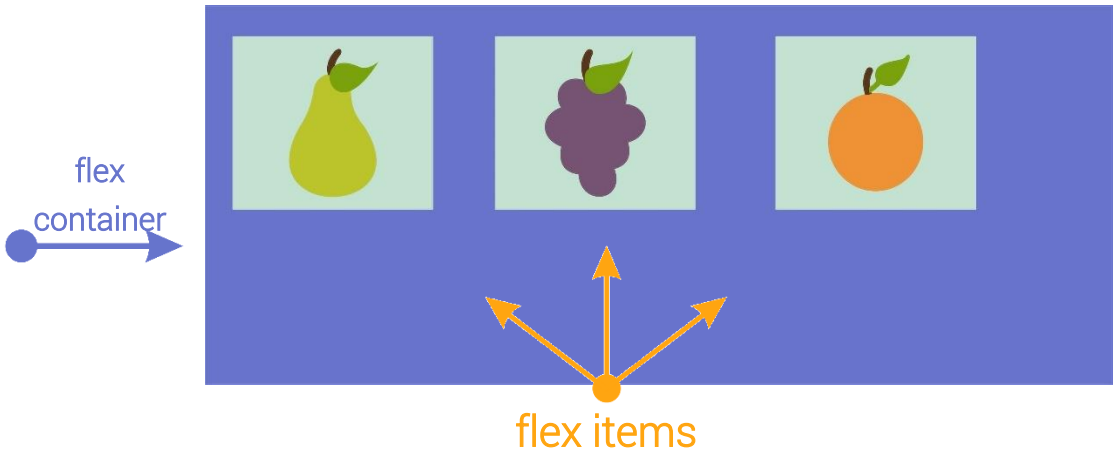
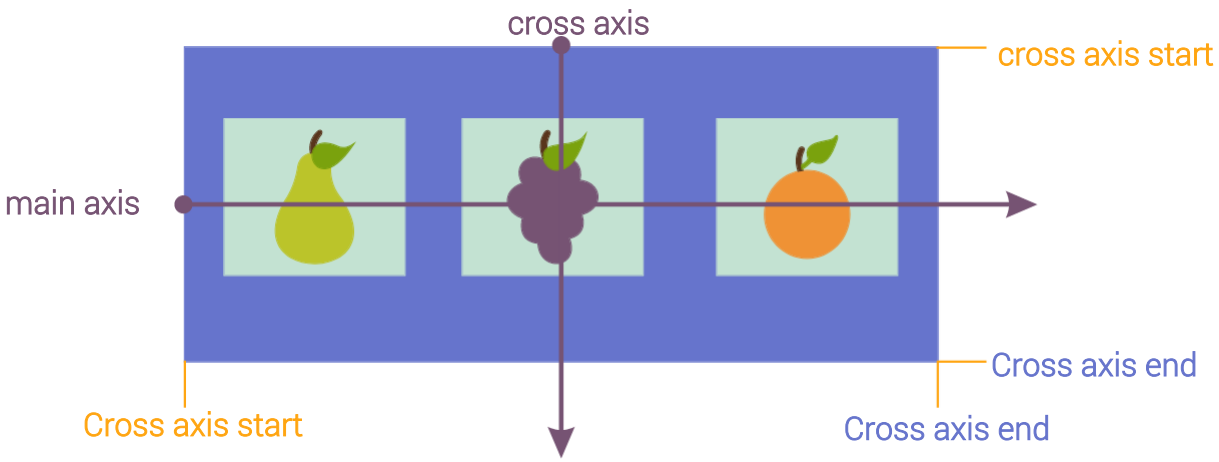
Flexbox Cheatsheet Cheatsheet





To activate powers

display: flex; on flex container

Do you want rows or columns?

rows

columns

flex-direction: row; on container

flex-direction: column; on container

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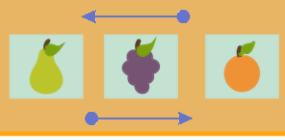
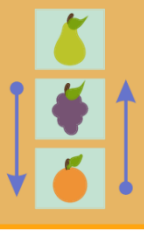
OR

flex-direction: row-reverse; on container



OR

flex-direction: column-reverse: on container



Do you want these items located at the beginning of the main axis?

YES, beginning

OK, default value has you covered.

justify-content: flex-start; on container

NO, other

OK, use one of these

justify-content: flex-end; on container

OR

justify-content: center; on container

OR

justify-content: space-between; on

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OR

justify-content: space-around; on container

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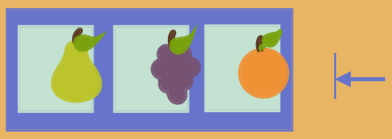
Do you want the items on one line or to move to another when adjusting viewport?

One line

OK, default value has you covered.

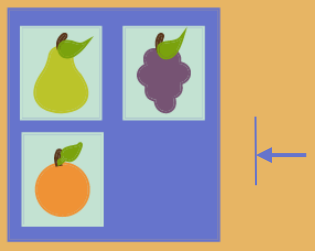
flex-wrap: nowrap; on container



Move to another

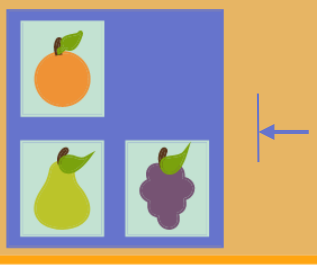
OK, use one of these:

flex-wrap: wrap; on container



OR

flex-wrap: wrap-reverse; on container



How do you want these items laid out on the cross axis?

stretched

not stretched

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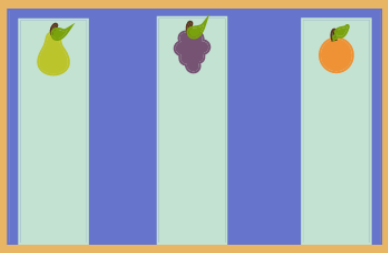
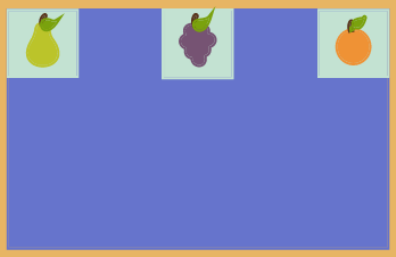
OK, default value has you covered.

align-items: stretch; on container



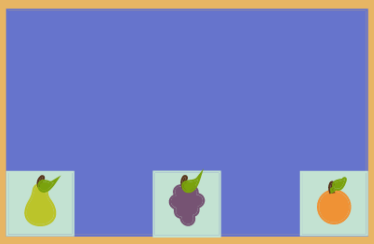
OK, use one of these:

align-items: flex-start; on container



OR

align-items: flex-end; on container

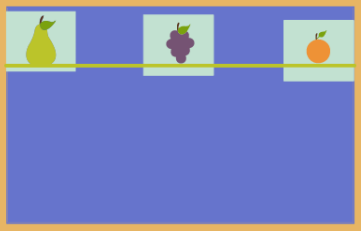


OR

align-items: center; on container

OR

align-items: baseline; on container



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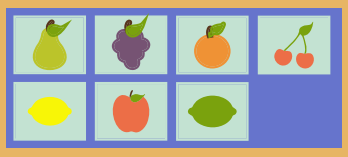
If you have multiple lines of content, how do you want this aligned?

stretched

not stretched

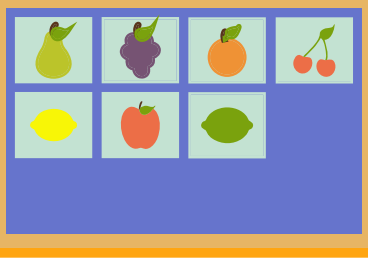
OK, default value has you covered.

align-content: stretch; on



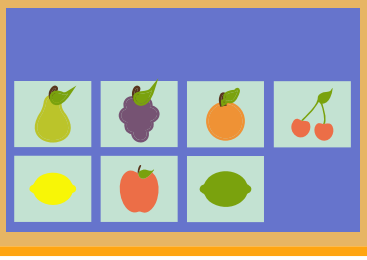
OK, use one of these:

align-content: flex-start; on container



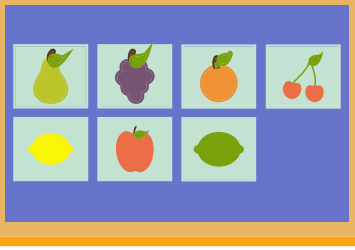
OR

align-content: flex-end; on container



OR

align-content: center; on container



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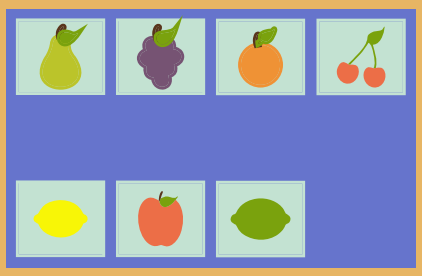
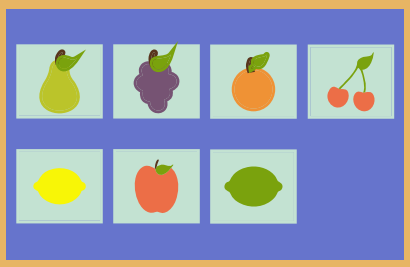
align-content: space-between; on container



OR

align-content: space-around; on container



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Do you want to change the order of the items?

NO

Awesome, don't do anything.
That was easy.

YES

OK, use these:

order: <whole number>; on item

Do you need some items to grow if necessary?

NO

Awesome, don't do anything. That was easy.

YES

OK, use these:

Flex-grow: <whole number>; on item

Do any of these items need to be aligned differently than the others?

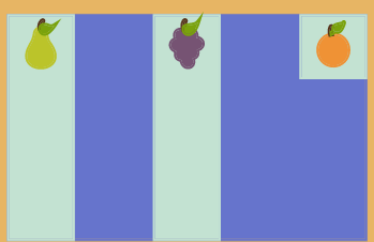
NO

OK, you're done. That was super easy.

YES

OK, use these:

align-self: flex-start; on item



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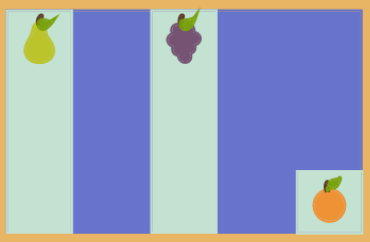
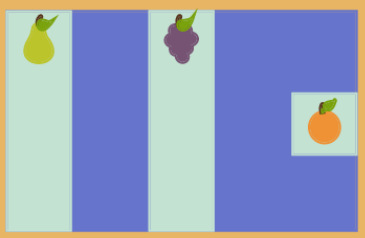
OR

align-self: flex-end; on item



OR

align-self: center; on item



OR

align-self: baseline; on item

OR

align-self: stretch; on item

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