

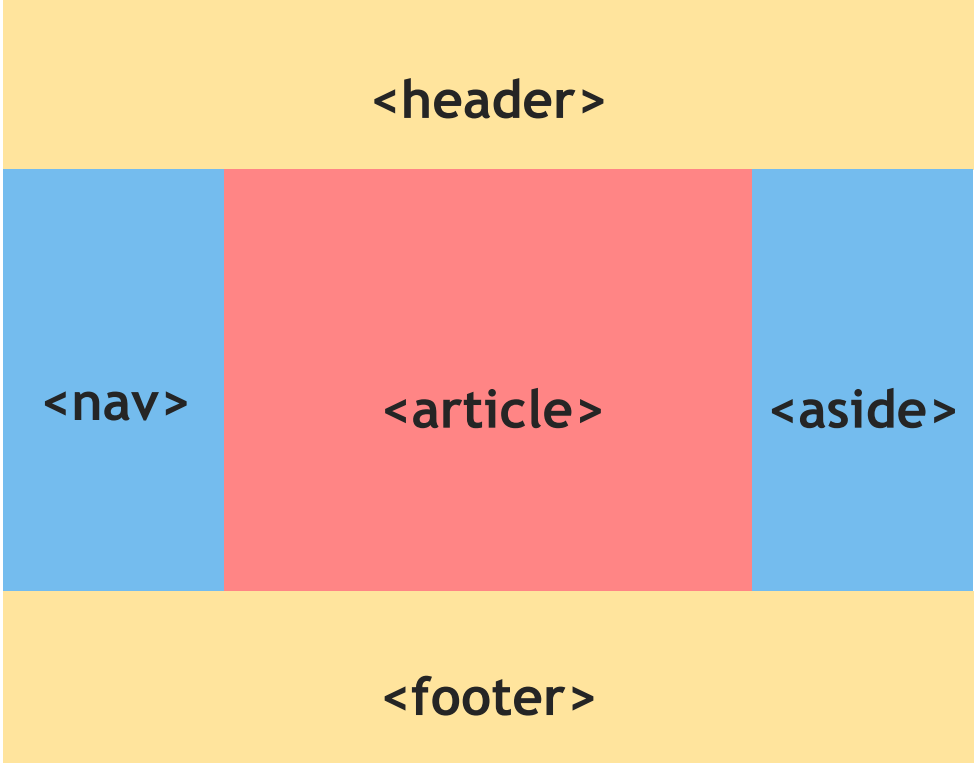
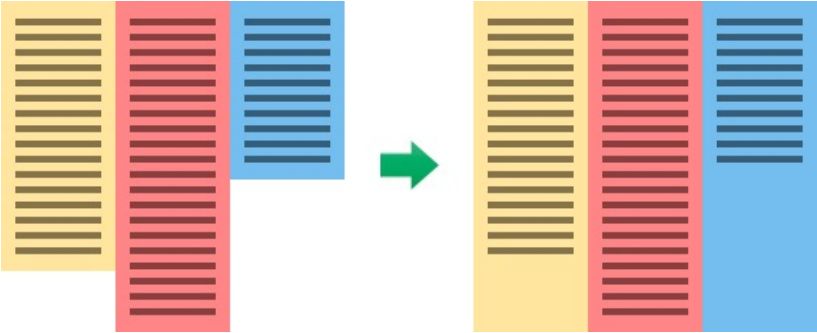


CSS FlexBox

AGENDA

- 1 **Flex**
- 2 **Concepts and Terminology**
- 3 **Container Properties**
- 4 **Flex item properties**
- 5 **Examples**

CSS PROBLEMS

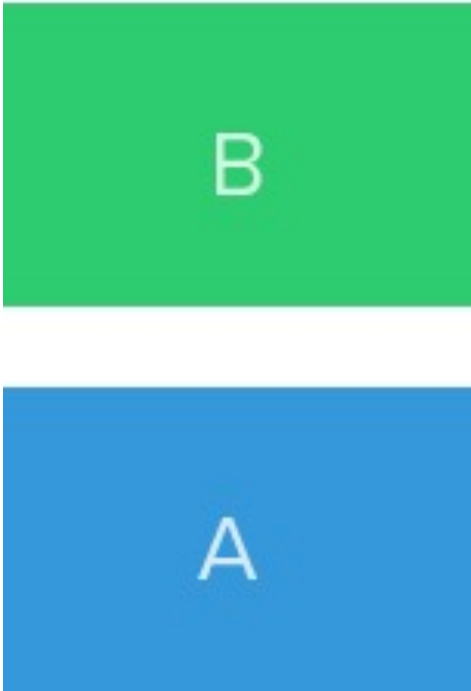


CSS PROBLEMS

Desktop



Mobile



CSS PROBLEMS



CSS PROBLEMS



GOODBYE FLOATS
AND CLEARFIXES

HELLO
FLEXBOX.

BROWSER SUPPORT

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
			49						
		52	60			10.2			
	15	55	61	10.1		10.3		4.4	
⁴ 11	16	56	62	11	48	11	all	56	61
		57	63	TP	49				
		58	64		50				
		59	65						

<https://caniuse.com/#feat=flexbox>

Available space

even when we don't know what that will be

alignment

both horizontally and vertically

display
ordre



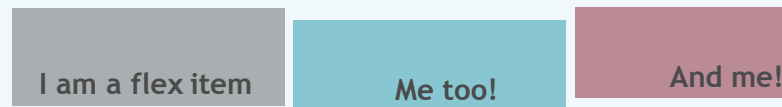
The image shows the word 'ordre' in a large, sans-serif font. The letters 'ord' are grey, and the letters 're' are blue. A pink arrow points to the right above the 're', and another pink arrow points to the left below the 're'.

FLEXBOX CONTAINER AND ITEMS

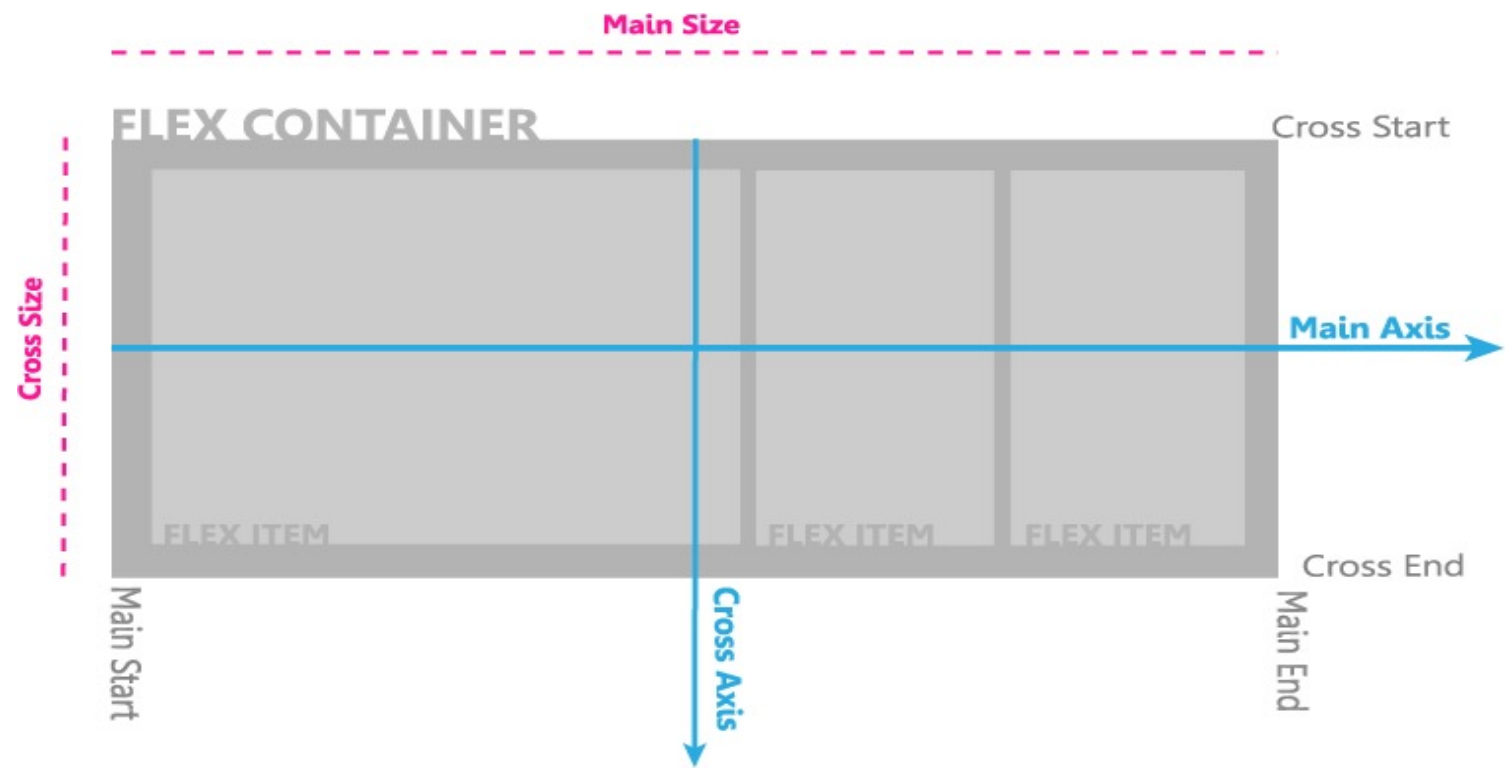
To start work with flexbox, you need to define **flex container**

```
.container {  
  display: flex | inline-flex;  
}
```

Items in a flex container are, by default, **flex items** (even anonymous block boxes)

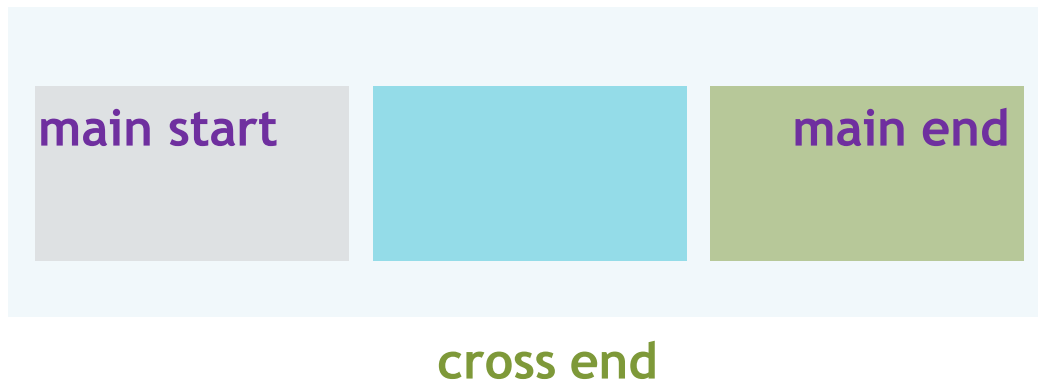


FLEX AXES

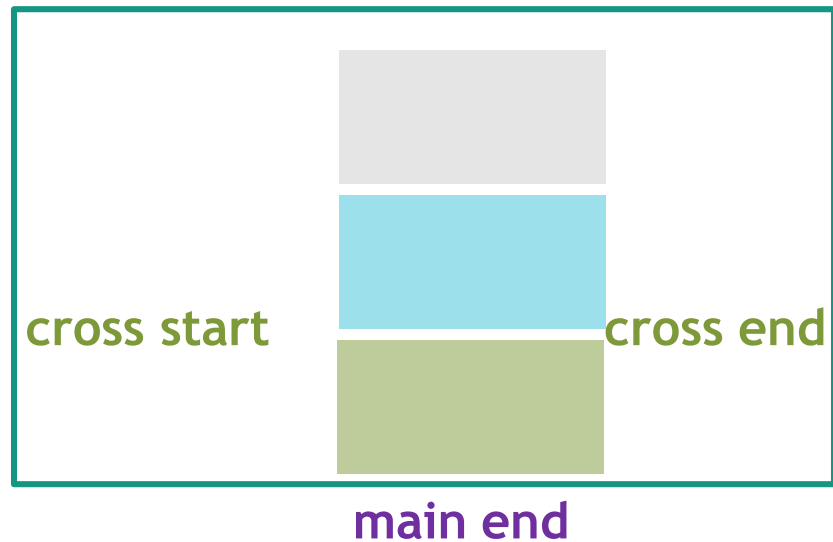


START & END DEPEND ON DIRECTION

```
.container {  
  flex-direction: row;  
}
```



```
.container {  
  flex-direction: column;  
}
```



CONTAINER PROPERTIES

FLEX-DIRECTION AND LTR DIRECTION

CSS

```
//direction: ltr;
```

```
.container {  
  flex-direction: row |  
                 row-reverse |  
                 column |  
                 column-reverse  
}
```



FLEX-DIRECTION AND RTL DIRECTION

CSS

```
//direction: rtl;  
.container {  
  flex-direction: row | row-reverse | column | column-reverse  
}
```

- ☒ flex-direction: row;
- ☐ flex-direction: row-reverse;
- ☐ flex-direction: column;
- ☐ flex-direction: column-reverse;

5

4

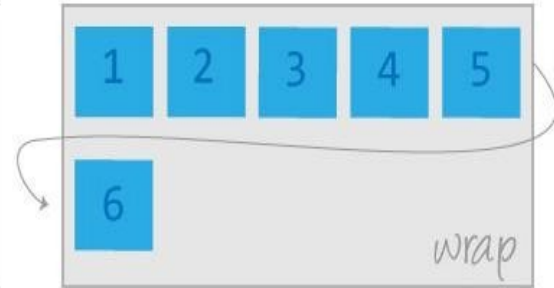
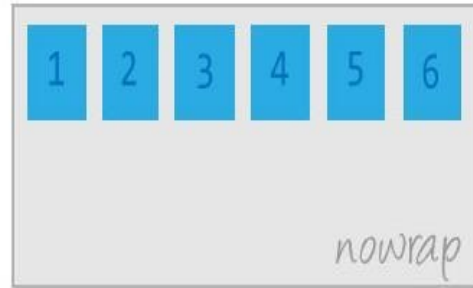
3

2

1

FLEX-WRAP

```
//direction: ltr;  
.container {  
  flex-wrap: nowrap | wrap | wrap- reverse  
}
```



FLEX-WRAP

CSS

```
//direction: rtl;  
.container {  
  flex-wrap: nowrap | wrap | wrap-reverse;  
}
```

- ☒ flex-wrap: nowrap;
- ☐ flex-wrap: wrap;
- ☐ flex-wrap: wrap-reverse;



FLEX-FLOW

flex-flow - shorthand property for *flex-direction* and *flex-wrap* individual properties

CSS

```
.container {  
  flex-flow: <'flex-direction'> <'flex-wrap'>  
}
```

JUSTIFY-CONTENT

CSS

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

flex-start



flex-end



center



space-between



space-around

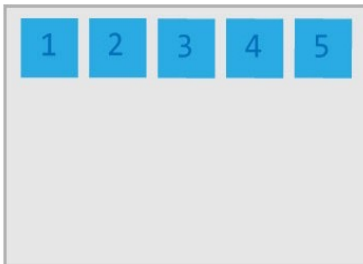


ALIGN-ITEMS

CSS

```
.container {  
  align-items: flex-start |  
              flex-end |  
              center |  
              baseline |  
              stretch;  
}
```

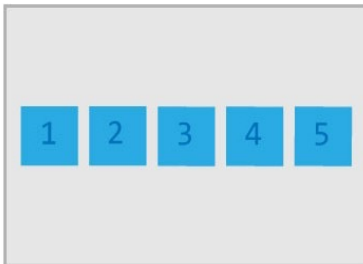
flex-start



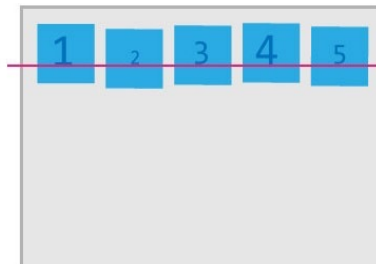
flex-end



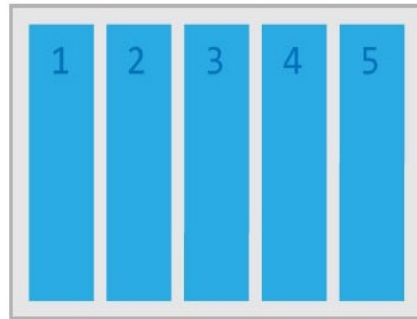
center



baseline



stretch

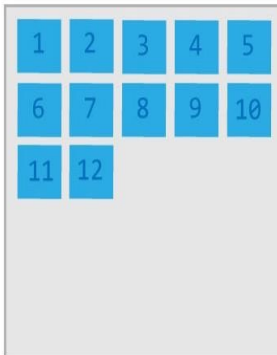


ALIGN-CONTENT

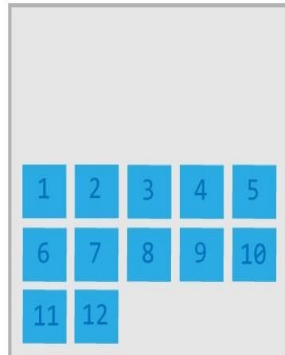
CSS

```
.container {  
  align-content: flex-start |  
                flex-end |  
                space-around |  
                center |  
                stretch |  
                space-between;  
}
```

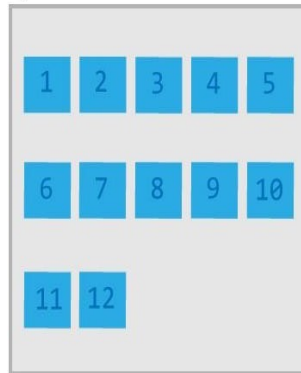
flex-start



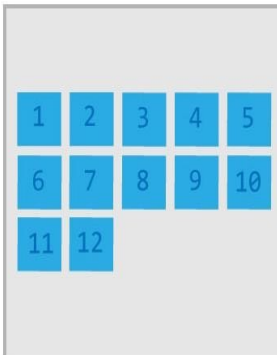
flex-end



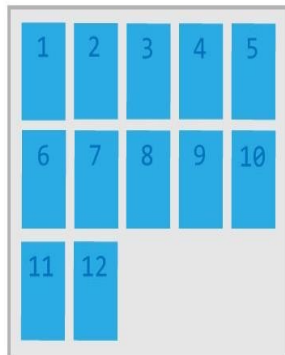
space-around



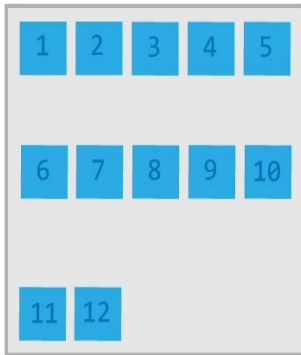
center



stretch



space-between



CONTAINER PROPERTIES SUMMARY



“FLEX CONTAINER”

flex-direction

flex-wrap

flex-flow

justify-content

align-items

align-content

FLEX ITEM PROPERTIES

ORDER

CSS

```
.item {  
  order: <integer>;  
}
```

(default)



order: 1



order: 3



ORDER

```
.three { order: -1; }  
.five { order: -2; }
```



ORDER

```
three { order: 7; }
```

1

2

4

5

6

7

8

3

FLEX-GROW

CSS

```
.item {  
  flex-grow: <number>; /* default 0 */  
}
```

One:

Two:

Three:

Four:

FLEX-SHRINK

CSS

```
.item {  
  flex-shrink: <number>; /* default 1 */  
}
```



One:

Two:

Three:

Four:

FLEX-BASIS

flex-basis - specifies the default size of an element before the remaining space is distributed

```
.item {  
  flex-basis: <length> | <auto>; /* default auto */  
}
```

FLEX-BASIS

CSS

```
.container{  
  border: 7px solid silver; display:  
  flex;  
  height: 200px;  
}  
.container div:nth-of-type(1){ background:  
  rgb(0, 137, 250);  
  flex-basis: 10%;  
}  
.container div:nth-of-type(2){  
  background: rgb(255, 0, 43);  
  flex-basis: 20%;  
}  
.container div:nth-of-type(3){ background:  
  rgb(255, 169, 0);  
  flex-basis: 30%;  
}  
.container div:nth-of-type(4){  
  background: rgb(0, 167, 83);  
  flex-basis: 40%;  
}
```



FLEX

flex - specifying the ability of a flex item to alter its dimensions to fill available space

CSS

```
.item {  
  flex: none | [ <'flex-grow'> <'flex-shrink'>? || <'flex-basis'> ]  
}
```

CONTAINER PROPERTIES SUMMARY



“FLEX ITEMS”

order

flex-grow

flex-shrink

flex-basis

flex

EXAMPLES

FLEXBOX IS IDEAL FOR COMPONENTS

Home

About

Services

Gallery

Contacts

CSS

```
.navigation {  
  display:  
  flex;  
  flex-flow: row nowrap;  
}  
.navigation .flex-item {  
  flex: 1 0 auto;  
}
```

Block 1

Block 2

Block 3

CSS

```
display: flex;  
flex-flow: row wrap;  
align-items: center;  
align-content: space-around;  
}  
.container .flex-item { flex:  
  1 0 auto;  
}
```

TOOLS

1

Flexy Boxes

<http://the-echoplex.net/flexyboxes/>

2

Flexplorer

<http://bennettfeely.com/flexplorer/>

3

Flexbox Grid

<http://flexboxgrid.com/>

4

Flexbox help

<http://flexbox.help/>

5

Flexbox in 5 minutes

<http://flexboxfroggy.com/>

6

CSS Flexbox Please!

<http://demo.agektmr.com/flexbox/>

WHAT'S SO GREAT ABOUT FLEXBOX?

- It's a new layout mode
Joins block, inline, table, and positioned
- It's flexible!
You can easily make things stretch and flex to fit available space
- Easy alignment
Horizontal, vertical, baseline
- Establish flow direction
Flex containers can flow either in a row or column and be single or multiple
- Source order independence
You want that before this, but only when that? Ok.
- Any direction you want
You can set direction within containers
- Easy Syntax
You can learn it in one afternoon.

FE Online UA Training Course Feedback

I hope that you will find this material useful.

If you find errors or inaccuracies in this material or know how to improve it, please report on to the electronic address:

serhii_shcherbak@epam.com

With the note [FE Online UA Training Course Feedback]

Thank you.

Q&A



DRIVEN



CANDID



CREATIVE



ORIGINAL



INTELLIGENT



EXPERT

UA Frontend Online LAB