Flexbox Introduction

Latitude Technolabs

We Make It Happen

Flexbox introduction

- **Flexible box layout**
  - for unknown and/or dynamic items
- **Suitable for**
  - components
  - small-scale layouts
- **Structure**
  - Parent (flex container)
  - Children (flex items)
- **Two axis (can be switched)**
  - main
  - cross

Traditional CSS layout drawbacks

- Rules of proportion – complicated math
- Vertical centering
- Same-height columns
- Shrink-to-fit containers
- Float drop and clearing
- Source order dependence

Latitude Technolabs
We Make It Happen

Traditional CSS layout drawbacks

- **Rules of proportion – complicated math ✓**
- **Vertical centering ✓**
- **Same-height columns ✓**
- **Shrink-to-fit containers ✓**
- **Float drop and clearing ✓**
- **Source order dependence ✓**

Flexible box layout

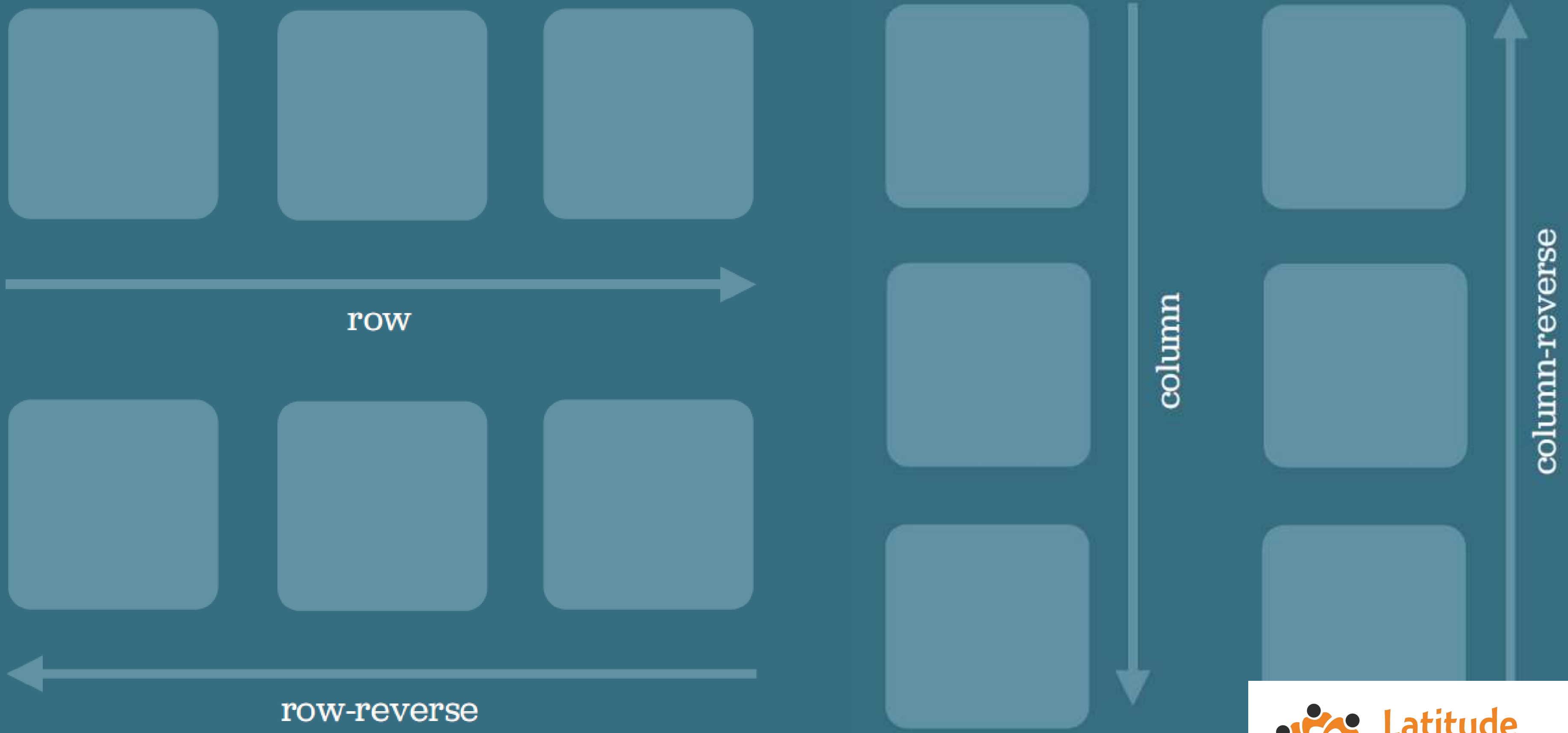
```
.container {
	display: flex;
}
```

Latitude Technolabs
We Make It Happen

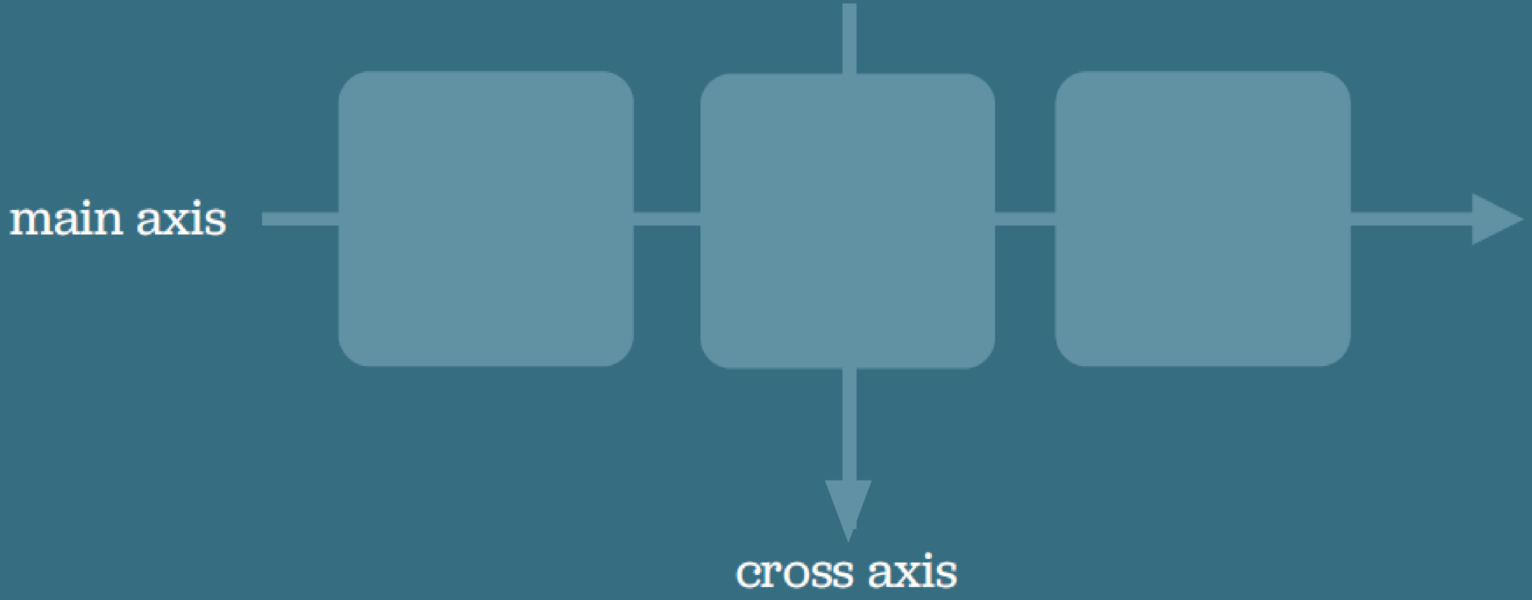
Flex-direction

```
.container {
        display: flex;
        flex-direction: row; /* default */
}
```

- row
- row-reverse
- column
- column-reverse



Latitude Technolabs
We Make It Happen


main axis
cross axis

Flex-wrap

```
.container {
        display: flex;
        flex-direction: row; /* default */
        flex-wrap: nowrap; /* default */
}
```

OR

```
flex-direction + flex-wrap = flex-flow: row nowrap;
```

- nowrap
- wrap
- wrap-reverse

Latitude Technolabs
We Make It Happen

Flex-grow

```
.box1{
        flex: 1;
}
.box2{
        flex: 1;
}
.box3{
        flex: 1;
}
```

The ability for a flex item to grow if necessary and dictates the amount of available space an item should take.

1

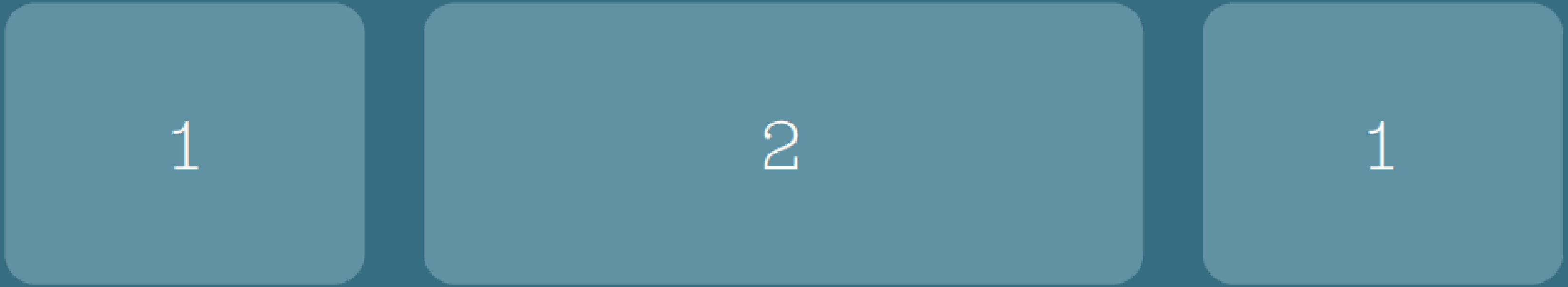
1

1

Flex-grow

```
.box1{
      flex: 1;
}
.box2{
      flex: 2;
}
.box3{
      flex: 1;
}
```

Box2: Take twice the available space as other siblings


1
2
1

Flex-basis

```
.container { width: 800px; }
.box1{
      flex-grow: 1;
      flex-basis:200px; /* added 66px */ }
.box2{
      flex-grow: 1;
      flex-basis:200px; /* added 66px */ }
.box3{
      flex-grow: 1;
      flex-basis:200px; /* added 66px */ }
```

Latitude Technolabs
We Make It Happen

Flex-basis

```
.container { width: 800px; }
.box1{
      flex-grow: 1;
      flex-basis:200px; /* added 50px */ }
.box2{
      flex-grow: 2;
      flex-basis:200px; /* added 100px */ }
.box3{
      flex-grow: 1;
      flex-basis:200px; /* added 50px */ }
```

Latitude Technolabs
We Make It Happen

Flex-basis

```
.container { width: 800px; }

.box1{
      flex: 1 200px; /* added 50px */ }
.box2{
      flex: 2 200px; /* added 100px */ }
.box3{
      flex: 1 200px; /* added 50px */ }
```

Latitude Technolabs
We Make It Happen

Order

```
.box1{
      order: 1;
}
.box2{
      order: 2;
}
.box3{
      order: 3;
}
```

Controls the order in which items appear visually in a flex container

1

2

3

Latitude Technolabs
We Make It Happen

Order

```
.box1{
	order: 3;
}
.box2{
	order: 2;
}
.box3{
	order: 1;
}
```

OR

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

Latitude Technolabs
We Make It Happen

3

2

1

Latitude Technolabs

We Make It Happen

Order

```
.box1{
        order: 2;
}
.box2{
        order: 1;
}
.box3{
        order: 3;
}
```

2

1

3

Latitude Technolabs
We Make It Happen

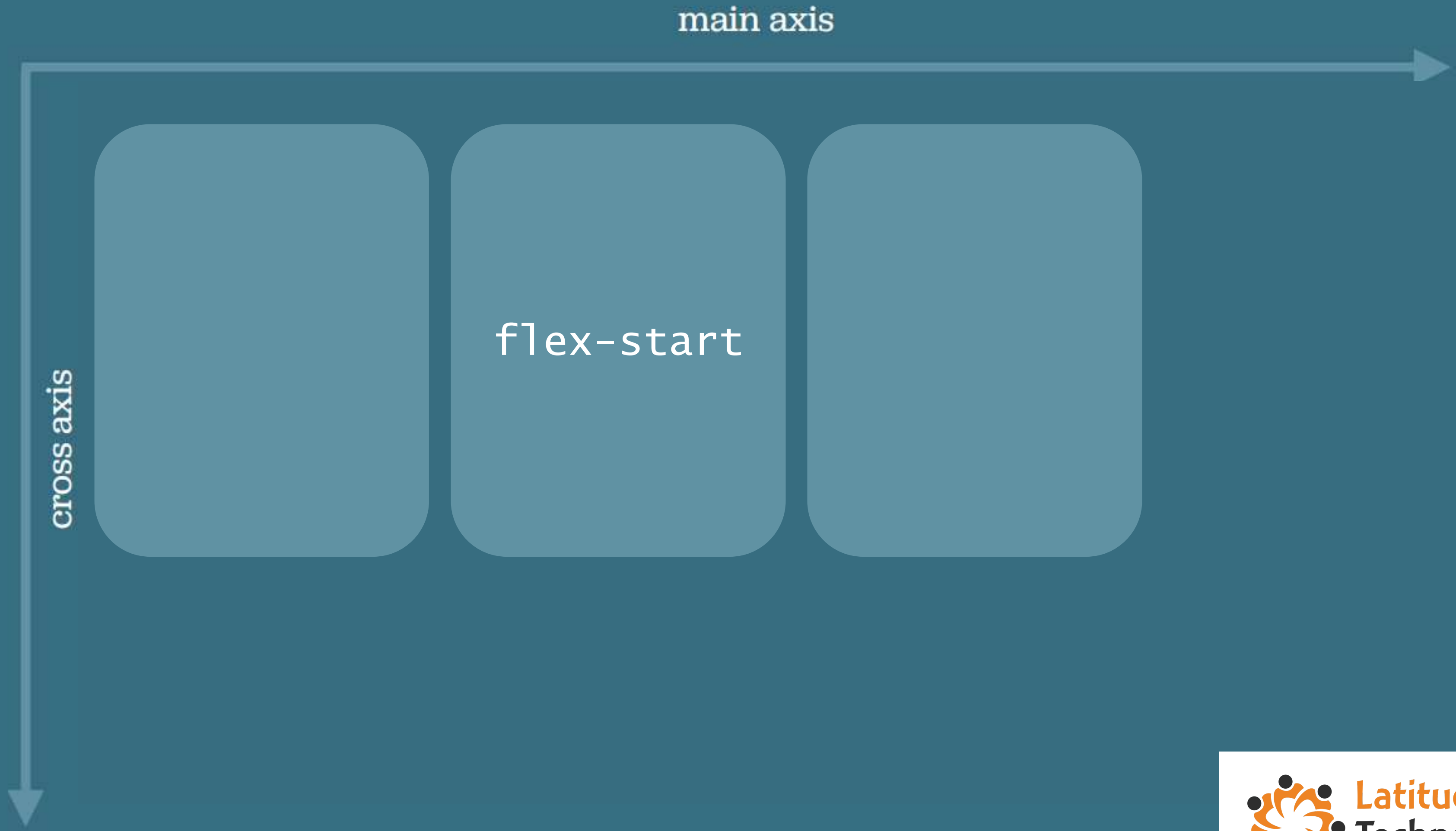
Justify-content

```
.container{
	justify-content: flex-start; /* default */
}
```

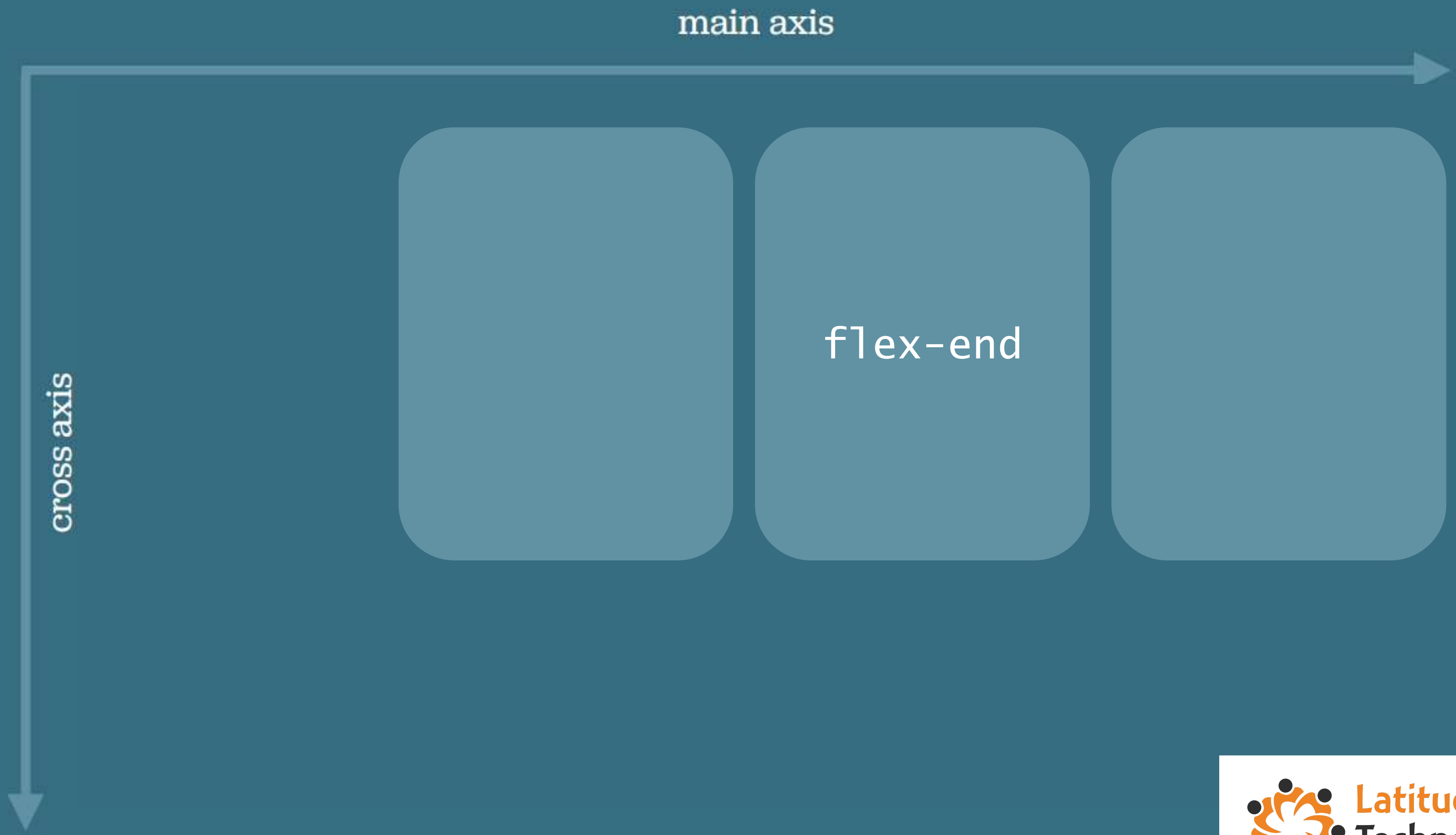
Controls the order in which items appear visually in a flex container (depending on the main axis, one row)

- `flex-start`
- `flex-end`
- `center`
- `space-between`
- `Space-around`

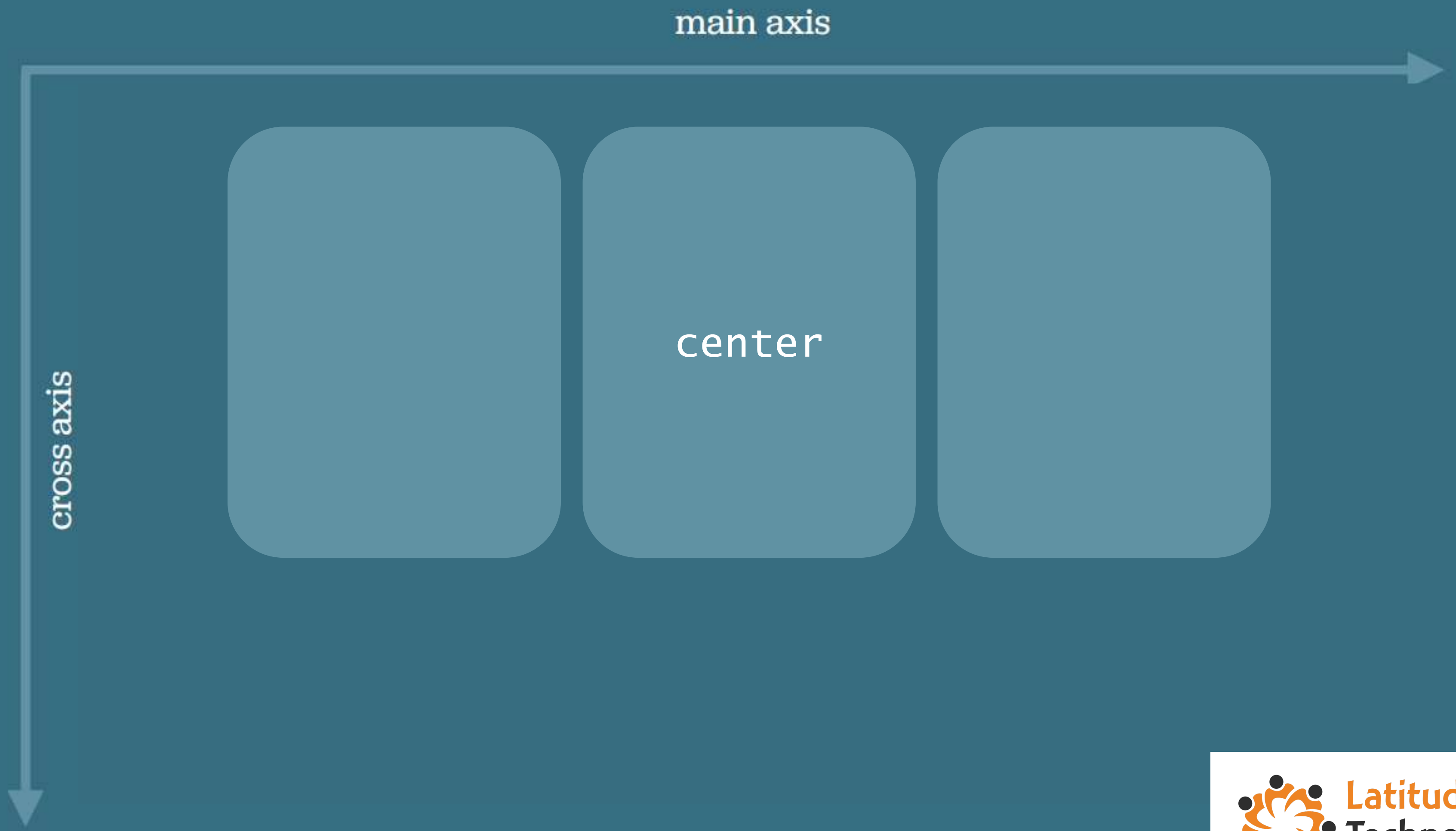
Latitude Technolabs
We Make It Happen



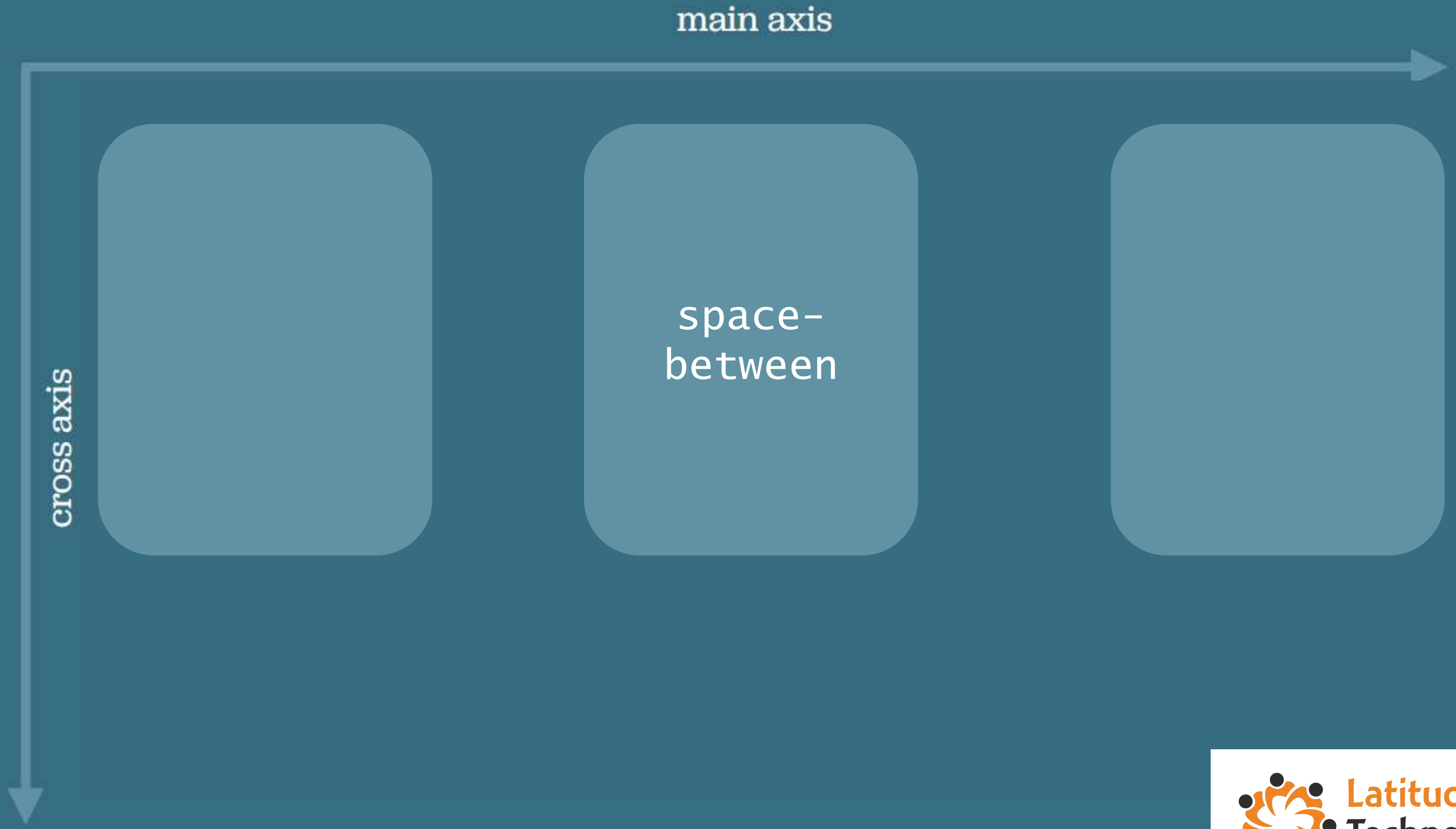
Latitude Technolabs
We Make It Happen



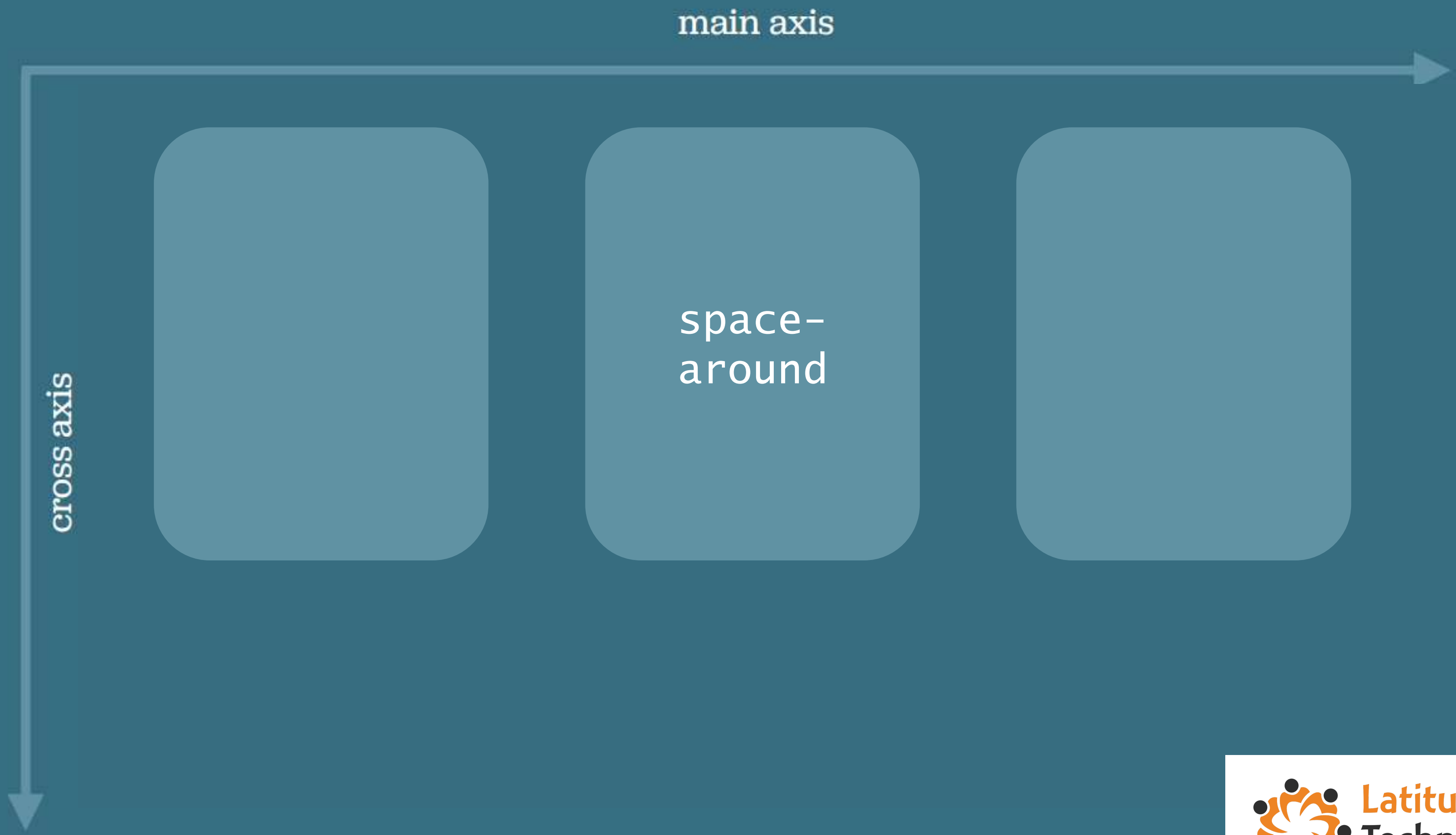
Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen

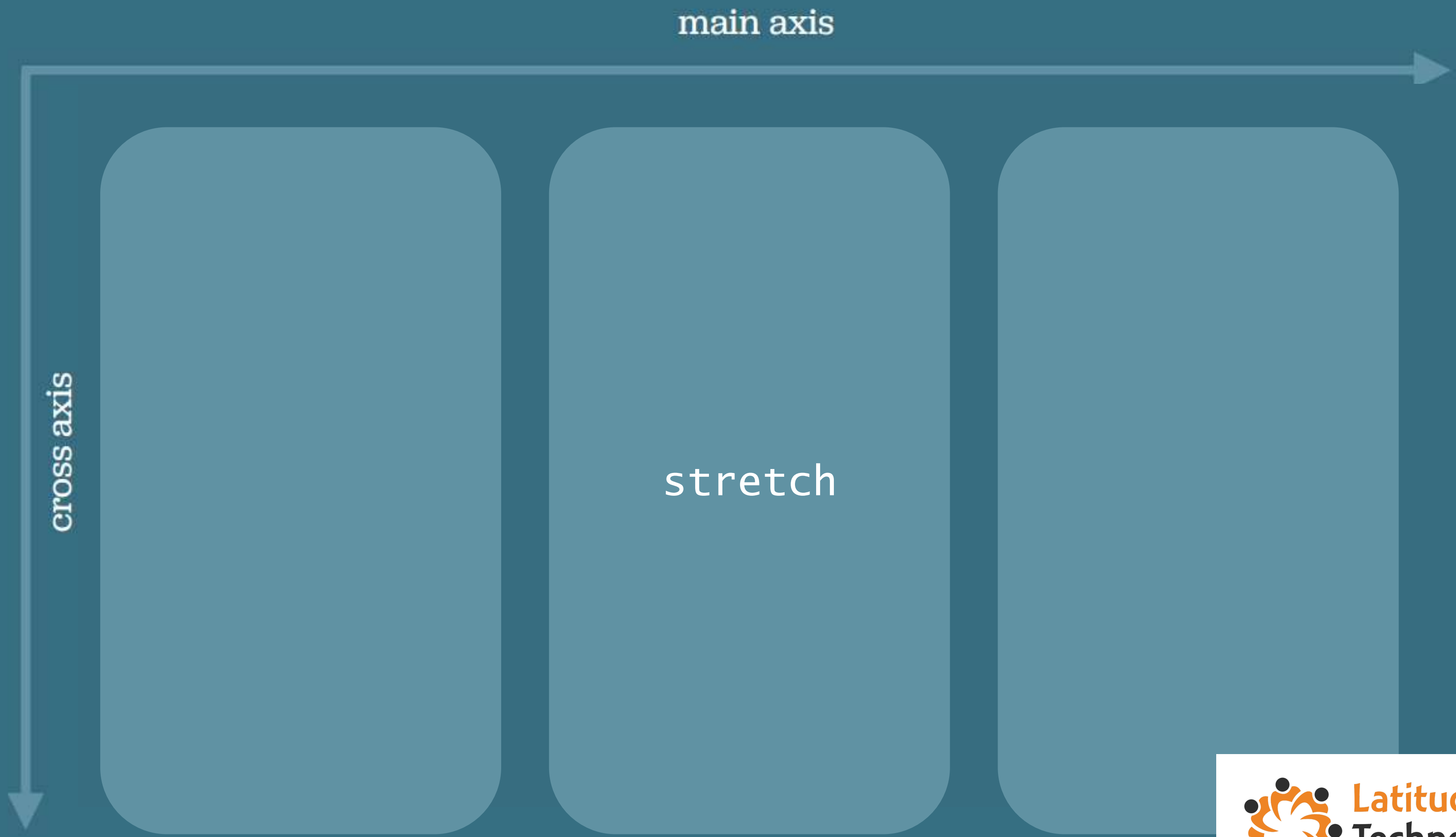
Align-items

```
.container{
    align-items: stretch; /* default */
}
```

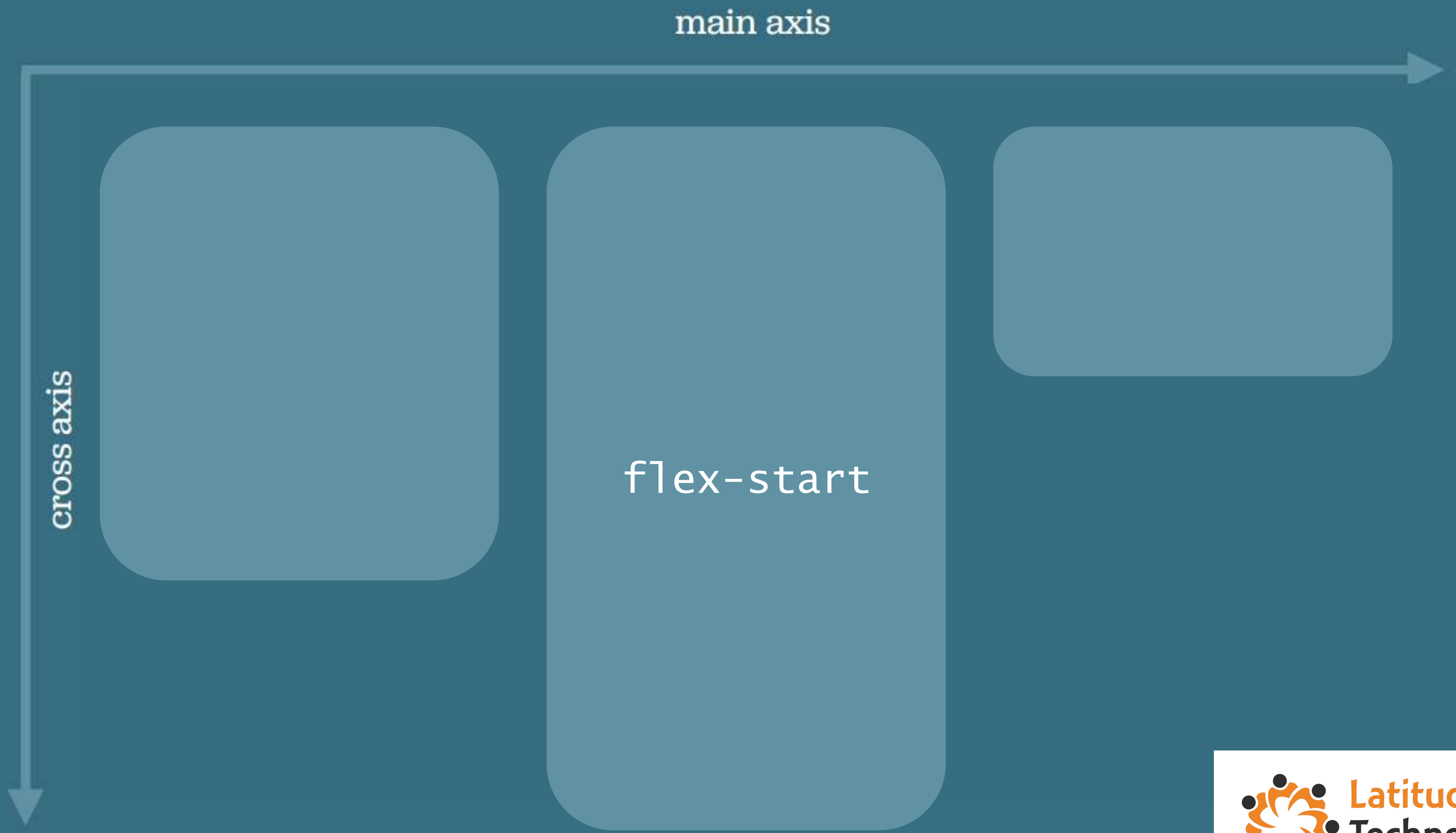
Controls the order in which items appear visually in a flex container (depending on the cross axis, one row)

- `stretch`
- `flex-start`
- `flex-end`
- `center`
- `baseline`

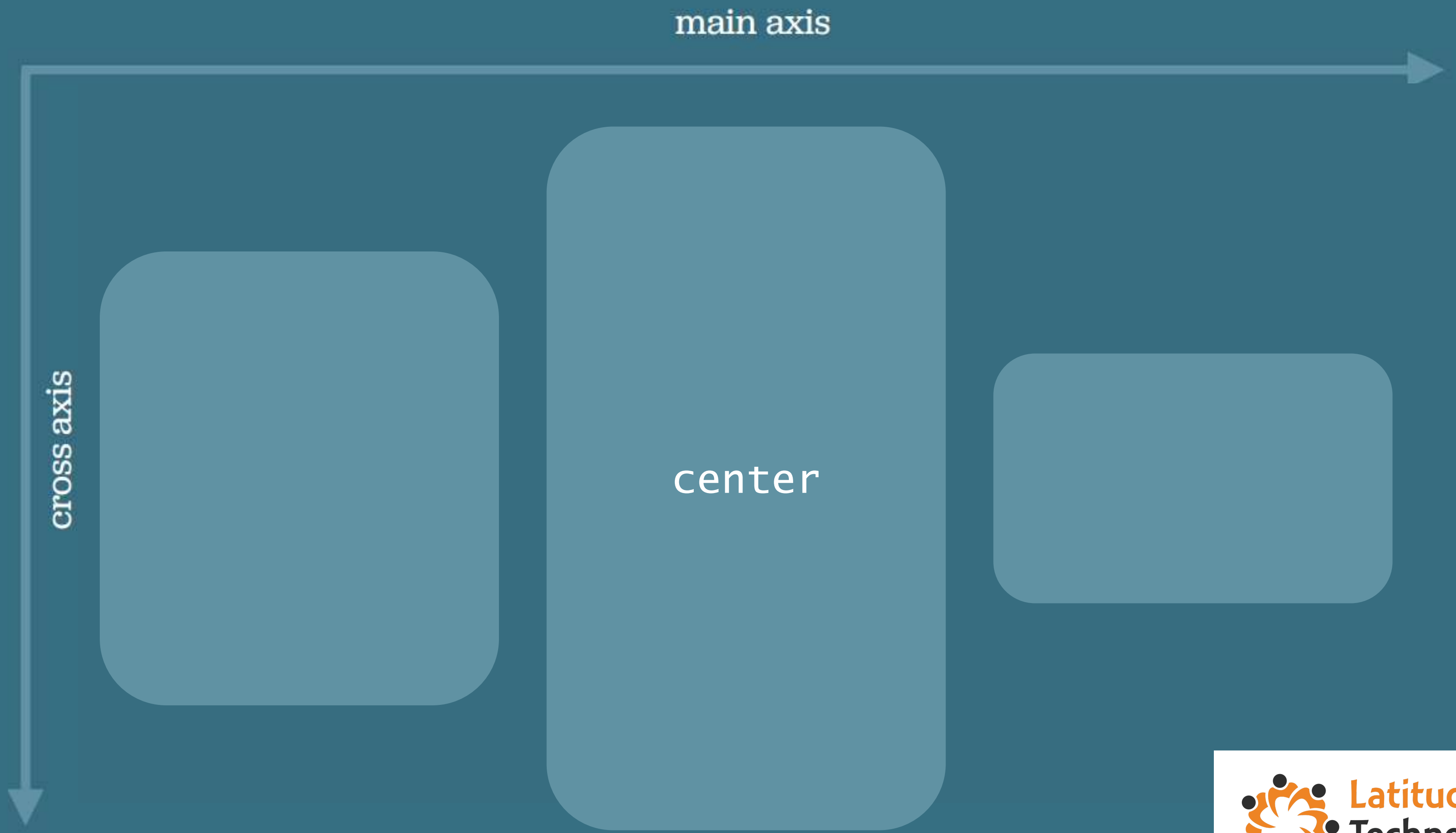
Latitude Technolabs
We Make It Happen



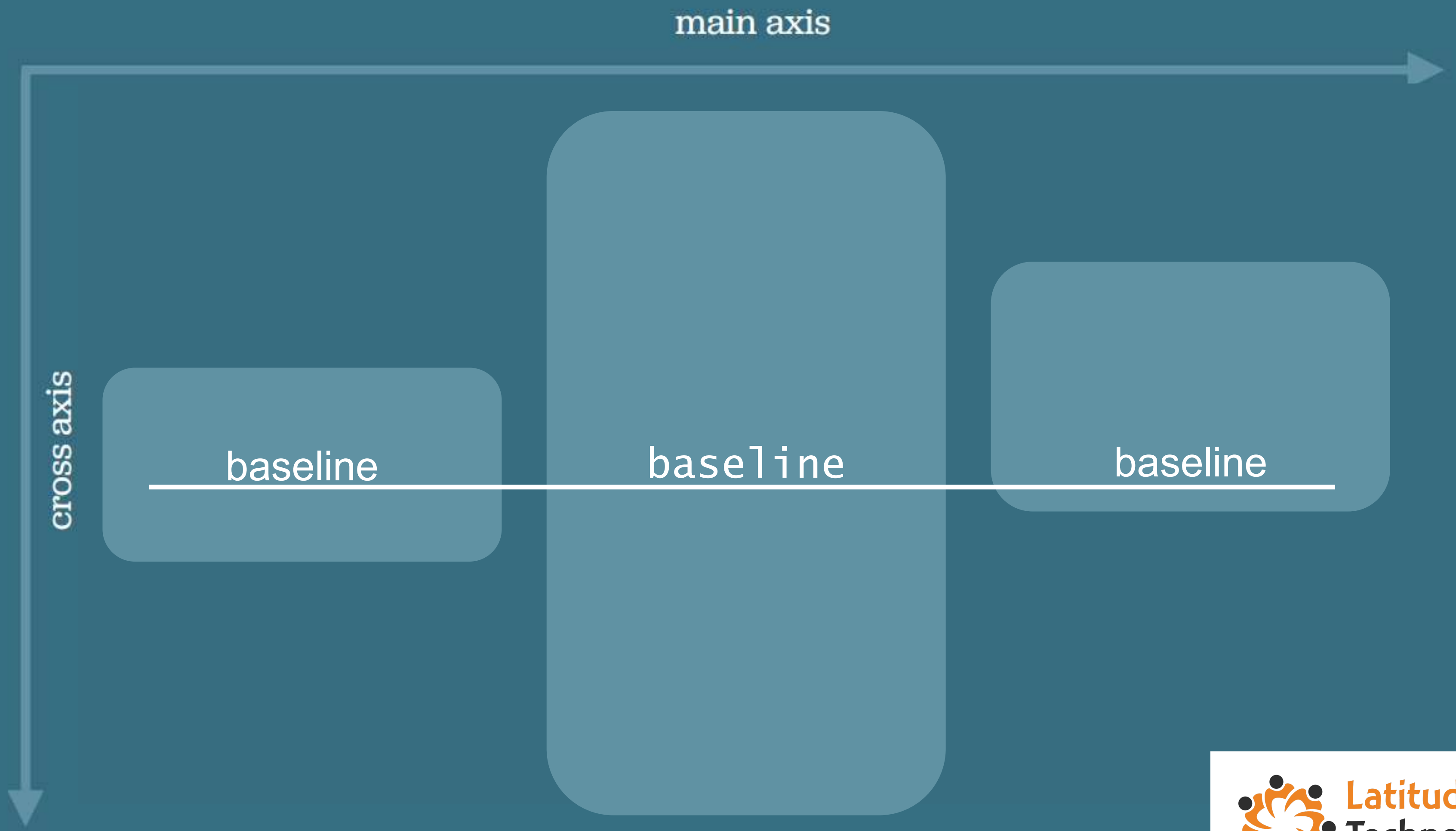
Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen



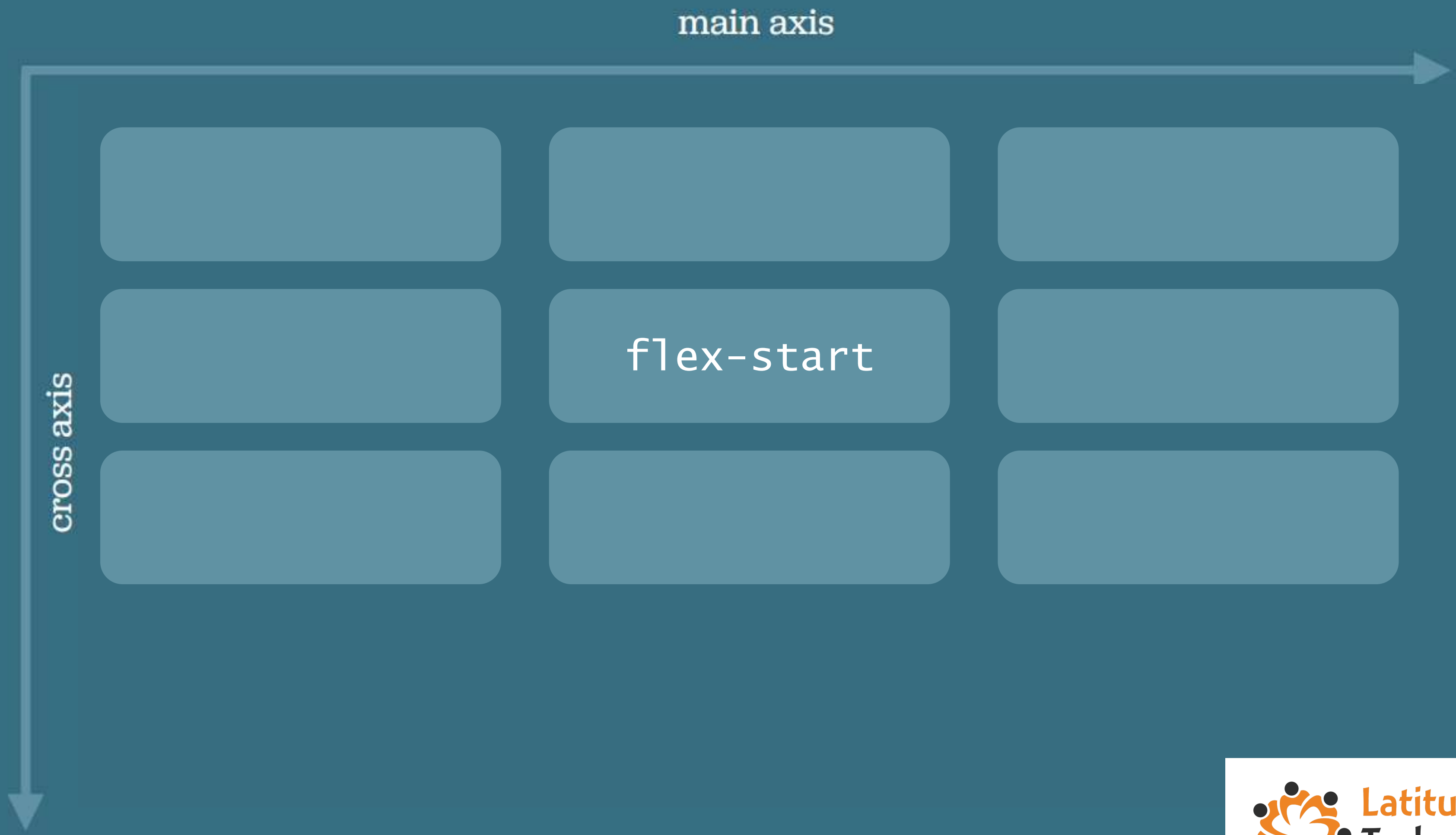
Latitude Technolabs
We Make It Happen

Align-content

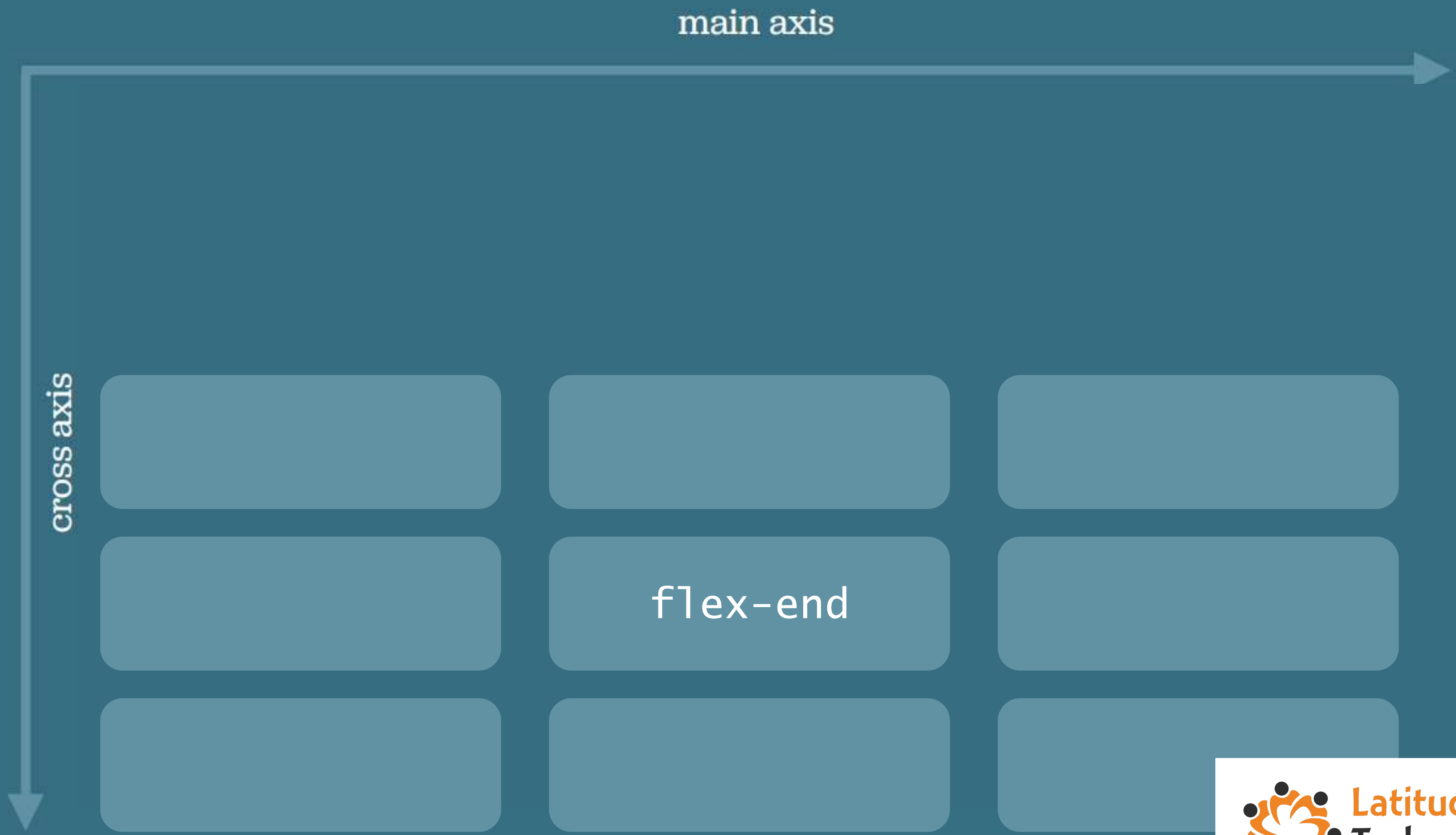
```
.container{
      align-content: stretch; /* default */
}
```

Controls the order in which items appear visually in a flex container (depending on the cross axis, wrapped)

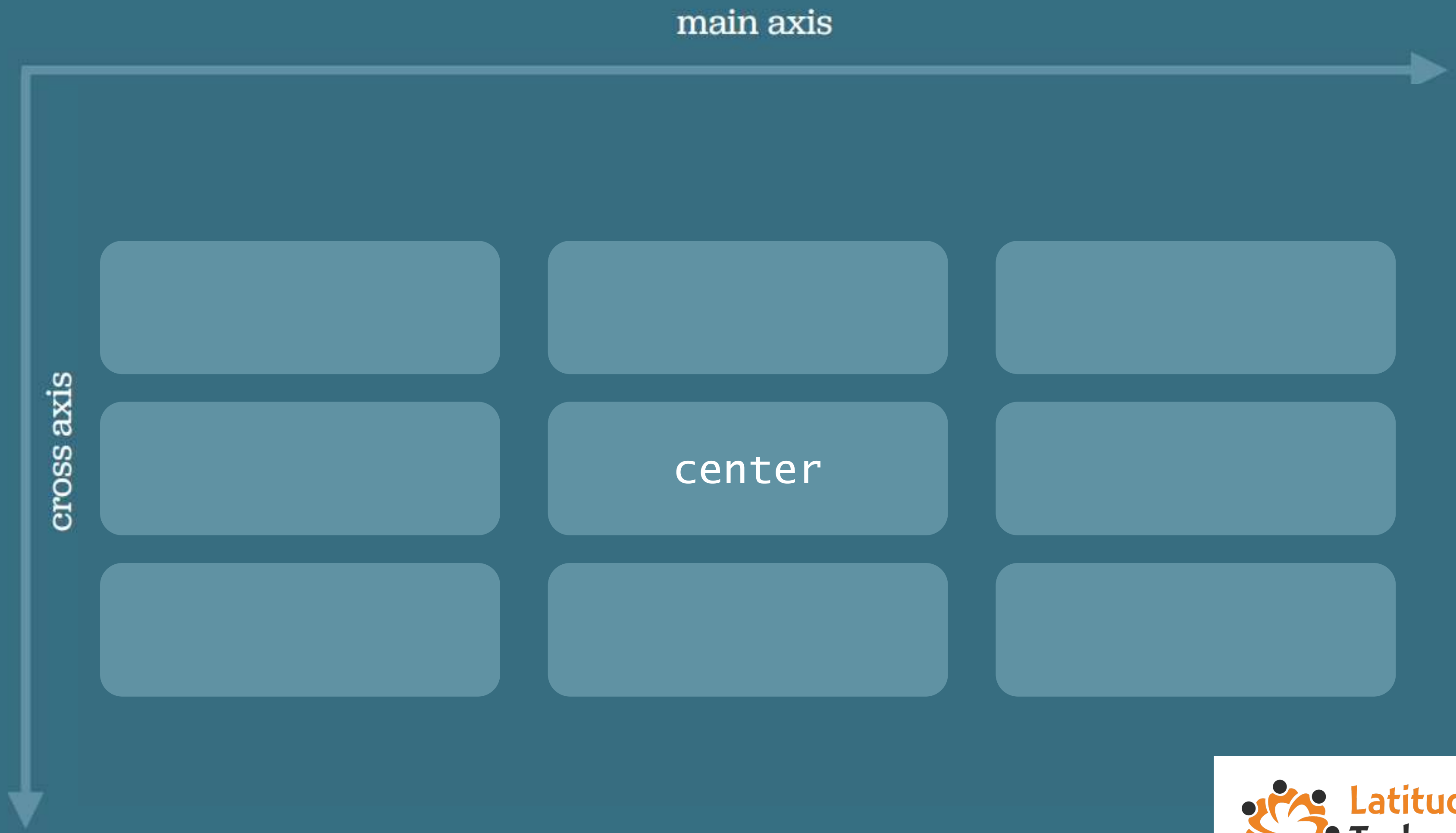
- flex-start
- flex-end
- center
- Stretch
- Space-between
- Space-around



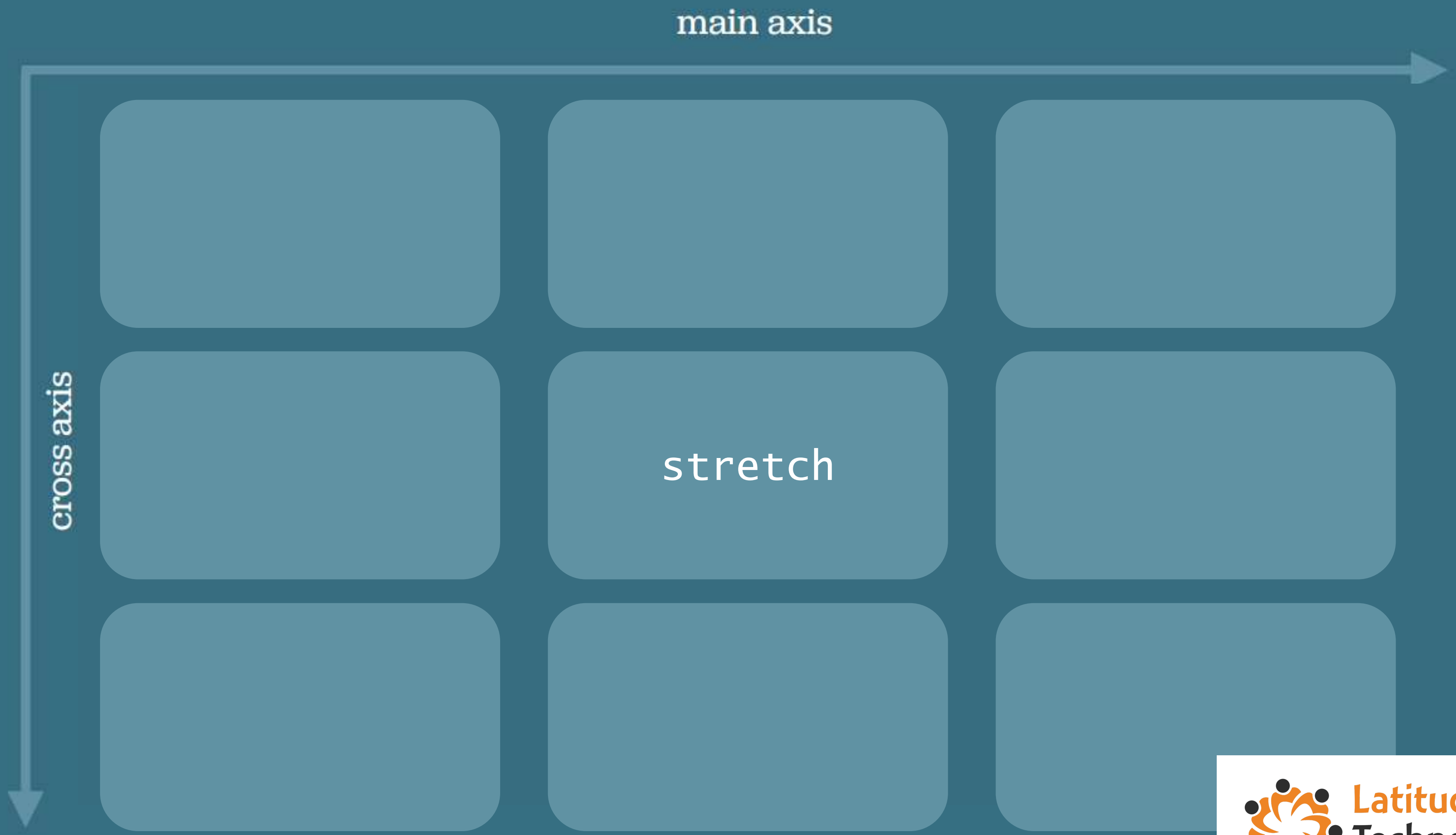
Latitude Technolabs
We Make It Happen



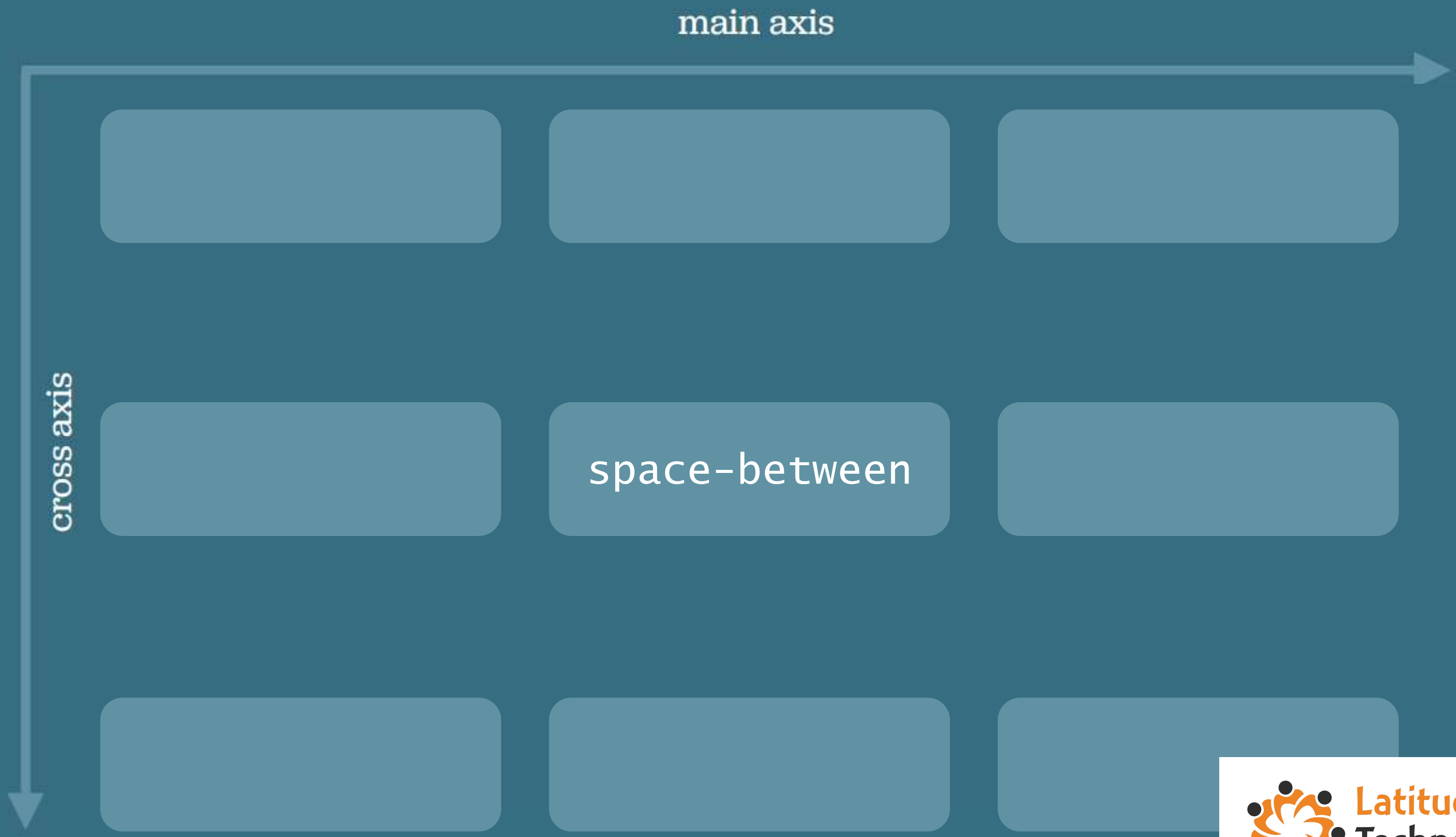
Latitude Technolabs
We Make It Happen



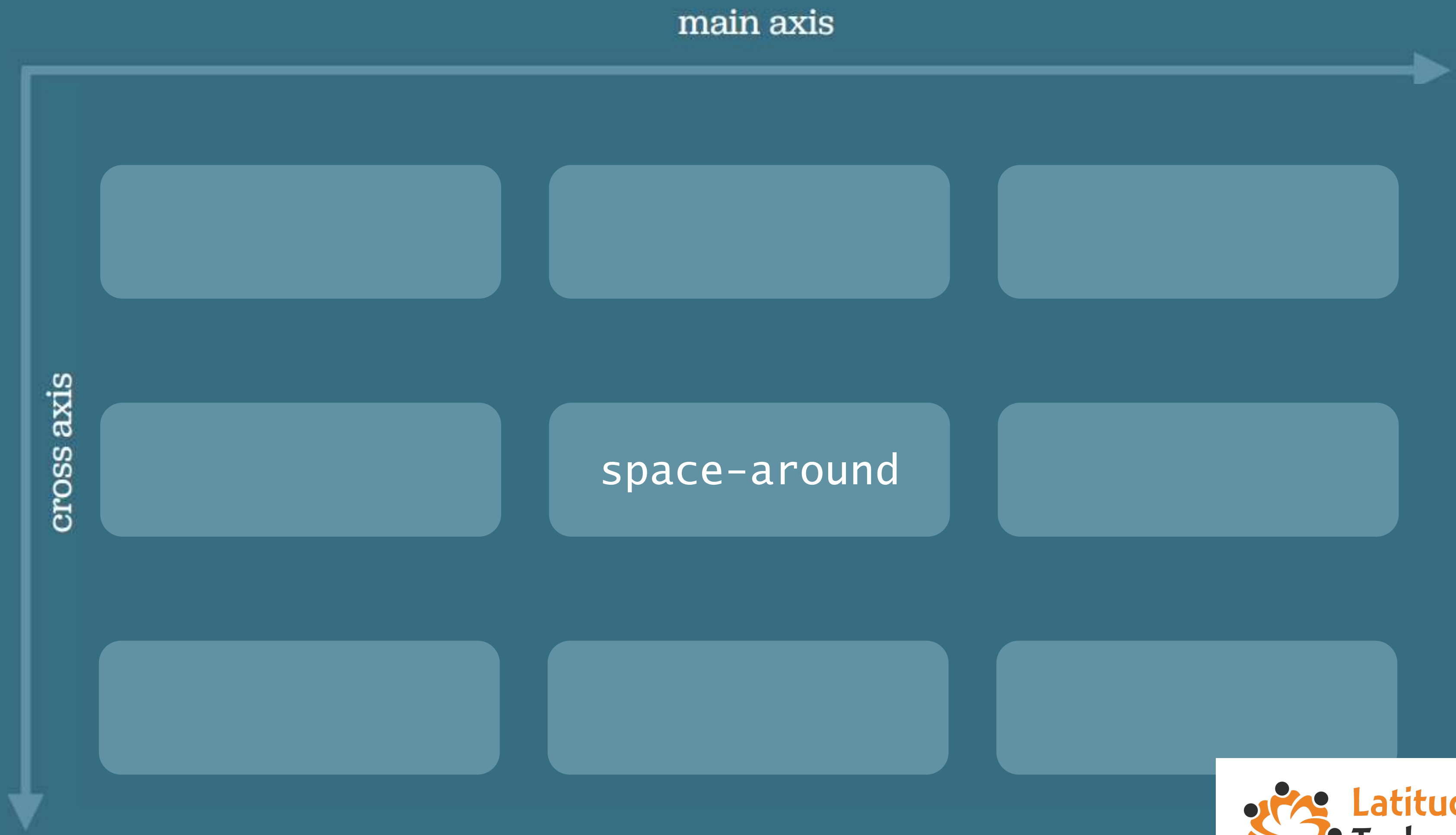
Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen



Latitude Technolabs

We Make It Happen

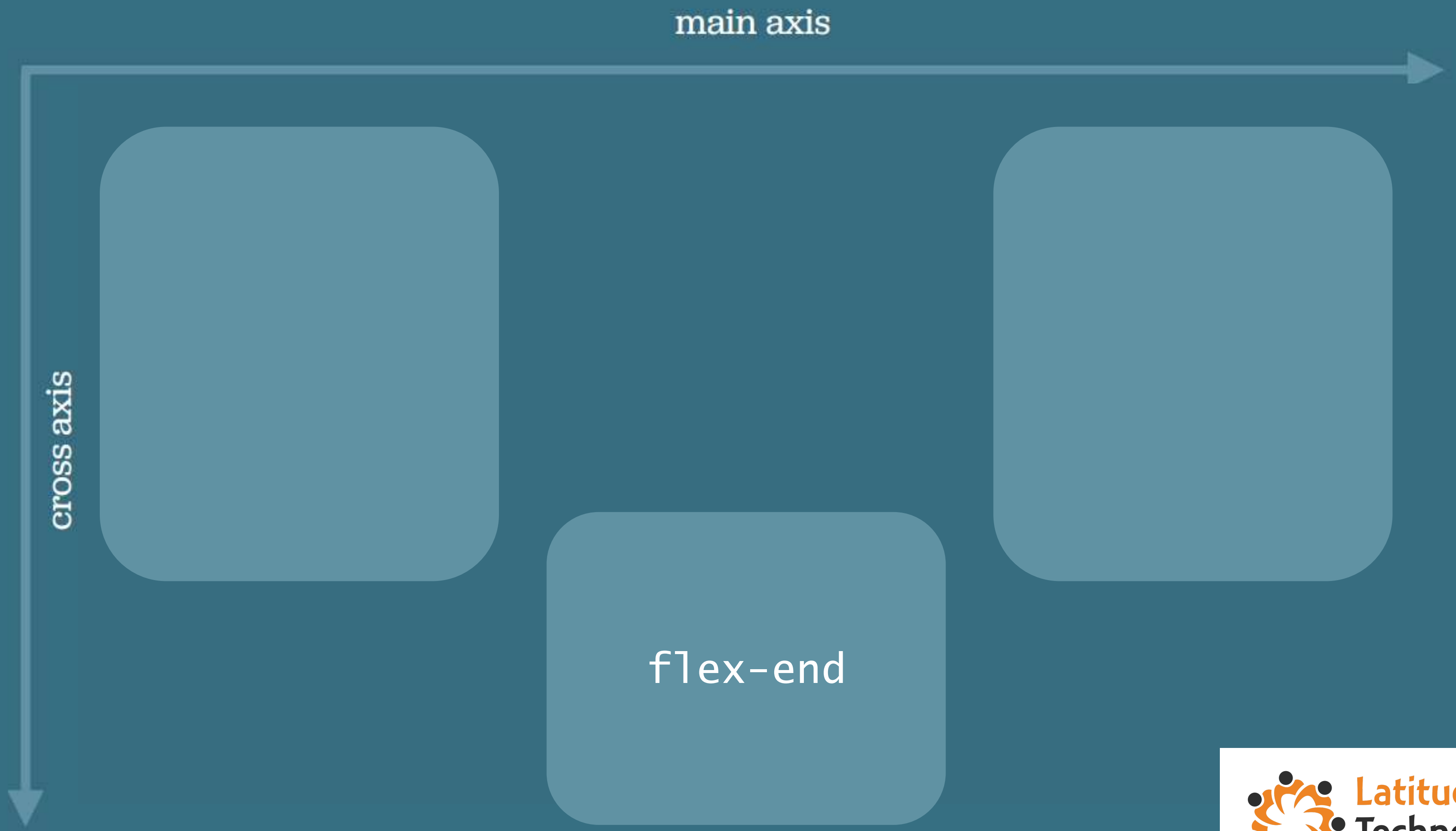
Align-self

```
.box2{
	align-self: flex-end;
}
```

Controls the order of a single child item (depending on the cross axis)

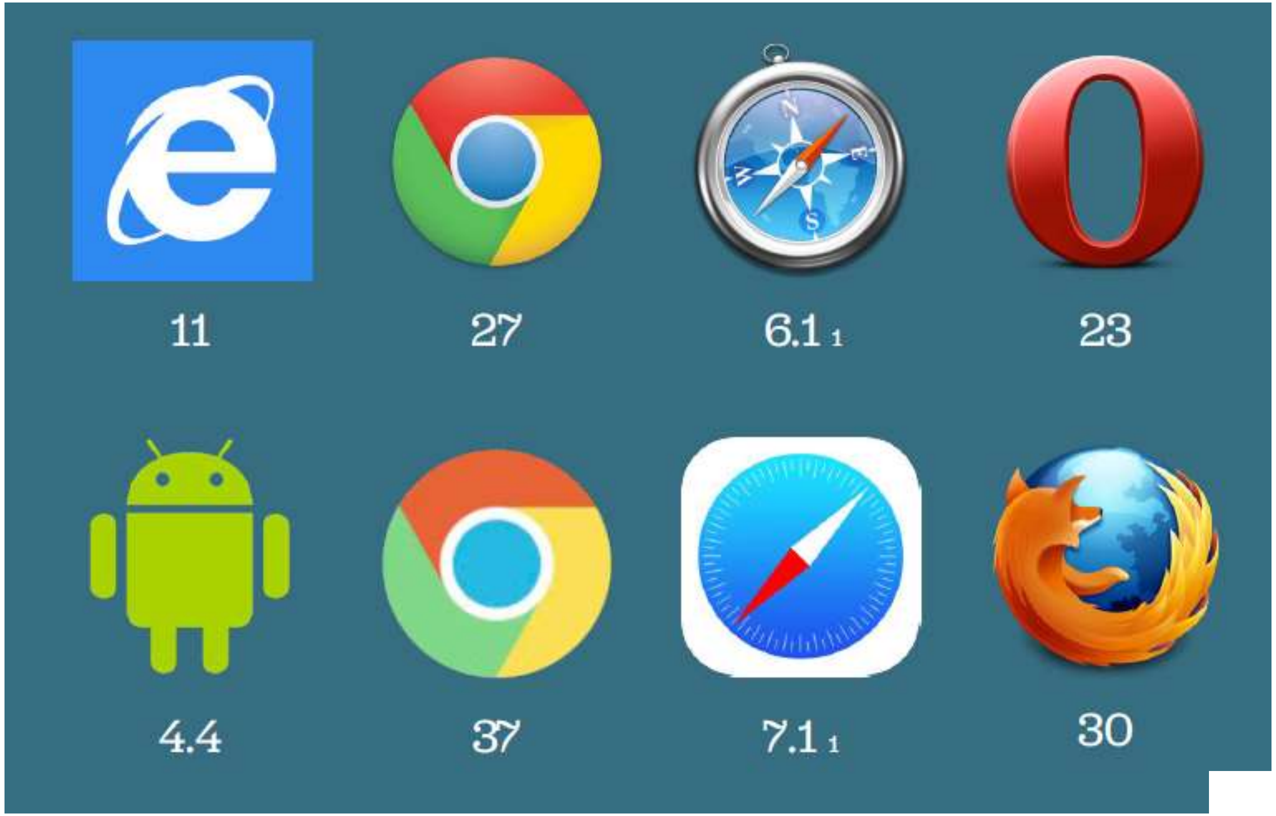
- auto
- flex-start
- flex-end
- center
- stretch
- baseline

Latitude Technolabs
We Make It Happen



Latitude Technolabs
We Make It Happen

Browser support



1 Supported with –webkit- prefix

Legacy browser implementations

10
2012 syntax with -ms- prefix

5.1
Old syntax with -webkit- prefix

4.4
Old syntax with -webkit- prefix

7
Old syntax with -webkit- prefix

Latitude Technolabs
We Make It Happen