

Agenda

Introduction to Bootstrap: Part 2

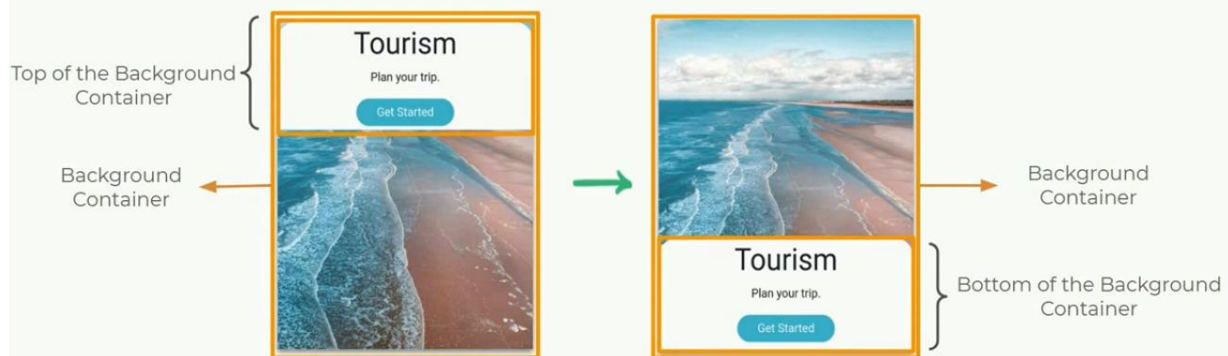
Methods to
Design the Layout



Flex Container
Flex Direction
Justifying Content

Agenda

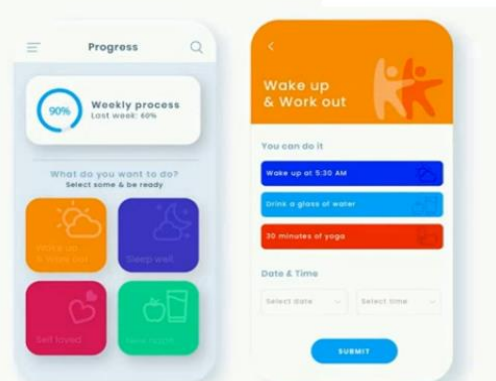
What We Are Going to Achieve



CSS

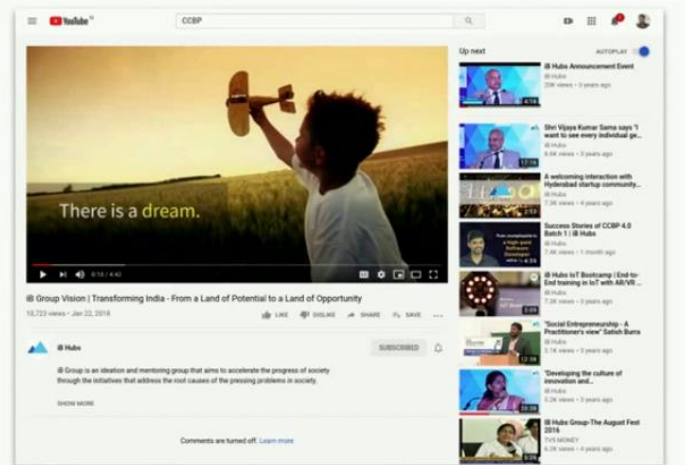
Layout

A Layout is a pattern by which we **structure** the information and **arrange** the elements on the website



Examples

Youtube Layout



Examples

Facebook Layout

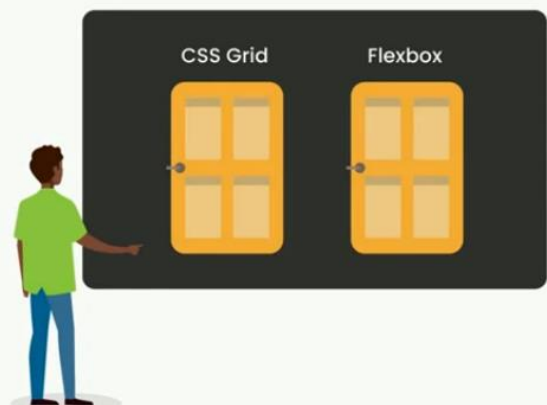


Layout

Methods to Design A Layout

Mainly, there are two methods that help to design the layout of the webpage

- **Flexbox (stable)**
- CSS Grid
(Advanced & Fast growing but not stable)



Flexbox

Flexbox is a **layout method** that helps to arrange the HTML elements in rows (horizontally) or columns (vertically)



Flexbox Properties

There are many properties in Flexbox that help to design a website layout

- Flexbox Container
- Direction
- Justify Content
- Align Items
- Align Self
- Wrap
- Order
- Align Content

many more...

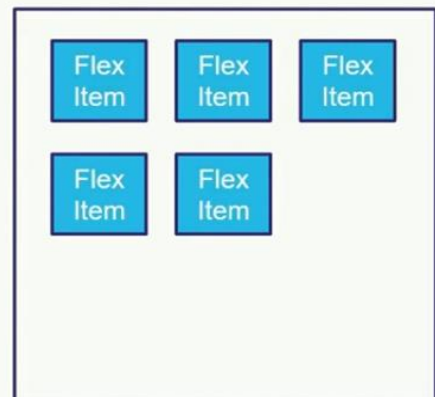
When we want to create flex box 1st we have to think Define flexbox container for the container

Flexbox Container

Define Flexbox Container
for the Container

All HTML elements that are
inside Flexbox Container
are called **Flex items**

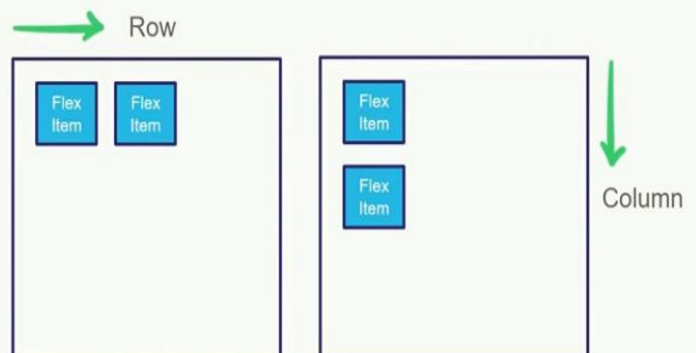
Flexbox Container



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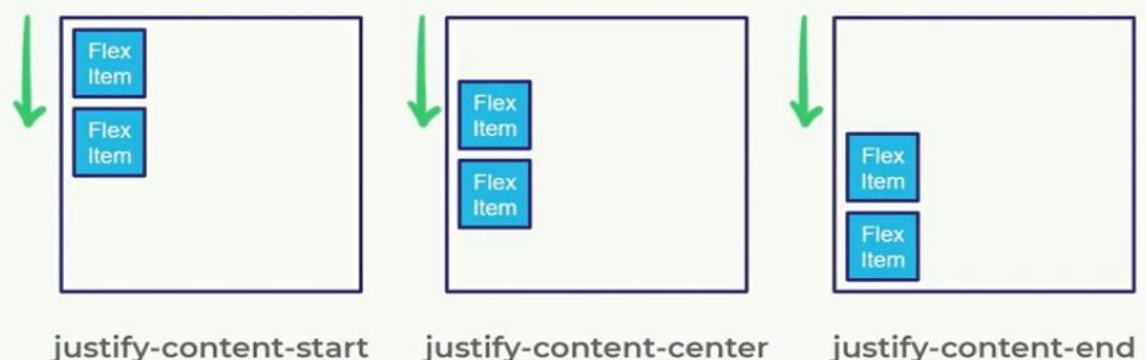
Flex Direction

The **Flex Direction** specifies
the **direction** in which the Flex
items should be arranged
within the Flexbox Container



Justify Content

Example: For the flex direction in columns



Let's Arrange The Card to The Bottom of The Container



Using Bootstrap Flexbox

Moving Card to Bottom

Steps:

- Defining Background Container as a Flex Container
- Specify the Direction in which we move the card
- Move the Card to the bottom of the Container



Bootstrap

Flexbox Class Names

Bootstrap provides us reusable **class names** that help to design the layout using Flexbox

align-items-end
flex-column
align-self-end
align-content-start
d-inline-flex
justify-content-end
align-self-center
align-self-start
flex-row
justify-content-start
align-content-end
justify-content-center
flex-wrap
align-items-center
align-items-start
d-flex

Step 1

Defining the Background Container As a Flex Container

HTML

```
<body>
  <div class="bg-container d-flex">
    <div class="tourism-card">
      <h1 class="main-heading">Tourism</h1>
      <p class="paragraph">
        Plan your trip.
      </p>
      <button class="button"> Get Started </button>
    </div>
  </div>
</body>
```

d-flex is the class name to define flexbox container

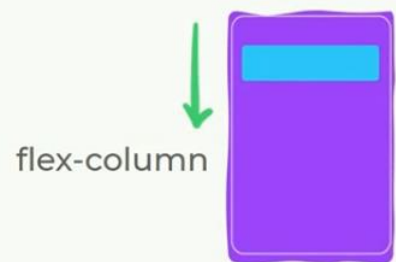
Step 2

Specifying Direction

Need to specify the **direction**

Need to move the card vertically (column)

Class name to add: **flex-column**

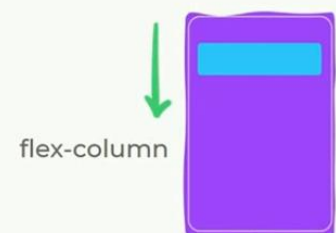


Step 2

Specifying Direction

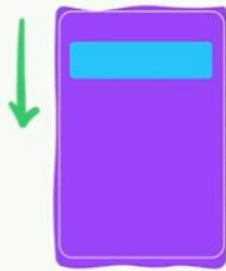
HTML

```
<body>
  <div class="bg-container d-flex flex-column">
    <div class="tourism-card">
      <h1 class="main-heading">Tourism</h1>
      <p class="paragraph">
        Plan your trip.
      </p>
      <button class="button"> Get Started </button>
    </div>
  </div>
</body>
```

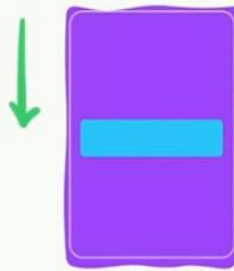


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Step 3

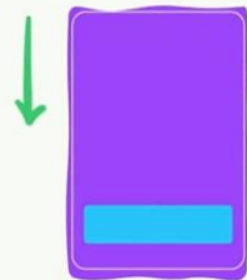
Justify Content



justify-content-start



justify-content-center



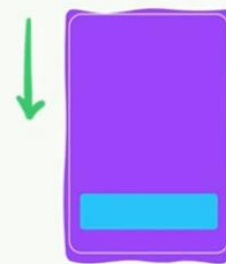
justify-content-end

Step 3

Moving Card to the Bottom

Need to move card
to the bottom of the container

Class name to add: **justify-content-end**



justify-content-end

Step 3

Moving Card to the Bottom

HTML

```
<body>
  <div class="bg-container d-flex flex-column justify-content-end">
    <div class="tourism-card">
      <h1 class="main-heading">Tourism</h1>
      <p class="paragraph">
        Plan your trip.
      </p>
      <button class="button"> Get Started </button>
    </div>
  </div>
</body>
```

Key Takeaways

- Layout
- Methods to Control Layout
- Flexbox
- Flexbox Properties
 - Flex Container
 - Flex Direction
 - Justify Content



1. Flexbox Container

The Bootstrap class name d-flex defines a Flexbox Container. The direct HTML elements in the Flexbox Container are called **flex items**.

```
<div class="d-flex">  
  <div>  
    <h1>Tourism</h1>  
    <p>Plan your trip.</p>  
    <button>Get Started</button>  
  </div>  
</div>
```

- The HTML container element with the class="d-flex" is a Flexbox Container.
- The HTML container element div in Flexbox Container is a flex item. Because it is directly inside the Flexbox Container.
- The HTML main heading, paragraph, and button elements are not flex items. Because these elements are not directly inside the Flexbox Container.

Note: Wrapping HTML elements in the Flexbox Container is mandatory to apply other flex properties.

2. Flex Direction:

The Flex Direction specifies the direction of the flex items in the Flexbox Container.

flex-row – Horizontal

flex-column - Vertical

2.1 flex-row

The Bootstrap class name flex-row is used to move the flex items **horizontally** in the Flexbox Container.

```
<div class="d-flex flex-row">  
<div>  
  <h1>Tourism</h1>  
  <p>Plan your trip.</p>  
  <button>Get Started</button>  
</div>  
</div>
```

2.2 flex-column

The Bootstrap class name flex-column is used to move the flex items **vertically** in the Flexbox Container.

```
<div class="d-flex flex-column">  
<div>  
  <h1>Tourism</h1>  
  <p>Plan your trip.</p>  
  <button>Get Started</button>  
</div>  
</div>
```

Note: The Bootstrap class name flex-row is the default Flex Direction for the Flexbox Container. So, once d-flex is specified, all the flex items in the Flexbox Container display horizontally.

3. Justify Content

The Justify Content specifies the alignment of flex items along the Flex Direction in a Flexbox Container.

3.1 justify-content-start

The Bootstrap class name justify-content-start is used to align the flex items at the start of the Flexbox Container either horizontally or vertically based on the Flex Direction.

flex-row: Align flex items horizontally to the left

flex-column: Align flex items vertically to the top

```
<div class="d-flex flex-column justify-content-start">  
  <div>  
    <h1>Tourism</h1>  
    <p>Plan your trip.</p>  
    <button>Get Started</button>  
  </div>  
</div>
```

3.2 justify-content-center

The Bootstrap class name justify-content-center is used to align the flex items at the center of the Flexbox Container either horizontally or vertically based on the Flex Direction.

Flex Direction	Alignment of flex items in a Flexbox Container
flex-row	Align flex items horizontally to the center
flex-column	Align flex items vertically to the center

```
<div class="d-flex flex-column justify-content-center">
  <div>
    <h1>Tourism</h1>
    <p>Plan your trip.</p>
    <button>Get Started</button>
  </div>
</div>
```

3.3 justify-content-end

The Bootstrap class name justify-content-end is used to align the flex items at the end of the Flexbox Container either horizontally or vertically based on the Flex Direction.

Flex Direction	Alignment of flex items in a Flexbox Container
flex-row	Align flex items horizontally to the right
flex-column	Align flex items vertically to the bottom

```
<div class="d-flex flex-column justify-content-end">
  <div>
    <h1>Tourism</h1>
    <p>Plan your trip.</p>
    <button>Get Started</button>
  </div>
</div>
```

3.4 justify-content-between

The Bootstrap class name justify-content-between is used to provide equal space between the flex items within the Flexbox Container, aligning them either horizontally or vertically based on the Flex Direction.

Flex Direction	Alignment of flex items in a Flexbox Container
flex-row	Align flex items horizontally with equal space in between
flex-column	Align flex items vertically with equal space in between

Try out changing the Flex Direction and Justify Content with the Bootstrap class names in the below.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<link rel="stylesheet" href="./justify-content-bw.css">
```

```
<link rel="stylesheet"
```

```
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z" crossorigin="anonymous">
```

```
<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXaRkfj" crossorigin="anonymous"></script>
```

```
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js" integrity="sha384-9/reFTGAW83EW2RDu2S0VVKalzap3H66lZH81PoYlFhbGU+6BZp6G7niu735Sk7lN" crossorigin="anonymous"></script>
```

```
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js">
```



```
s" integrity="sha384-
B4gt1jrGC7Jh4AgTPSdUtOBvfO8shuf57BaghqFfPLIYxofvL8/KUEfYiJOMMV+rV"
crossorigin="anonymous"></script>

</head>

<body>

  <div class="d-flex flex-column justify-content-between box-container">

    <div class="box box-orange"><p>Box 1</p></div>

    <div class="box box-green"><p>Box 2</p></div>

  </div>

</body>

</html>
```

CSS Code:

```
@import
url("https://fonts.googleapis.com/css2?family=Bree+Serif&family=Caveat:wght@4
00;700&family=Lobster&family=Monoton&family=Open+Sans:ital,wght@0,400;0,
700;1,400;1,700&family=Playfair+Display+SC:ital,wght@0,400;0,700;1,700&family
=Playfair+Display:ital,wght@0,400;0,700;1,700&family=Roboto:ital,wght@0,400;0
,700;1,400;1,700&family=Source+Sans+Pro:ital,wght@0,400;0,700;1,700&family=
Work+Sans:ital,wght@0,400;0,700;1,700&display=swap");
```

```
.box{
  width: 100px;
  height: 100px;
  color: white;
}

.box-orange{
  background-color: orange;
}

.box-green{
```

```
background-color: green;
}
.box-container{
width: 100vw;
height: 100vh;
}
```