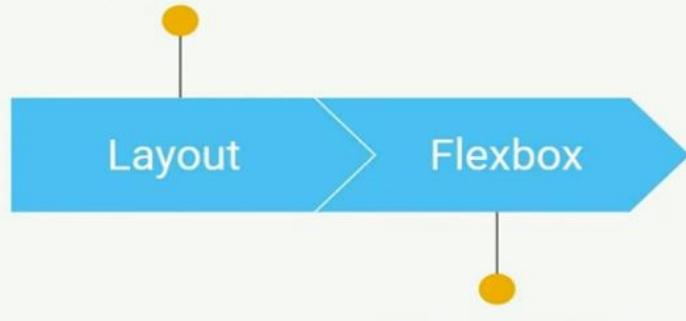


## Agenda

# Introduction to Bootstrap: Part 2

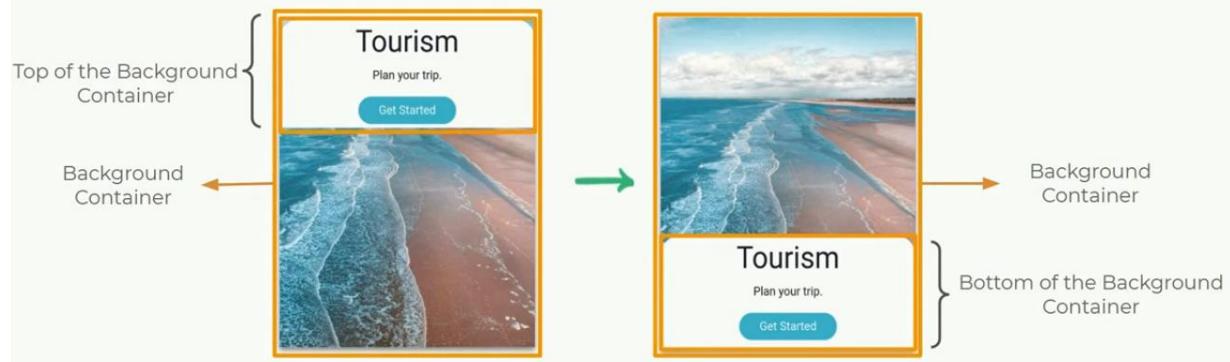
Methods to Design the Layout



Flex Container  
Flex Direction  
Justifying Content

## Agenda

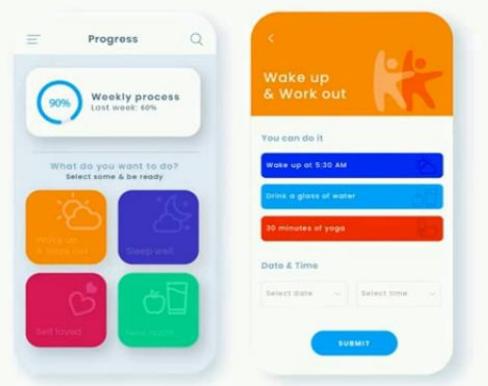
# What We Are Going to Achieve



## CSS

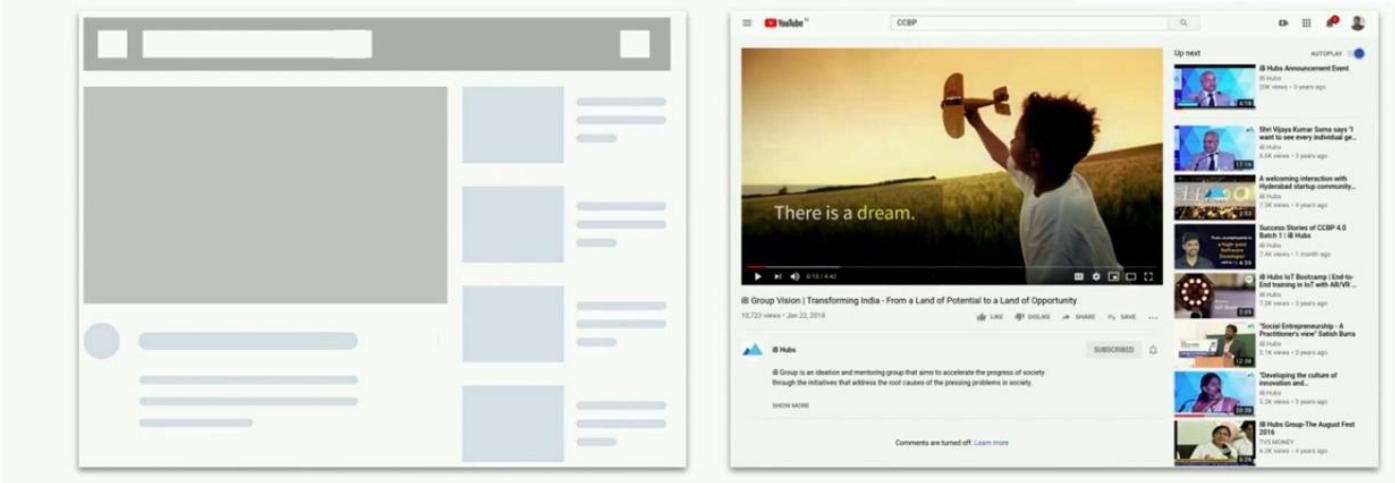
# Layout

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



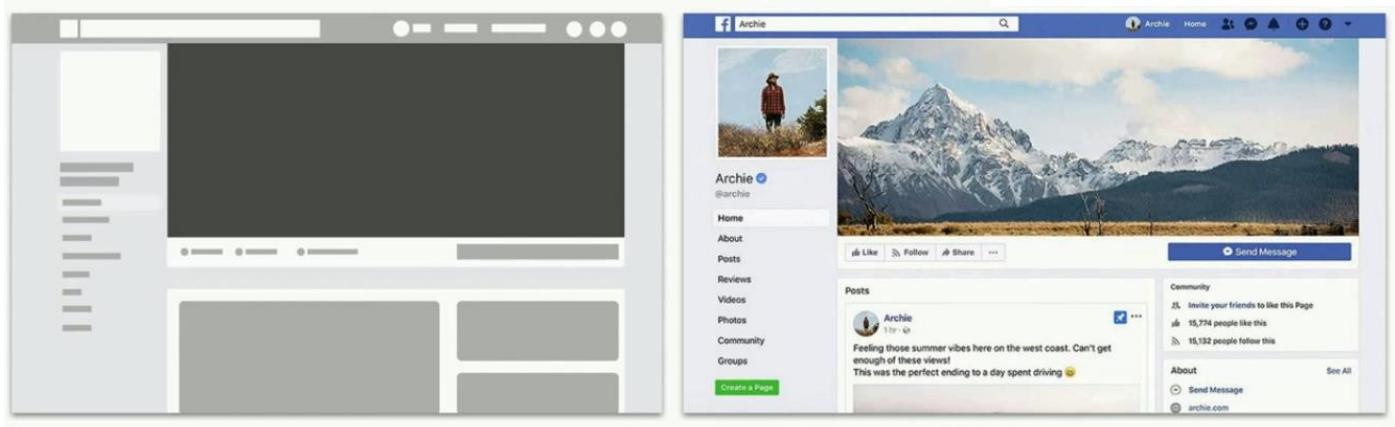
Examples

## Youtube Layout



Examples

## Facebook Layout

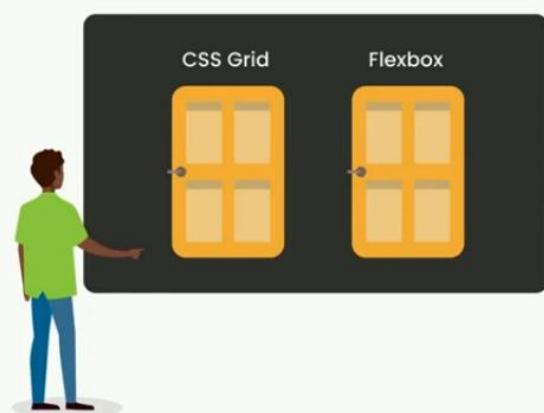


Layout

## 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...

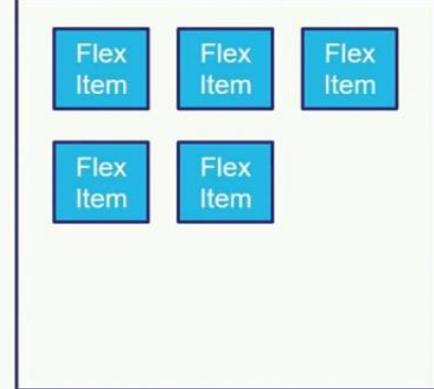
Flexbox Properties

## Flexbox Container

Define Flexbox Container  
for the Container

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

Flexbox Container

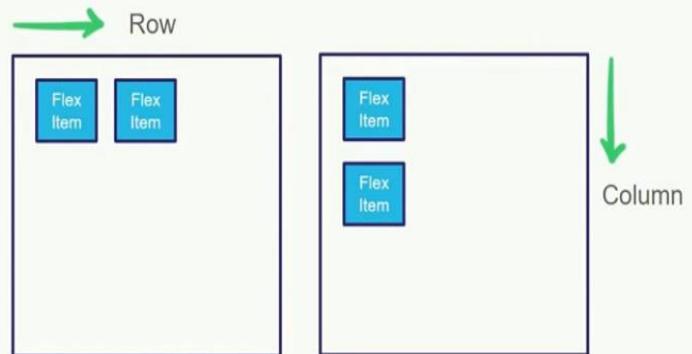


Flexbox Properties

7143

## Flex Direction

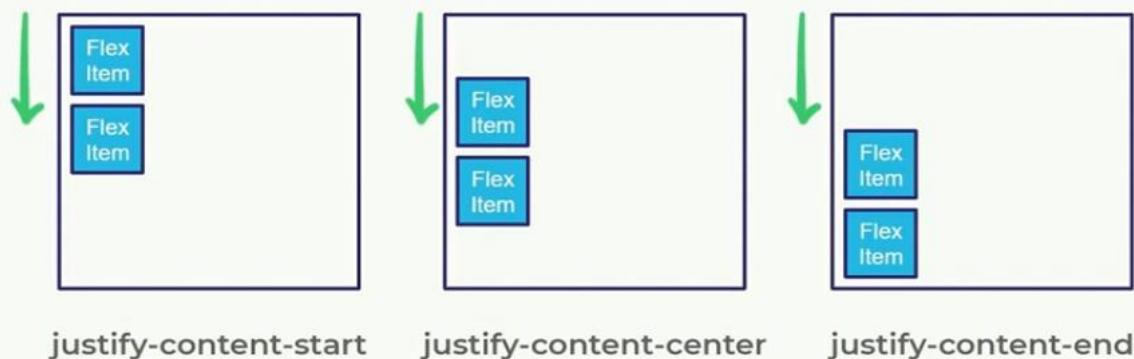
The **Flex Direction** specifies  
the **direction** in which the Flex  
items should be arranged  
within the Flexbox Container



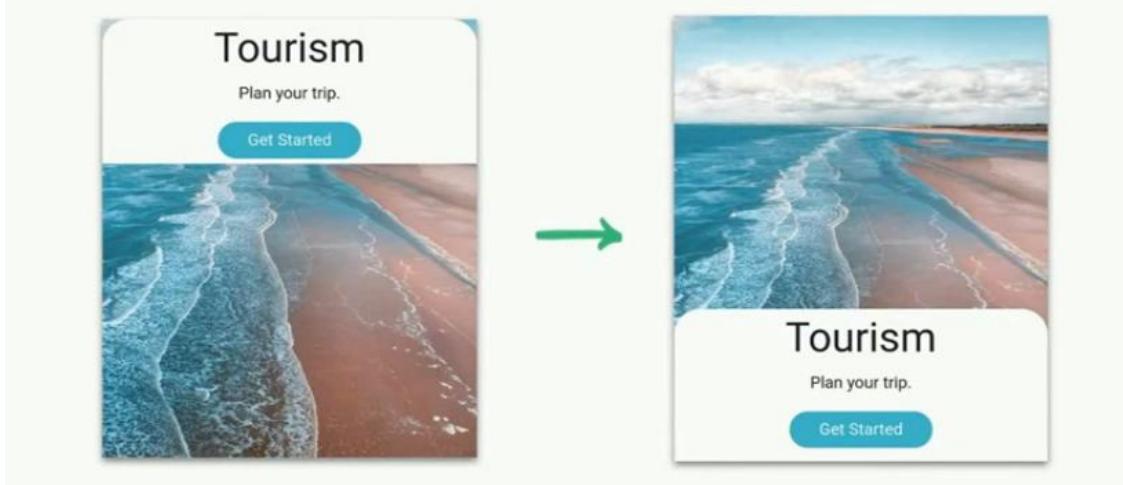
Flex Properties

## 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

flex-column  
**d-flex**  
justify-content-end  
justify-content-start  
align-content-end  
justify-content-center  
flex-wrap  
align-items-center  
align-items-start

Step 1

## Defining the Background Container As a Flex Container

```
<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>
```

HTML

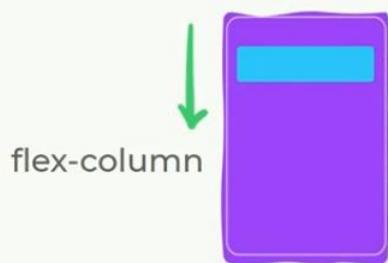
**d-flex** is the class name to define flexbox container

Step 2

## Specifying Direction

Need to specify the **direction**

Need to move the card vertically (column)



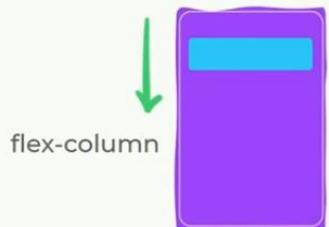
Class name to add: **flex-column**

Step 2

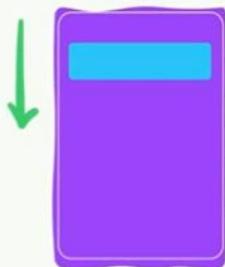
## Specifying Direction

```
<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>
```

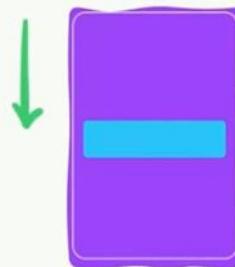
HTML



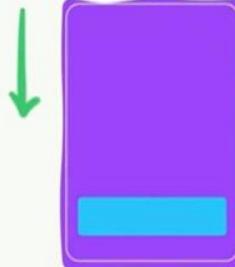
## Justify Content



justify-content-start



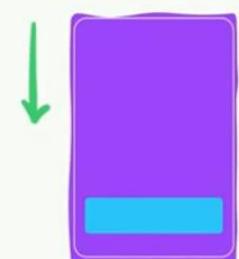
justify-content-center



justify-content-end

## Moving Card to the Bottom

Need to move card  
to the bottom of the container



justify-content-end

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

## Moving Card to the Bottom

```
<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>
```

HTML

# 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
<code>flex-row</code>	Align flex items horizontally to the right
<code>flex-column</code>	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
<code>flex-row</code>	Align flex items horizontally with equal space in between
<code>flex-column</code>	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+OrCXaRkj" crossorigin="anonymous"></script>
    <script
      src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js" integrity="sha384-9/reFTGAW83EW2RDu2S0VKalzap3H66lZH81PoYIFhbGU+6BZp6G7niu735Sk7IN" crossorigin="anonymous"></script>
    <script
      src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.j
```

```
s" integrity="sha384-B4gt1jrGC7Jh4AgTPSdUtOBvfO8shuf57BaghqFfPIYxofvL8/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@400;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;
```

```
}
```