

# MERN Stack Journey - Class 08

## Bootstrap Part 2: Flexbox Utilities

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### Flexbox Container

The Bootstrap class `d-flex` defines a **Flexbox Container**.

The **direct children** inside a flex container are called **flex items**.

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

### Key Points

- Element with `d-flex` → **Flexbox Container**
- Direct child `<div>` → **Flex Item**
- Nested elements (`h1`, `p`, `button`) →  Not flex items

 Wrapping elements inside a Flexbox container is mandatory to apply flex properties.

### MCQs

#### Q1. Which Bootstrap class defines a Flexbox Container?

- A) flex
- B) d-flex 
- C) flexbox
- D) flex-container

#### Q2. What are the direct children of a Flexbox Container called?

- A) flexbox container
- B) flex
- C) items
- D) flex items 

#### Q3. Identify the flex items:

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

```
</div>  
</div>
```

 **Answer:** `div`

## Flex Direction

Flex direction defines **how flex items are arranged**.

Class Name	Direction
flex-row	Horizontal (default)
flex-column	Vertical

### 2.1 flex-row (Default)

```
<div class="d-flex flex-row">...</div>
```

### 2.2 flex-column

```
<div class="d-flex flex-column">...</div>
```

### MCQs

#### Q1. Which class moves flex items horizontally?

- A) flex-column
- B) flex-row 
- C) flex-vertical
- D) flex-horizontal

#### Q2. Which class moves flex items vertically?

- A) flex-row
- B) flex-column 
- C) flex-horizontal
- D) flex-vertical

#### Q3. `flex-row` is the default flex direction.

 True

## Justify Content

Controls **alignment along the main axis** (based on flex direction).

### 3.1 justify-content-start

Aligns items to **start**

### 3.2 justify-content-center

Aligns items to **center**

### 3.3 justify-content-end

Aligns items to **end**

### 3.4 justify-content-between

Adds **equal space between items**

Class	Effect
justify-content-start	Start
justify-content-center	Center
justify-content-end	End
justify-content-between	Equal space

### Example

```
<div class="d-flex flex-column justify-content-end">
  <div>Content</div>
</div>
```



### Mini Layout Example

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

## MCQs - Justify Content

**Q1. Align items at the start:**

- A) justify-content-center

- B) justify-content-end
- C) justify-content-start
- D) justify-content-between

**Q2. Align items at the center:**

- A) justify-content-start
- B) justify-content-center
- C) justify-content-end
- D) justify-content-between

**Q3. Add equal space between items:**

- A) justify-content-start
  - B) justify-content-center
  - C) justify-content-end
  - D) justify-content-between
- 



## Interview Questions (Very Important)

1. What is `d-flex` in Bootstrap?
  2. Difference between `flex-row` and `flex-column`?
  3. What are flex items?
  4. Difference between `justify-content-center` and `text-center`?
  5. When do we use `justify-content-between`?
- 



## Key Takeaways

- `d-flex` enables Flexbox
  - Direct children are flex items
  - `flex-row` is default
  - `justify-content-*` aligns along main axis
  - Flexbox is heavily used in **responsive layouts & interviews**
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**Next Class:** Bootstrap Flexbox - `align-items`, `align-self`, responsive utilities