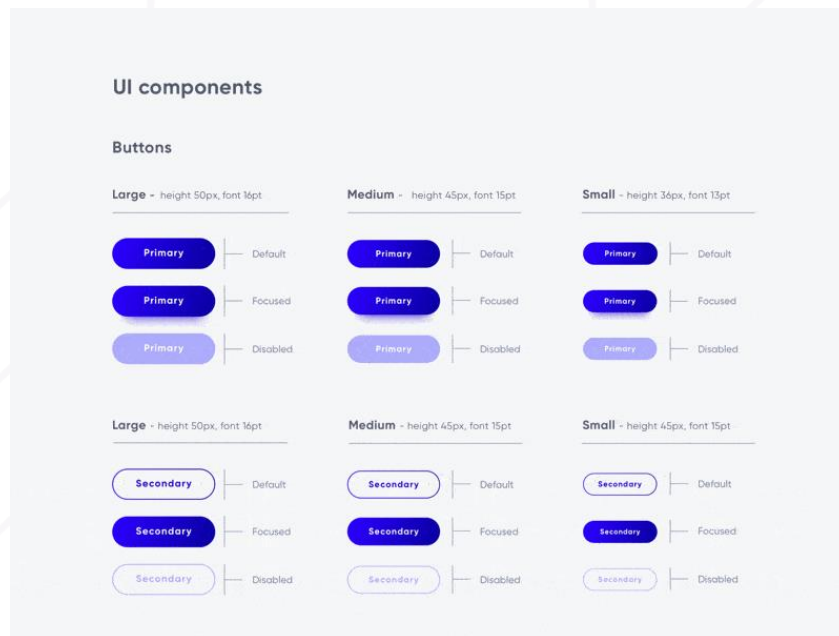# Frameworks, Bootstrap

DEV.F::
DESARROLLAMOS(PERSONAS);

Un framework es un **esquema o marco de trabajo** que ofrece una estructura base para elaborar un proyecto

Es una especie de plantilla que sirve como punto de partida para la organización y desarrollo de interfaces.

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Bootstrap

Es una biblioteca multiplataforma de código abierto para diseño de sitios y aplicaciones web.

Contiene plantillas de diseño con tipografía, formularios, botones, cuadros, menús de navegación y otros elementos de diseño basado en HTML y CSS, así como extensiones de JavaScript adicionales.
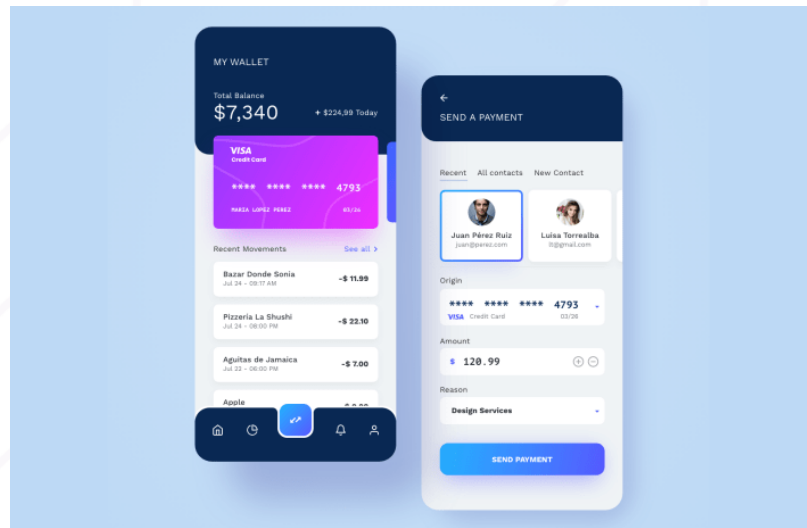
Ventajas de Bootstrap

- Puedes diseñar una web jugando con sus componentes por diferentes combinaciones de HTML, CSS y Javascript.

- Incluye Grid system: muy útil para maquetar por columnas.

- Sus plantillas son de sencilla adaptación responsive.

- Cuenta con una documentación completa.

- Incluye plantillas optimizadas y biblioteca de íconos

Bootstrap - Documentación
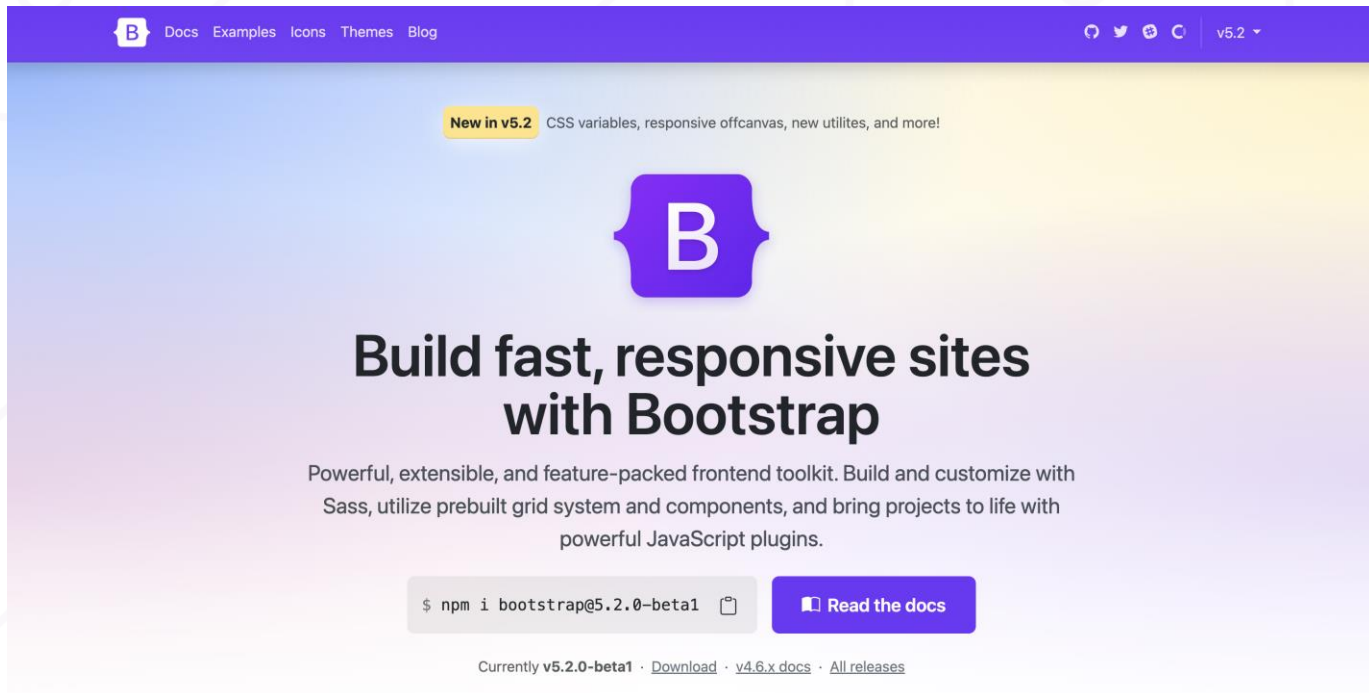
https://getbootstrap.com/

Vincular CDN Bootstrap

Vincular CDN Icons

Grid System

Column	Column	Column

Copy

```html
<div class="container">
  <div class="row">
    <div class="col">
      Column
    </div>
    <div class="col">
      Column
    </div>
    <div class="col">
      Column
    </div>
  </div>
</div>
```

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Grid System

Breakpoint	Class infix	Dimensions
X-Small	*None*	<576px
Small	`sm`	≥576px
Medium	`md`	≥768px
Large	`lg`	≥992px
Extra large	`xl`	≥1200px
Extra extra large	`xxl`	≥1400px

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Grid System

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	X-Large ≥1200px	XX-Large ≥1400px
`.container`	100%	540px	720px	960px	1140px	1320px
`.container-sm`	100%	540px	720px	960px	1140px	1320px
`.container-md`	100%	100%	720px	960px	1140px	1320px
`.container-lg`	100%	100%	100%	960px	1140px	1320px
`.container-xl`	100%	100%	100%	100%	1140px	1320px
`.container-xxl`	100%	100%	100%	100%	100%	1320px
`.container-fluid`	100%	100%	100%	100%	100%	100%

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Utilities - Colors

```html
<p class="text-primary">.text-primary</p>
<p class="text-secondary">.text-secondary</p>
<p class="text-success">.text-success</p>
<p class="text-danger">.text-danger</p>
<p class="text-warning bg-dark">.text-warning</p>
<p class="text-info bg-dark">.text-info</p>
<p class="text-light bg-dark">.text-light</p>
<p class="text-dark">.text-dark</p>
<p class="text-body">.text-body</p>
<p class="text-muted">.text-muted</p>
<p class="text-white bg-dark">.text-white</p>
<p class="text-black-50">.text-black-50</p>
<p class="text-white-50 bg-dark">.text-white-50</p>
```

.text-primary

.text-secondary

.text-success

.text-danger

.text-warning

.text-info

.text-light

.text-dark

.text-body

.text-muted

.text-white

.text-black-50

.text-white-50

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Utilities – Background Color

```html
<div class="p-3 mb-2 bg-primary text-white">.bg-primary</div>
<div class="p-3 mb-2 bg-secondary text-white">.bg-secondary</div>
<div class="p-3 mb-2 bg-success text-white">.bg-success</div>
<div class="p-3 mb-2 bg-danger text-white">.bg-danger</div>
<div class="p-3 mb-2 bg-warning text-dark">.bg-warning</div>
<div class="p-3 mb-2 bg-info text-dark">.bg-info</div>
<div class="p-3 mb-2 bg-light text-dark">.bg-light</div>
<div class="p-3 mb-2 bg-dark text-white">.bg-dark</div>
<div class="p-3 mb-2 bg-body text-dark">.bg-body</div>
<div class="p-3 mb-2 bg-white text-dark">.bg-white</div>
<div class="p-3 mb-2 bg-transparent text-dark">.bg-transparent</div>
```

.bg-primary

.bg-secondary

.bg-success

.bg-danger

.bg-warning

.bg-info

.bg-light

.bg-dark

.bg-body

.bg-white

.bg-transparent

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Utilities - Spacing

Utilities – Spacing

- `m` - for classes that set `margin`
- `p` - for classes that set `padding`

- `t` - for classes that set `margin-top` or `padding-top`
- `b` - for classes that set `margin-bottom` or `padding-bottom`
- `s` - (start) for classes that set `margin-left` or `padding-left` in LTR, `margin-right` or `padding-right` in RTL
- `e` - (end) for classes that set `margin-right` or `padding-right` in LTR, `margin-left` or `padding-left` in RTL
- `x` - for classes that set both `*-left` and `*-right`
- `y` - for classes that set both `*-top` and `*-bottom`
- blank - for classes that set a `margin` or `padding` on all 4 sides of the element
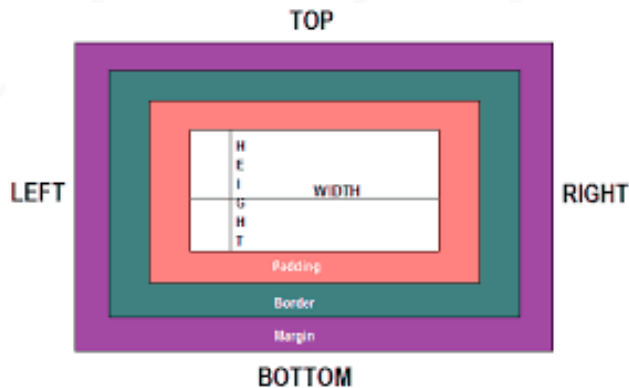
Sizes: 0 ,1, 2, 3, 4, 5, auto

Utilities - Flex

Utilities – Flex

Responsive variations also exist for `.d-flex` and `.d-inline-flex`.

- `.d-flex`
- `.d-inline-flex`

Responsive variations also exist for `flex-direction`.

- `.flex-row`
- `.flex-row-reverse`
- `.flex-column`
- `.flex-column-reverse`
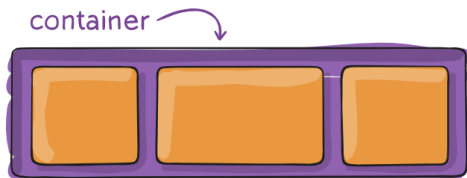
Responsive variations also exist for `justify-content`.

- `.justify-content-start`
- `.justify-content-end`
- `.justify-content-center`
- `.justify-content-between`
- `.justify-content-around`
- `.justify-content-evenly`
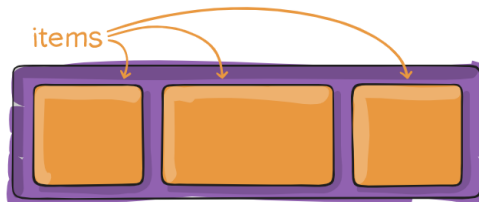
Juntando Clases
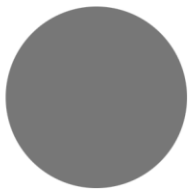
Heading

Some representative placeholder content for the three columns of text below the carousel. This is the first column.

View details »
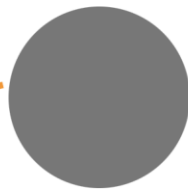
Heading

Another exciting bit of representative placeholder content. This time, we've moved on to the second column.

View details »

Heading

And lastly this, the third column of representative placeholder content.

View details »

Juntando Clases

Actividad Práctica

Maquetar la siguiente sección haciendo uso del Grid y clases de bootstrap

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