Bootstrap



¿Qué es?

- Es una biblioteca multiplataforma milenaria o conjunto de herramientas 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.
- A diferencia de muchos frameworks web, solo se ocupa del desarrollo front-end.
 - Libreria creada por twitter
 - Estandar de estilos en la web



¿Por qué Bootstrap?

- Rápido
- Responsive



Build fast, responsive sites with Bootstrap

¿Cómo empezar?



Include via CDN

When you only need to include Bootstrap's compiled CSS or JS, you can use jsDelivr. See it in action with our simple quick start, or browse the examples to jumpstart your next project. You can also choose to include Popper and our JS separately.

```
<!-- CSS only -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/b

<!-- JavaScript Bundle with Popper -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/b
</pre>
```

CDN: Content Delivery Network

Necesitamos conexión a Internet

https://getbootstrap.com/

@charset "UTF-8";/*!

* Bootstrap v5.2.2 (https://getbootstrap.com/)

* Copyright 2011-2022 The Bootstrap Authors

* Copyright 2011-2022 Twitter, Inc.

* Licensed under MIT (https://github.com/twbs/bootstrap/blob/main/LICENSE)

/:root{--bs-blue:#0d6efd;--bs-indigo:#6610f2;--bs-purple:#6f42c1;--bs-pink:#d63384;--bs-red:#dc3545;--bsdark:#343a40:--bs-grav-100:#f8f9fa:--bs-grav-200:#e9ecef:--bs-grav-300:#dee2e6:--bs-grav-400:#ced4da:--bs-g success:#198754;--bs-info:#0dcaf0;--bs-warning:#ffc107;--bs-danger:#dc3545;--bs-light:#f8f9fa;--bs-dark:#21 rgb:220,53,69;--bs-light-rgb:248,249,250;--bs-dark-rgb:33,37,41;--bs-white-rgb:255,255,255;--bs-black-rgb:0 Sans", "Liberation Sans", Arial, sans-serif, "Apple Color Emoji", "Segoe UI Emoji", "Segoe UI Symbol", "Noto Color 255, 255, 0.15), rgba(255, 255, 255, 0)); -bs-body-font-family:var(--bs-font-sans-serif); --bs-body-font-siz border-color:#dee2e6:--bs-border-color-translucent:rgba(0, 0, 0, 0.175):--bs-border-radius:0.375rem:--bs-bo color:#0d6efd:--bs-link-hover-color:#0a58ca;--bs-code-color:#d63384;--bs-highlight-bg:#fff3cd},::after,::b family);font-size;var(--bs-body-font-size);font-weight;var(--bs-body-font-weight);line-height;var(--bs-body highlight-color:transparent}hr{margin:1rem 0;color:inherit;border:0;border-top:1px solid;opacity:.25}.h1,.h width:1200px){.h1,h1{font-size:2.5rem}}.h2,h2{font-size:calc(1.325rem + .9vw)}@media (min-width:1200px){.h2 (min-width:1200px){.h4,h4{font-size:1.5rem}}.h5,h5{font-size:1.25rem}.h6,h6{font-size:1rem}p{margin-top:0;m ink:none;text-decoration-skip-ink:none}address{margin-bottom:1rem;font-style:normal;line-height:inherit}ol, left:0}blockquote{margin:0 0 1rem}b,strong{font-weight:bolder}.small,small{font-size:.875em}.mark,mark{padd align:baseline}sub{bottom:-.25em}sup{top:-.5em}a{color:var(--bs-link-color);text-decoration:underline}a:hov family:var(--bs-font-monospace);font-size:1em}pre{display:block;margin-top:0;margin-bottom:1rem;overflow:au word a>code (color: inherit) kbd (padding: .1875rem .375rem; font-size: .875em; color: var(--bs-body-bg); backgroundside:bottom;border-collapse:collapse?caption{padding-top:.5rem;padding-bottom:.5rem;color:#6c757d;text-alig width:0}label{display:inline-block}button{border-radius:0}button:focus:not(:focus-visible){outline:0}button {cursor:pointer}select{word-wrap:normal}select:disabled{opacity:1}[list]:not([type=date]):not([type=datetim [type=submit],button{-webkit-appearance:button}[type=button]:not(:disabled),[type=reset]:not(:disabled),[ty width:0; padding:0; margin:0; border:0} legend{float:left; width:100%; padding:0; margin-bottom:.5rem; font-size:ca datetime-edit-fields-wrapper.::-webkit-datetime-edit-hour-field.::-webkit-datetime-edit-minute.::-webkit-da {outline-offset:-2px;-webkit-appearance:textfield}::-webkit-search-decoration{-webkit-appearance:none}::-we

Archivo CSS ya *minificado* (comprimido) → Listo para usar

https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css

CDN: pros & cons

<u>PROS</u>	CONS				
 No hay que actualizar el archivo Está listo para usar El archivo no ocupa espacio 	 Necesitamos conexión a Internet Una conexión lenta puede traer demora 				

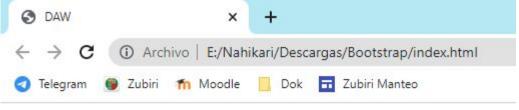
Podemos descargar el archivo

Cómo empezar: CDN

```
o index.html > ⊕ html > ⊕ htm
```

Cómo empezar: archivo

```
index.html X
() index.html > () html > () head > () link
  1 <!DOCTYPE html>
      <html lang="en">
      <head>
          <meta charset="UTF-8">
          <meta http-equiv="X-UA-Compatible" content="IE=edge">
          <meta name="viewport" content="width=<device-width>, initial-scale=
          <title>DAW</title>
          <!-- CSS only -->
          <!--<li>href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/c"
     k rel="stylesheet" href="styles/bootstrap.min.css">
      </head>
      <body>
          <h1>Clase de DIW</h1>
      </body>
      </html>
```



Clase de DIW

División de la pantalla

i												
1												
1		_	_			_		_	_			
1	1	2	3	4	5	6	7	8	9	10	11	12
1												

Tamaños de pantalla:

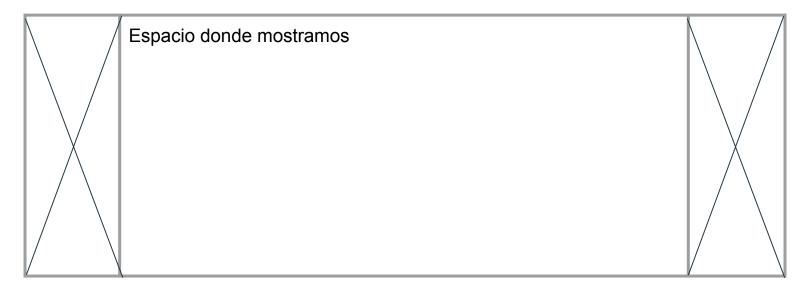
sm: small

md: medium

lg: large

xl: extra large

Clase Container: división de la pantalla





Dividir container en filas: row



Cada fila vuelve a poder dividirse en 12, y así por cada división (div) que hagamos

Cómo dividimos las columnas?

```
columna
pantalla mediana (md)

// class="container">
// cdiv class="row">
// cdiv class="col-md-4"><h1>Clase de DIW</h1></div>
// cdiv class="col-md-4"><h1>Clase de DIW</h1></div>
// class="col-md-4"><h1>Clase de DIW</h1></div>
// class="col-md-4"><h1>Clase de DIW</h1></div>
// columna
columna
```

Cómo dividimos las columnas?

Siempre suma 12

¿Y si queremos añadir estilos propios?

¿Cómo le añadimos funciones de JavaScript?



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```

CDN: Content Delivery Network

Necesitamos conexión a Internet

Por ejemplo, si queremos dotar de funcionalidad a los menús hamburguesa

https://getbootstrap.com/

/*!
 * Bootstrap v5.2.2 (https://getbootstrap.com/)
 * Copyright 2011-2022 The Bootstrap Authors (https://github.com/twbs/bootstrap/graphs/contributors)
 * Licensed under MIT (https://github.com/twbs/bootstrap/blob/main/LICENSE)
 */

!function(t.e){"object"==typeof exports&&"undefined"!=typeof module?module.exports=e():"function"==typeof define&&define.amd?define(e):(t="undefi {let e=t.getAttribute("data-bs-target");if(!e||"#"===e){let i=t.getAttribute("href");if(!i||!i.includes("#")&&!i.startsWith("."))return null;i.in i=e(t):return i&&document.guerySelector(i)?i:null}.n=t=>{const i=e(t):return i?document.guerySelector(i):null}.s=e=>{e.dispatchEvent(new Event(t)) t[0]:t:"string"==typeof t&&t.length>0?document.querySelector(t):null,a=t=>{if(!o(t)||0==t.getClientRects().length)return!1;const e="visible"===g e=t.closest("summary");if(e&e.parentNode!==i)return!1;if(null===e)return!1}return e}.l=t=>!t||t.nodeType!==Node.ELEMENT NODE||!!t.classList.cont t.disabled:t.hasAttribute("disabled")&&"false"!==t.getAttribute("disabled")),c=t=>{if(!document.documentElement.attachShadow)return null;if("func ShadowRoot?t:t.parentNode?c(t.parentNode):null},h=()=>{},d=t=>{t.offsetHeight},u=()=>window.jQuery&&!document.body.hasAttribute("data-bs-no-jquer i=t.NAME,n=e.fn[i];e.fn[i]=t.jQueryInterface,e.fn[i].Constructor=t,e.fn[i].noConflict=()=>(e.fn[i]=n,t.jQueryInterface)}}, "loading"===document.re {"function"==typeof t&&t()}, =(e,i,n=!0)=>{if(!n)return void m(e);const o=(t=>{if(!t)return 0;let{transitionDuration:e,transitionDelay:i}=window. [0],1e3*(Number.parseFloat(e)+Number.parseFloat(i))):0})(i)+5;let r=!1;const a=({target:n})=>{n===i&&(r=!0,i.removeEventListener(t,a),m(e))};i.ad 1==o?!i&&n?t[s-1]:t[0]:(o+=i?1:-1,n&&(o=(o+s)%s),t[Math.max(0,Math.min(o,s-1))])},v=/[^.]*(?=\..*)\.].*/,y=/\..*/,w=/::\d+\$/,A={};let E=1;const Set(["click", "dblclick", "mouseup", "mousedown", "contextmenu", "mousewheel", "DOMMouseScroll", "mouseover", "mouseout", "mousemove", "selectstart", "selec , "pointermove", "pointerup", "pointerleave", "pointercancel", "gesturestart", "gesturechange", "gestureend", "focus", "blur", "change", "reset", "select", "s r", "abort", "scroll"]); function O(t,e){return e&&`\${e}::\${E++}`||t.uidEvent||E++}function x(t){const e=O(t);return t.uidEvent=e,A[e]=A[e]||{},A[e] {const n="string"==typeof e,s=n?i:e||i;let o=N(t);return C.has(o)||(o=t),[n,s,o]}function D(t,e,i,n,s){if("string"!=typeof e||!t)return;let[o,r,a (if(!e.relatedTarget||e.relatedTarget!==e.delegateTarget&&!e.delegateTarget.contains(e.relatedTarget))return t.call(this,e)};r=t(r)}const l=x(t), function(t,e,i){return function n(s){const o=t.querySelectorAll(e);for(let{target:r}=s;r&&r!==this;r=r.parentNode)for(const a of o)if(a===r)retur {return j(n,{delegateTarget:t}),i.oneOff&&P.off(t,n.type,e),e.apply(t,[n])}}(t,r);u.delegationSelector=o?i:null,u.callable=r,u.oneOff=s,u.uidEven (t.removeEventListener(i,o,Boolean(s)),delete e[i][o.uidEvent])}function I(t,e,i,n){const s=e[i]||{}};for(const o of Object.keys(s))if(o.includes({on(t,e,i,n){D(t,e,i,n,!1)},one(t,e,i,n){D(t,e,i,n,!0)},off(t,e,i,n){if("string"!=typeof e||!t)return;const[s,o,r]=L(e,i,n),a=r!==e,l=x(t),c=l[r] Object.keys(c)){const n=i.replace(w,"");if(!a||e.includes(n)){const e=c[i];S(t,l,r,e.callable,e.delegationSelector)}}}else{if(!Object.keys(c).len s=null,o=!0,r=!0,a=!1;e!==N(e)&&n&&(s=n.Event(e,i),n(t).trigger(s),o=!s.isPropagationStopped(),r=!s.isImmediatePropagationStopped(),a=s.isDefault l=j(l,i),a&&l.preventDefault(),r&&t.dispatchEvent(l),l.defaultPrevented&&s&&s.preventDefault(),l}};function j(t,e){for(const[i,n]of Object.entrie {set(t.e.i){M.has(t)||M.set(t.new Map);const n=M.get(t);n.has(e)||0===n.size?n.set(e.i);console.error(`Bootstrap doesn't allow more than one inst $(t,e)=M.has(t)\&\&M.get(t).get(e)||null,remove(t,e){if(!M.has(t))return;const} i=M.get(t);i.delete(e),0==i.size\&\&M.delete(t)};function $(t){if("t)return;const} i=M.get(t);i.delete(e),0==i.size&\&M.delete(t)};function $(t){if("t)return;const} i=M.get(t);i.delete(e),0==i.size&\&M.delete(t);function $(t){if("t)return;const} i=M.get(t);i.delete(e),0==i.size&\&M.delete(t);function $(t){if("t)return;const} i=M.get(t);function $(t){if("t)return;const} i=M.get(t);funct$ null;if("string"!=typeof t)return t;try{return JSON.parse(decodeURIComponent(t))}catch(e){return t}}function W(t){return t.replace(/[A-Z]/g,(t=>' {t.removeAttribute(`data-bs-\${W(e)}`)},getDataAttributes(t){if(!t)return{};const e={},i=Object.keys(t.dataset).filter((t=>t.startsWith("bs")&&!t. i=n.replace(/^bs/,"");i=i.charAt(0).toLowerCase()+i.slice(1,i.length),e[i]=\$(t.dataset[n])}return e},getDataAttribute:(t,e)=>\$(t.getAttribute()dataset[n])}return e},getDataAttribute:(t,e)=>\$(t.getAttribute()dataset[n])}return e},getDataAttribute:(t,e)=>\$(t.getAttribute()dataset[n])}return e},getDataAttribute:(t,e)=>\$(t.getAttribute()dataset[n])}return e},getDataAttribute:(t.e)=>\$(t.getAttribute()dataset[n])}return e},getDataAttribute()dataset[n])}return e},getDatasetTribute()dataset[n])}return e},getDatasetTribute()datas Error('You have to implement the static method "NAME", for each component!')} getConfig(t){return t=this. mergeConfig(b);t=this. configAfterMe B.getDataAttribute(e, "config"):{};return{...this.constructor.Default,..."object"==typeof i?i:{},...o(e)?B.getDataAttributes(e):{},..."object"==ty s=e[n],r=t[n],a=o(r)?"element":null==(i=r)?'\${i}`:Object.prototype.toString.call(i).match(/\s([a-z]+)/i)[1].toLowerCase();if(!new RegExp(s).test("\${s}".')}var i}}class z extends F{constructor(t,e){super(),(t=r(t))&&(this._element=t,this._config=this._getConfig(e),H.set(this._element,this.c

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https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.min.js