

# Web Components



*Equipo 09*

Demo

# Componentes

- Product
- TreeItem
- Sidebar
- Header

# index.html

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title>Gadgets & Grooves</title>
    <link rel="icon" type="image/x-icon" href="public/logo-192x192.png" />
    <script type="module" src="/components/ProductComponent.js"></script>
    <script type="module" src="/components/TreeItem.js"></script>
    <script type="module" src="/components/Sidebar.js"></script>
    <script type="module" src="/components/Header.js"></script>
    <link rel="stylesheet" href="style.css" />
    <!-- fuente para las estrellas -->
    <link
      rel="stylesheet"
      href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css"
    />
  </head>
```

```
<body>
  <sidebar-component class="sidebar">
    <tree-item>
      Retail
      <tree-item>
        Electronics
        <tree-item>
          Mobile Phones
          <tree-item>Apple</tree-item>
          <tree-item>Samsung</tree-item>
        </tree-item>
        <tree-item>
          Laptops
          <tree-item>
            Gamers
            <tree-item>Alienware</tree-item>
            <tree-item>Asus</tree-item>
          </tree-item>
          <tree-item>
            Business
            <tree-item>HP</tree-item>
            <tree-item>Dell</tree-item>
          </tree-item>
        </tree-item>
      </tree-item>
    <tree-item>
      Clothing
      <tree-item>
        Men's Clothing
        <tree-item>T-Shirts</tree-item>
        <tree-item>Jeans</tree-item>
      </tree-item>
      <tree-item>
        Women's Clothing
        <tree-item>Dresses</tree-item>
        <tree-item>Tops</tree-item>
      </tree-item>
    </tree-item>
  </tree-item>
</sidebar-component>
```

# index.html

```
<div id="app">
  <header-component>Gadgets & Grooves</header-component>
  <div class="product-list">
    <product-component
      rating="5"
      discount="30"
      image="kindle.jpg"
      title="Kindle"
      description="El Kindle, un dispositivo de lectura electrónico, te permite llevar
      price="119.99"
    ></product-component>
    <product-component
      rating="2"
      discount="50"
      image="16031807_1.jpg"
      title="Samsung Galaxy S22 Ultra"
      description="El Samsung Galaxy S22 Ultra es un testimonio de ingeniería y sofist
      price="799.99"
    ></product-component>
    <product-component
      rating="1"
      discount="60"
      image="jordan.webp"
      title="Air Jordan 1"
      description="Las zapatillas Jordan 1 son un clásico atemporal que ha dejado huel
      price="129.99"
    ></product-component>
    <product-component
      rating="4"
      discount="40"
      image="fender.jpg"
      title="Fender Precision Bass®"
      description="El Fender Precision Bass® Player Plus es un instrumento legendario
      price="1399.99"
    ></product-component>
  </div>
</div>
</body>
</html>
```

# index-alt.html

```
<body>
  <div id="app">
    <header-component>Gadgets & Grooves</header-component>
    <div class="product-list">
      <tree-item>
        Retail
        <tree-item>
          Electronics
          <tree-item>
            Kindle
            <product-component
              rating="5"
              discount="30"
              image="kindle.jpg"
              title="Kindle"
              description="El Kindle, un dispositivo de lectura
              price="119.99"
            ></product-component>
          </tree-item>
        </tree-item>
      <tree-item> ...
    </tree-item>
  </tree-item>
  <tree-item>
    Clothing
    <tree-item> ...
  </tree-item>
</tree-item>
</div>
</div>
</body>
```

# Componente sencilla: Product.js

```
import { LitElement, html, css } from 'lit';

class ProductComponent extends LitElement {
  static styles = css`
    .product {
      border: 1px solid #ddd;
      border-radius: 4px;
      padding: 20px;
      background-color: #fff;
      box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
      display: flex;
      flex-direction: column;
      justify-content: space-between;
      align-items: center;
    }
  `;
}
```

```
static get properties() {
  return {
    rating: { type: Number },
    discount: { type: Number },
    image: { type: String },
    title: { type: String },
    description: { type: String },
    price: { type: Number },
    discountedPrice: { type: Number },
  };
}

constructor() {
  super();
  this.rating = 0;
  this.discount = 0;
  this.image = '';
  this.title = '';
  this.description = '';
  this.price = 0;
  this.discountedPrice = 0;
}
```

# Componente sencilla: Product.js

```
firstUpdated() {  
  this.setRating(this.rating);  
  this.discountedPrice = this.price - (this.price * this.discount) / 100;  
}  
  
setRating(rating) {  
  let stars = this.shadowRoot.getElementById('stars').children;  
  
  for (let i = 0; i < stars.length; i++) {  
    if (i < rating) {  
      stars[i].classList.remove('fa-star-o');  
      stars[i].classList.add('fa-star');  
    } else {  
      stars[i].classList.remove('fa-star');  
      stars[i].classList.add('fa-star-o');  
    }  
  }  
}  
}
```



# Componente sencilla: Product.js

```
render() {  
  return html`  
    <div>  
      <div class="product">  
        <span class="discount ${this.discount == 0? "hidden": ""}">${this.discount}% OFF</span>  
        <div class="product-image">  
          <img src=${this.image} alt="Product 1" />  
        </div>  
        <div class="product-title">${this.title}</div>  
        <div class="product-description">${this.description}</div>  
        <div class="product-price">  
          <span class="dolar-tag">$</span>  
          <span class="price-tag">${this.discountedPrice.toFixed(2)}</span>  
        </div>  
        <div class="product-price ${this.discount == 0? "hidden": ""}">  
          <span class="dolar-tag">$</span>  
          <span class="discounted-price">${this.price}</span>  
        </div>  
        <link  
          rel="stylesheet"  
          href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css"  
        />  
        <div id="stars">  
          <span class="fa fa-star-o"></span>  
          <span class="fa fa-star-o"></span>  
          <span class="fa fa-star-o"></span>  
          <span class="fa fa-star-o"></span>  
          <span class="fa fa-star-o"></span>  
        </div>  
        <button class="product-button">Add to Cart</button>  
      </div>  
    </div>  
  `;  
}  
}  
  
customElements.define('product-component', ProductComponent);
```

# Componente compleja: TreeItem.js

```
class TreeItem extends HTMLElement {
  constructor() {
    super();
    this.attachShadow({ mode: 'open' });
    this.render();
  }

  render() {
    this.shadowRoot.innerHTML = `
```

```
<style>
  :host {
    display: block;
    padding: 10px;
    border: 1px solid #ccc;
    border-radius: 5px;
    margin-bottom: 5px;
  }
  ul {
    list-style-type: none;
    padding-left: 25px;
  }
  li > button {
    display: none;
  }
  li.has-children > button {
    display: inline;
    margin-right: 5px;
  }
  button {
    cursor: pointer;
  }
  span {
    color: black;
  }
</style>
```

```
<li>
  <button>+</button>
  <span><slot></slot></span>
  <ul>
    <!-- aqui van las hojas de arbol -->
  </ul>
</li>
`;
}
```

# Componente compleja: TreeItem.js

```
connectedCallback() {
  const button = this.shadowRoot.querySelector('button');
  const ul = this.shadowRoot.querySelector('ul');
  const children = Array.from(this.children);

  if (children.length > 0) {
    this.shadowRoot.querySelector('li').classList.add('has-children');
    ul.append(...children);
    ul.style.display = 'none';
  }

  button.addEventListener('click', () => {
    const isExpanded = button.textContent === '-';
    button.textContent = isExpanded ? '+' : '-';
    ul.style.display = isExpanded ? 'none' : 'block';
  });
}

customElements.define('tree-item', TreeItem);
```

# Otras componentes: Sidebar.js

```
class SidebarComponent extends HTMLElement {
  constructor() {
    super();
    this.attachShadow({ mode: 'open' });
    this.render();
  }

  render() {
    this.shadowRoot.innerHTML = `
      <style>...
      </style>

      <div class="sidebar-container">
        <div class="sidebar-content">
          <slot></slot>
        </div>
        <button class="close-button" aria-label="Close Sidebar">&#xf00d;</button>
      </div>
    `;
  }
}
```

# Otras componentes: Sidebar.js

```
const closeButton = this.shadowRoot.querySelector('.close-button');

closeButton.addEventListener('click', () => {
  this.classList.remove('open');
});

this.addEventListener('click', (event) => {
  // Close the sidebar when clicking outside of it
  if (event.target === this) {
    this.classList.remove('open');
  }
});
}

customElements.define('sidebar-component', SidebarComponent);
```

# Otras componentes: Header.js

```
class HeaderComponent extends HTMLElement {
  constructor() {
    super();
    this.attachShadow({ mode: 'open' });
    this.render();
  }

  render() {
    this.shadowRoot.innerHTML = `
      <style> ...
      </style>

      <div class="header-content">
        <span class="hamburger-menu">☰</span>
        <slot></slot>
      </div>
    `;
  }
}
```

# Otras componentes: Header.js

```
const hamburgerMenu = this.shadowRoot.querySelector('.hamburger-menu');
hamburgerMenu.addEventListener('click', () => {
  const sidebarComponent = document.querySelector('sidebar-component');
  sidebarComponent.classList.toggle('open');
});
}
}

customElements.define('header-component', HeaderComponent);
```

# CONCLUSIONES



# Web Components



*Equipo 09*