

# Travaux pratiques ReactJS

## Exercice 1 a :

Exécuter le programme dans l'exercice 1 (dans le dossier nommé *1-before-shopper-ItemPage*) sans le modifier (on travaille dans le fichier index.js).

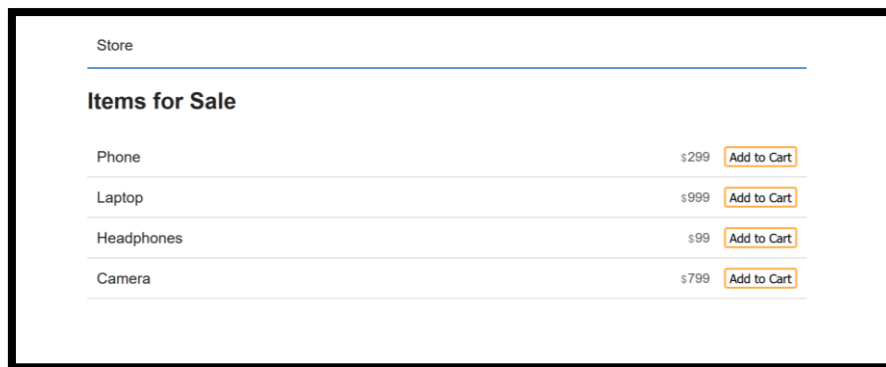
## Exercice 1 b :

Modifier l'exercice 1 en ajoutant quelques fonctionnalités.

Composants à ajouter :

- ItemPage.js
- NavBar.js

Résultat attendu :



```
/* index.js */
import React from "react";
import ReactDOM from "react-dom";
import NavBar from "./NavBar";
import ItemPage from "./ItemPage";
import "./index.css";

const products = [
  { id: 1, name: "Phone", price: 299 },
  { id: 2, name: "Laptop", price: 999 },
  { id: 3, name: "Headphones", price: 99 },
  { id: 4, name: "Camera", price: 799 },
];

const App = () => (
  <div className="App">
    <NavBar />
    <main>
      <ItemPage items={products} />
    </main>
  </div>
);

ReactDOM.render(<App />, document.querySelector("#root"));

/* ItemPage.js */
```

```
import React from "react";

const ItemPage = ({ items }) => (
  <div className="ItemPage">
    <h2>Items for Sale</h2>
    {items.map(item => (
      <Item key={item.id} item={item} />
    ))}
  </div>
);

const Item = ({ item }) => (
  <li className="Item">
    {item.name}
    <span className="price">${item.price}</span>
    <button className="add">Add to Cart</button>
  </li>
);

export default ItemPage;

/* NavBar.js */
import React from "react";

const NavBar = () => (
  <nav>
    <ul>
      <li>Store</li>
    </ul>
  </nav>
);

export default NavBar;
```

### **Exercice 2 a:**

Exécuter le programme dans l'exercice 2 (2-before-shopper-add-to-cart), sans le modifier.

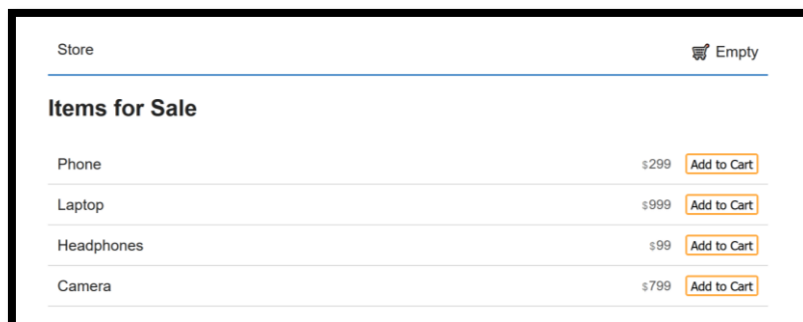
### **Exercice 2 b:**

Modifier l'exercice 2 en ajoutant quelques fonctionnalités.

Composants à ajouter :

- CartPage.js

Résultat attendu :



```

/* index.js */
import React from 'react';
import ReactDOM from 'react-dom';
import ItemPage from './ItemPage';
import NavBar from './NavBar';
import './index.css';

const products = [
  { id: 1, name: 'Phone', price: 299 },
  { id: 2, name: 'Laptop', price: 999 },
  { id: 3, name: 'Headphones', price: 99 },
  { id: 4, name: 'Camera', price: 799 }
];

class App extends React.Component {
  state = {
    cart: []
  };

  handleAdd = item => {
    console.log(item);
    this.setState(prev => ({
      cart: [...prev.cart, item]
    }));
  };

  render() {
    return (
      <div className="App">
        <NavBar cartCount={this.state.cart.length} />
        <main>
          <ItemPage
            onAddToCart={this.handleAdd}
            items={products}
          />
        </main>
      </div>
    );
  }
}

ReactDOM.render(
  <App />,
  document.querySelector('#root')
);

```

```

/* CartPage.js */
import React from 'react';

const CartPage = () => <div>Shopping cart!</div>;

export default CartPage;

```

```

/* ItemPage.js */
import React from 'react';

const ItemPage = ({ items, onAddToCart }) => (
  <div className="ItemPage">

```

```

    <h2>Items for Sale</h2>
    {items.map(item => (
      <Item
        key={item.id}
        item={item}
        onAddToCart={onAddToCart}
      />
    ))}
  </div>
);

const Item = ({ item, onAddToCart }) => (
  <li className="Item">
    {item.name}
    <span className="price">${item.price}</span>
    <button
      className="add"
      onClick={() => onAddToCart(item)}
    >
      Add to Cart
    </button>
  </li>
);


```

```
export default ItemPage;
```

```
/* NavBar.js */
```

```
import React from 'react';
```

```

const NavBar = ({ cartCount }) => (
  <nav>
    <ul>
      <li>Store</li>
      <li className="cart-count">
        <span role="img" aria-label="items in cart">

        </span>{ ' ' }
        {cartCount === 0 ? 'Empty' : cartCount}
      </li>
    </ul>
  </nav>
);

```

```
export default NavBar;
```

### **Exercice 3 a**

Exécuter le programme dans l'exercice 3 (3-before-shopper-CartPage), sans le modifier.

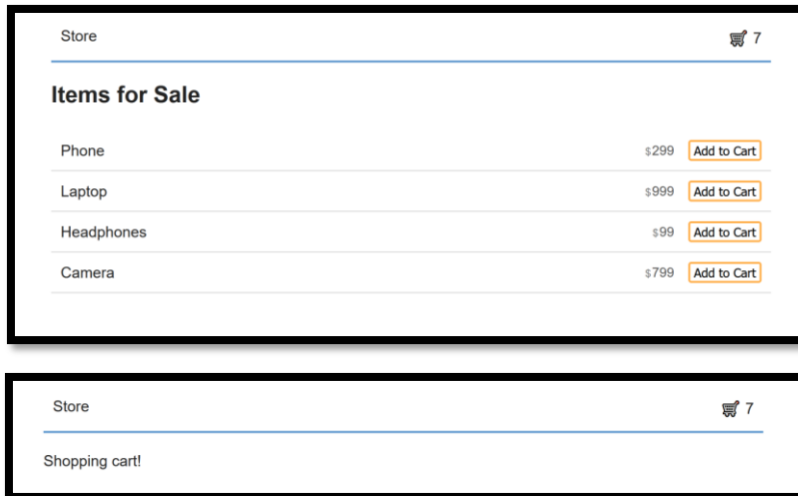
## Exercise 3 b

Modifier l'exercice 3a en ajoutant quelques fonctionnalités.

Composants à ajouter :

- Item.js

Résultat attendu



```
/* index.js */
import React from 'react';
import ReactDOM from 'react-dom';
import ItemPage from './ItemPage';
import NavBar from './NavBar';
import CartPage from './CartPage';
import './index.css';

const products = [
  { id: 1, name: 'Phone', price: 299 },
  { id: 2, name: 'Laptop', price: 999 },
  { id: 3, name: 'Headphones', price: 99 },
  { id: 4, name: 'Camera', price: 799 }
];

class App extends React.Component {
  state = {
    activePage: 'store',
    cart: []
  };

  handleAdd = item => {
    console.log(item);
    this.setState(prev => ({
      cart: [...prev.cart, item]
    }));
  };

  handlePageChange = page => {
    this.setState({ activePage: page });
  };
}
```

```

render() {
  const { activePage, cart } = this.state;

  return (
    <div className="App">
      <NavBar
        onPageChange={this.handlePageChange}
        cartCount={cart.length}
      />
      <main>
        {activePage === 'store' ? (
          <ItemPage
            onAddToCart={this.handleAdd}
            items={products}
          />
        ) : (
          <CartPage />
        )}
      </main>
    </div>
  );
}
}
ReactDOM.render(
  <App />,
  document.querySelector('#root')
);

/* Item.js */

import React from 'react';

const Item = ({ item, children }) => (
  <li className="Item">
    {item.name}
    <span className="price">${item.price}</span>
    {children}
  </li>
);

export default Item;

/* CartPage.js */
import React from 'react';

const Item = ({ item, children }) => (
  <li className="Item">
    {item.name}
    <span className="price">${item.price}</span>
    {children}
  </li>
);

export default Item;

/* ItemPage.js */

```

```


import React from 'react';

const ItemPage = ({ items, onAddToCart }) => (
  <div className="ItemPage">
    <h2>Items for Sale</h2>
    {items.map(item => (
      <Item
        key={item.id}
        item={item}
        onAddToCart={onAddToCart}
      />
    ))}
  </div>
);

const Item = ({ item, onAddToCart }) => (
  <li className="Item">
    {item.name}
    <span className="price">${item.price}</span>
    <button
      className="add"
      onClick={() => onAddToCart(item)}
    >
      Add to Cart
    </button>
  </li>
);

export default ItemPage;

/* NavBar.js */
import React from 'react';

const NavBar = ({ cartCount, onPageChange }) => (
  <nav>
    <ul>
      <li>
        <a
          href="/"
          onClick={evt => {
            evt.preventDefault();
            onPageChange('store');
          }}
        >
          Store
        </a>
      </li>
      <li className="cart-count">
        <a
          href="/cart"
          onClick={evt => {
            evt.preventDefault();
            onPageChange('cart');
          }}
        >
          <span role="img" aria-label="items in cart">
            

```

```

    </span>{' '}
    {cartCount === 0 ? 'Empty' : cartCount}
  </a>
</li>
</ul>
</nav>
);

```

export default NavBar;

## Exercise 5a

Mêmes instructions que précédemment. Modifier le projet contenu dans le dossier nommé *5-before-shopper-CheckoutPage*.

## Exercise 5b

Modifier l'exercice 3a en ajoutant quelques fonctionnalités.

Composants à ajouter :

- Checkout.js
- States.js

Résultat attendu :

The screenshot shows a web interface for a checkout page. At the top, there's a header with 'Store' on the left and a shopping cart icon with the text 'Empty' on the right. Below the header, there's a horizontal line. Underneath the line, on the right side, it says 'Total: \$0'. At the bottom right, there is a green button labeled 'Checkout Now'.

The screenshot shows the checkout page with three items in the cart. The header is the same as the previous screenshot, but the cart icon now shows '3'. Below the header, there's a table listing the items:

Phone	\$299	1
Laptop	\$999	1
Headphones	\$99	1

Below the table, on the right, it says 'Total: \$1397'. At the bottom right, there is a green button labeled 'Checkout Now'.

The screenshot shows the checkout page with a shipping address form. The header is the same as the previous screenshots, but the cart icon now shows '3'. Below the header, there's a horizontal line. Underneath the line, it says 'You are buying 3 items.' Below this, there's a form with the following fields:

- First Name:
- Last Name:
- Email:
- Street:
- City:
- State:

Below the form, there's a checkbox labeled 'Is this a residential address?' which is checked. Below the checkbox, there's a section titled 'Confirm Shipping Info' with the following text:

bachir Toure  
Fann, Rue 71  
Dakar, DK  
elbachir.toure@gmail.com  
residential



```

/* index.js */
import React from 'react';
import ReactDOM from 'react-dom';
import ItemPage from './ItemPage';
import NavBar from './NavBar';
import CartPage from './CartPage';
import CheckoutPage from './CheckoutPage';
import './index.css';

const products = [
  { id: 1, name: 'Phone', price: 299 },
  { id: 2, name: 'Laptop', price: 999 },
  { id: 3, name: 'Headphones', price: 99 },
  { id: 4, name: 'Camera', price: 799 }
];

class App extends React.Component {
  state = {
    activePage: 'store',
    cart: []
  };

  handleAdd = item => {
    console.log(item);
    this.setState(prev => ({
      cart: [...prev.cart, item]
    }));
  };

  handlePageChange = page => {
    this.setState({ activePage: page });
  };

  render() {
    const { activePage, cart } = this.state;

    return (
      <div className="App">
        <NavBar
          onPageChange={this.handlePageChange}
          cartCount={cart.length}
        />
        <main>
          {activePage === 'store' ? (
            <ItemPage
              onAddToCart={this.handleAdd}
              items={products}
            />
          ) : activePage === 'cart' ? (
            <CartPage
              items={cart}
              onPageChange={this.handlePageChange}
            />
          ) : (
            <CheckoutPage items={cart} />
          )}
        </main>
      </div>
    );
  }
}

```

```

    </div>
  );
}
}
ReactDOM.render(
  <App />,
  document.querySelector('#root')
);
/* CheckOut.js */
import React from 'react';
import States from './States';

class CheckoutPage extends React.Component {
  state = {
    firstName: "",
    lastName: "",
    email: "",
    street: "",
    city: "",
    state: "",
    isResidential: false
  };

  handleChange = event => {
    const name = event.target.name;
    const value =
      event.target.type === 'checkbox'
        ? event.target.checked
        : event.target.value;

    this.setState({
      [name]: value
    });
  };

  render() {
    const { items } = this.props;
    const {
      firstName,
      lastName,
      email,
      street,
      city,
      state,
      isResidential
    } = this.state;

    const done =
      firstName &&
      lastName &&
      email &&
      street &&
      city &&
      state;

    return (
      <div className="CheckoutPage">

```

```
<p>You are buying {items.length} items.</p>
<form>
  <div className="field-group">
    <label htmlFor="firstName">
      First Name
    </label>
    <input
      type="text"
      id="firstName"
      name="firstName"
      value={firstName}
      onChange={this.handleChange}
    />
  </div>
  <div className="field-group">
    <label htmlFor="lastName">Last Name</label>
    <input
      type="text"
      id="lastName"
      name="lastName"
      value={lastName}
      onChange={this.handleChange}
    />
  </div>
  <div className="field-group">
    <label htmlFor="email">Email</label>
    <input
      type="text"
      id="email"
      name="email"
      value={email}
      onChange={this.handleChange}
    />
  </div>
  <div className="field-group">
    <label htmlFor="street">Street</label>
    <input
      type="text"
      id="street"
      name="street"
      value={street}
      onChange={this.handleChange}
    />
  </div>
  <div className="field-group">
    <label htmlFor="city">City</label>
    <input
      type="text"
      id="city"
      name="city"
      value={city}
      onChange={this.handleChange}
    />
  </div>
  <div className="field-group">
    <label htmlFor="state">State</label>
    <select
```

```

        name="state"
        id="state"
        value={state}
        onChange={this.handleChange}
      >
        <States />
      </select>
    </div>
    <div className="field-group">
      <label htmlFor="isResidential">
        Is this a residential address?
      </label>
      <input
        type="checkbox"
        name="isResidential"
        id="isResidential"
        checked={isResidential}
        onChange={this.handleChange}
      />
    </div>
  </form>
  <section>
    <h3>Confirm Shipping Info</h3>
    {done ? (
      <>
        <div>
          {firstName} {lastName}
        </div>
        <div>{street}</div>
        <div>
          {city}, {state}
        </div>
        <br />
        {email}
        <br />
        <div>
          {isResidential
            ? 'residential'
            : 'commercial'}
        </div>
      </>
    ) : (
      'Fill out the form first'
    )}
  </section>
</div>
);
}
}

export default CheckoutPage;
/* States.js */
import React from "react";

const States = () => (
  <>
    <option value="">- Pick a City -</option>

```

```

    <option value="DK">Dakar</option>
    <option value="KL">Kaolack</option>
    <option value="TH">Thiès</option>
    <option value="MB">Mbour</option>
    <option value="ZG">Ziguinchor</option>
    <option value="SL">Saint-Louis</option>
    <option value="DL">Diourbel</option>
    <option value="TB">Touba</option>
    <option value="KD">Kolda</option>
  </>
);

export default States;

/* Item.js */
import React from 'react';

const Item = ({ item, onAddToCart, children }) => (
  <li className="Item">
    {item.name}
    <span className="price">${item.price}</span>
    {children}
  </li>
);

export default Item;

/* ItemPage.js */
import React from 'react';
import Item from './Item';

const ItemPage = ({ items, onAddToCart }) => (
  <div className="ItemPage">
    <h2>Items for Sale</h2>
    {items.map(item => (
      <Item
        key={item.id}
        item={item}
        onAddToCart={onAddToCart}
      >
        <button
          className="add"
          onClick={() => onAddToCart(item)}
        >
          Add to Cart
        </button>
      </Item>
    ))}
  </div>
);

export default ItemPage;

/* NavBar.js */
import React from 'react';

const NavBar = ({ cartCount, onPageChange }) => (
  <nav>
    <ul>

```

```

</li>
<a
  href="/"
  onClick={evt => {
    evt.preventDefault();
    onPageChange('store');
  }}
>
  Store
</a>
</li>
<li className="cart-count">
  <a
    href="/cart"
    onClick={evt => {
      evt.preventDefault();
      onPageChange('cart');
    }}
  >
    <span role="img" aria-label="items in cart">
      🛒
    </span>{ ' '}
    {cartCount === 0 ? 'Empty' : cartCount}
  </a>
</li>
</ul>
</nav>
);

```

```
export default NavBar;
```

```
/* CartPage.js */
```

```
import React from 'react';
```

```
import Item from './Item';
```

```
const summarizer = (result, item) => {
```

```
  // [1, 1, 2, 2, 2]
```

```
  const existingItem = result.find(
```

```
    i => i.id === item.id
```

```
  );
```

```
  if (!existingItem) {
```

```
    result.push({
```

```
      ...item,
```

```
      count: 1
```

```
    });
```

```
  } else {
```

```
    existingItem.count++;
```

```
  }
```

```
  return result;
```

```
};
```

```
const CartPage = ({ items, onPageChange }) => {
```

```
  const cart = items.reduce(summarizer, []);
```

```
  return (
```

```
    <div className="CartPage">
```

```
      <ul>
```

```
{cart.map(item => (  
  <Item key={item.id} item={item}>  
    {item.count}  
  </Item>  
))}  
</ul>  
<div className="total">  
  Total: $  
  {cart.reduce((total, item) => {  
    return total + item.price * item.count;  
  }, 0)}  
</div>  
<button onClick={() => onPageChange('checkout')}>  
  Checkout Now  
</button>  
</div>  
);  
};  
  
export default CartPage;
```