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**207701**

**BSCS-7b**

**Lab 09**

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| Solution |
| Task Code:  App.js file:  import React, { Component } from 'react';  import Products from './components/Products';  import Filter from './components/Filter';  import Basket from './components/Basket';  import './App.css';  class App extends Component {  constructor() {  super();  this.state = { size: '', sort: '', cartItems: [], products: [], filteredProducts: [] };  }  componentWillMount() {  if (localStorage.getItem('cartItems')) {  this.setState({ cartItems: JSON.parse(localStorage.getItem('cartItems')) });  }  fetch('http://localhost:8000/products').then(res => res.json())  .catch(err => fetch('db.json').then(res => res.json()).then(data => data.products))  .then(data => {  this.setState({ products: data });  this.listProducts();  });  }  handleRemoveFromCart = (e, product) => {  this.setState(state => {  const cartItems = state.cartItems.filter(a => a.id !== product.id);  localStorage.setItem('cartItems', JSON.stringify(cartItems));  return { cartItems: cartItems };  })  }  handleAddToCart = (e, product) => {  this.setState(state => {  const cartItems = state.cartItems;  let productAlreadyInCart = false;  cartItems.forEach(cp => {  if (cp.id === product.id) {  cp.count += 1;  productAlreadyInCart = true;  }  });  if (!productAlreadyInCart) {  cartItems.push({ ...product, count: 1 });  }  localStorage.setItem('cartItems', JSON.stringify(cartItems));  return { cartItems: cartItems };  });  }  listProducts = () => {  this.setState(state => {  if (state.sort !== '') {  state.products.sort((a, b) =>  (state.sort === 'lowestprice'  ? ((a.price > b.price) ? 1 : -1)  : ((a.price < b.price) ? 1 : -1)));  } else {  state.products.sort((a, b) => (a.id > b.id) ? 1 : -1);  }  if (state.size !== '') {  return { filteredProducts: state.products.filter(a => a.availableSizes.indexOf(state.size.toUpperCase()) >= 0) };  }  return { filteredProducts: state.products };  })  }  handleSortChange = (e) => {  this.setState({ sort: e.target.value });  this.listProducts();  }  handleSizeChange = (e) => {  this.setState({ size: e.target.value });  this.listProducts();  }  render() {  return (  <div className="container">  <h1>E-commerce Shopping Cart Application</h1>  <hr />  <div className="row">  <div className="col-md-9">  <Filter count={this.state.filteredProducts.length} handleSortChange={this.handleSortChange}  handleSizeChange={this.handleSizeChange} />  <hr />  <Products products={this.state.filteredProducts} handleAddToCart={this.handleAddToCart} />  </div>  <div className="col-md-3">  <Basket cartItems={this.state.cartItems} handleRemoveFromCart={this.handleRemoveFromCart} />  </div>  </div>  </div>  );  }  }  export default App;  Products.js file:  import React, { Component } from 'react';  import util from '../util'  export default class Products extends Component {  render() {  const productItems = this.props.products.map(product => (  <div className="col-md-4" key={product.id}>  <div className="thumbnail text-center">  <a href={`#${product.id}`}onClick={(e)=>this.props.handleAddToCart(e, product)}>  <img src={`products/${product.sku}\_2.jpg`} alt={product.title} />  <p>{product.title}</p>  </a>  <b>{util.formatCurrency(product.price)}</b>  <button className="btn btn-primary" onClick={(e)=>this.props.handleAddToCart(e, product)}>Add to cart</button>  </div>  </div>  ));  return (  <div className="row">  {productItems}  </div>  )  }  }  Basket.js file:  import React, { Component } from 'react';  import util from '../util'  export default class Basket extends Component {  render() {  const { cartItems } = this.props;  return (  <div className="alert alert-info">  {cartItems.length === 0  ? "Basket is empty" :  <div>You have {cartItems.length} items in the basket. <hr /></div>  }  {cartItems.length > 0 &&  <div>  <ul style={{ marginLeft: -25 }}>  {cartItems.map(item => (  <li key={item.id}>  <b>{item.title}</b>  <button style={{ float: 'right' }} className="btn btn-danger btn-xs"  onClick={(e) => this.props.handleRemoveFromCart(e, item)}>X</button>  <br />  {item.count} X {util.formatCurrency(item.price)}  </li>))  }  </ul>  <b>Sum: {util.formatCurrency(cartItems.reduce((a, c) => (a + c.price \* c.count), 0))}  </b>  <button onClick={() => alert('Todo: Implement checkout page.')} className="btn btn-primary">checkout</button>  </div>  }  </div>  )  }  }  Filter.js file:  import React, { Component } from 'react';  export default class Products extends Component {  render() {  return (  <div className="row">  <div className="col-md-4">  {`${this.props.count} products found.`}  </div>  <div className="col-md-4">  <label>Order by  <select className="form-control" value={this.props.sort} onChange={this.props.handleSortChange}>  <option value="">Select</option>  <option value="lowestprice">Lowest to highest</option>  <option value="highestprice">Highest to lowest</option>  </select>  </label>  </div>  <div className="col-md-4">  <label > Filter Size  <select className="form-control" value={this.props.size} onChange={this.props.handleSizeChange}>  <option value="">ALL</option>  <option value="x">XS</option>  <option value="s">S</option>  <option value="m">M</option>  <option value="l">L</option>  <option value="xl">XL</option>  <option value="xxl">XXL</option>  </select>  </label>  </div>  </div>  )  }  }  Task Output Screenshot:  Order-By Example:    Filter Example:    Basket Example: |