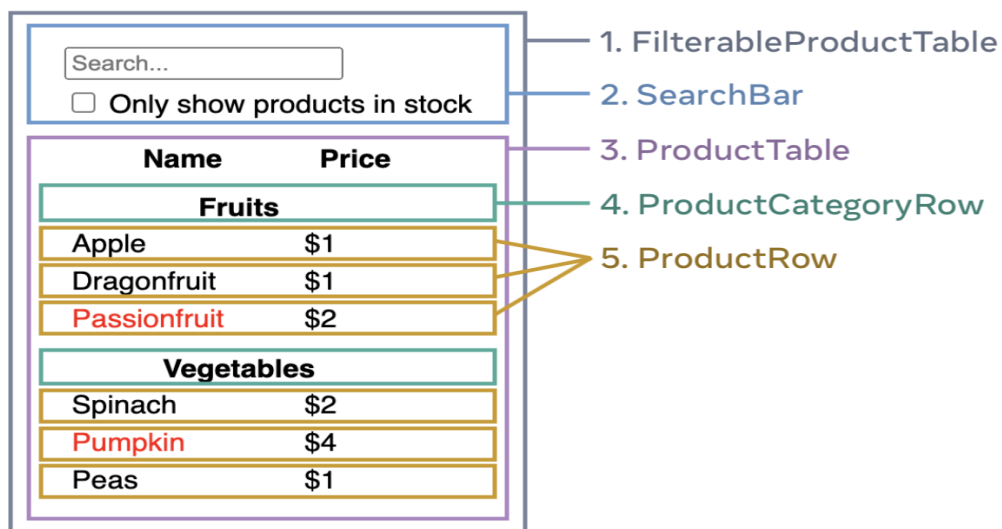


Ex. No: 4	Search and Filter using React
7/8/23	

Aim: Implement the search and filter application using react.

Mockup:



Program :

App.jsx :

```
import { useState } from 'react';
import './App.css'

function FilterableProductTable({ products }) {
  const [filterText, setFilterText] = useState('');
  const [inStockOnly, setInStockOnly] = useState(false);

  return (
    <>
      <SearchBar
        filterText={filterText}
        inStockOnly={inStockOnly}
        onFilterTextChange={setFilterText}
      />
    </>
  );
}
```

```

        onInStockOnlyChange={setInStockOnly} />
      <ProductTable
        products={products}
        filterText={filterText}
        inStockOnly={inStockOnly} />
    </>
  );
}

function ProductCategoryRow({ category }) {
  return (
    <tr>
      <th colspan="2">
        {category}
      </th>
    </tr>
  );
}

function ProductRow({ product }) {
  const name = product.stocked ? product.name :
    <span style={{ color: 'red' }}>
      {product.name}
    </span>;

  return (
    <tr>
      <td>{name}</td>
      <td>{product.price}</td>
    </tr>
  );
}

function ProductTable({ products, filterText, inStockOnly }) {
  const rows = [];
  let lastCategory = null;

  products.forEach((product) => {
    if (

```

```

        product.name.toLowerCase().indexOf(
            filterText.toLowerCase()
        ) === -1
    ) {
        return;
    }
    if (inStockOnly && !product.stocked) {
        return;
    }
    if (product.category !== lastCategory) {
        rows.push(
            <ProductCategoryRow
                category={product.category}
                key={product.category} />
        );
    }
    rows.push(
        <ProductRow
            product={product}
            key={product.name} />
    );
    lastCategory = product.category;
});

return (
    <table>
        <thead>
            <tr>
                <th>Name</th>
                <th>Price</th>
            </tr>
        </thead>
        <tbody>{rows}</tbody>
    </table>
);
}

function SearchBar({
    filterText,

```

```

    inStockOnly,
    onFilterTextChange,
    onInStockOnlyChange
  )) {
    return (
      <form>
        <input
          type="text"
          value={filterText} placeholder="Search..."
          onChange={(e) => onFilterTextChange(e.target.value)} /> <br />
        <label>
          <input
            type="checkbox"
            checked={inStockOnly}
            onChange={(e) => onInStockOnlyChange(e.target.checked)} />
            {' '}
          Only show products in stock
        </label>
      </form>
    );
  }

const PRODUCTS = [
  {category: "Fruits", price: "$1", stocked: true, name: "Apple"},
  {category: "Fruits", price: "$1", stocked: true, name: "Dragonfruit"},
  {category: "Fruits", price: "$2", stocked: false, name: "Passionfruit"},
  {category: "Vegetables", price: "$2", stocked: true, name: "Spinach"},
  {category: "Vegetables", price: "$4", stocked: false, name: "Pumpkin"},
  {category: "Vegetables", price: "$1", stocked: true, name: "Peas"}
];

export default function App() {
  return <FilterableProductTable products={PRODUCTS} />;
}

```

App.css :

```

#root {
  max-width: 1280px;
  margin: 0 auto;
}

```

```
padding: 2rem;
text-align: center;
}
.card {
padding: 2em;
}
```

main.jsx :

```
import React from 'react'
import ReactDOM from 'react-dom/client'
import App from './App'
import './index.css'

ReactDOM.createRoot(document.getElementById('root')).render(
  <React.StrictMode>
    <App />
  </React.StrictMode>,
)
```

index.css :

```
:root {
font-family: 'Courier New', Courier, monospace;
line-height: 1.5;
font-weight: 400;

color-scheme: light dark;
color: rgba(255, 255, 255, 0.87);
background-color: #242424;

font-synthesis: none;
text-rendering: optimizeLegibility;
-webkit-font-smoothing: antialiased;
-moz-osx-font-smoothing: grayscale;
-webkit-text-size-adjust: 100%;
}
```

```
body {
  margin: 0;
  display: flex;
  place-items: center;
  min-width: 320px;
  min-height: 100vh;
}

@media (prefers-color-scheme: light) {
  :root {
    color: #213547;
    background-color: #ffffff;
  }
}
```

Output:

☐ Only show products in stock

Name	Price
Fruits	
Apple	\$1
Dragonfruit	\$1
Passionfruit	\$2
Vegetables	
Spinach	\$2
Pumpkin	\$4
Peas	\$1

☐ Only show products in stock

Name	Price
Fruits	
Apple	\$1

☒ Only show products in stock

Name	Price
Fruits	
Apple	\$1
Dragonfruit	\$1
Vegetables	
Spinach	\$2
Peas	\$1

Result: Thus search and filter functions in the react application have been successfully executed.