

Subject: 2104CS512 – JavaScript Framework

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III.		ReactJS
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Assignment 1: Demonstrate the use of map method in ReactJS to display array.

File name: App.js

```
import ArrayDisplay from './ArrayDisplay';
import FacultyDisplay from './FacultyDisplay';
import ProductDisplay from './ProductDisplay';
import StudentDisplay from './StudentDisplay';

function App() {
  return (
    <>
      <ArrayDisplay/>
      <FacultyDisplay/>
      <StudentDisplay/>
      <ProductDisplay/>
    </>
  );
}

export default App;
```

File name: ArrayDisplay.js

```
// ArrayDisplay.js
import React from 'react';

function ArrayDisplay() {
  const names = ['Alice', 'Bob', 'Charlie', 'David'];

  return (
    <div>
      <h2>Names List:</h2>
      <ul>
        {names.map((name, index) => (
          <li key={index}>{name}</li>
        ))}
      </ul>
    </div>
  );
}

export default ArrayDisplay;
```

Assignment 2: Display Faculties stored in array using ReactJS.

File name: FacultyDisplay.js

```
// FacultyDisplay.js
import React from 'react';

function FacultyDisplay() {
  const faculties = ['Dr. Smith', 'Prof. Johnson', 'Dr. Brown', 'Prof. Taylor'];

  return (
    <div>
      <h2>Faculty List:</h2>
      <ul>
        {faculties.map((faculty, index) => (
          <li key={index}>{faculty}</li>
        ))}
      </ul>
    </div>
  );
}

export default FacultyDisplay;
```

Assignment 3: Display Students stored in array using ReactJS.

File name: StudentDisplay.js

```
// StudentDisplay.js
import React from 'react';

function StudentDisplay() {
  const students = ['Alice', 'Bob', 'Charlie', 'David'];

  return (
    <div>
      <h2>Student List:</h2>
      <ul>
        {students.map((student, index) => (
          <li key={index}>{student}</li>
        ))}
      </ul>
    </div>
  );
}

export default StudentDisplay;
```

Assignment 4: Display Products stored in array using ReactJS.

File name: ProductDisplay.js

```
// ProductDisplay.js
import React from 'react';

function ProductDisplay() {
  const products = [
    { id: 1, name: 'Laptop', price: '$1000' },
    { id: 2, name: 'Smartphone', price: '$500' },
    { id: 3, name: 'Tablet', price: '$300' },
    { id: 4, name: 'Smartwatch', price: '$200' },
  ];

  return (
    <div>
      <h2>Product List:</h2>
      <ul>
        {products.map((product) => (
          <li key={product.id}>
            {product.name} - {product.price}
          </li>
        ))}
      </ul>
    </div>
  );
}

export default ProductDisplay;
```

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Assignment 5: Display Faculties, Students, Products stored in array using ReactJS with navigation.

File name: NavigationBar.js

```
// NavigationBar.js
import React from 'react';
import { Outlet } from 'react-router-dom';
import { useNavigate } from 'react-router-dom';
function NavigationBar() {
  const navigate = useNavigate()
  return (
    <div>
      <ul>
        <button onClick={()=>navigate('/')}>app</button>
        <button onClick={()=>navigate('/array')}>Array</button>
        <button onClick={()=>navigate('/faculty')}>Faculty</button>
        <button onClick={()=>navigate('/student')}>Student</button>
        <button onClick={()=>navigate('/product')}>Product</button>

      </ul>
      <Outlet />
    </div>
  );
}

export default NavigationBar;
```

File name: index.js

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import './index.css';
import App from './App';
import { BrowserRouter, Routes, Route } from "react-router-dom";
import ArrayDisplay from './ArrayDisplay';
import FacultyDisplay from './FacultyDisplay';
import StudentDisplay from './StudentDisplay';
import ProductDisplay from './ProductDisplay';
import NavigationBar from './NavigationBar';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <>
```

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```
<BrowserRouter>
  <Routes>
    <Route element={<NavigationBar />} >

      <Route path="/" element={<App/>}/>
      <Route path="/array" element={<ArrayDisplay/>}/>
      <Route path="/faculty" element={<FacultyDisplay/>}/>
      <Route path="/student" element={<StudentDisplay/>}/>
      <Route path="/product" element={<ProductDisplay/>}/>
    </Route>
  </Routes>
</BrowserRouter>
</>
);
```