

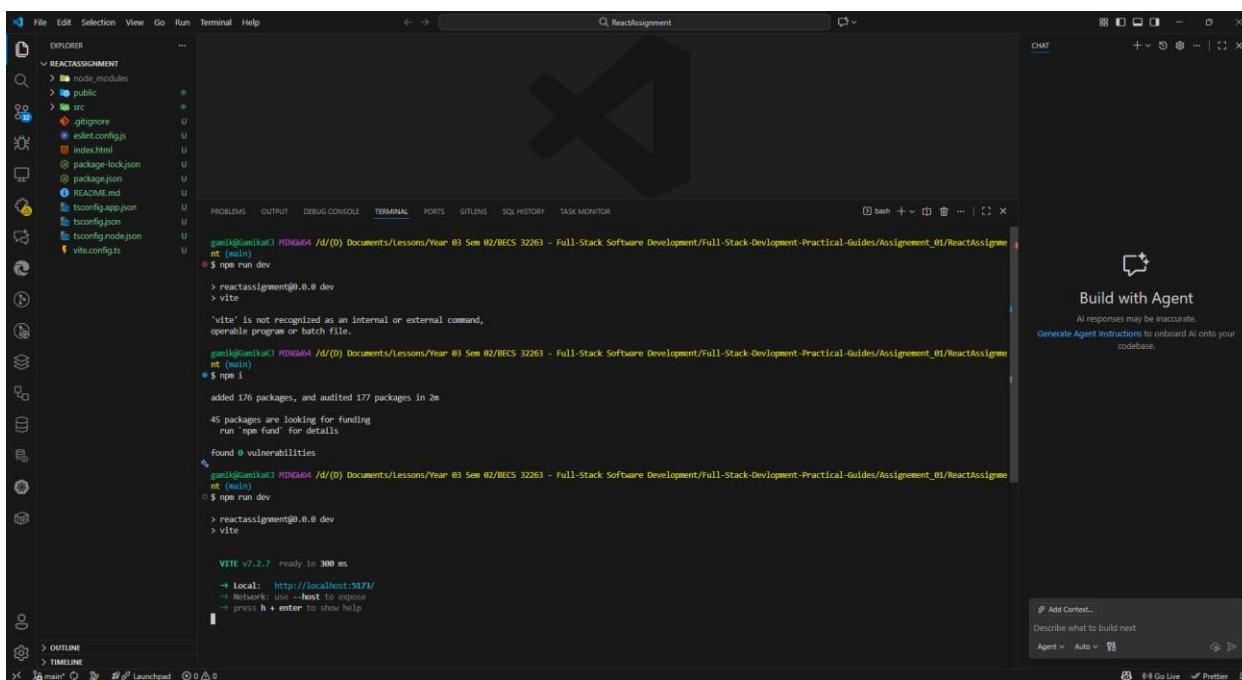
REACT ASSIGNMENT 01

EC/2021/006

W.K.G.K JAYAWARDHANA

# React Tutorial Part 01

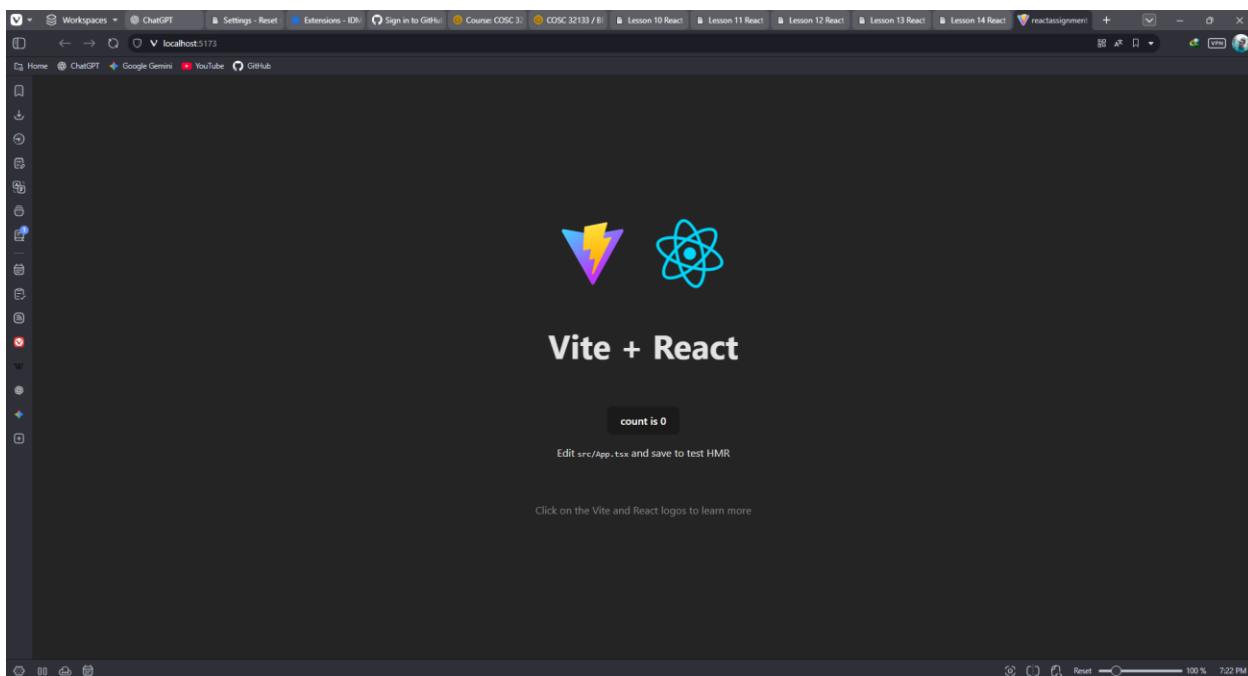
```
C:\Windows\System32\cmd.exe + Microsoft Windows [Version 10.0.26200.7171] (c) Microsoft Corporation. All rights reserved. D:\(\D) Documents\Lessons\Year 03 Sem 02\BECS 32263 - Full-Stack Software Development\Full-Stack-Development-Practical-Guides\Assignment_01>npm create vite@latest > npx > create-vite | o Project name: | ReactAssignment | | o Package name: | reactassignment | | o Select a framework: | React | | o Select a variant: | TypeScript | | o Use rollup-vite (Experimental)?: | No | | o Install with npm and start now? | No | | o Scaffolding project in D:\(\D) Documents\Lessons\Year 03 Sem 02\BECS 32263 - Full-Stack Software Development\Full-Stack-Development-Practical-Guides\Assignment_01\ReactAssignment... | | - Done. Now run: cd ReactAssignment npm install npm run dev npm notice npm notice New patch version of npm available! 11.6.2 => 11.6.4 npm notice Changelog: https://github.com/npm/cli/releases/tag/v11.6.4 npm notice To update run: npm install -g npm@11.6.4 npm notice D:\(\D) Documents\Lessons\Year 03 Sem 02\BECS 32263 - Full-Stack Software Development\Full-Stack-Development-Practical-Guides\Assignment_01>cd ReactAssignment D:\(\D) Documents\Lessons\Year 03 Sem 02\BECS 32263 - Full-Stack Software Development\Full-Stack-Development-Practical-Guides\Assignment_01>code . D:\(\D) Documents\Lessons\Year 03 Sem 02\BECS 32263 - Full-Stack Software Development\Full-Stack-Development-Practical-Guides\Assignment_01\ReactAssignment>
```



# REACT ASSIGNMENT 01

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```
function HelloWorld(){
  const UOK = "UOK";
  return <h1>Hello World!</h1>;
}
export default HelloWorld;
```

```
import HelloWorld from "./HelloWorld"

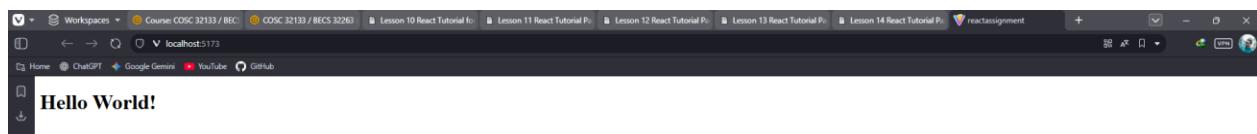
function App() {
  return (
    <>
    <HelloWorld />
    </>
  )
}

export default App
```

# REACT ASSIGNMENT 01

EC/2021/006

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## React Tutorial Part 02

```
import React from "react";
const ListGroup: React.FC = () => {
  const cities: string[] = ["Colombo", "Kandy", "Galle"];
  return (
    <>
      <h3>Cities in Sri Lanka</h3>
      <ul className="list-group">
        {cities.map((city, index) => (
          <li key={index} className="list-group-item">
            {city}
          </li>
        ))}
      </ul>
    </>
  );
};
export default ListGroup;
```

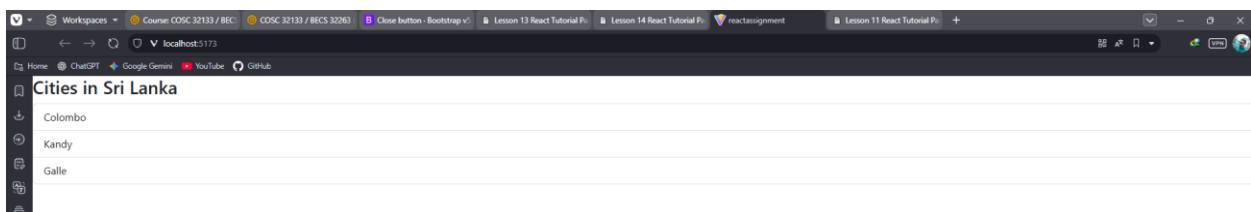
```
import React from 'react';
import ListGroup from './components/ListGroup';

const App: React.FC = () => {
  return (
    <div>
      <ListGroup />
    </div>
  );
};
export default App;
```

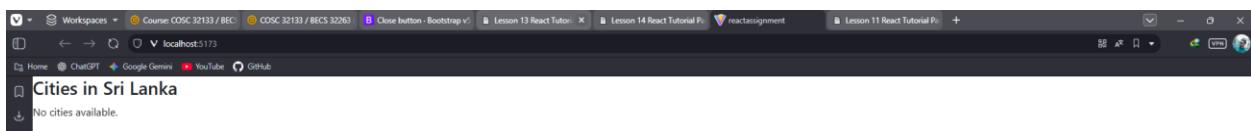
# REACT ASSIGNMENT 01

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```
import React from "react";
const ListGroup: React.FC = () => {
  const cities: string[] = ["Colombo", "Kandy", "Galle"];
  return (
    <>
      <h3>Cities in Sri Lanka</h3>
      {cities.length === 0 ? (
        <p>No cities available.</p>
      ) : (
        <ul className="list-group">
          {cities.map((city, index) => (
            <li key={index} className="list-group-item">
              {city}
            </li>
          ))}
        </ul>
      )}
    </>
  );
};
export default ListGroup;
```



```
import React from "react";
const ListGroup: React.FC = () => {
  const cities: string[] = [];
  // "Colombo", "Kandy", "Galle"
  return (
```

## REACT ASSIGNMENT 01

EC/2021/006

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```
<>
  <h3>Cities in Sri Lanka</h3>
  {cities.length === 0 ? (
    <p>No cities available.</p>
  ) : (
    <ul className="list-group">
      {cities.map((city, index) => (
        <li
          key={index}
          className="list-group-item"
          onClick={() => console.log(index)}
        >
          {city}
        </li>
      )));
    </ul>
  )}
</>
);
};

export default ListGroup;
```

```
import React from "react";
const ListGroup: React.FC = () => {
  const cities: string[] = ["Colombo", "Kandy", "Galle"];
  const handleClick = (
    event: React.MouseEvent<HTMLLIElement>,
    index: number
  ) => {
    console.log(`City index: ${index}`, event);
  };

  return (
    <>
      <h3>Cities in Sri Lanka</h3>
      {cities.length === 0 ? (
        <p>No cities available.</p>
      ) : (
        <ul className="list-group">
          {cities.map((city, index) => (
            <li
              key={index}
              className="list-group-item"
              onClick={() => console.log(index)}
            >
              {city}
            </li>
          )));
        </ul>
      )}
    </>
  );
};

export default ListGroup;
```

## REACT ASSIGNMENT 01

EC/2021/006

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```
) : (
  <ul className="list-group">
    {cities.map((city, index) => (
      <li
        key={index}
        className="list-group-item"
        onClick={(e) => handleClick(e, index)}
      >
        {city}
      </li>
    )));
  </ul>
)
</>
);
};

export default ListGroup;
```

```
import React, { useState } from 'react';
const ListGroup: React.FC = () => {
  const cities = ["Colombo", "Kandy", "Galle"];
  const [selectedIndex, setSelectedIndex] = useState<number | null>(null);
  return (
    <ul className="list-group">
      {cities.map((city, index) => (
        <li
          key={index}
          className={`list-group-item ${(
            selectedIndex === index ? "active" : ""
          )}`}
          onClick={() => setSelectedIndex(index)}
        >
          {city}
        </li>
      )));
    
```

## REACT ASSIGNMENT 01

EC/2021/006

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```
        </ul>
    );
};

export default ListGroup;
```

```
import React, { useState } from 'react';
const ListGroup: React.FC = () => {
    const cities = ["Colombo", "Kandy", "Galle"];
    const [selectedIndex, setSelectedIndex] = useState<number | null>(null);
    return (
        <ul className="list-group">
            {cities.map((city, index) => (
                <li
                    key={index}
                    className={`list-group-item ${selectedIndex === index ? "active" : ""}`}
                    onClick={() => setSelectedIndex(index)}
                >
                    {city}
                </li>
            ))}
        </ul>
    );
};

export default ListGroup;
```

```
import React from 'react';
import ListGroup from './components/ListGroup';

const App: React.FC = () => {
    return (
        <div>
            <ListGroup />
        </div>
    );
};

export default App;
```

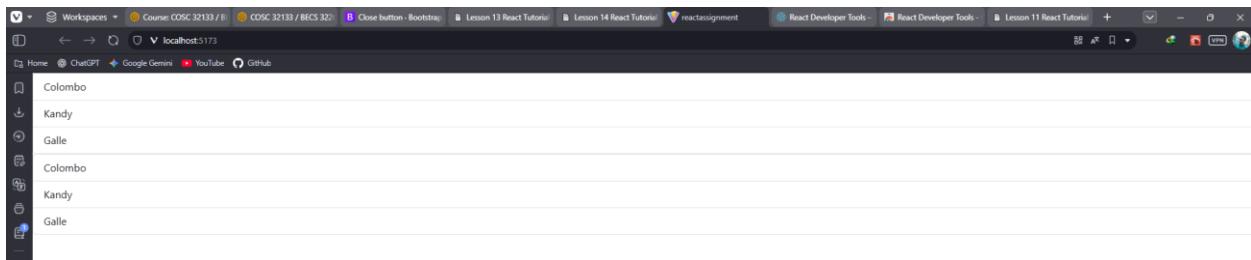
# REACT ASSIGNMENT 01

EC/2021/006

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```
<ListGroup />
</div>
);
};

export default App;
```



```
interface ListGroupProps {
  heading: string;
  items: string[];
}

const ListGroup: React.FC<ListGroupProps> = ({ heading, items }) => {
  return (
    <>
      <h3>{heading}</h3>
      <ul className="list-group">
        {items.map((item, index) => (
          <li key={index} className="list-group-item">
            {item}
          </li>
        ))}
      </ul>
    </>
  );
};

export default ListGroup;
```

```
import ListGroup from './components/ListGroup';

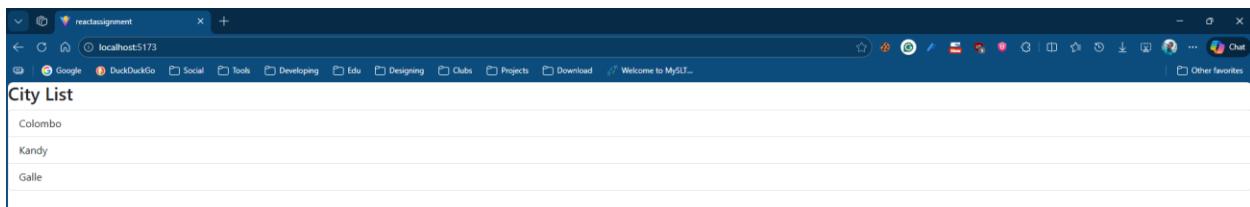
const App = () => {
  const cities = ["Colombo", "Kandy", "Galle"];
```

## REACT ASSIGNMENT 01

EC/2021/006

W.K.G.K JAYAWARDHANA

```
return <ListGroup heading="City List" items={cities} />;  
};  
export default App;
```



## React Tutorial Part 03

```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS SQL HISTORY TASK MONITOR  
nt (main)  
$ npm run dev  
  
ganiik@GaniikKJ MINGW64 /d/(D) Documents/Lessons/Year 03 Sem 02/BECS 32263 - Full-Stack Software Development/Full-Stack-Development-Practical-Guides/Assignment_01/ReactAssignment  
nt (main)  
$ npm install bootstrap  
  
added 2 packages, and audited 179 packages in 2s  
  
47 packages are looking for funding  
run `npm fund` for details  
  
found 0 vulnerabilities
```

```
import React from 'react';  
interface HiProps {  
  children: React.ReactNode; // Accept any valid React node  
}  
const Hi: React.FC<HiProps> = ({ children }) => {  
  return (  
    <div>  
      {children}  
    </div>  
  );  
};  
  
export default Hi;
```

```
import React from 'react';  
import Hi from './components/Hi';  
  
const App: React.FC = () => {
```

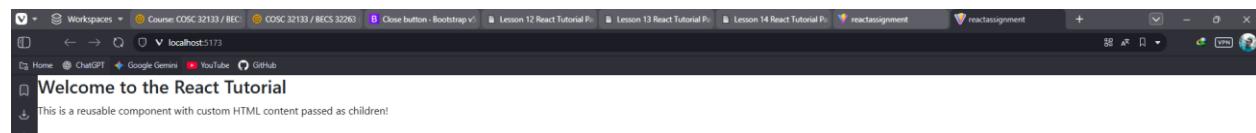
## REACT ASSIGNMENT 01

EC/2021/006

W.K.G.K JAYAWARDHANA

```
return (
  <div>
    <Hi>
      <h3>Welcome to the React Tutorial</h3>
      <p>This is a reusable component with custom HTML
content passed as children!</p>
    </Hi>
  </div>
);
};

export default App;
```



```
import React from "react";
interface HiProps {
  children: React.ReactNode; // React.ReactNode allows passing HTML or other
components as children
}

const Hi: React.FC<HiProps> = ({ children }) => {

  const handleAlertDismiss = () => {
    alert("You clicked the button! Dismissed successfully.");
  };

  return (
    <div
      className="alert alert-warning alert-dismissible fade show"
      role="alert"
    >
      {children}
      <button
        type="button"
        className="btn-close"
        data-bs-dismiss="alert"
      >
        <span>×</span>
      </button>
    </div>
  );
}

export default Hi;
```

# REACT ASSIGNMENT 01

EC/2021/006

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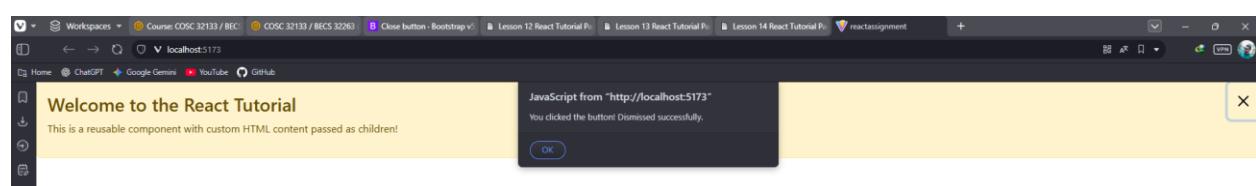
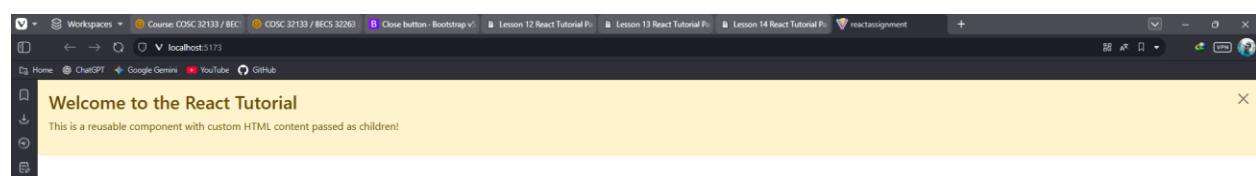
```
        aria-label="Close"
        onClick={handleAlertDismiss}
      ></button>
    </div>
  );
};

export default Hi;

import React from 'react';
import Hi from './components/Hi';

const App: React.FC = () => {
  return (
    <div>
      <Hi>
        <h3>Welcome to the React Tutorial</h3>
        <p>This is a reusable component with custom HTML content passed as children!</p>
      </Hi>
    </div>
  );
};

export default App;
```



## React Tutorial Part 04

```
import React from "react";
const ListEmployeeComponent: React.FC = () => {
  const employees = [
    {
      id: 1,
      firstname: "EC2021006Gamika",
      lastname: "Jayawardhna",
      email: "sandip@example.com",
    },
    {
      id: 2,
      firstname: "Navod",
      lastname: "Gunasinghe",
      email: "navod@example.com",
    },
    {
      id: 3,
      firstname: "Amara",
      lastname: "Senarath",
      email: "amara@example.com",
    },
  ];
  return (
    <div className="container mt-3">
      <h3 className="text-primary">Employee List</h3>
      <table className="table table-bordered table-striped">
        <thead className="table-dark">
          <tr>
            <th>ID</th>
            <th>First Name</th>
            <th>Last Name</th>
            <th>Email</th>
          </tr>
        </thead>
        <tbody>
          {employees.map((employee) => (
```

## REACT ASSIGNMENT 01

EC/2021/006

W.K.G.K JAYAWARDHANA

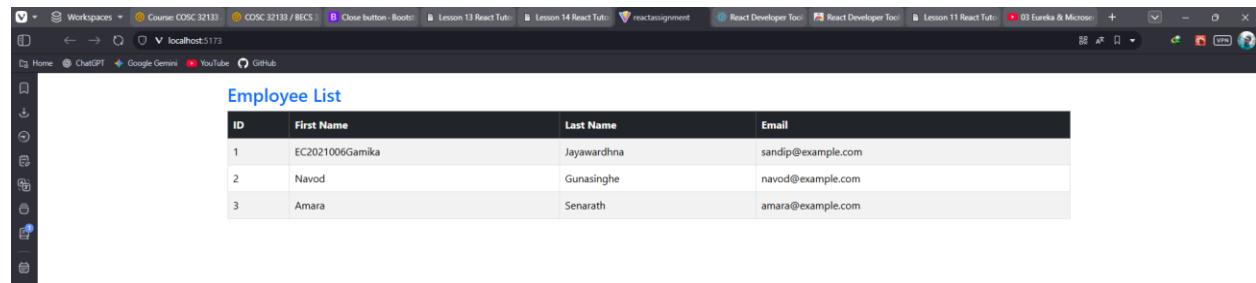
```
<tr key={employee.id}>
  <td>{employee.id}</td>
  <td>{employee.firstname}</td>
  <td>{employee.lastname}</td>
  <td>{employee.email}</td>
</tr>
))}
</tbody>
</table>
</div>
);
};

export default ListEmployeeComponent;
```

```
import ListEmployeeComponent from
'./components/ListEmployeeComponent';

const App: React.FC = () => {
  return (
    <div>
      <ListEmployeeComponent />
    </div>
  );
};

export default App;
```



## React Tutorial Part 05

```
import React from "react";
const Header: React.FC = () => {
  return (
    <nav className="navbar navbar-expand-lg navbar-dark bgprimary">
      <div className="container">
        <a className="navbar-brand" href="#">
          Employee Management System
        </a>
      </div>
    </nav>
  );
};
export default Header;
```

```
import React from "react";
const Footer: React.FC = () => {
  return (
    <footer className="bg-dark text-center text-white mt-auto py3">
      <div>© 2024 Employee Management System</div>
    </footer>
  );
};

export default Footer;
```

```
import axios from 'axios';
const API_URL = 'http://localhost:8080/api/employees'; // Replace
with your backend API URL
export const getEmployees = async () => {
  const response = await axios.get(API_URL);
  return response.data;
};
```

## REACT ASSIGNMENT 01

EC/2021/006

W.K.G.K JAYAWARDHANA

```
import React, { useState, useEffect } from 'react';
import { getEmployees } from '../services/EmployeeService';
interface Employee {
  id: string;
  firstName: string;
  lastName: string;
  email: string;
}
const ListEmployeeComponent: React.FC = () => {
  const [employees, setEmployees] = useState<Employee[]>([]);
  useEffect(() => {
    const fetchEmployees = async () => {
      try {
        const data = await getEmployees();
        setEmployees(data);
      } catch (error) {
        console.error("Failed to fetch employees.");
      }
    };
    fetchEmployees();
  }, []);
  return (
    <div className="container mt-3">
      <h3 className="text-primary">Employee List</h3>
      <table className="table table-bordered table-striped">
        <thead className="table-dark">
          <tr>
            <th>ID</th>
            <th>First Name</th>
            <th>Last Name</th>
            <th>Email</th>
          </tr>
        </thead>
        <tbody>
          {employees.map((employee) => (
            <tr key={employee.id}>
              <td>{employee.id}</td>
              <td>{employee.firstName}</td>
```

# REACT ASSIGNMENT 01

EC/2021/006

W.K.G.K JAYAWARDHANA

```
        <td>{employee.lastName}</td>
        <td>{employee.email}</td>
    </tr>
)
</tbody>
</table>
</div>
);
};

export default ListEmployeeComponent;
```

ID	First Name	Last Name	Email
6	Gamika	Jayawardhana	gamikakj@gmail.com

	id	email	first_name	last_name
	6	gamikakj@gmail.com	Gamika	Jayawardhana