Aplicações para a Internet II

NodeJS e React

< Node.js (backend) - Listar/>

- No **backend** é necessário alterar a rota e o controlador do **employee** de forma a ir buscar os dados à base de dados quando acedemos a **/employee/list**.

- **Alterar o ficheiro src/routes/employeeRoute.js:**

```
const express = require('express');
const router = express.Router();


//importar os controladores
const employeeController =
require('../controllers/employeeController')


router.get('/list',employeeController.list);


module.exports = router;
```

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- **Alterar o ficheiro src/controllers/employeeController.js:**

```
var Employee = require('../model/Employee');
var Role = require('../model/Role');
var sequelize = require('../model/database');

const controllers = {}
sequelize.sync()
controllers.list = async (req, res) => {
  const data = await Employee.findAll({
    include: [ Role ]
  })
  .then(function(data){
    return data;
  })
  .catch(error => {
    return error;
  });
  res.json({success : true, data : data});
}
module.exports = controllers;
```

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- **Alterar o ficheiro src/App.js:**

- É necessário acrescentar no ficheiro o código necessário para permitir o acesso à API, senão a politica CORS (*Cross-Origin Resource Sharing*) não vai permitir. Para isso é necessário incluir as seguintes linhas de código

```
. . .
// Configurar CORS
app.use((req, res, next) => {
  res.header('Access-Control-Allow-Origin', '*');
  res.header('Access-Control-Allow-Headers', 'Authorization, X-API-KEY, Origin, X-Requested-With, Content-Type, Accept, Access-Control-Allow-Request-Method');
  res.header('Access-Control-Allow-Methods', 'GET, POST, OPTIONS, PUT, DELETE');
  res.header('Allow', 'GET, POST, OPTIONS, PUT, DELETE');
  next();
});
. . .
```

< React.js (frontend) - Listar/>

- No frontend vamos instalar um cliente HTTP, o **axios**, que permite a ligação à API criada no **backend:**

  npm install axios

< React.js (frontend) - Listar/>

- **Alterar Ficheiro src/view/list.js**

```
import 'bootstrap/dist/css/bootstrap.min.css';
import 'bootstrap/dist/js/bootstrap.bundle.min';
import axios from 'axios';
import { Link } from "react-router-dom";
import React ,{useEffect, useState} from "react";


export default function ListComponent(){

const [dataEmployee, setdataEmployee] = useState([]);

 useEffect(() => {

   const url = "http://localhost:3000/employee/list";
   axios.get(url)
   .then(res => {
    if(res.data.success){
      const data = res.data.data;
      setdataEmployee(data);
    }else{
      alert("Error Web Service!");
    }
   })
   .catch(error => {
    alert(error)
   });
 },[]);
```

```
return (
    <table className="table table-hover table-striped">
      <thead className="thead-dark">
       <tr>
         <th scope="col">#</th>
         <th scope="col">Role</th>
         <th scope="col">Name</th>
         <th scope="col">Email</th>
         <th scope="col">Address</th>
         <th scope="col">Phone</th>
         <th colSpan="2">Action</th>
       </tr>
      </thead>
      <tbody>
       <tr>
         <th>1</th>
         <td>Admin</td>
         <td>Nuno Costa</td>
         <td>ncosta@estgv.ipv.pt</td>
         <td>Viseu</td>
         <td>232480533</td>
         <td>
          <button className="btn btn-outline-info "> Edit </button>
         </td>
         <td>
          <button className="btn btn-outline-danger "> Delete </button>
         </td>
       </tr>
         <LoadFillData/>
      </tbody>
    </table>
);
```

< React.js (frontend) - Listar/>

```
function LoadFillData(){

    return dataEmployee.map((data, index)=>{
     return(
       <tr key={index}>
        <th>{data.id}</th>
        <td>{data.role.role}</td>
        <td>{data.name}</td>
        <td>{data.email}</td>
        <td>{data.address}</td>
        <td>{data.phone}</td>
        <td>
         <Link className="btn btn-outline-info "
to={"/edit/"+data.id} >Edit</Link>
        </td>
        <td>
         <button className="btn btn-outline-danger">
Delete </button>
        </td>
       </tr>
     )
    });

}
  }
```


www.estgv.ipv.pt   Employee List   Add Employee

#	Role	Name	Email	Address	Phone	Action	
1	Admin	Nuno Costa	ncosta@estgv.ipv.pt	Viseu	232480533	Edit	Delete
1	Admin	Nuno Costa	ncosta@estgv.ipv.pt	Campus Politécnico, Viseu, Portugal	232480533	Edit	Delete
2	Admin	Sousa Marques	marquesousa@nop.pt	Rua da Missa, Lisboa, Portugal	221485543	Edit	Delete