Employee Management System Documentation

Employee Management System

Technology Stack: React | Spring Boot | MySQL | Bootstrap | JavaScript

Project Overview:
A full-stack Employee Management System that enables basic CRUD (Create, Read, Update, Delete) operations for employee data. The application uses **React** for the frontend to build a responsive user interface and **Spring Boot** for the backend to manage RESTful web services.

Key Features:

- **Create Employee:** Add new employee records with necessary details.
- **List Employees:** View all employees in a structured table with real-time data from the database.
- **Update Employee:** Modify existing employee information seamlessly.
- **Delete Employee:** Remove employee records efficiently.

Frontend (Client-side) Technologies:

- ReactJS with modern ES6 JavaScript
- Bootstrap 4.5 for responsive UI
- Axios for API integration
- Node.js & npm
- VS Code IDE

Backend (Server-side) Technologies:

- Spring Boot 2+ for RESTful services
- Spring Data JPA (Hibernate) for database interaction
- Maven 3.2+ for project management
- Embedded Tomcat 8.5+
- MySQL database
- IntelliJ IDEA IDE

Project Highlights:

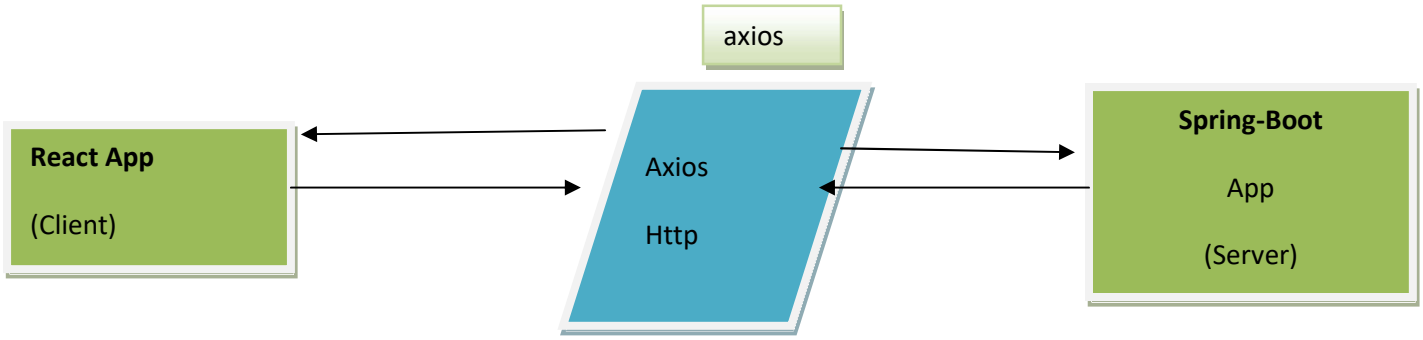
- Implemented **REST APIs** for CRUD operations using Spring Boot.
- Connected React frontend with backend REST APIs using Axios.
- Designed reusable React components (Header, Footer, Employee List, Add & Update Employee Forms).

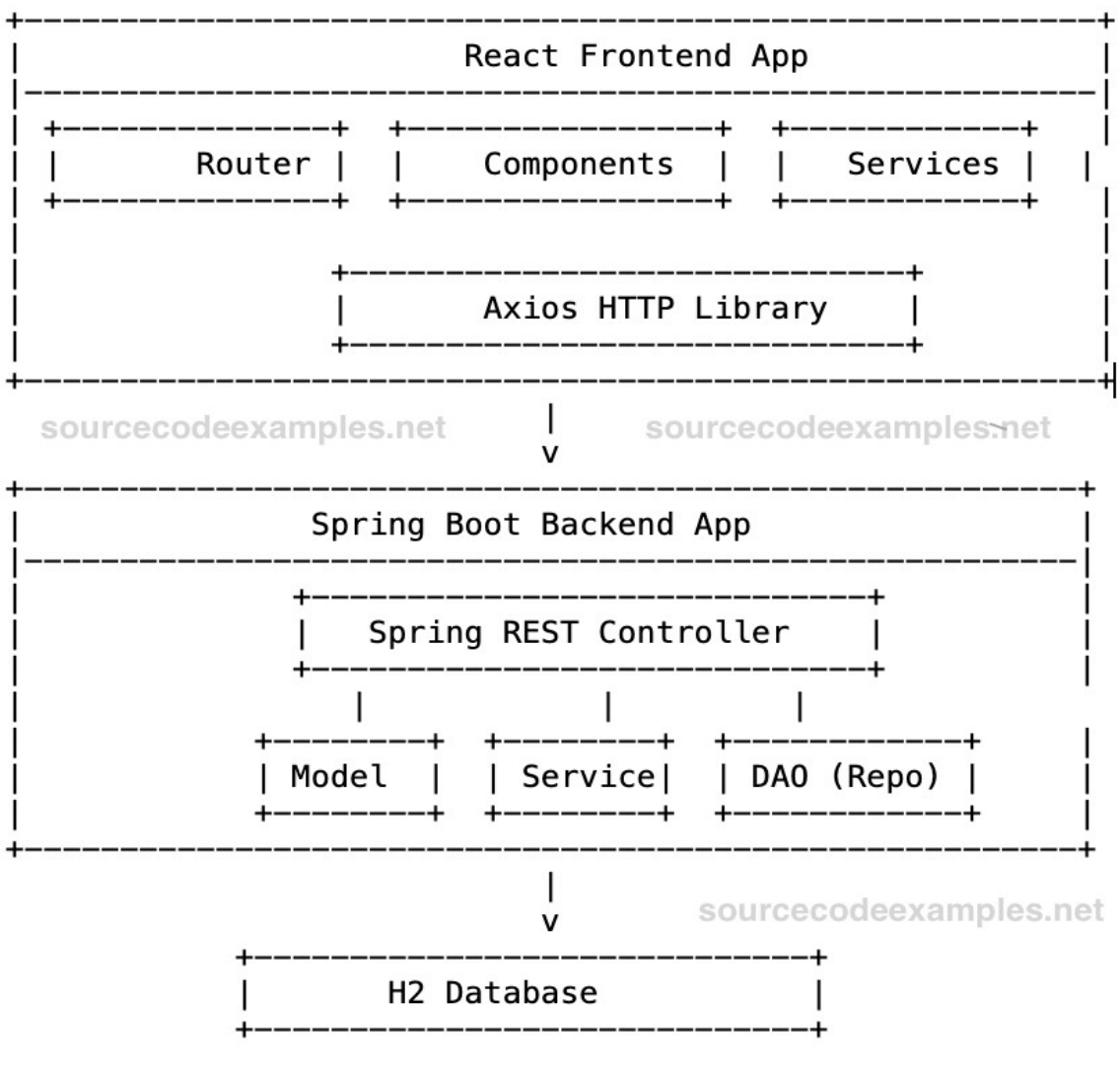
- Managed state and form handling in React for smooth user experience.
- Configured routing in React to navigate between different components.
- Used JPA Repository for database interactions and entity management.

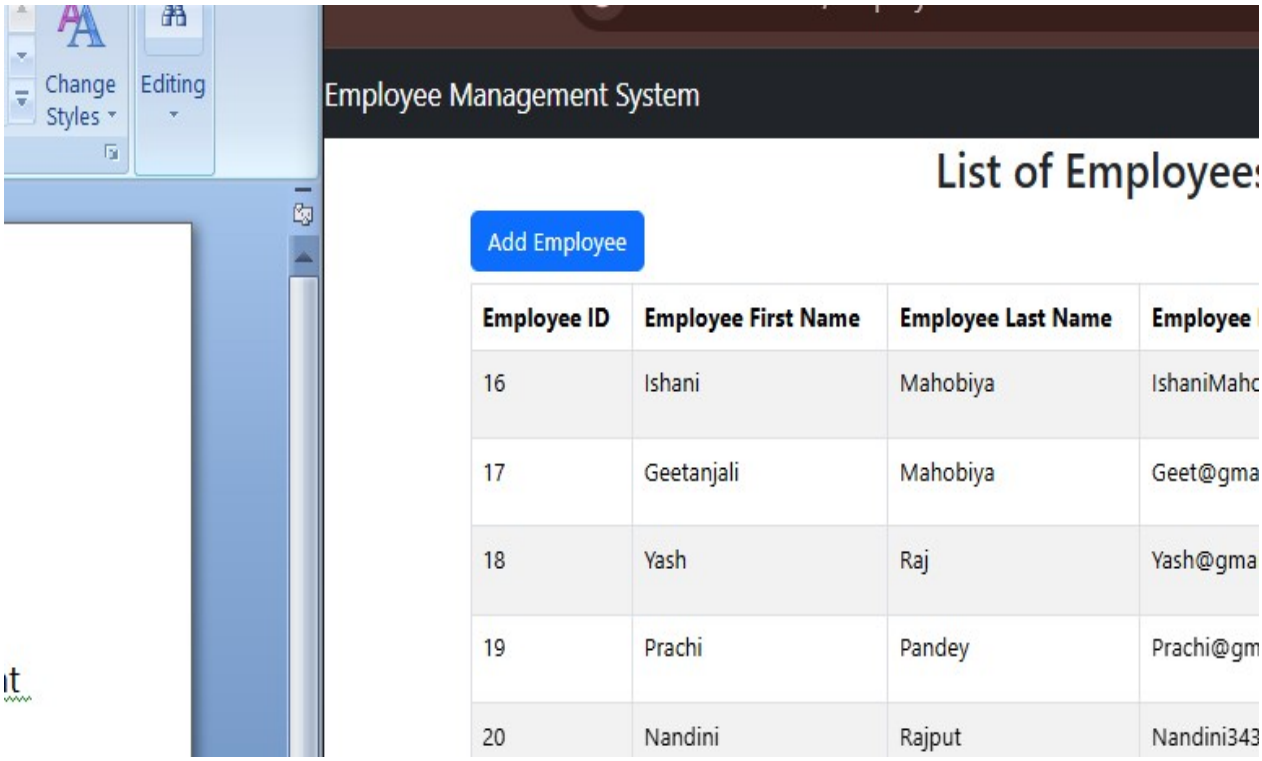
Learning Outcomes:

- Gained hands-on experience with **full-stack development** using React and Spring Boot.
- Understood **client-server architecture** and RESTful API integration.
- Improved **frontend UI/UX design** with Bootstrap.
- Learned **CRUD operations implementation** with database connectivity.
- Strengthened knowledge of **React state management, form handling, and routing**.

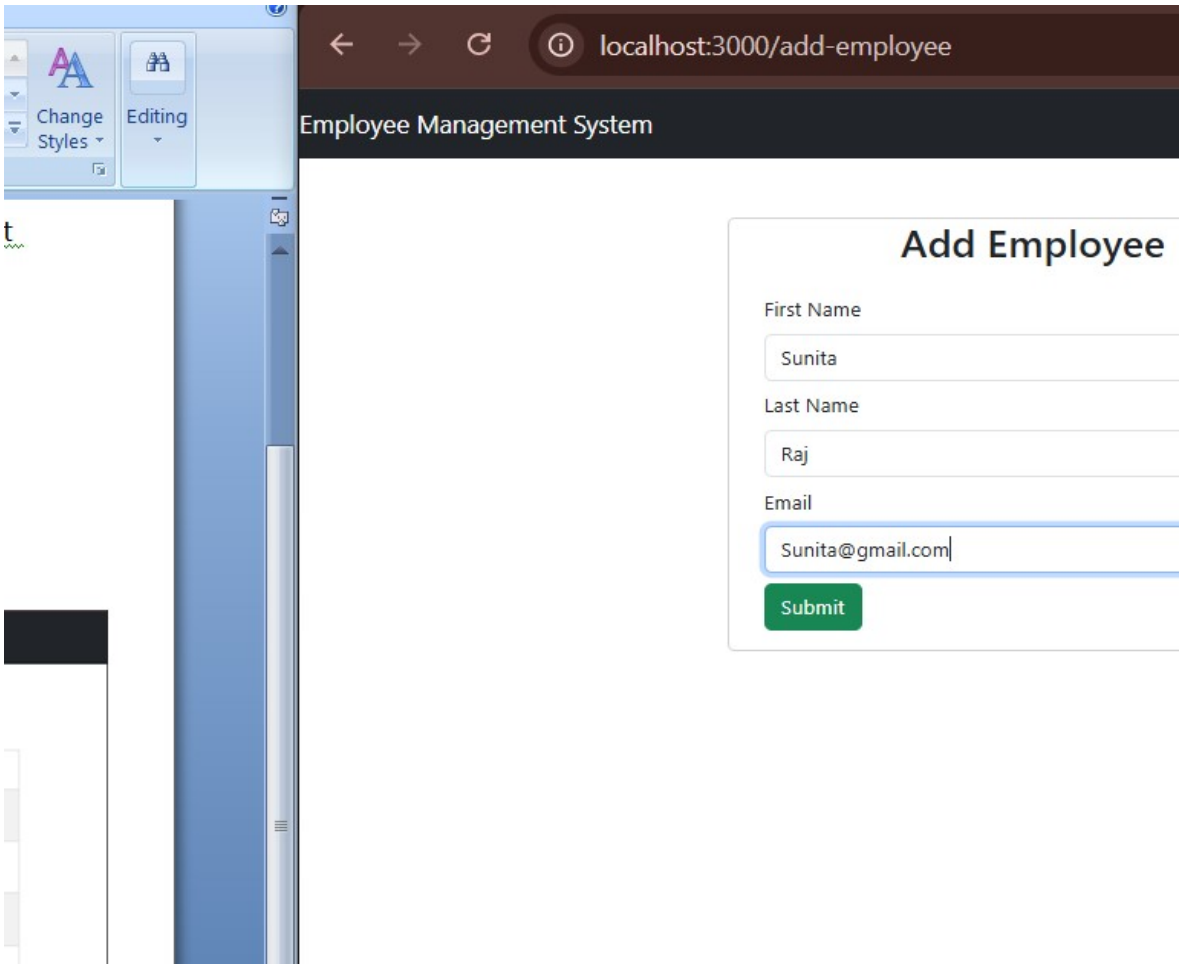
Client Server Architecture






Change Styles
Editing
Employee Management System
List of Employees
Add Employee
Employee ID
Employee First Name
Employee Last Name
Employee
16
Ishani
Mahobiya
IshaniMaho
17
Geetanjali
Mahobiya
Geet@gma
18
Yash
Raj
Yash@gma
19
Prachi
Pandey
Prachi@gm
20
Nandini
Rajput
Nandini343

Employee—Add Employee



Update Employee