# Financial Management System Documentation

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## About

Project developed to manage personal finances, using a REST API built with Spring Boot (Java) on the server side, and consumed by a ReactJS front-end.

## Technologies Used:

* Java
* Spring Boot
* JUnit
* Hibernate
* JUnit
* MySQL
* ReactJS (JavaScript, HTML, CSS)
* Bootstrap
* GIT | GitHub

## UML Diagram (Unified Modeling Language)

## Diagrama O conteúdo gerado por IA pode estar incorreto.

## Development Pattern

Layered architecture – similar to the MVC pattern, as it also follows the concept of having model, view, and controller.

Interface gráfica do usuário, Aplicativo

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* Entities (models): Represent the classes that map to the relational database tables
* Data Access Layer (repositories): Handles direct queries to the database
* Service Layer (services): Contains the business logic and rules for each entity
* Data Transfer Objects (DTOs): Groups a set of attributes from an entity into a simple class to optimize communication between layers
* REST Controllers (controllers): Handle HTTP requests and map endpoints (URIs), thus implementing the REST API

## Features

### Accounts

* CRUD operations
* List total balance
* Transfer balance between accounts

Interface gráfica do usuário, Aplicativo, Teams

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### Expenses / Revenues

* CRUD operations
* Filter by type
* Filter by period (startDate - endDate)
* List total expenses/balance

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## Testing

JUnit was used for unit testing. Some entities are created automatically when the application starts to populate test data.

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## ReactJS

JavaScript library used to build a solid, single-page user interface (UI)  
Axios was used to consume the REST API, acting as the HTTP client to handle requests to the server’s URIs

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