Service Oriented Architecture
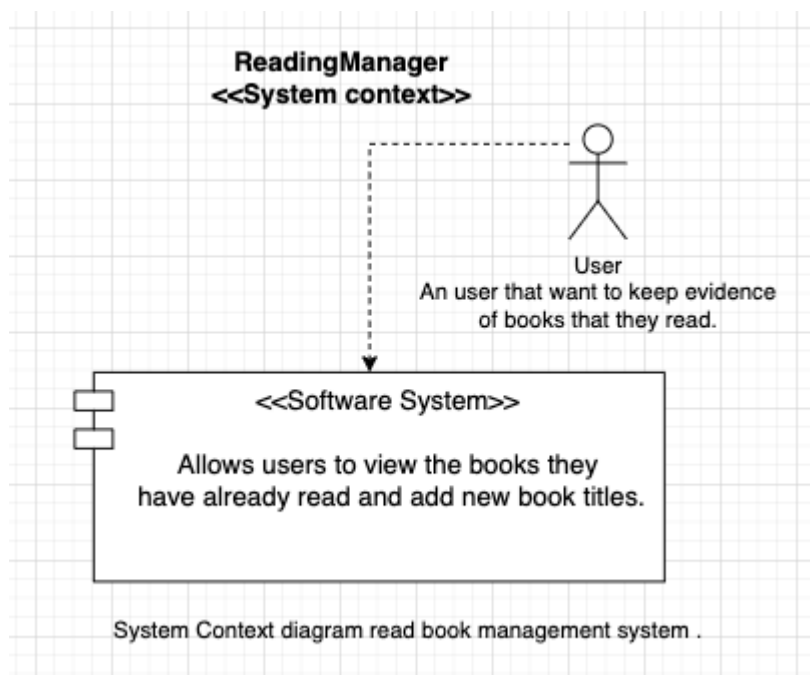**Project Documentation**
Reading Manager

For my project I implemented a reading manager project, that is used by users to track their read books. The project is implemented in the NestJS framework and it uses the microservice pattern.

The implementation of the microservice pattern is based in splitting the app in some independent services, as following:
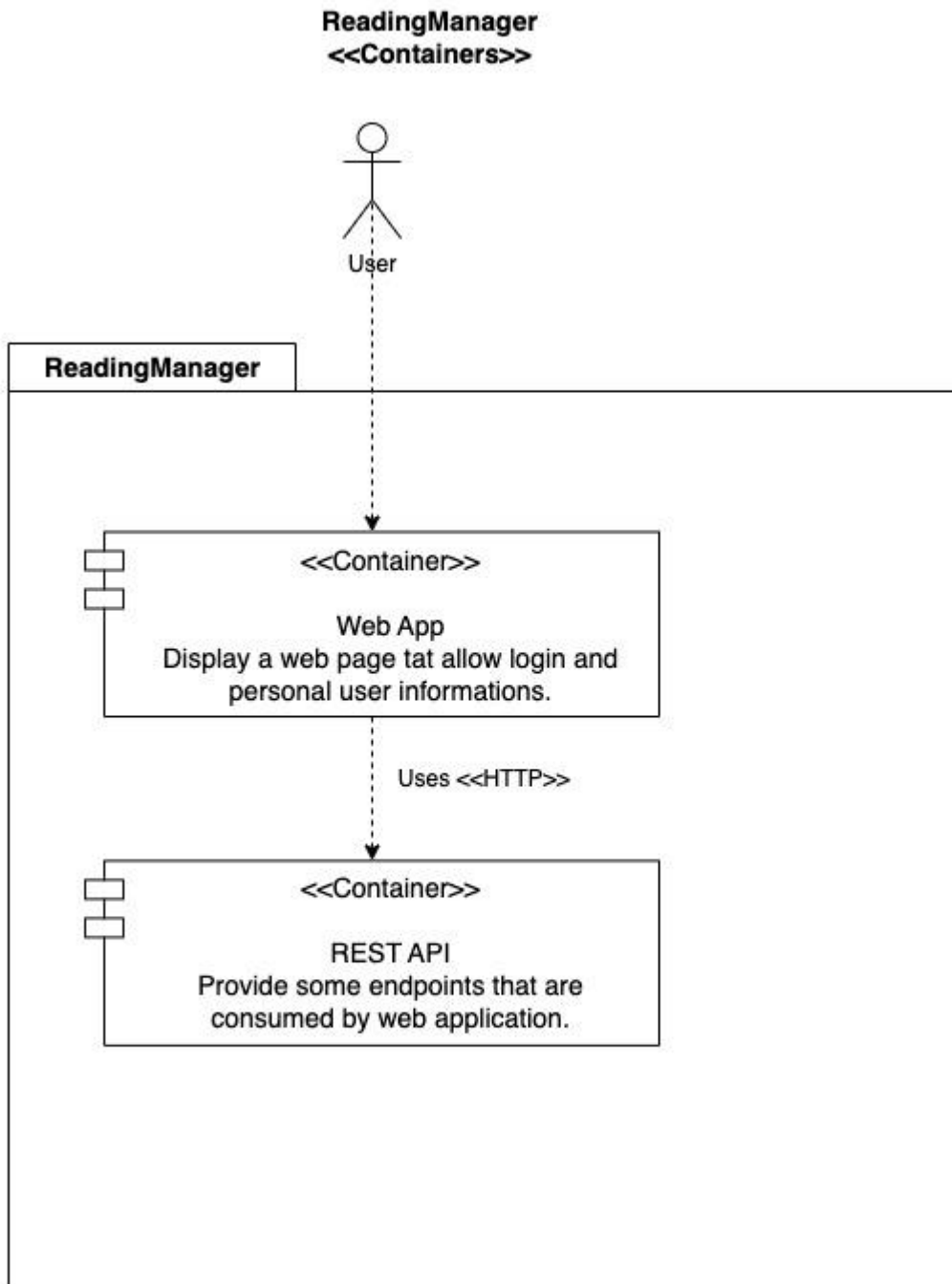- **REST API gateway** exposes some endpits and manages the user's authentications.
- **User Microservice** is responsible for validations user authentication.
- **Book Microservice** is responsible for book management.

C4 model
- **Level 1: System Context diagram**

System Context diagram read book management system .

● **Level 2: Container diagram**

ReadingManager
<<Containers>>

User

ReadingManager

<<Container>>

Web App
Display a web page tat allow login and
personal user informations.

Uses <<HTTP>>

<<Container>>

REST API
Provide some endpoints that are
consumed by web application.

The Container diagram for read book management system .

Level 3: Component diagram

Rest API
<<Componen>>

<<Container>>

Web App
Display a web page tat allow login and
provide personal user informations .

Uses <<HTTP>>

REST API

<<Component>>

REST Gateway
Provide authentication and books end-pints.

Uses <<TCP>>   Uses <<TCP>>

<<Component>>

Users microservice.
Validate users authentication.

<<Component>>

Books microservice.
Provide and recive books informatiosns.

Contain   Contain

Users
in memory DB

Books
in memory DB
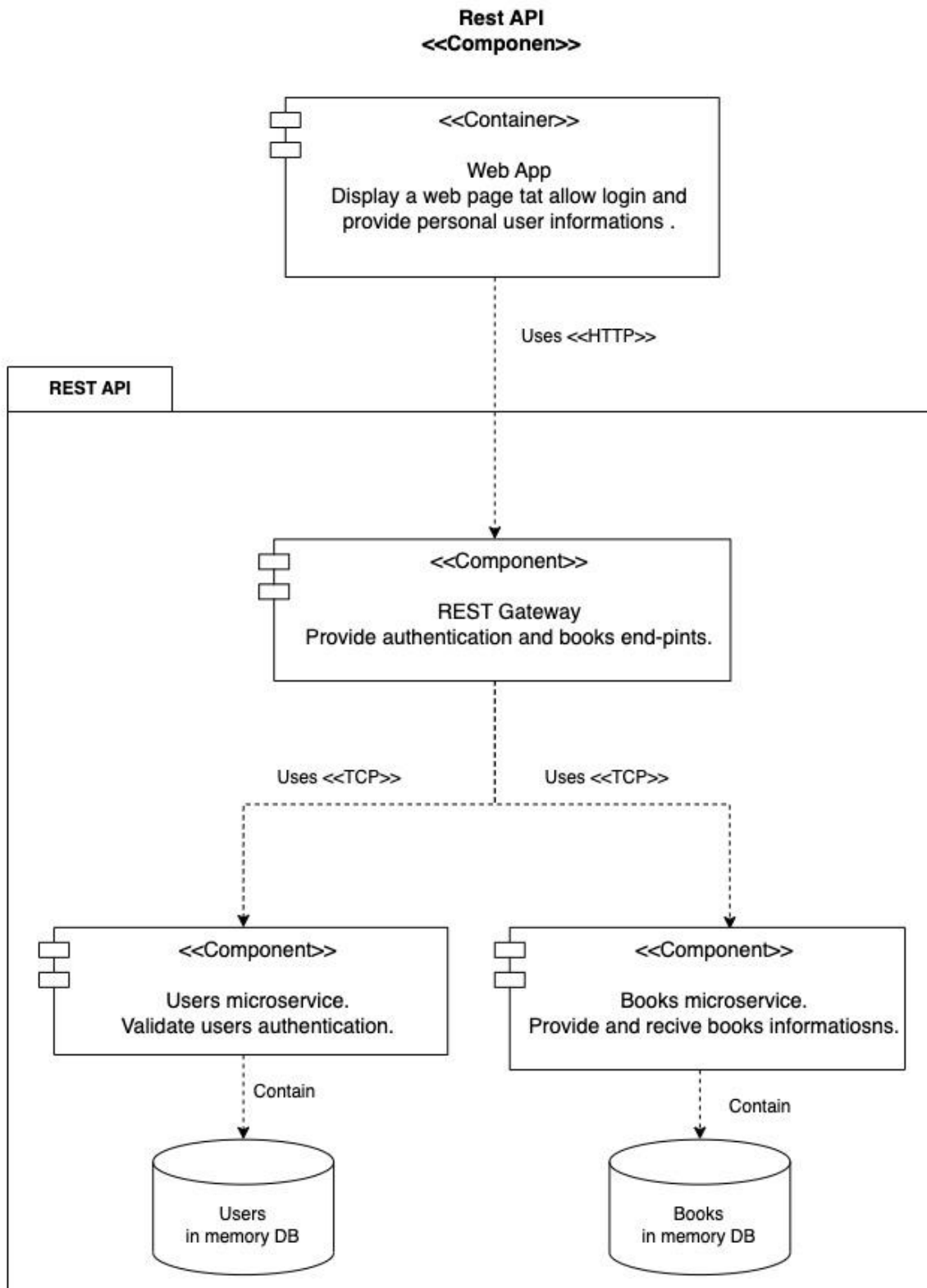
The Components diagram for REST API .