

# Solution Design Document Template

Project Book Management

## 1. Overview & Requirement

- Provisioning of a system that enables seamless management of books in a repository. This includes fundamental operations while ensuring a user-friendly interface and robust backend support. Allows the reader to determine whether this document is helpful/accessible for them.

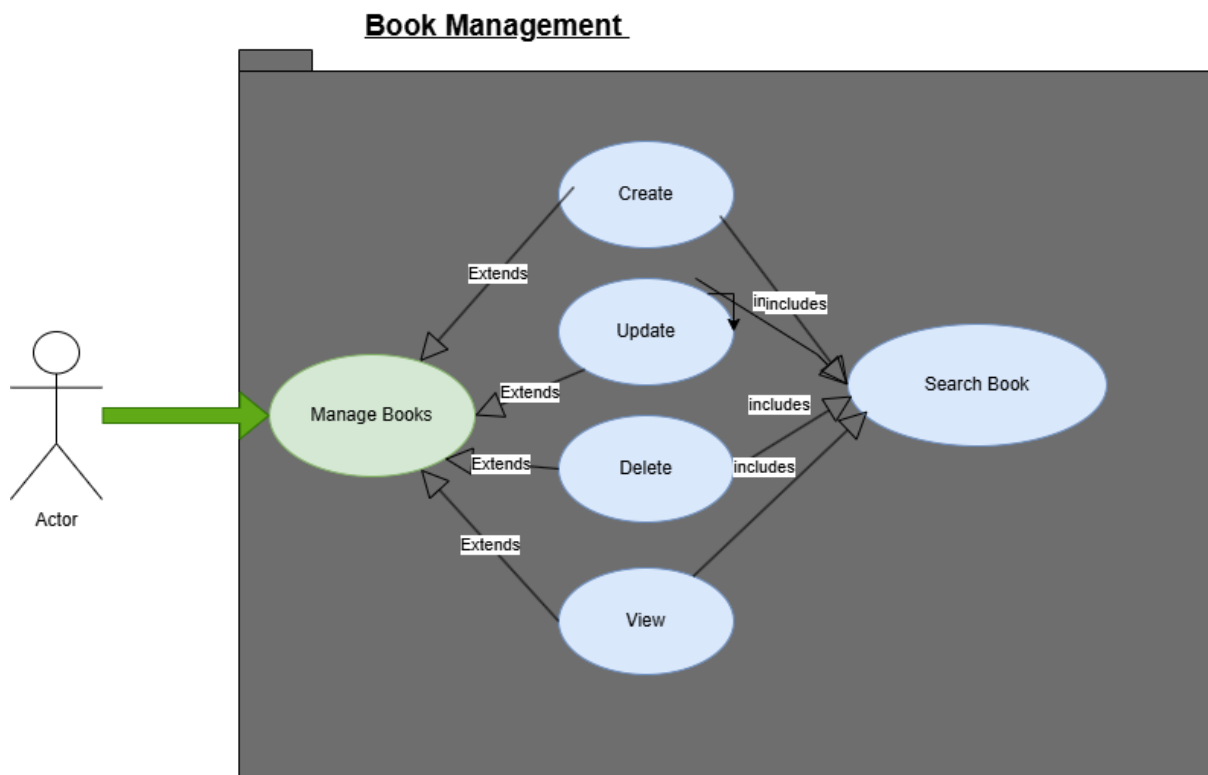
## 2. Summary of solution

- Demonstrated are three implementations for the API component (Java / Go / NodeJS)
- We will be having two layers to these said implementation to separate concern.
  - One component for the API.
  - One is for the User interface
  - This related design proceeded to loose coupling and components can be utilized with any implementation as long as it adheres the API specification
- To have an outright probing of the solution, all API components are utilizing an in-memory database.

## 3. Current Design Details

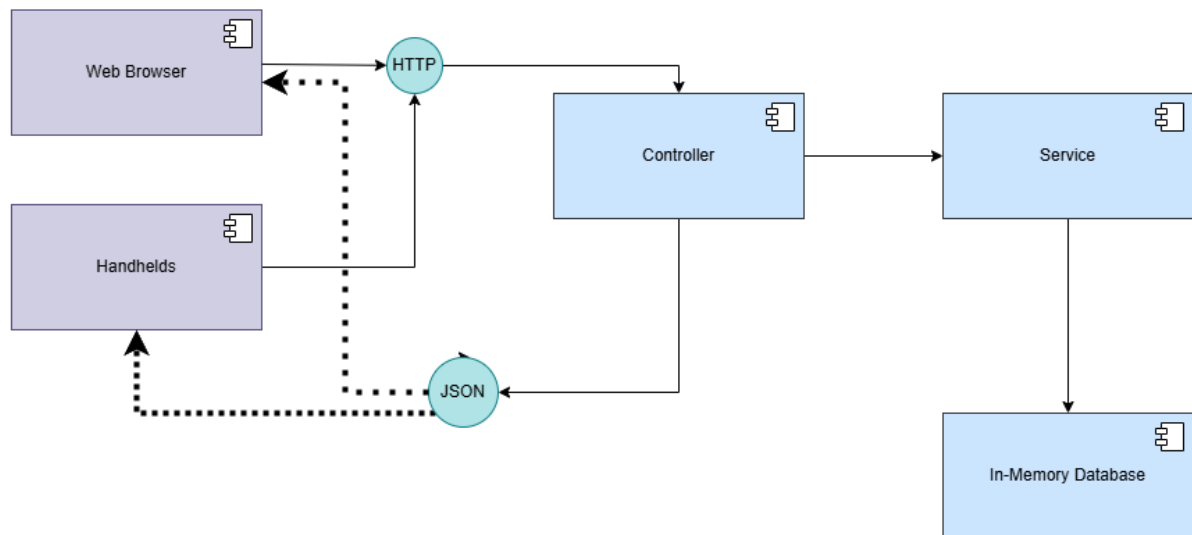
- The current design in place is of a minimal but with solidity to function as per requirement.

### Use Case Diagram

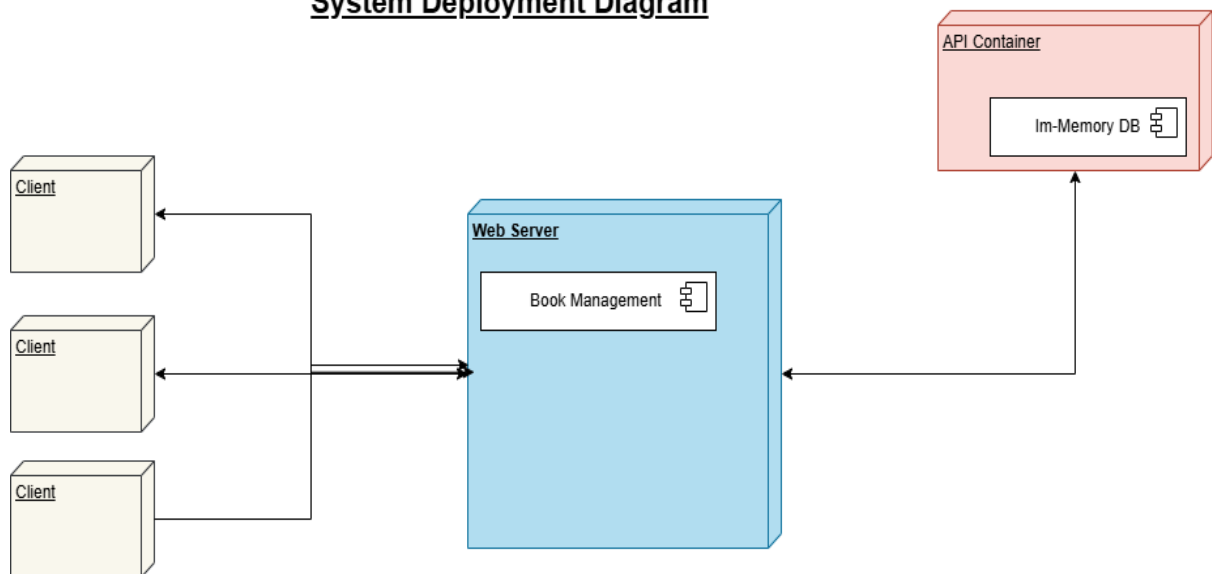


## System Component Diagram

Book Management Solution



## System Deployment Diagram

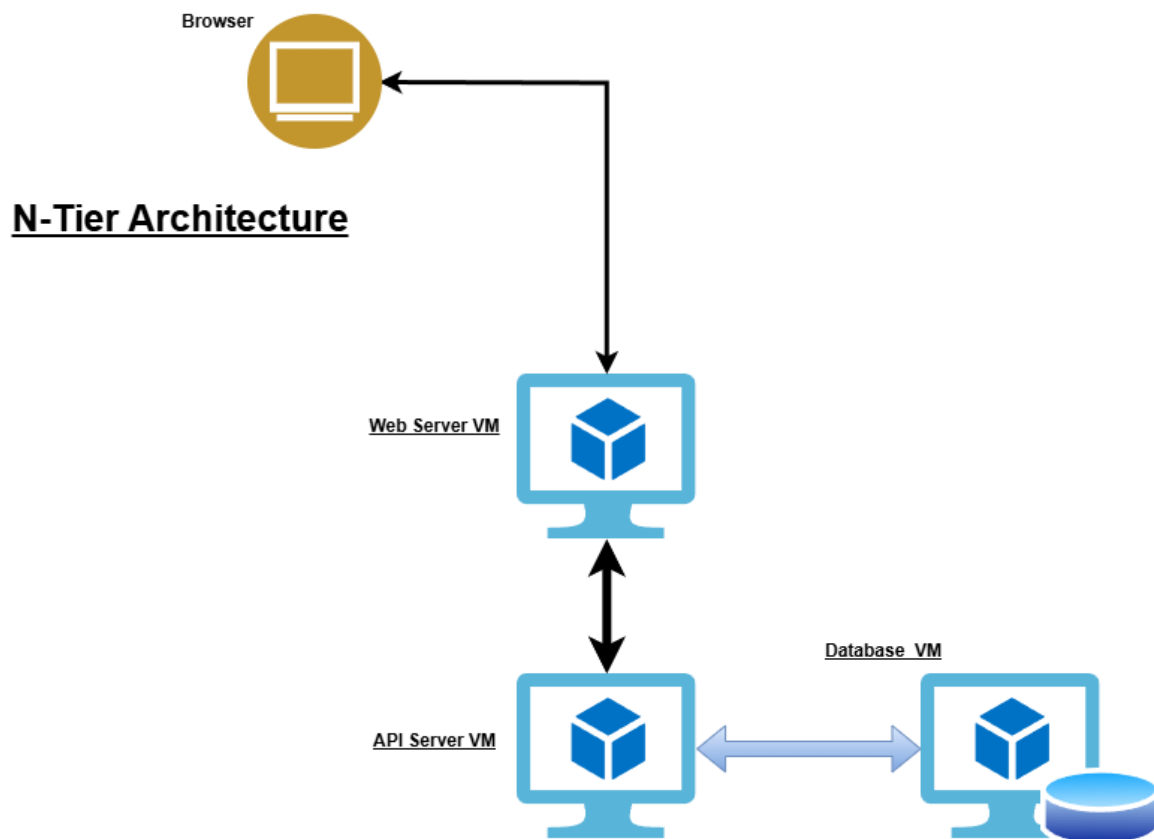


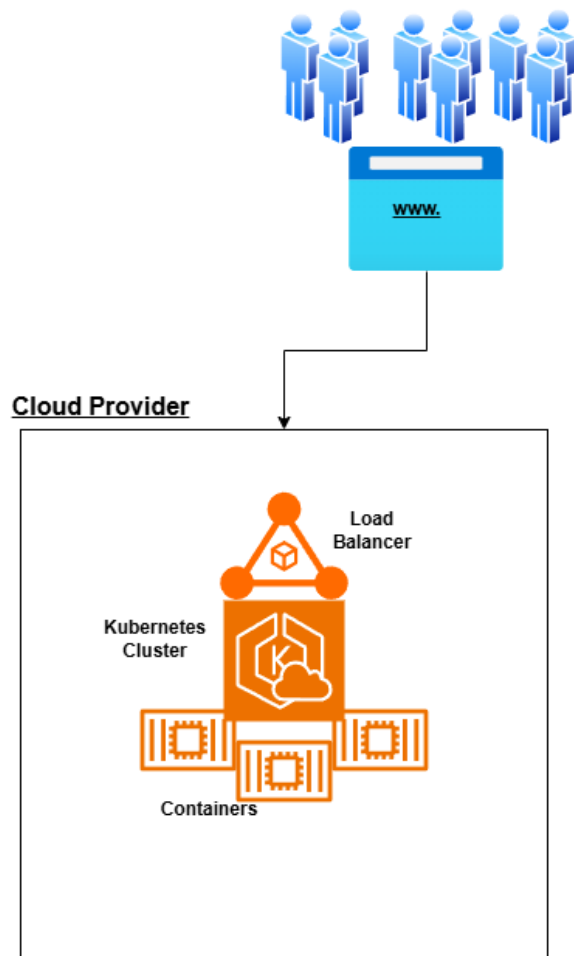
#### 4. Assumptions

- The current solution presented are not within a production related release.

#### 5. Applicable Implementation Architectures (Production Level)

- The related illustrations are of the most minimum. One more traffic is anticipated. A Load Balancing layer will be present





## Cloud computing utilizing Kubernetes