GROUP 107

<Online Book Store>
Software Architecture Document

Version <2.0>

Revision History

Date	Version	Description	Author
<05/07/2023>	<1.0>	Software Architecture Document	<Trịnh Hoàng An >
<05/07/2023>	<2.0>	Fill Deployment and Implementation View	<Trịnh Hoàng An >

Table of Contents

Introduction 4

Architectural Goals and Constraints 4

Use-Case Model 4

Logical View 5

Component: View 7

Component: Controller 7

Component: Model 7

Component: Database 8

Component: Media Service 9

Deployment 9

Implementation View 9

Software Architecture Document

1. Introduction

Purpose : The purpose of this document is to provide a comprehensive overview of the software architecture for the online book store project. It outlines the key components, their interactions, and the overall design of the system.

Scope : This document covers the architectural design of the online book store, including the main components, their functionalities, and the relationships between them. It serves as a blueprint for the development team to build the system according to the specified design.

Definitions, Acronyms, and Abbreviations

[Include any definitions, acronyms, or abbreviations used throughout the document.]

References

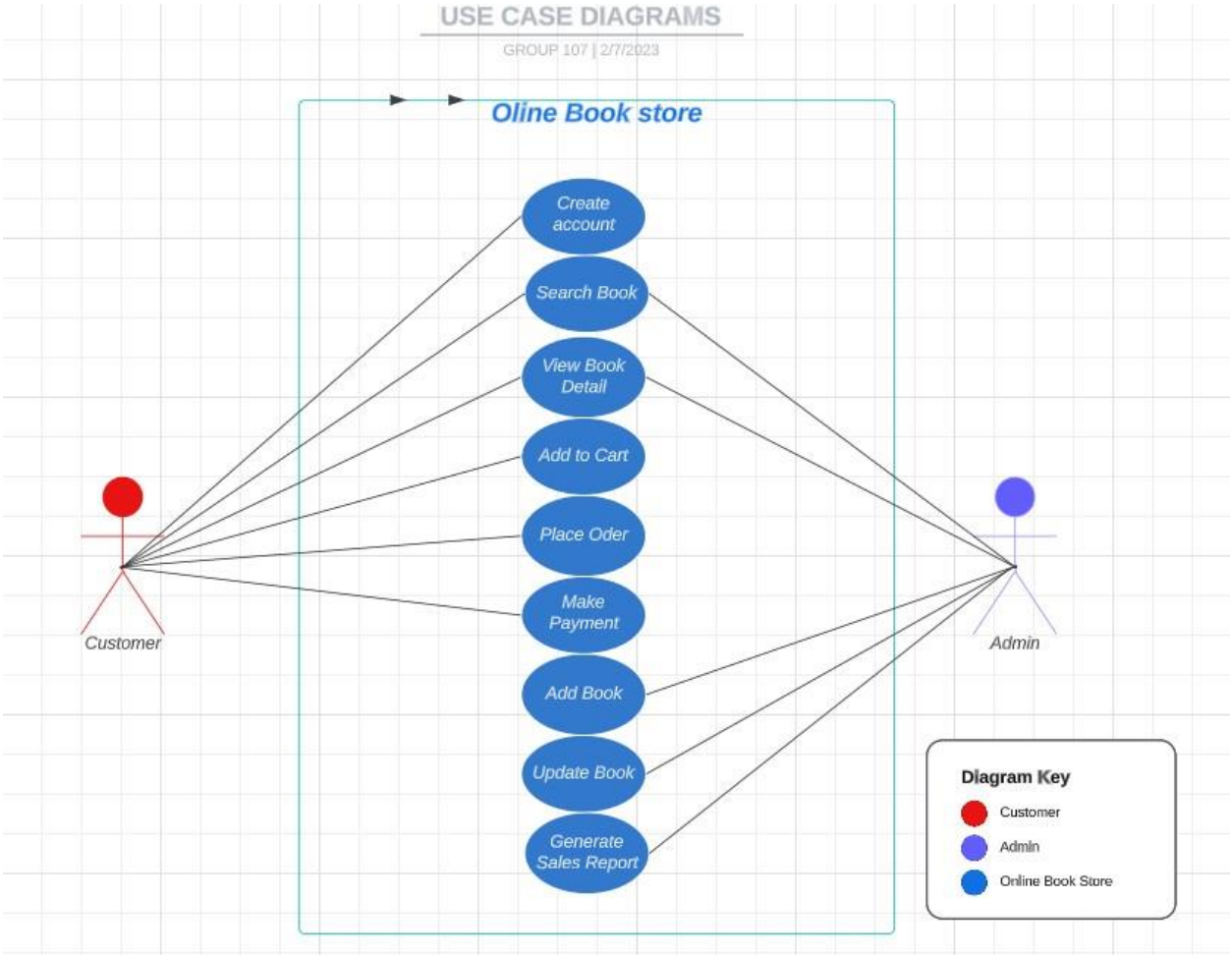
[List any references or resources used in designing the software architecture.]

2. Architectural Goals and Constraints

There are some key requirements and system constraints that have a significant bearing on the architecture. They are:

1. Utilize Google's OAuth2 code for the login system.
2. Ensure all user functionality is accessible over the internet.
3. Protect other user information from unauthorized access.
4. Consider the server's performance requirements specified in the Vision document during software development.

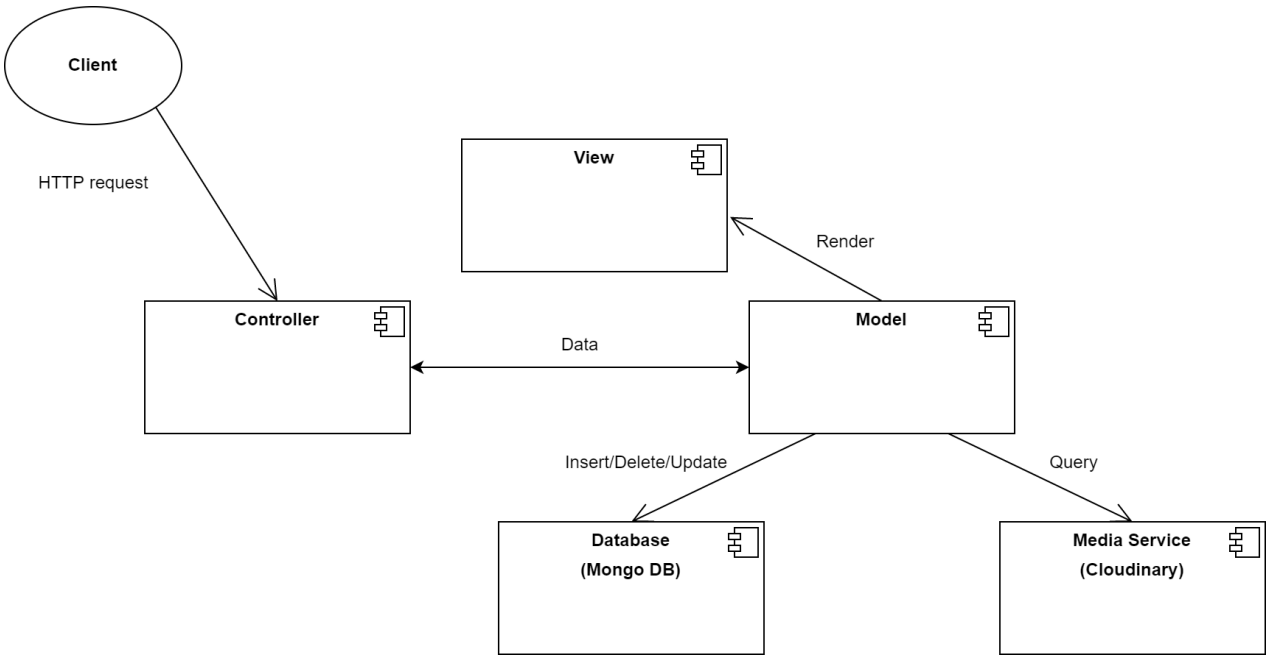
3. Use-Case Model



4. Logical View

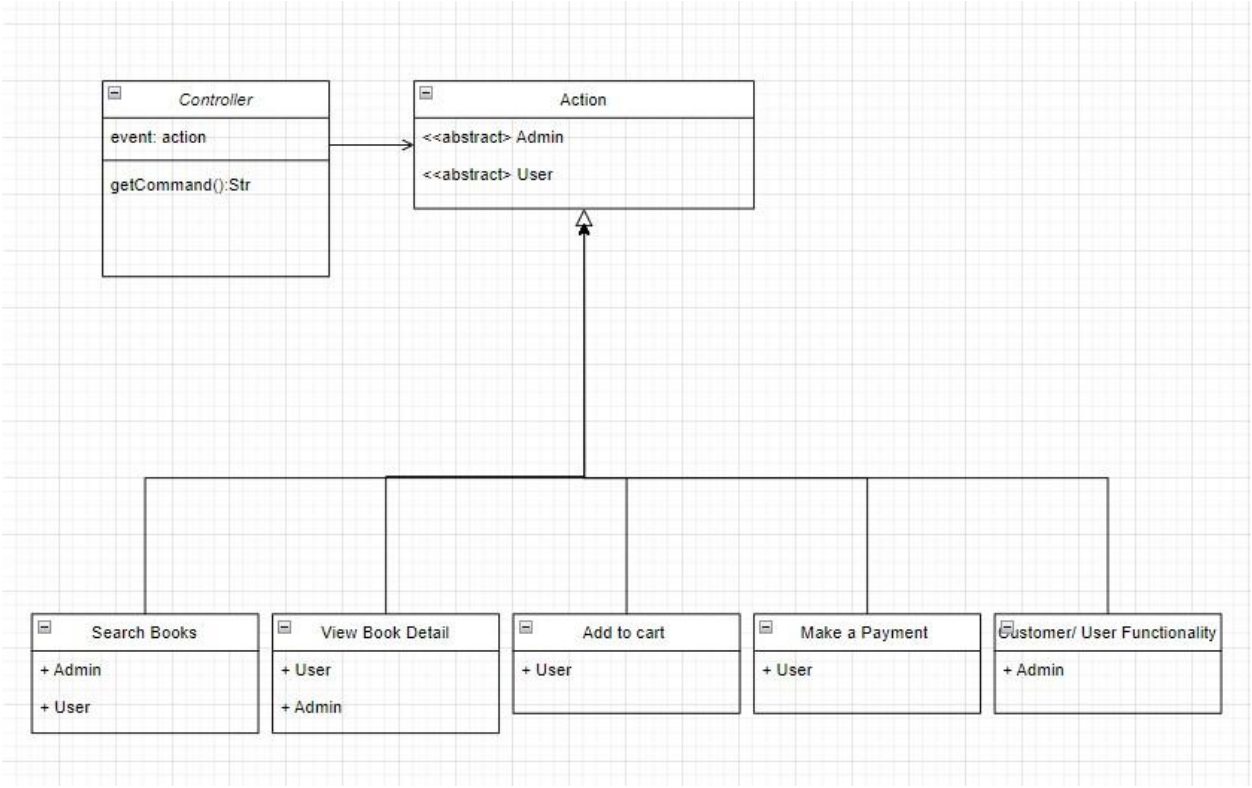
Component: View

+ Screen: the Html elements are generated and displayed to the client.



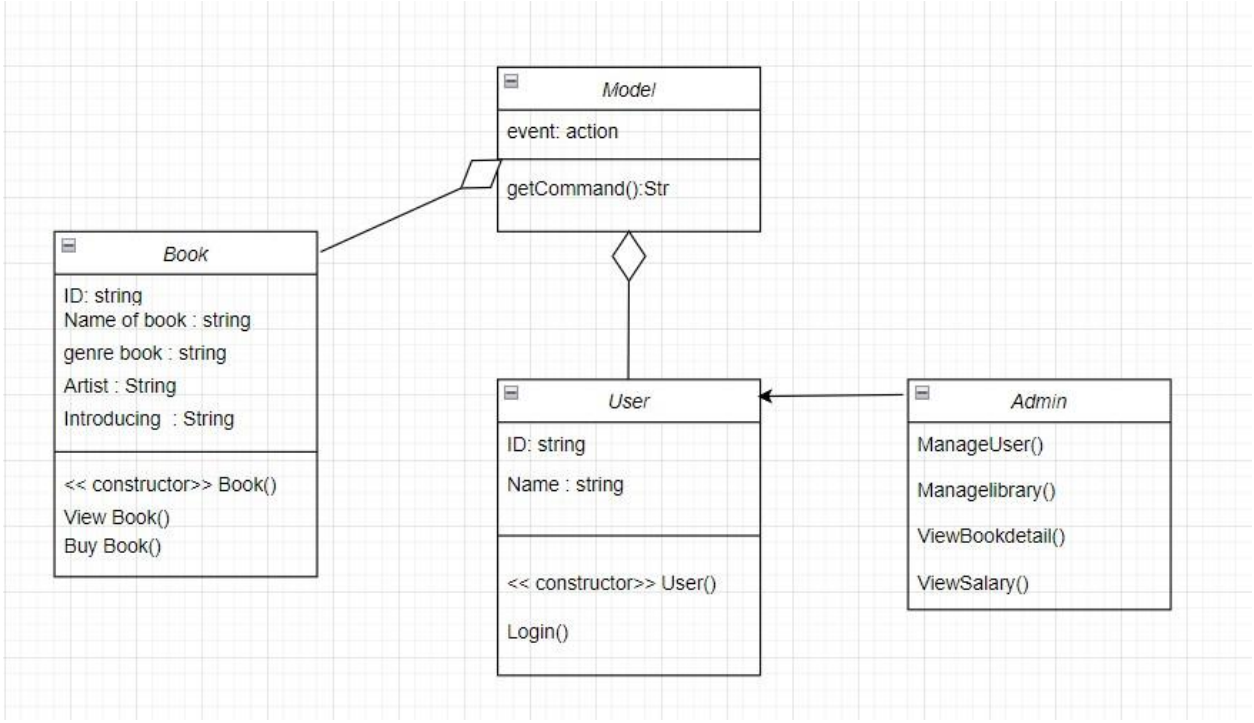
4.1 Component: Controller

+ Action: an abstract class that provides functions on 2 actors: User , admin.
+ Controller: receive commands from client and handle user requests sent to model.



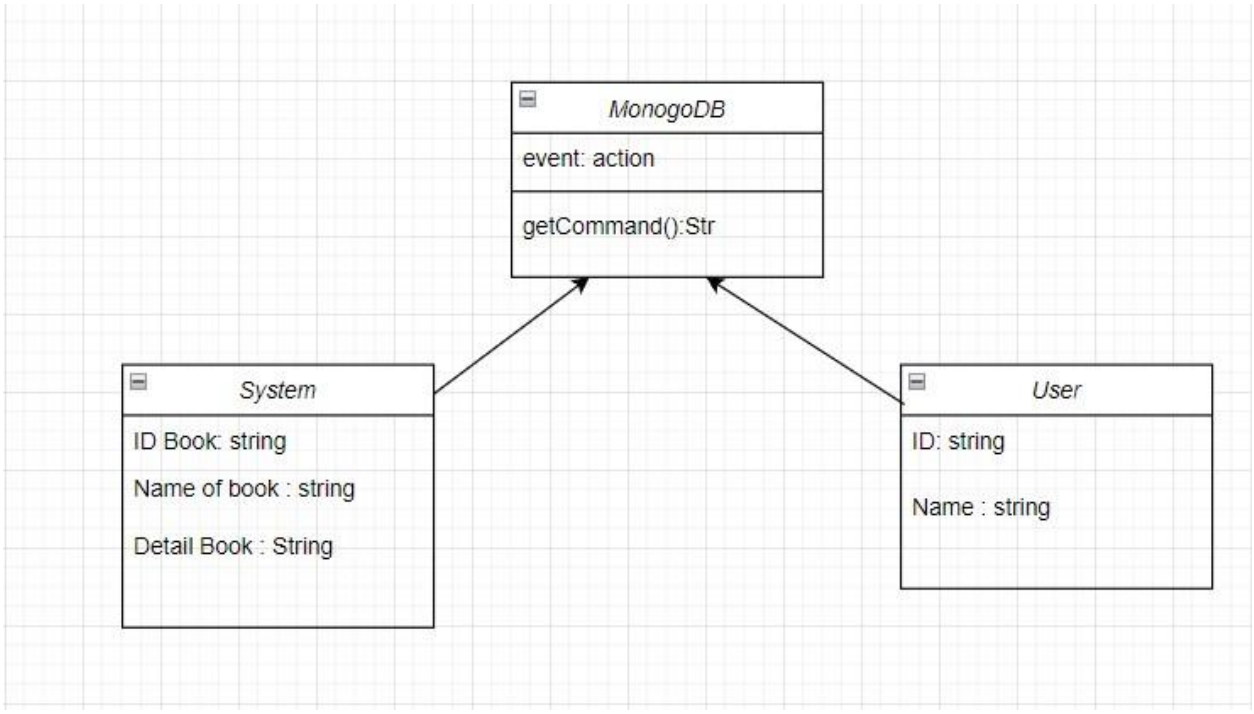
4.2 Component: Model

The key class is User, which provides a login function and keeps data of a user logged in to the system.



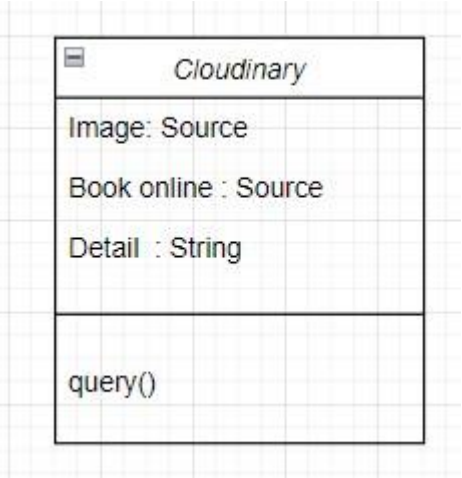
4.3 Component: Database

+ MongoDB: store user information, Book, Detail Book, images

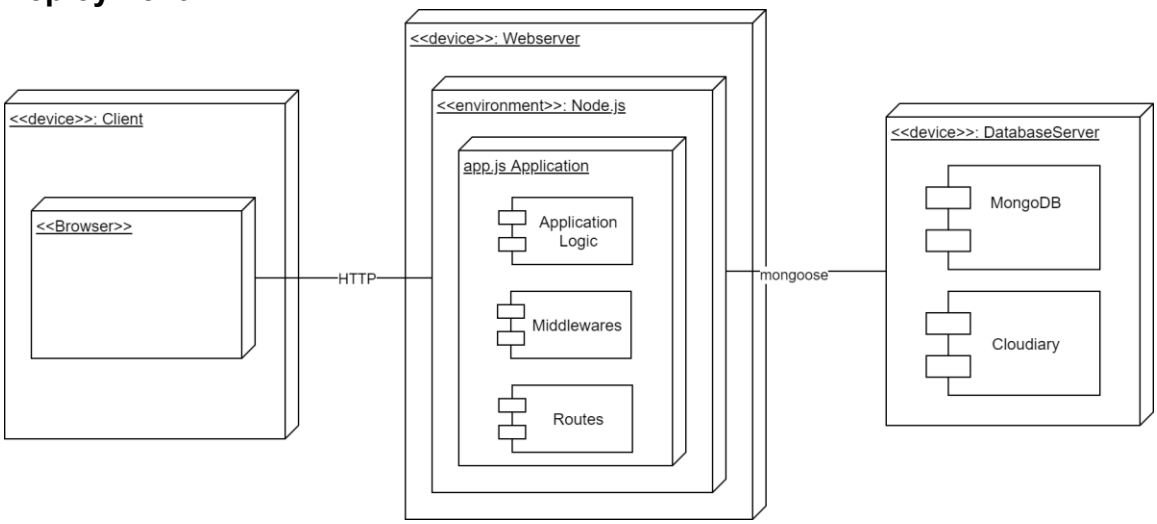


4.4 Component: Media Service

+ Cloudinary: storing Book, Image, detail



5. Deployment



6. Implementation View

- Online Book Store
  - App
    - controllers
    - models
    - views
  - User Management
    - User authentication
    - User registration
    - User profiles
    -
  - Book Management
    - Book catalog
    - Book details
    - Book search
    - Book recommendations
    -
  - Shopping Cart
    - Cart management
    - Add to cart
    - Remove from cart
    - Checkout
  - Order Management
    - Order processing
    - Order history
    - Order tracking
    -
  - Cloudinary Integration
    - Upload books and images
    - Fetch book details and images
    -
  - Database
    - User data
    - Book data
    - Order data