
Team 4 - 3W1M

Crudle
Software Architecture Document

Version 1.0

Crudle	Version: 1.0
Software Architecture Document	Date: 10/12/2024
PA3-SAD-v1.0	

Revision History

Date	Version	Description	Author
10/12/2024	1.0	Initial version	Crudle

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Software Architecture Document

4.1. Introduction

1.1 Purpose

This document provides a comprehensive architectural overview of the system, using a number of different architectural views to depict different aspects of the system. It is intended to capture and convey the significant architectural decisions which have been made on the system.

1.2 Scope

The scope of this SAD is to depict the architecture of the online LMS web application

1.3 Definitions, Acronyms and abbreviations

- **UML:** Unified Modeling Language
- **SAD:** Software Architecture Document

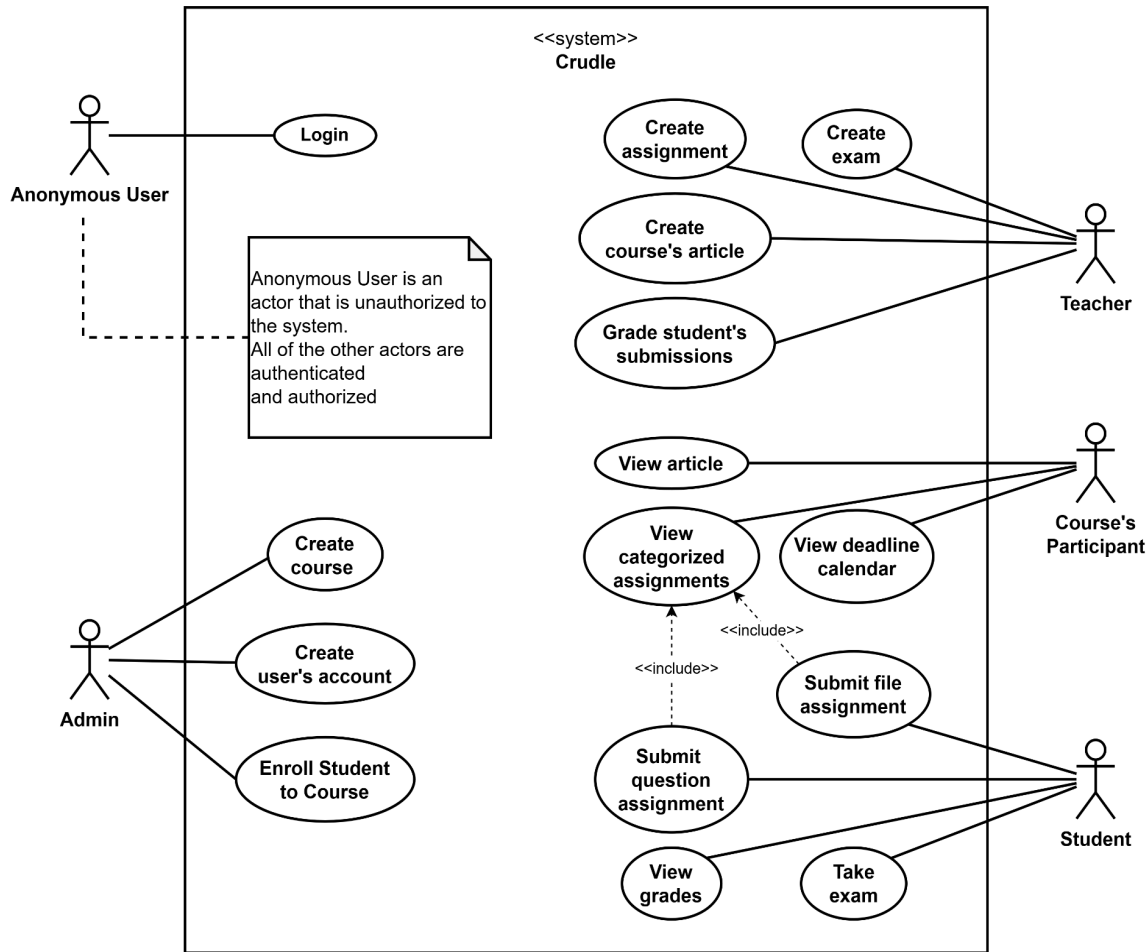
4.2. Architectural Goals and Constraints

There are some requirements and constraints that significantly affect the architecture. The list of requirements and constraints are useful to completely review the architecture of this application. There are:

- Database: MySql
- Response time: below 5s latency
- User Base Growth: The app should be designed to scale efficiently to support a growing user base, aiming to accommodate 1 thousand users per year.
- User Interface: Requiring about 15 minutes for new users to understand basic functions.
- Security Requirements
 - Data Encryption: All sensitive user data, including password, etc., must be encrypted by the SHA-256 methods.
 - Authentication: Using JWT to authenticate user

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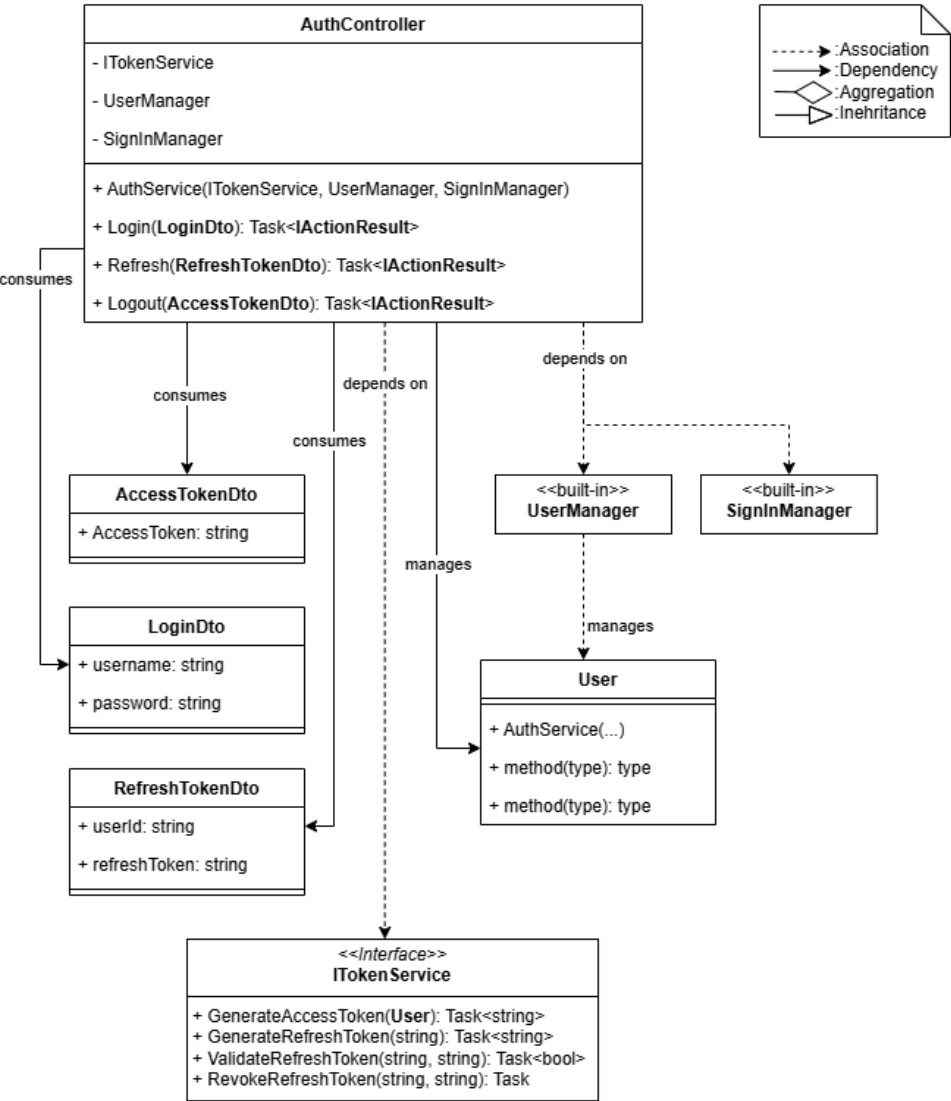
4.3. Use-Case Model



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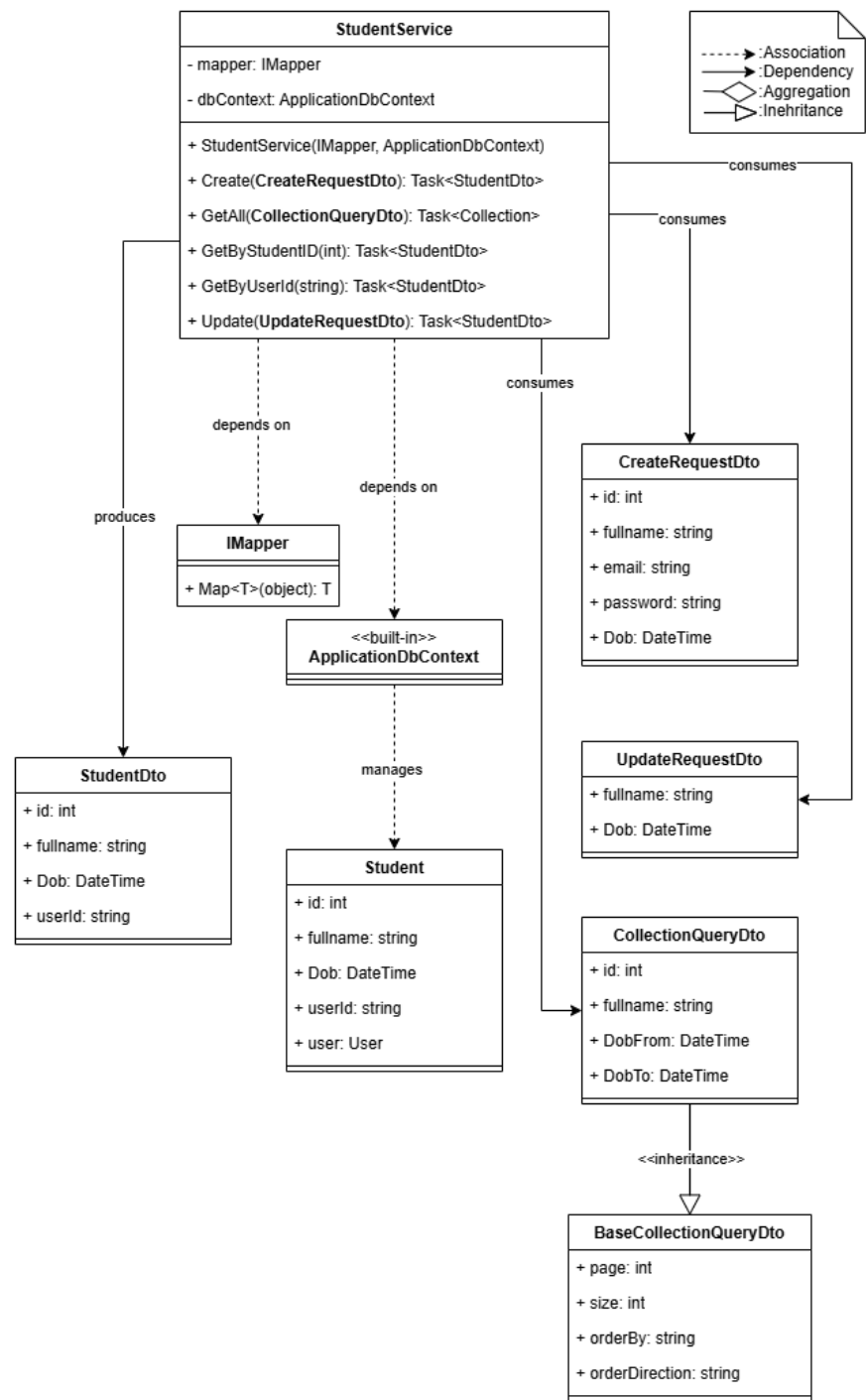
4.4. Logical View

4.1 Component: AuthController



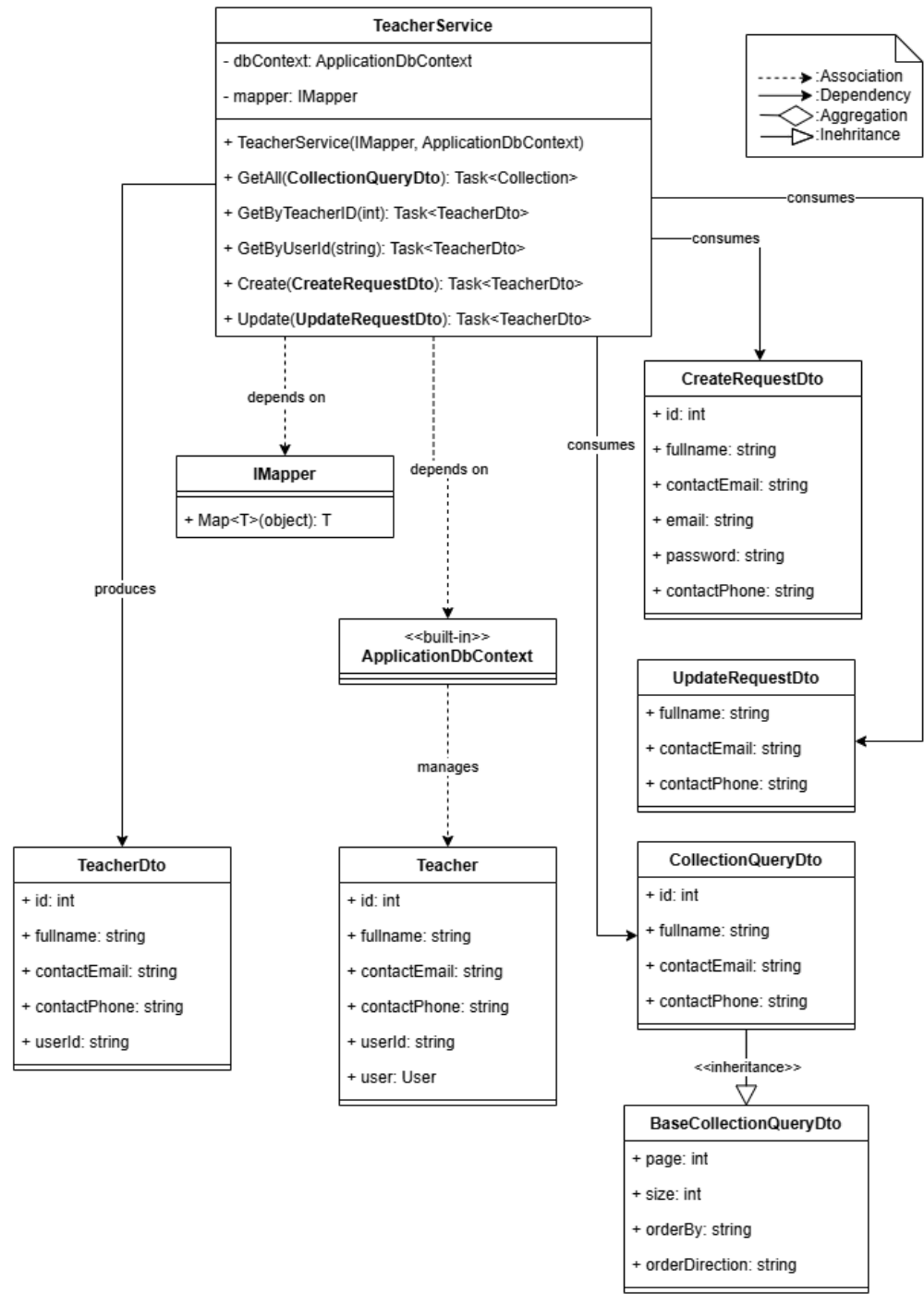
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4.3 Component: StudentService



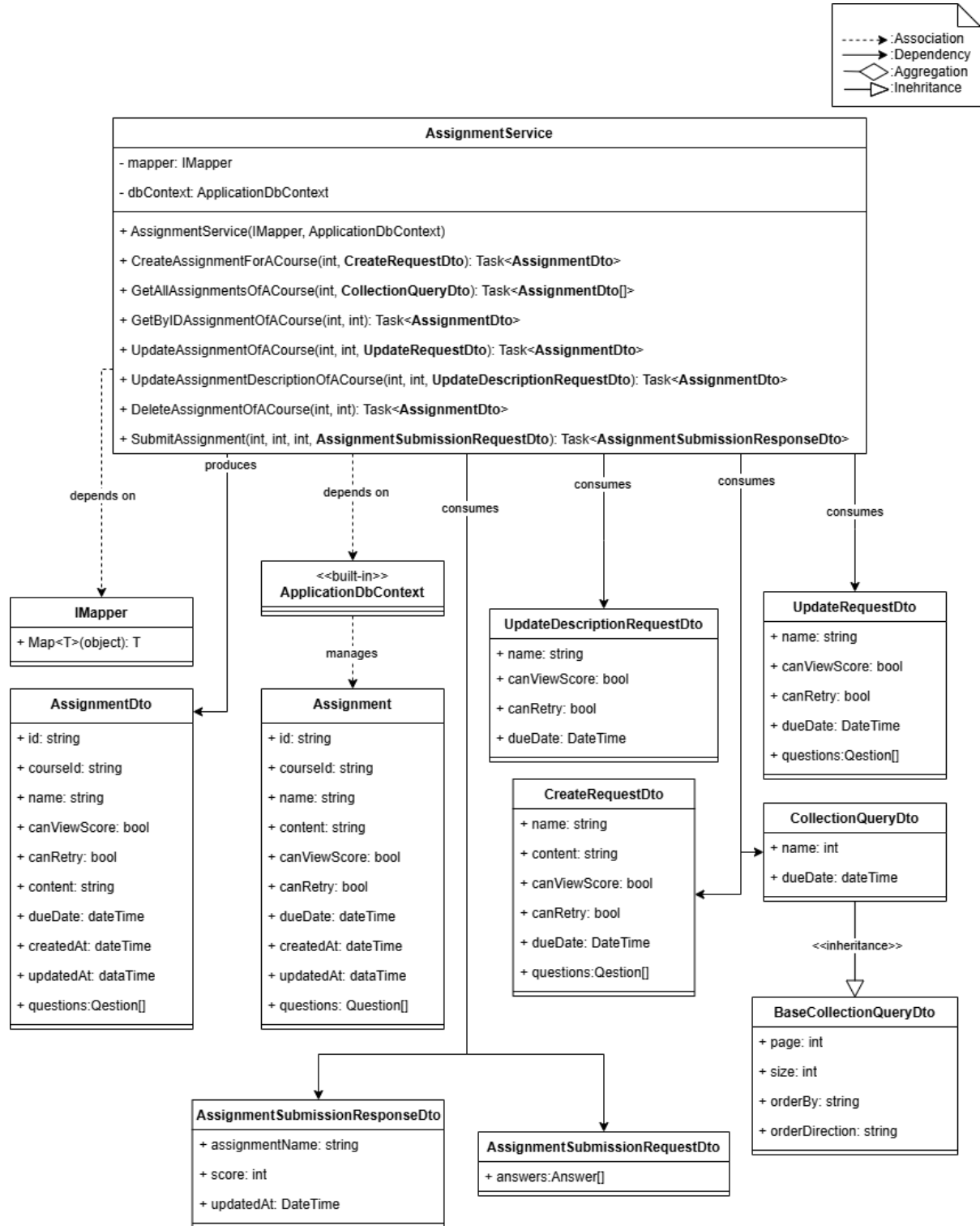
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4.4 Component: TeacherService



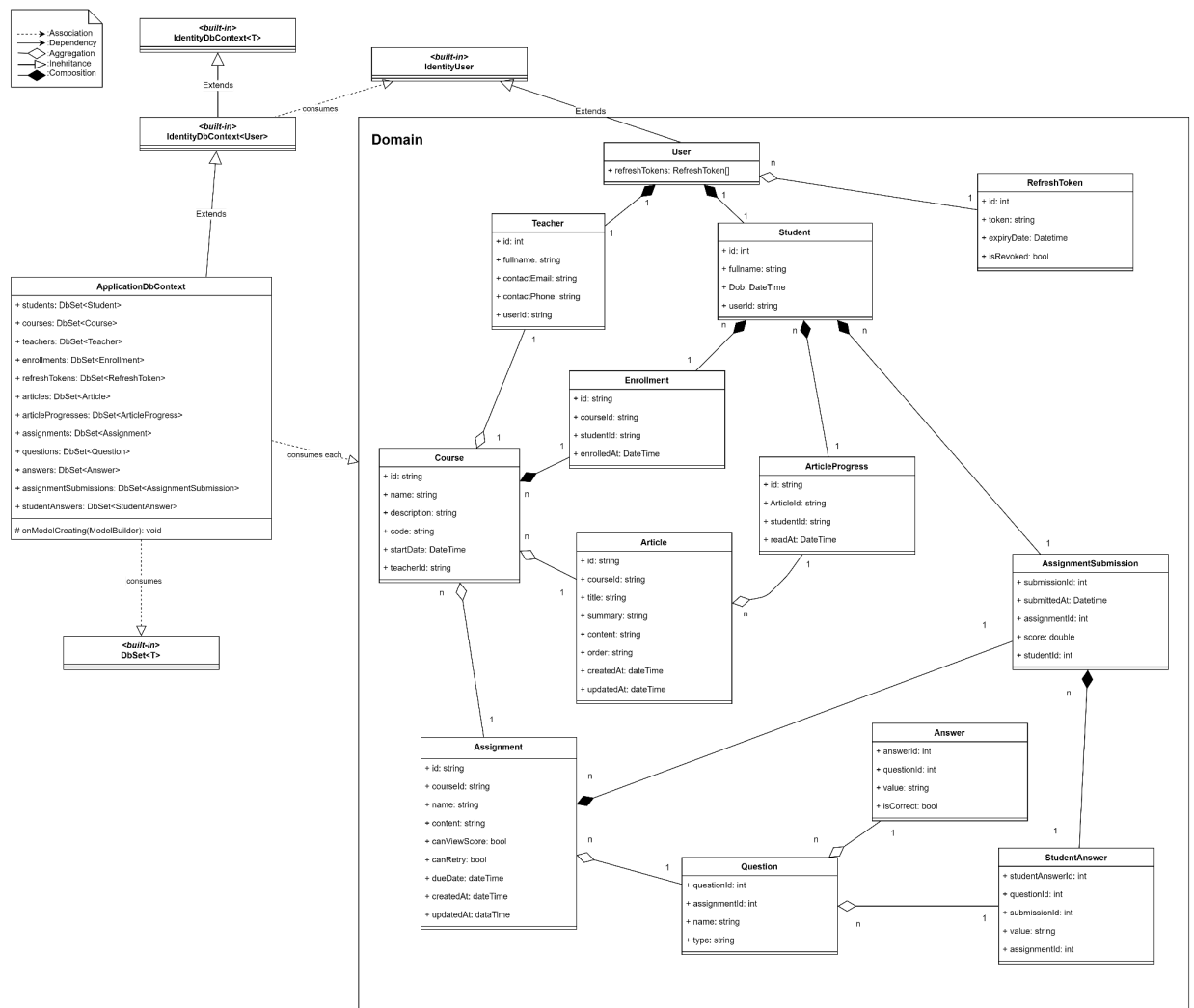
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4.5 Component: AssignmentService



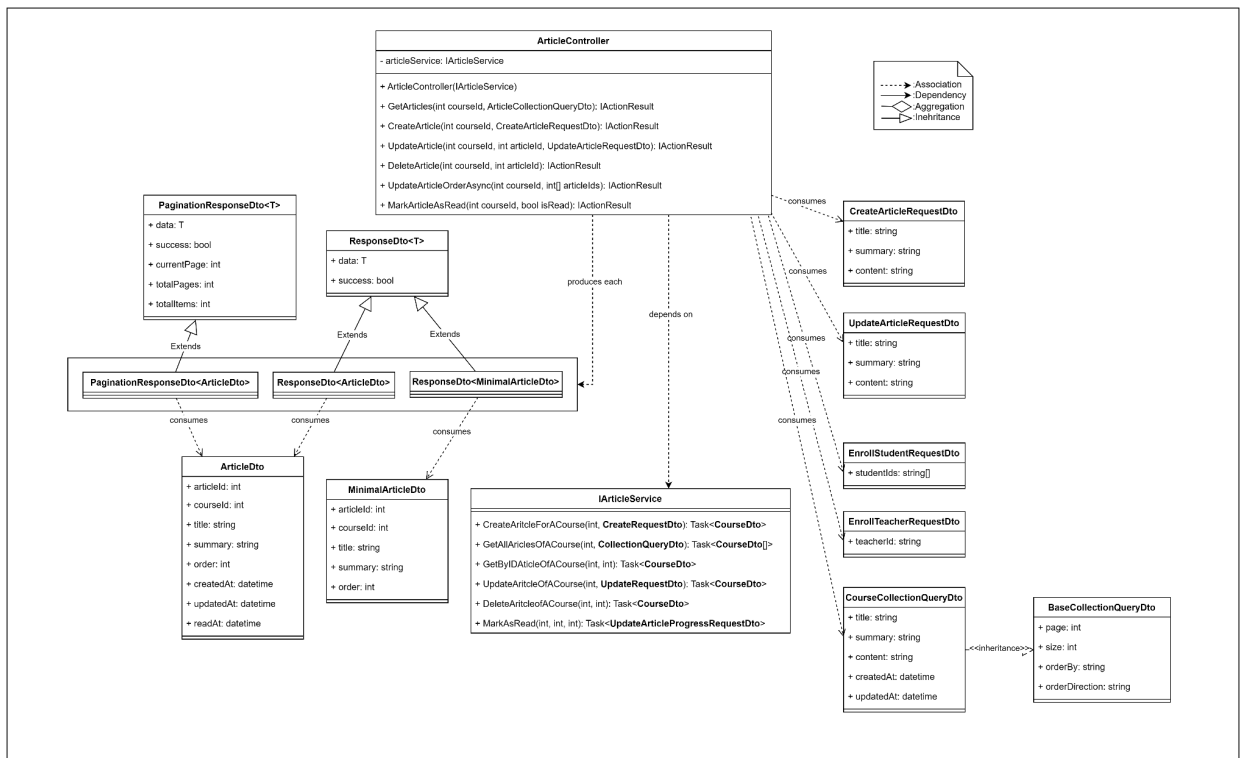
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4.6 Component: Models

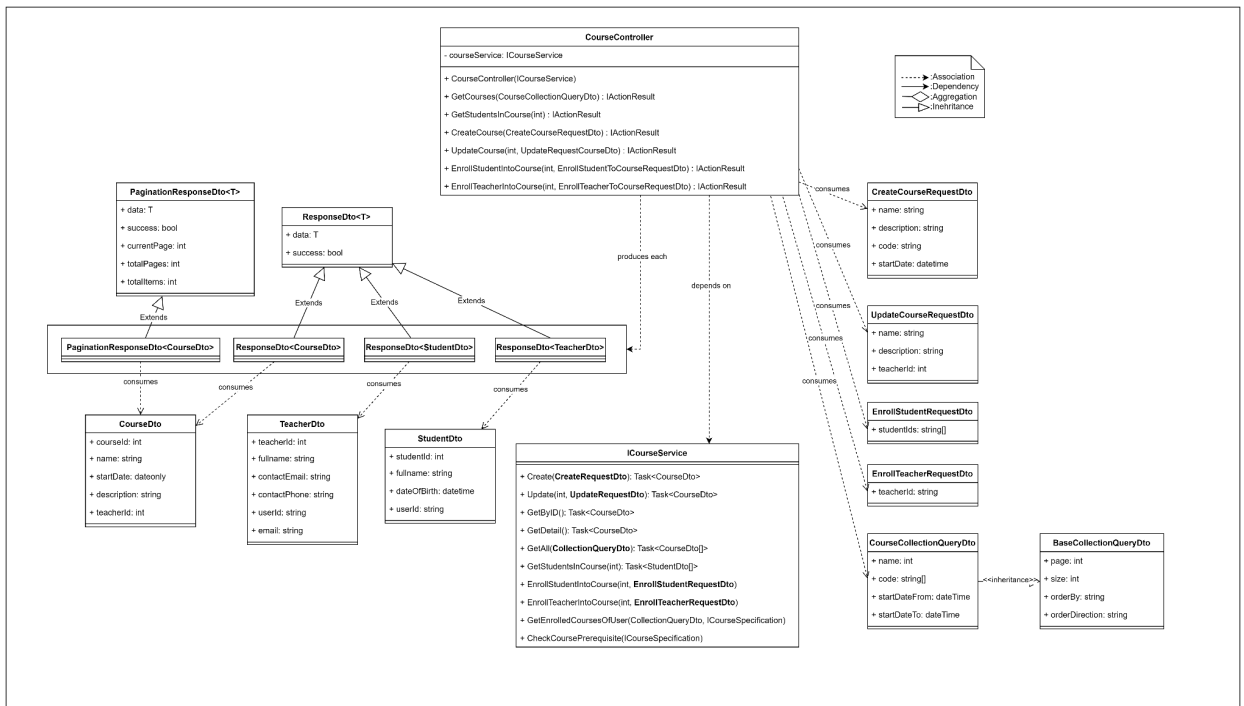


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4.7 Component: Article Controller

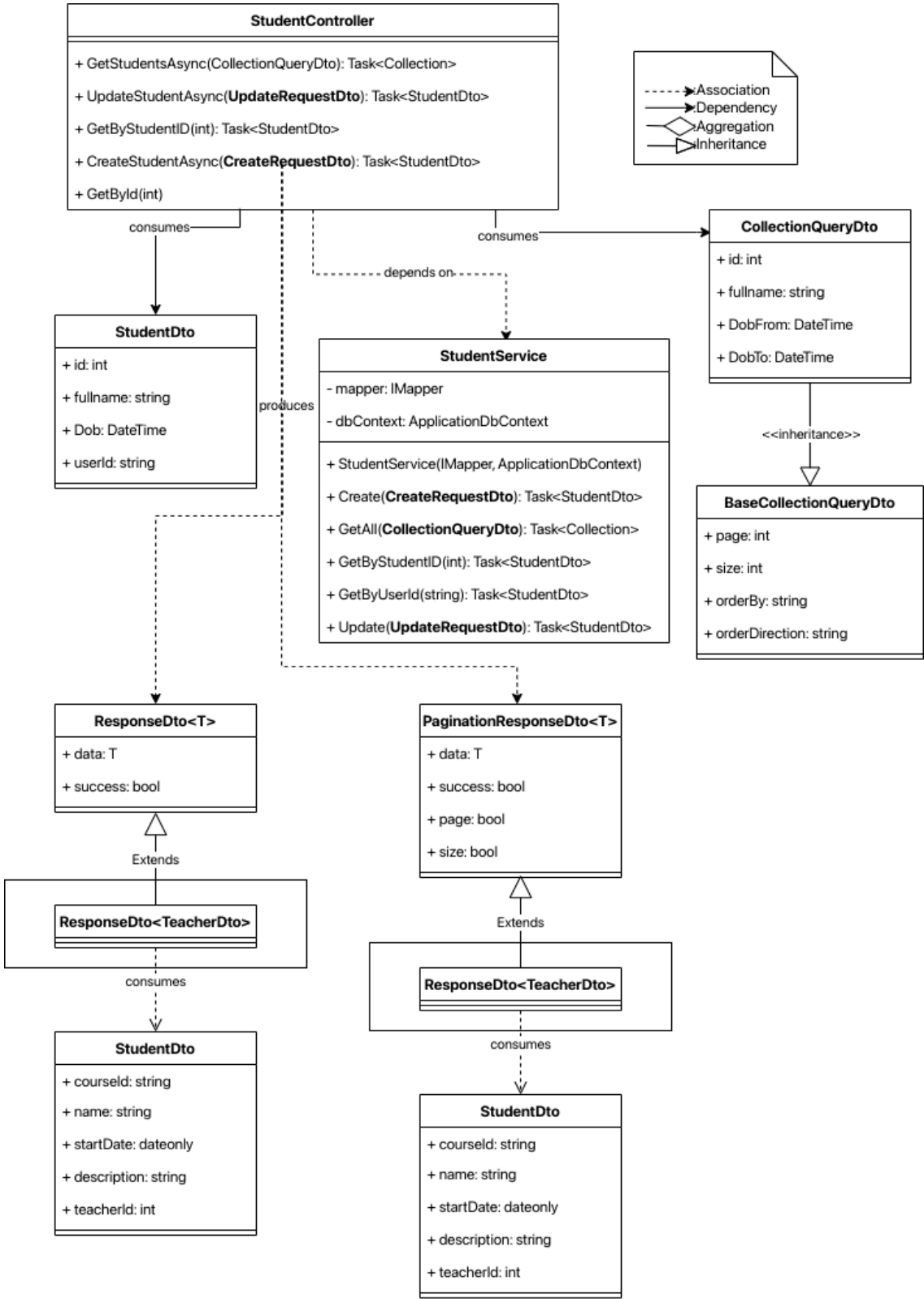


4.8 Component: Course Controller



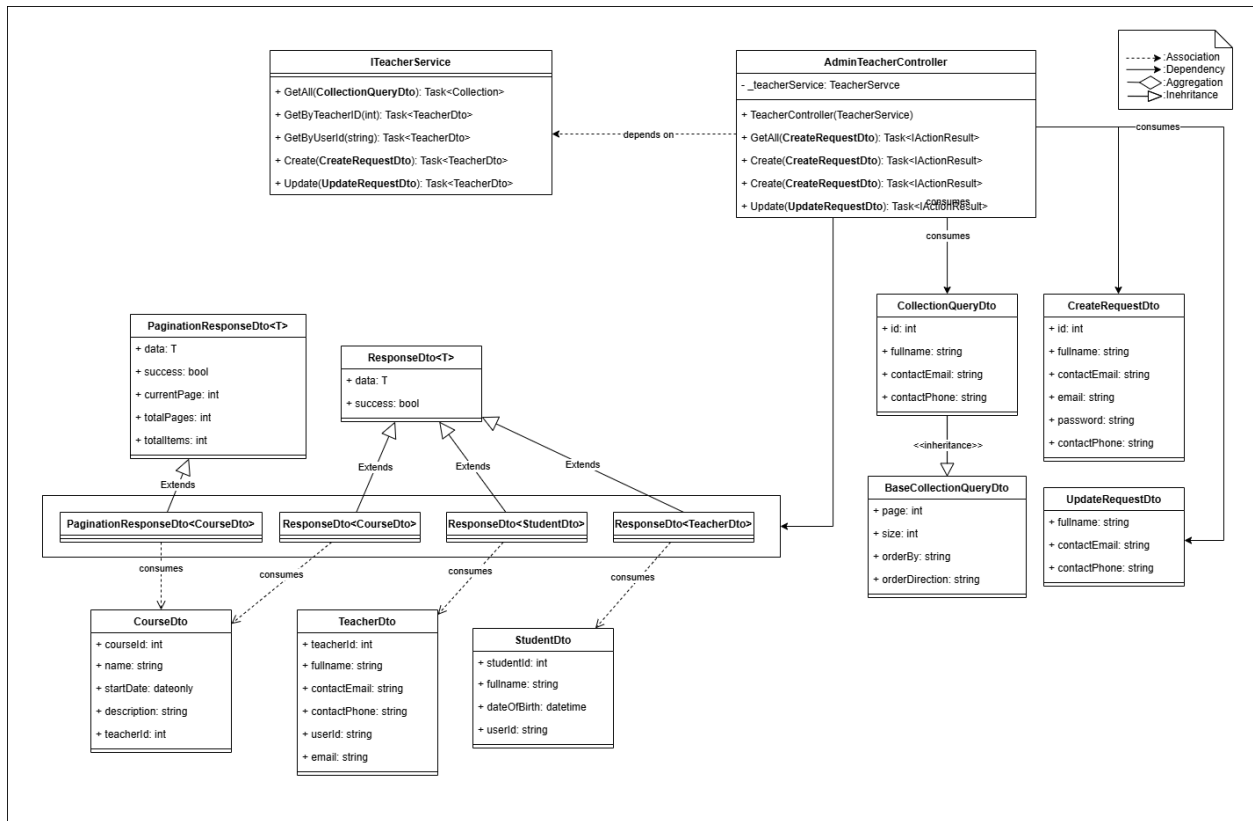
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4.9 Component: Student Controller

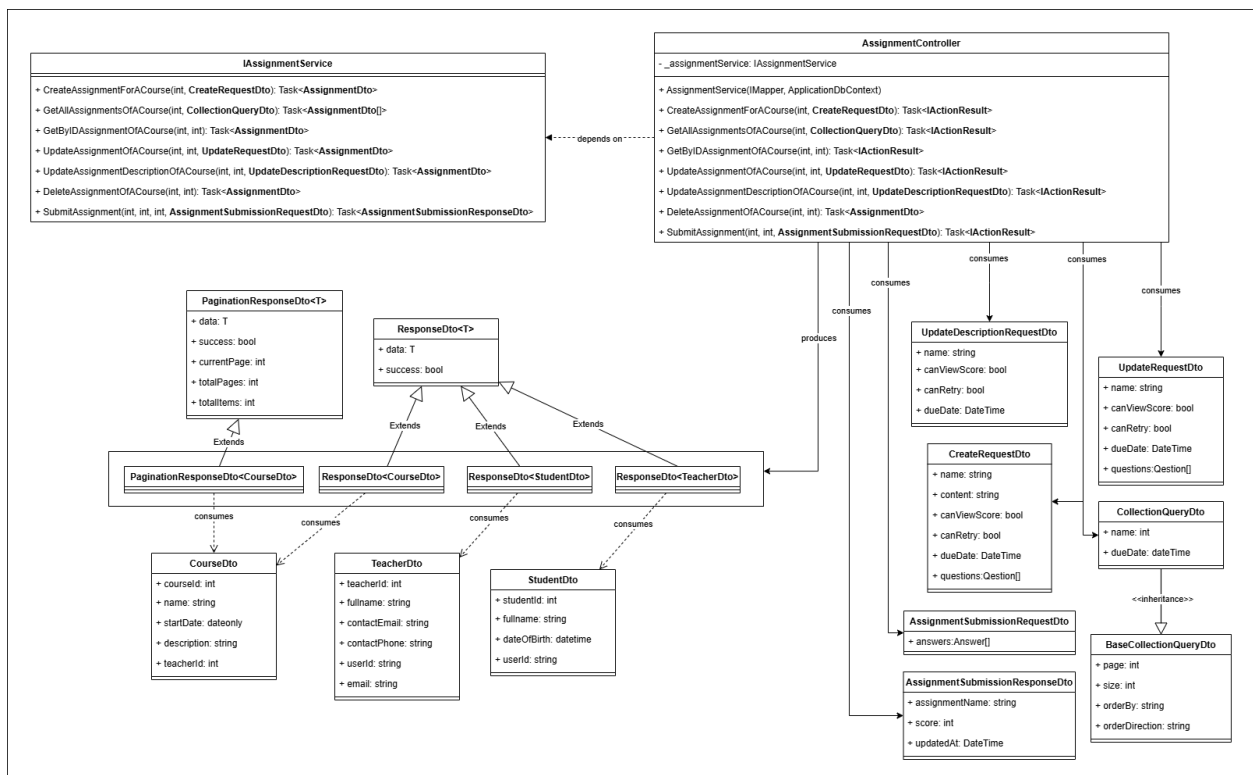


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4.10 Component: Teacher Controller



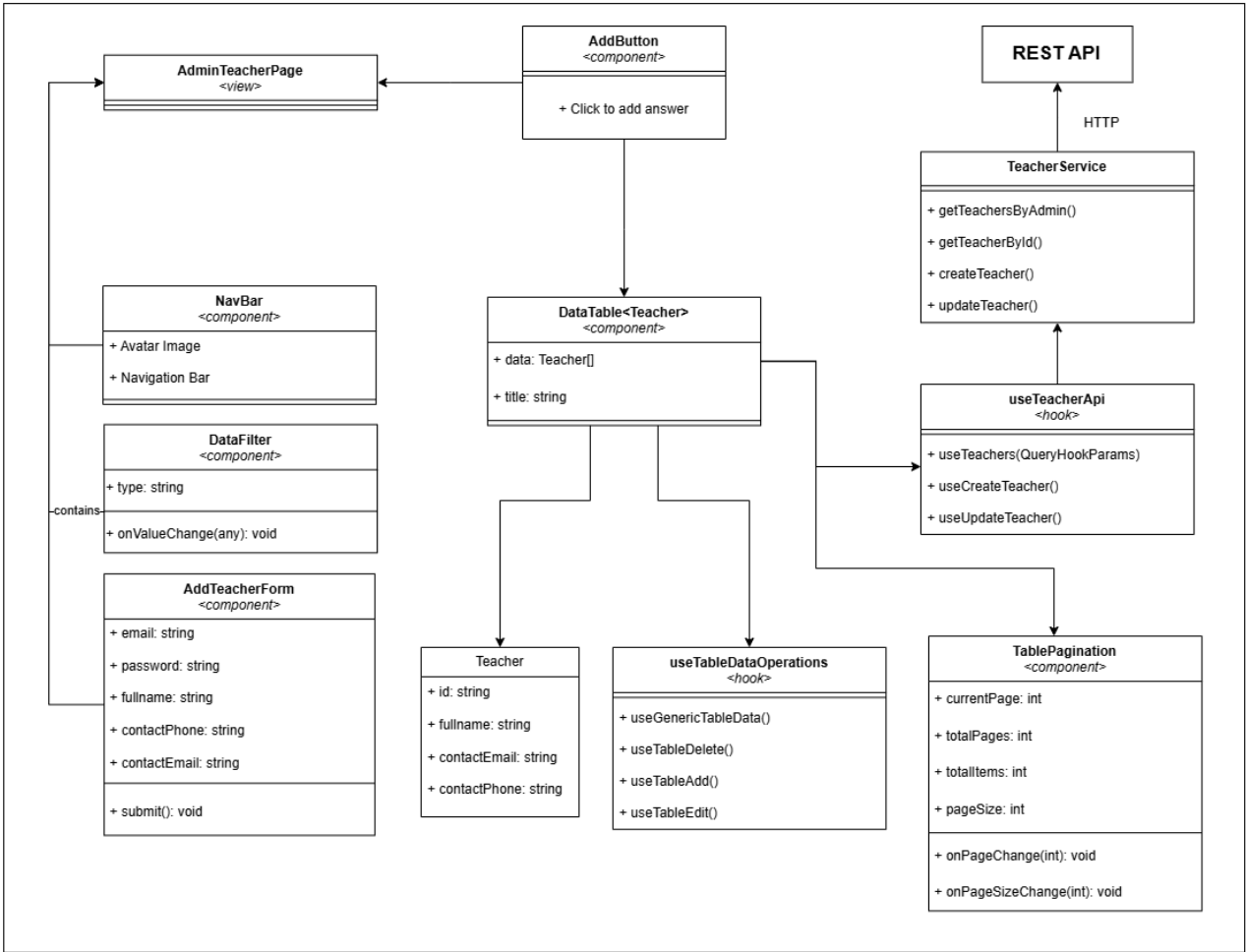
4.11 Component: Assignment Controller



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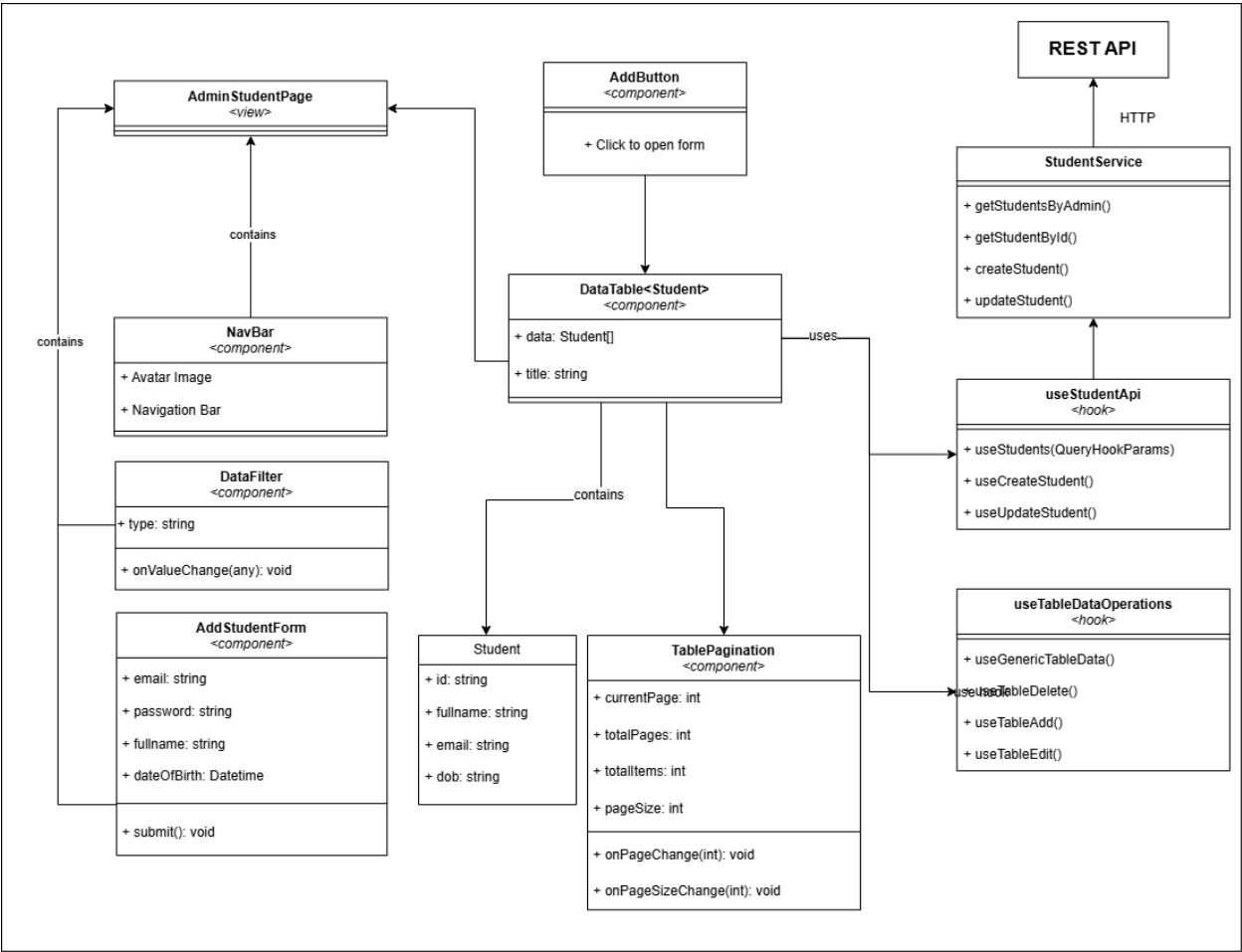
4.12 Component: Admin Teacher Screen

contains



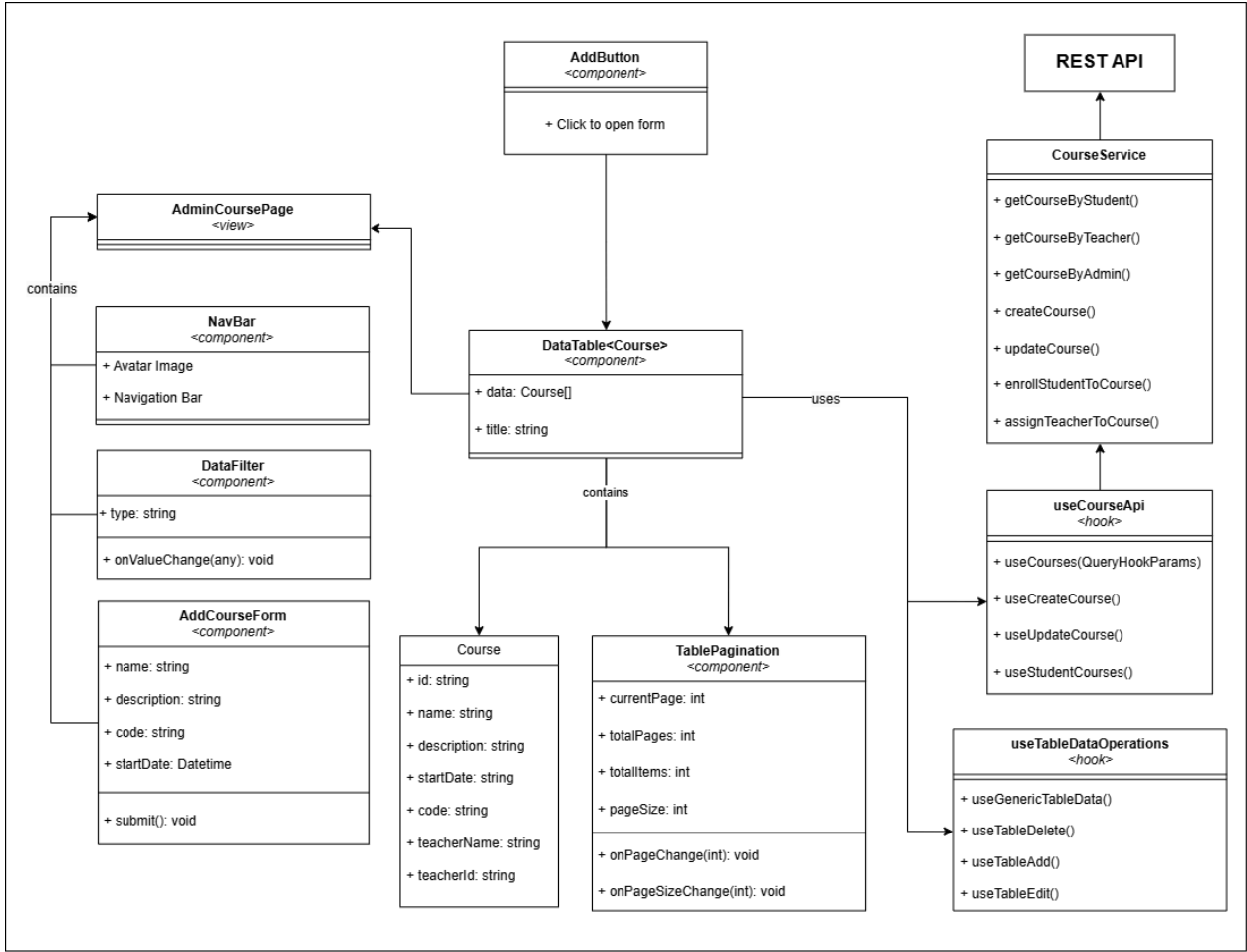
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4.13 Component: Admin Student Screen



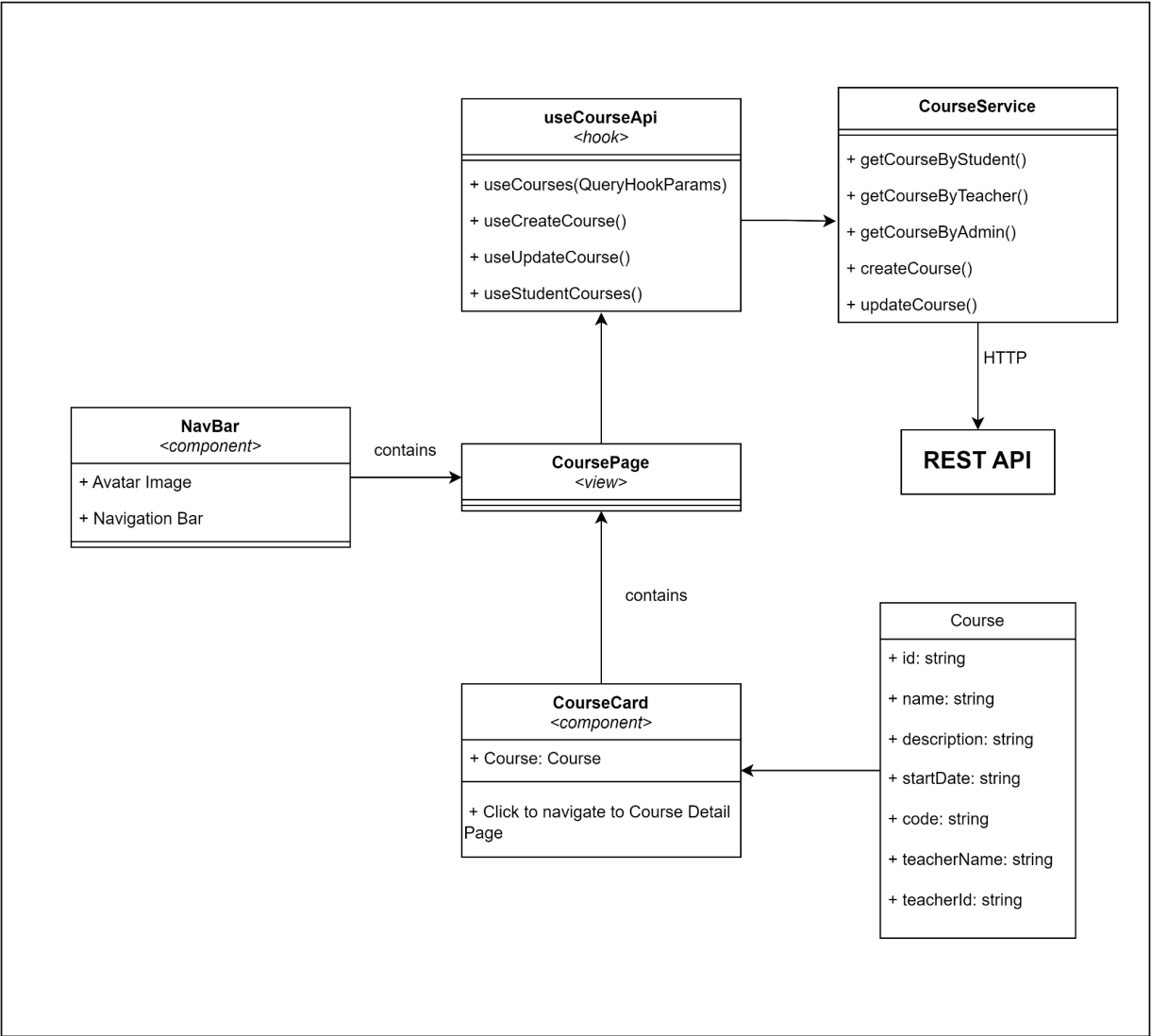
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4.14 Component: Admin Course Screen



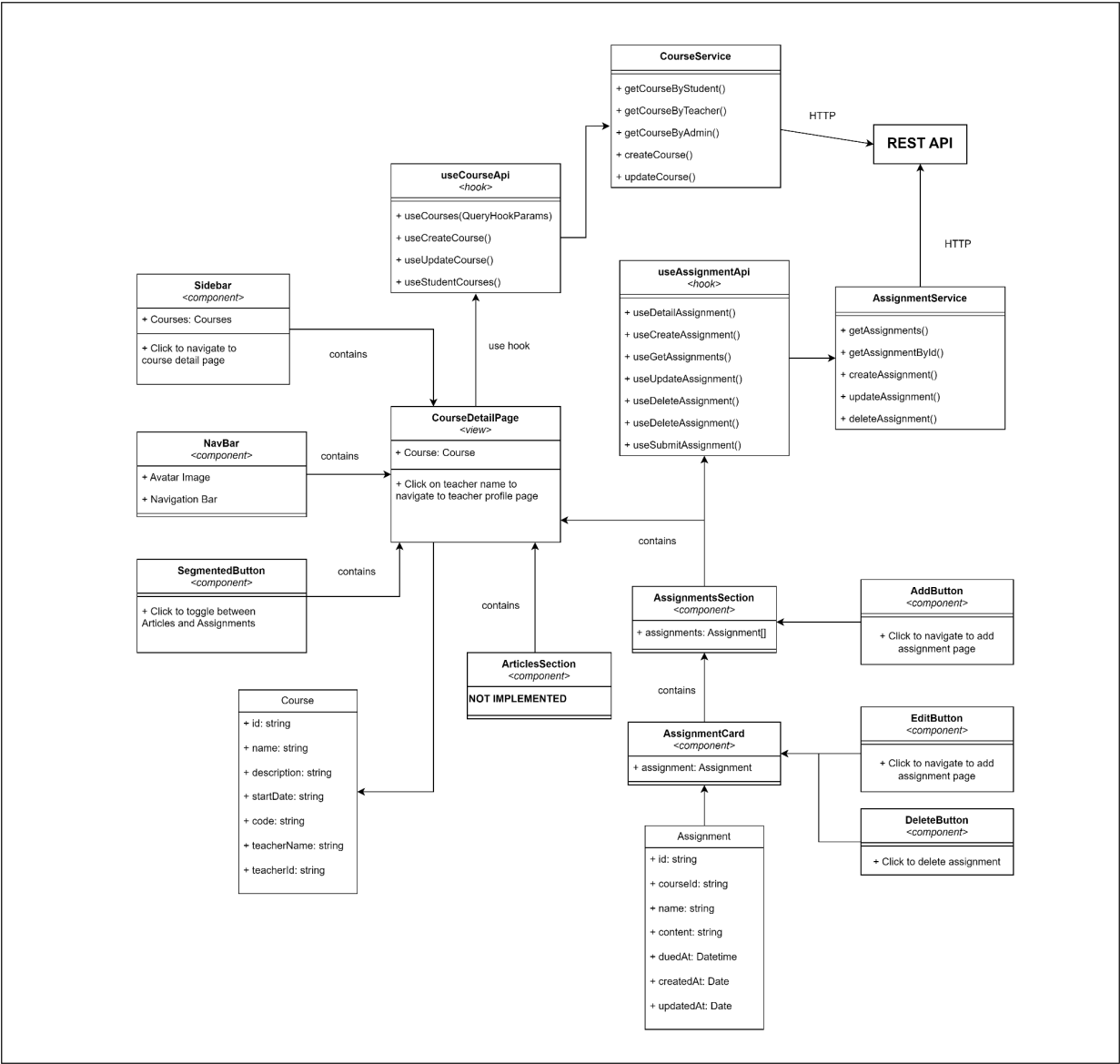
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4.15 **Component: Courses Screen**



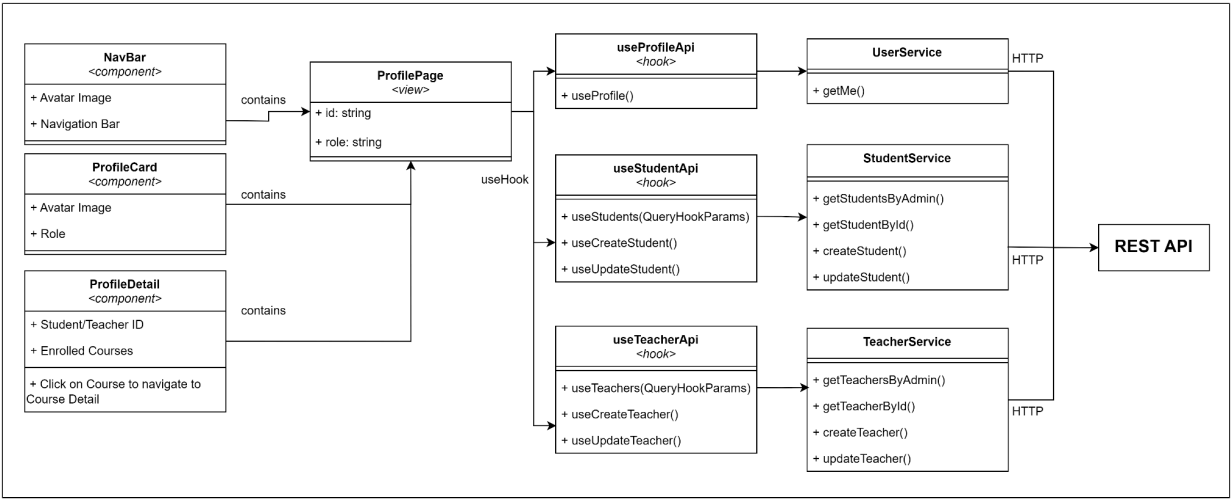
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4.16 Component: Course Detail Screen

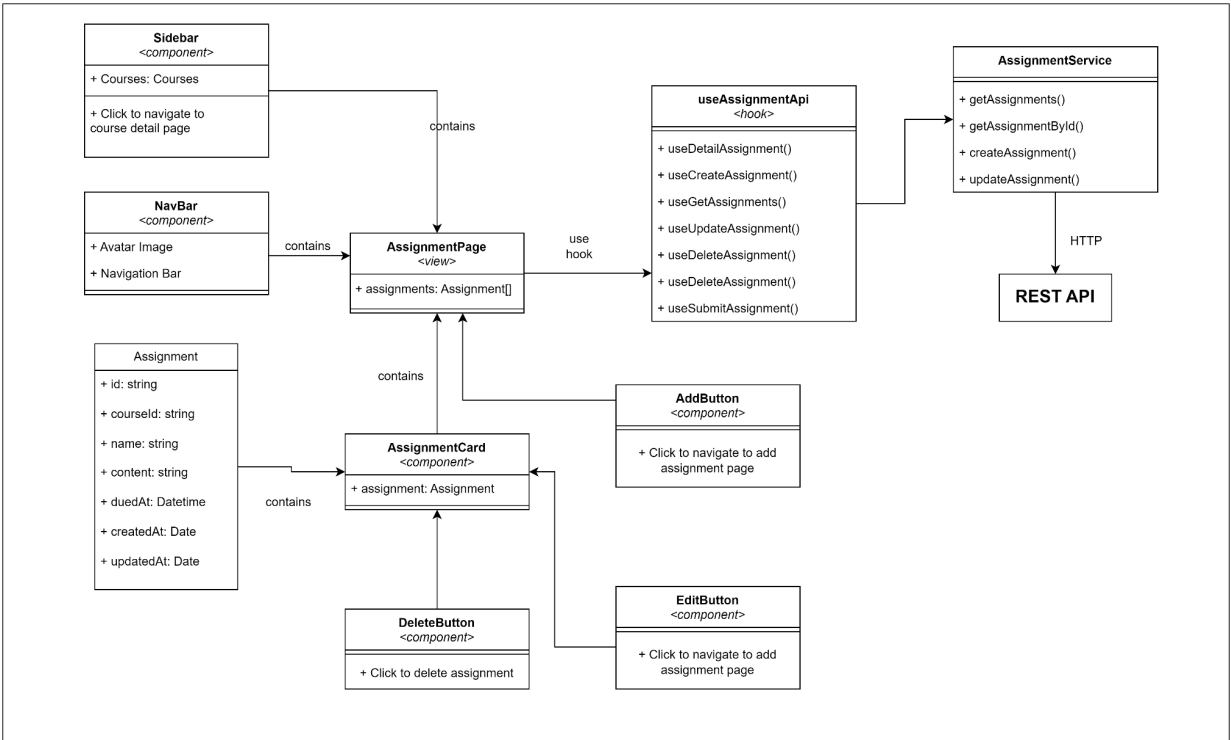


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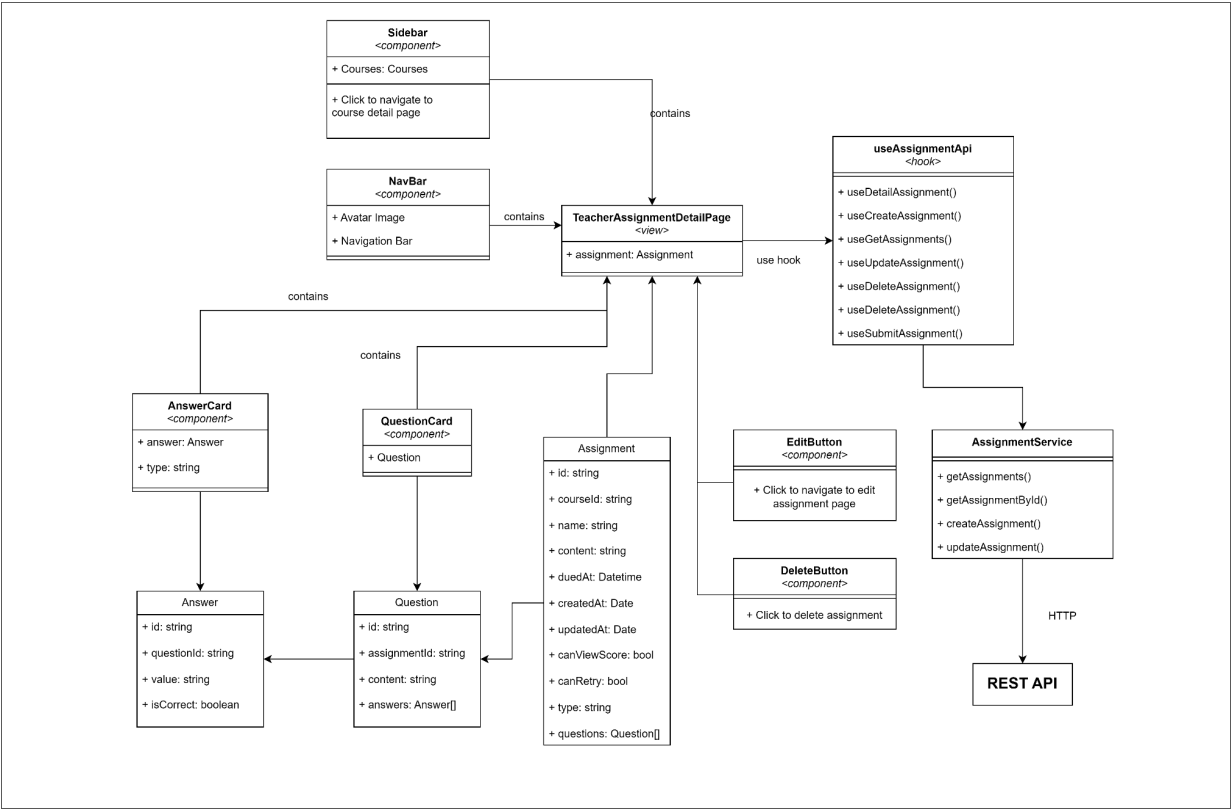
4.17 Component: Profile Screen



4.18 Component: Assignments Screen

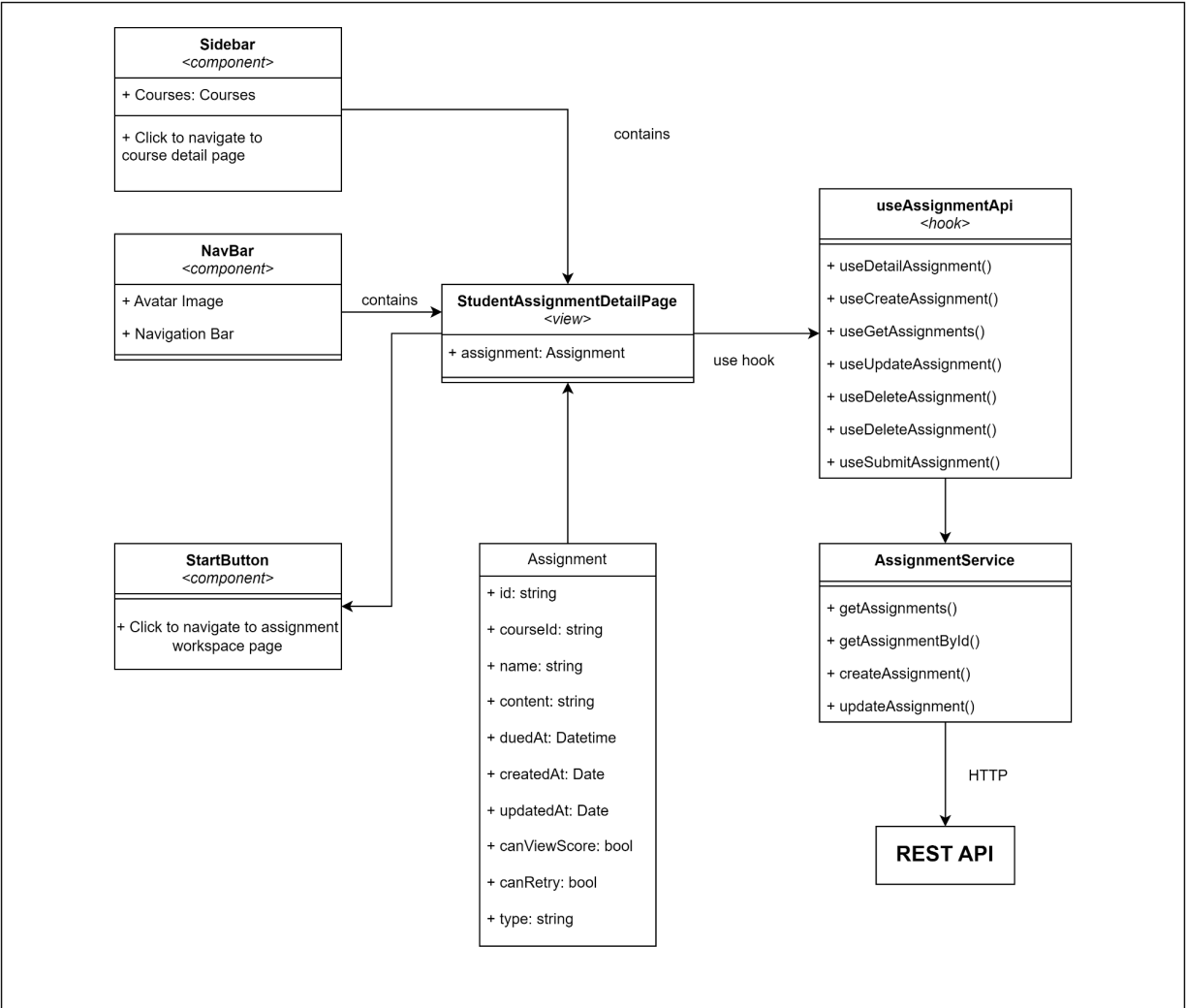


4.19 Component: Teacher Assignment Detail Screen



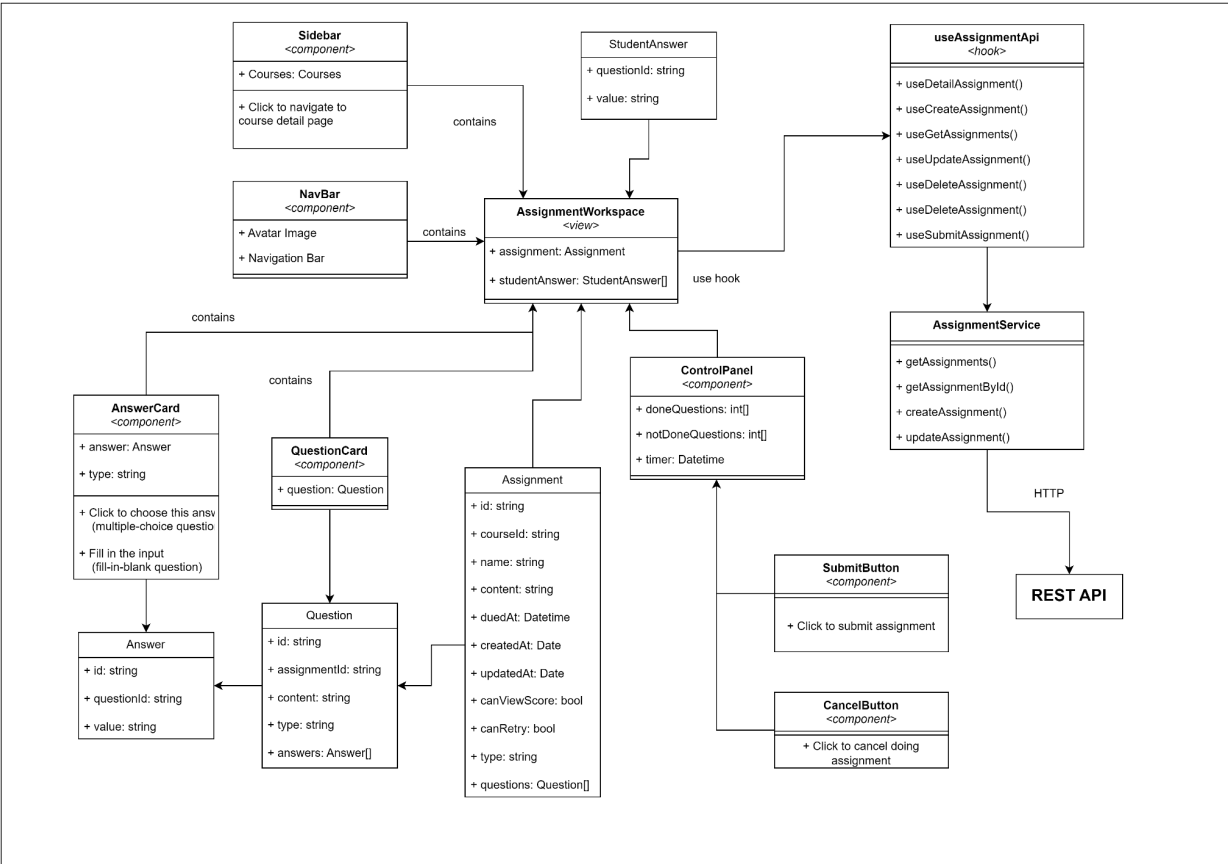
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4.20 **Component: Student Assignment Detail Screen**



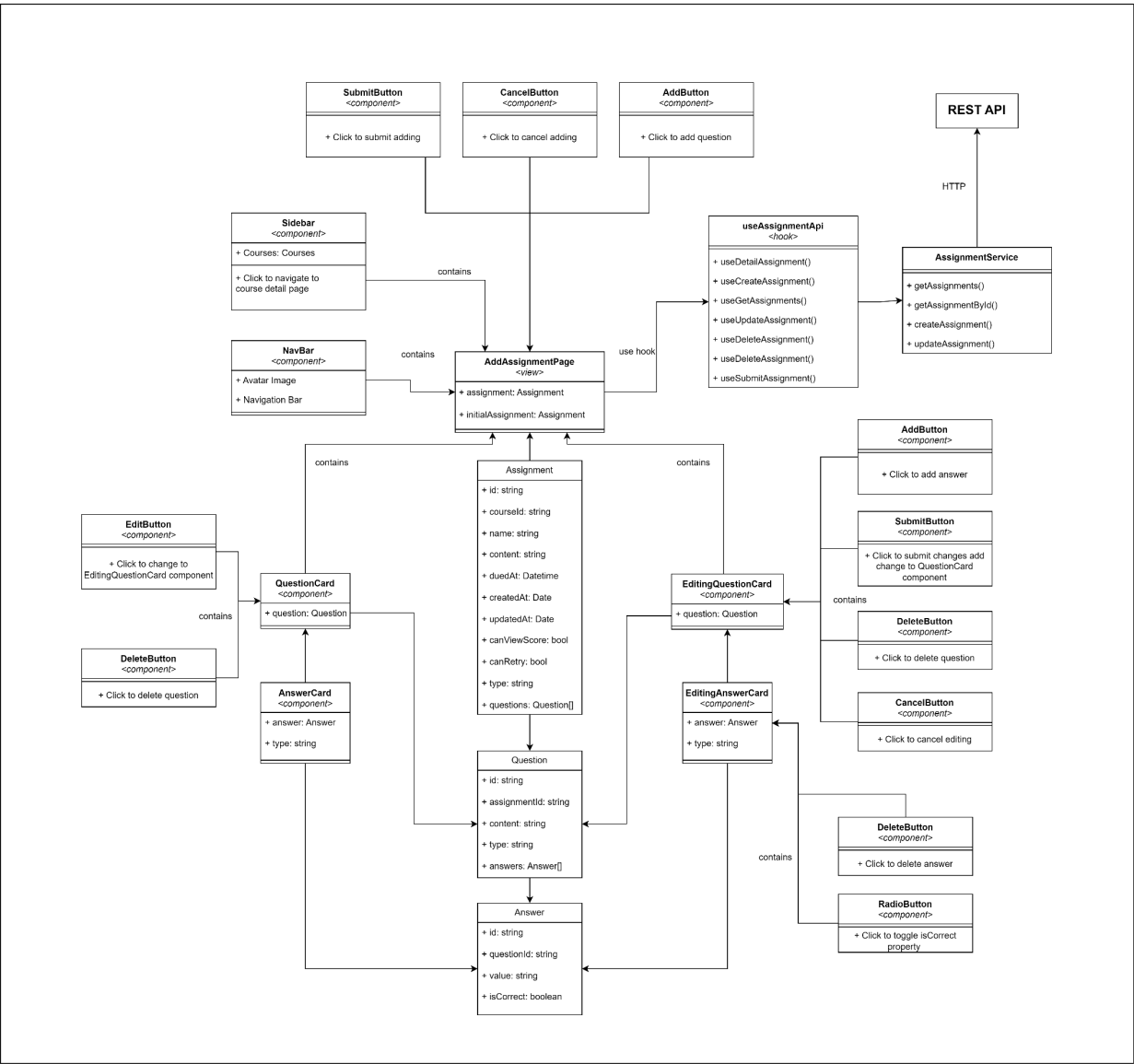
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4.21 Component: Student Assignment Workspace Screen



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4.22 Component: Teacher Add/Edit Assignment Screen



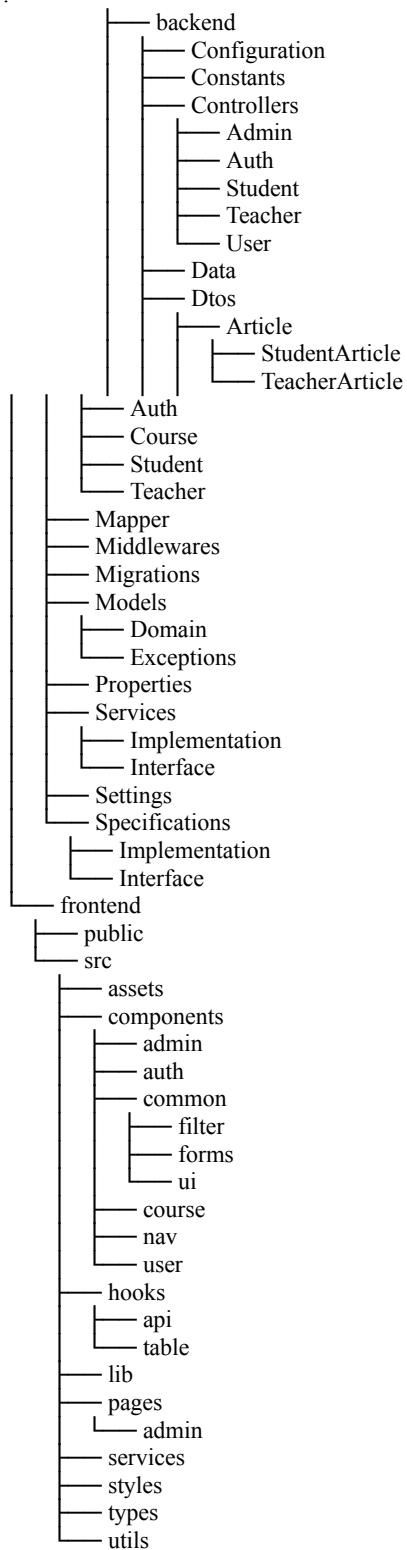
4.5. Deployment

[Leave this section blank for PA4.]

In this section, describe how the system is deployed by mapping the components in Section 4 to machines running them. For example, your mobile app is running on a mobile device (Android, iOS, etc), your server runs all components on the server side including the database]

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4.6. Implementation View



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