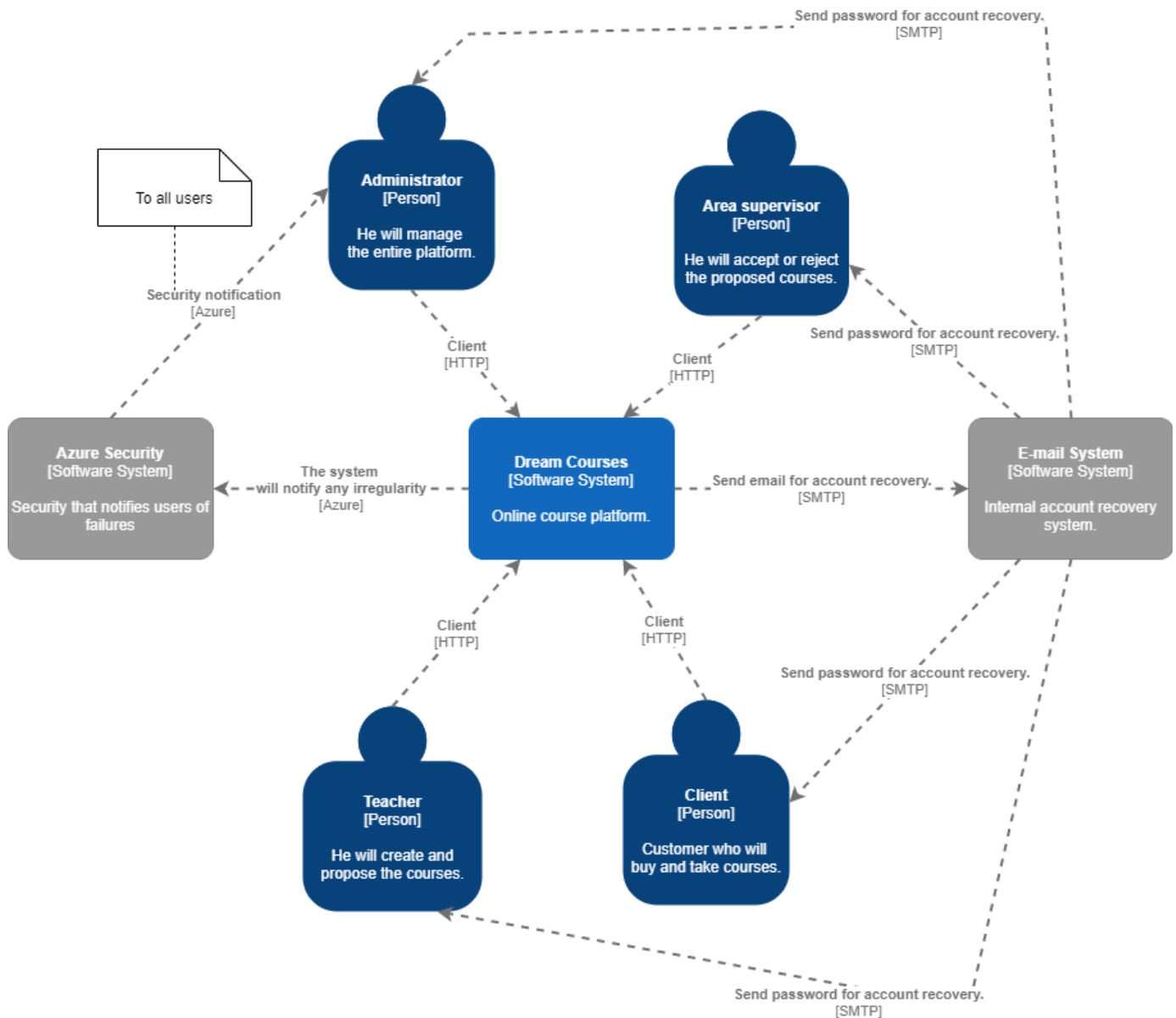# Software architecture through the C4 Model.
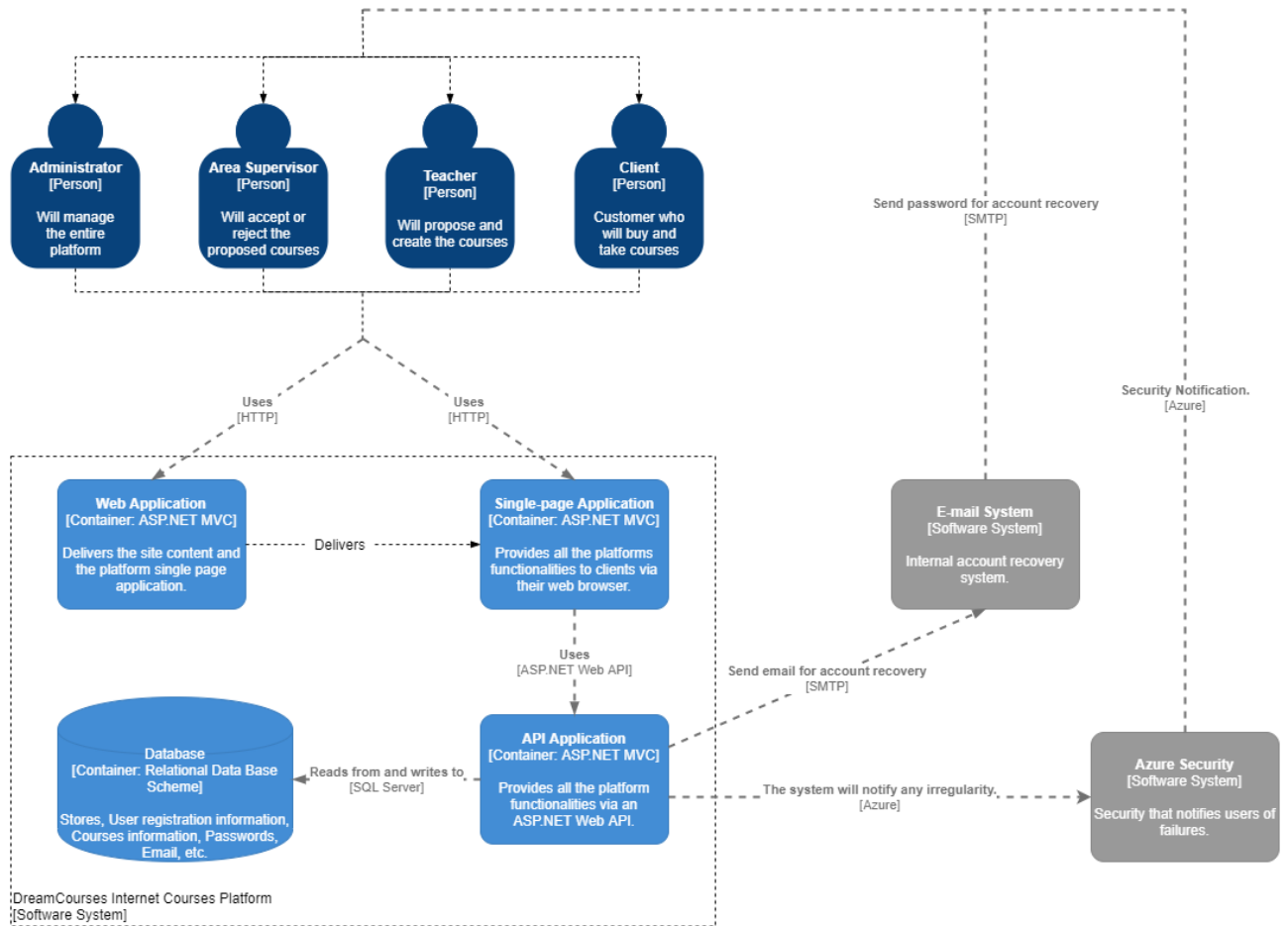
Courses and certifications.
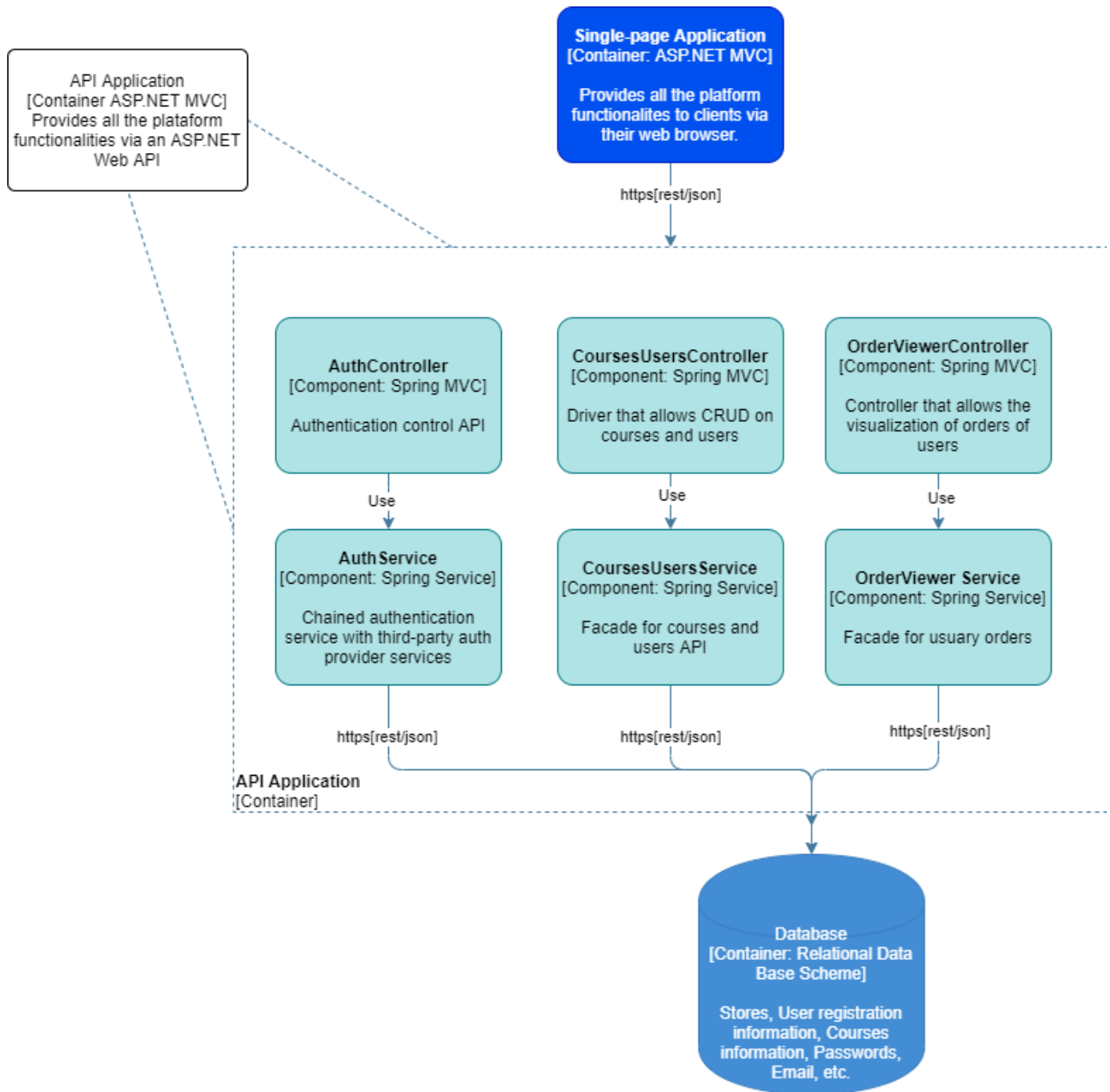
Helltakers: DreamCourses

Context diagram:

Container diagram:

Container Diagram for the Online DreamCourses Platform

Component diagram:

API Application
[Container ASP.NET MVC]
Provides all the plataform functionalities via an ASP.NET Web API

Single-page Application
[Container: ASP.NET MVC]

Provides all the platform functionalites to clients via their web browser.

https[rest/json]

AuthController
[Component: Spring MVC]

Authentication control API

CoursesUsersController
[Component: Spring MVC]

Driver that allows CRUD on courses and users

OrderViewerController
[Component: Spring MVC]

Controller that allows the visualization of orders of users

Use

Use

Use

AuthService
[Component: Spring Service]

Chained authentication service with third-party auth provider services

CoursesUsersService
[Component: Spring Service]

Facade for courses and users API

OrderViewer Service
[Component: Spring Service]

Facade for usuary orders

https[rest/json]

https[rest/json]

https[rest/json]

API Application
[Container]

Database
[Container: Relational Data Base Scheme]

Stores, User registration information, Courses information, Passwords, Email, etc.

Class diagram:

MainframeCoursesUsersService.Component

◯

MainframeCoursesUsersServiceFacade

| MainframeCoursesUsersServiceFacadeImpl | ·······Throws·······> | MainframeCoursesUsersServiceException | | Database |

·Create·

Uses

·Parses·

| GetCoursesUsersRequest | | CoursesUsersServiceConnection | | GetCoursesUsersResponse |

·Sends·

·Recieves·

| AbstractRequest | | AbstractResponse |