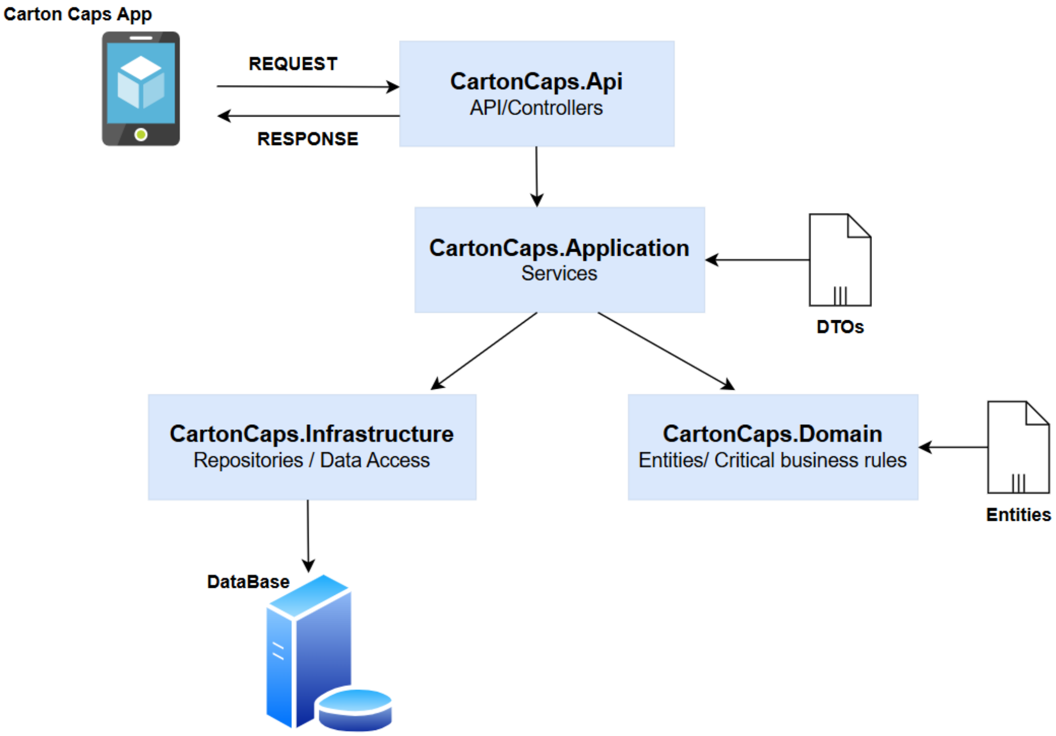
Architecture



Details:

- Client: Sends HTTP requests to the API.
- **CartonCaps.Api.Api**: Controller (API):
  - Exposes the endpoints to the client.
  - Receives the request and its parameters.
  - Delegates business operations to the Application layer (no business logic is placed in controllers)
  - Returns standardized responses (success, errors, status codes).

- **CartonCaps.Application:**
  - Contains the service Layer.
  - Coordinates operations between Domain (entities and rules) and Infrastructure (data persistence)
  - Does not handle database responsibility, delegates to repositories.
  - Uses DTOs to communicate with controllers.
  - Maps DTOs ↔ Entities using AutoMapper (or manual mapping when appropriate).

- **CartonCaps.Domain:**

  - Defines the core business Entities.
  - Ensures the integrity of the business model.
  - Applies critical business rules.

- **CartonCaps.Infrastructure:**

  - Centralizes data access responsibility.
  - Contains Repositories that interact with the database using Entity Framework (or in this case mock data).
  - Only works with Data Models, and Receives Entities, never with DTOs