Gateway Layer Overview

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The Gateway layer acts as an entry point to the system, managing external requests and routing them to appropriate microservices. This layer is critical for security, load balancing, and request aggregation.

Key Components:

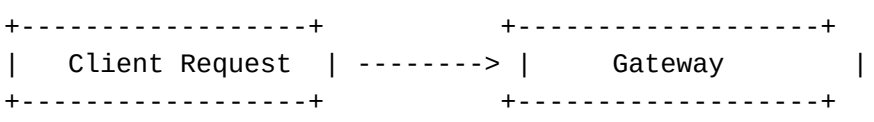
1. **Core.Gateway**:
   - Handles API Gateway logic, including routing and request validation.
   - Implements reverse proxy functionalities and security checks like JWT validation.

2. **ServiceCollectionExtensions**:
   - Contains extension methods for service configuration in the DI container.
   - Manages the configuration of middleware, such as authentication and logging.

Design Patterns:

- **Gateway Pattern**: Centralizes the handling of client requests.
- **Middleware Pattern**: Provides a modular way to handle cross-cutting concerns like logging, authentication, and error handling.

ASCII Diagram:



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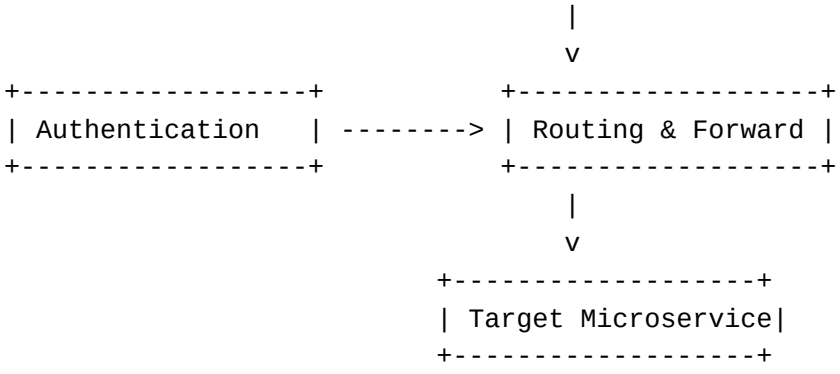

Q: What is the role of the Gateway layer?

A: The Gateway layer acts as a single entry point to the system, managing client requests, authentication, and routing them to the appropriate microservices.

Q: How does the Gateway layer enhance security?

A: The Gateway layer implements JWT validation and other security checks to ensure that only authorized requests reach the microservices.

Q: What design patterns are used in the Gateway layer?

A: The Gateway pattern centralizes request handling, while the Middleware pattern is used to manage cross-cutting concerns.