**Assignment: API Feature Implementation for Order Management System**

**Overview**

In this assignment, you will enhance a .NET 8 Web API project that simulates an order management system. The focus will be on implementing features, testing, and documenting your solutions efficiently within the existing architecture.

**Discounting System**:

* Implement a discounting system that applies different promotion rules based on customer segments (e.g., VIP, Regular) and order history (e.g., first-time customers, repeat customers)

**Order Status Tracking**:

* Implement an order status tracking feature with appropriate state transitions (e.g., Pending, Processing, Shipped, Delivered, Cancelled).
* Example status transition logic:

**Order Analytics Endpoint**:

* Create an endpoint that returns order analytics, such as average order value and average fulfillment time.

**Unit Tests for Discount Calculation Logic**:

* + Write unit tests to verify the discount calculation logic. Use a testing framework like xUnit or NUnit.

**Integration Tests for API Endpoint**:

* Include integration tests for at least one API endpoint to ensure it behaves as expected.