.NET Core Microservices - True Ultimate Guide

Section 3 - Products Microservice - Cheat Sheet

Assignment: Creating Products Microservice

Products Microservice

```
DELETE /api/products/{ProductID}

true

GET /api/products/search/productid/{ProductID}

{
    "productlD": "...",
    "productName": "..."
    "productlD": "...",
    "productlDm: "...",
    "produc
```

Layered Architecture

- 1. Presentation (Minimal API Endpoints)
- 2. Business Logic Layer (BLL)
- 3. Repository Layer (RL)
- 4. Data Access Layer (DAL) / Entity Framework Core
- 5. Database (MySQL)

Entities

_ **Product**

+ ProductID: Guid

+ ProductName: string?

+ Category: string? + UnitPrice: double

+ QuantityInStock: int

Repository Contracts

IProductsRepository

- + GetProducts(): Task<IEnumerable<Product>>
- + GetProductsByCondition(conditionExpression: ExpressionFunc<Product, bool>>): Task<IEnumerable</pre>Product?>> + GetProductByCondition(conditionExpression: ExpressionFunc<Product, bool>>): Task<Product?>>
- + AddProduct(product: Product): Task<Product?>
- + UpdateProduct(product: Product): Task<Product?>
- + DeleteProduct(productID: Guid): Task<bool>

DTO (Data Transfer Objects)

ProductAddRequest

+ ProductName: string?

+ Category: CategoryOptions

+ UnitPrice: double + QuantityInStock: int

ProductUpdateRequest

+ ProductID: Guid

+ ProductName: string?

+ Category: CategoryOptions

+ UnitPrice: double + QuantityInStock: int

ProductResponse

+ ProductID: Guid

+ ProductName: string?

+ Category: CategoryOptions

+ UnitPrice: double + QuantityInStock: int

CategoryOptions

+ Electronics

+ HomeAppliances

+ Furniture

Service Contracts

IProductsService

- + GetProducts(): Task<List<ProductResponse?>>
- + GetProducts(): Task<List<Productnesponse()>
 + GetProductsByCondition(conditionExpression: Expression<Func<Product, bool>>): Task<List<ProductResponse()>>
 + GetProductByCondition(conditionExpression: Expression<Func<Product, bool>>): Task<ProductResponse()>
 + AddProduct(productAddRequest: ProductAddRequest): Task<ProductResponse()>
 + UpdateProduct(productUpdateRequest: ProductUpdateRequest): Task<ProductResponse()>
 + DeleteProduct(productID: Guid): Task<bool>