Endpoint: /api/products

Methods:
- GET: Retrieve a list of all products, or a specific product by ID.
- POST: Create a new product.
- PUT: Update an existing product.
- DELETE: Delete a product.

Request Parameters:
- GET:
    - id (optional, integer): If provided, returns details of a specific product with this ID.
- POST/PUT:
    - ProductName (string, required, max 100 characters)
    - Category (string, required)
    - Price (number, required, positive)
    - Cost (number, required, positive, less than Price)
    - Description (string, optional, max 500 characters)
    - StockLevel (integer, required, non-negative)
    - Seasonal (boolean, required)
    - Active (boolean, required)
    - IntroducedDate (date, required, YYYY-MM-DD format)
- DELETE:
    - id (integer, required): The ID of the product to delete.

Response Data (JSON):
- GET (all products):
    [
        { "ProductId": 1, "ProductName": "Croissant", ... },
        { "ProductId": 2, "ProductName": "Pain au Chocolat", ... },
        // ... more products
    ]
- GET (single product):
    {
        "ProductId": 1,
        "ProductName": "Croissant",
        // ... (rest of product fields)
    }
- POST/PUT:
    { "ProductId": (newly created/updated ID), ... (other fields) }

Error Handling:
- 400 Bad Request: Invalid input parameters, missing required fields, or incorrect data types.
- 404 Not Found: Product not found (for GET and DELETE with specific ID).
- 500 Internal Server Error: Unexpected server error.