

Exercise: Building Product Endpoints

In this exercise, you'll build two API endpoints to fetch product data.

1. Fetch All Products

Create an endpoint that returns a list of products.

Input

- `categoryId` (optional) – Filters products by category. If not provided, return all products.

GET `/products?categoryId=1`

Output

The response should be a list of `ProductDto` objects, each containing:

- `id`
- `name`
- `description`
- `price`
- `categoryId`

Hint: When mapping `Product` to `ProductDto`, ensure that `product.category.id` is mapped to `productDto.categoryId`.

```
@Mapping(source = "category.id", target = "categoryId")
ProductDto toDto(Product product);
```

2. Fetch a Single Product by ID

Create an endpoint that retrieves a single product by its ID.

If the product exists, return a ProductDto. Otherwise, return 404 Not Found.

GET /products/1