# Exercise: Managing Products and Wishlists

In an earlier exercise, you created the **Product**, **Category**, and **Wishlist** entities. In this exercise, you will implement functionality to manage these entities, focusing on persisting products, handling relationships, and managing transactions.

## Step 1: Create a Product with a new Category
- Create a new product and assign it to a new category.
- Save the product.
- Run your code and inspect the error in the console.
- Debug and fix the issue so that the product and category are saved correctly.

## Step 2: Create a Product for an Existing Category
- Retrieve the category you created earlier.
- Create another product and assign it the fetched category.
- Save the new product.
- Run your code and inspect the error in the console.
- Debug and fix the issue so that the product is saved correctly.

## Step 3: Add Products to a User's Wishlist
- Fetch an existing user and add all existing products to their wishlist.
- Save the user and verify the correct entries in the wishlist table.
- Inspect the SQL queries in the console. Think about why each one is being sent.

## Step 4: Deleting a Product
- Delete one of the products you created earlier.
- Run your code and inspect the error in the console.
- Debug and fix the issue so the product is deleted from the database.