



Problem Breakdown and Solution

Problem Description: You need to manage a list of orders from an online store. Each order includes information such as customer details, products purchased, status, and date. You need to perform several analytical tasks on this data, including filtering, transforming, grouping, and sorting.

Tasks:

1. Filter and Sort Orders by Status and Date
2. Transform Products to Prices
3. Remove Duplicates and Calculate Average Price
4. Group Orders by Customer and Filter High-Spending Customers
5. Sort Customers by Number of Orders

Final Code Breakdown

1. Data Model:

- `Product.java`: Represents individual products with attributes for the product's name and price.
- `Order.java`: Represents orders with attributes for order ID, customer name, a list of products, status, and date.
- `SpecialOrder.java`: Extends `Order` to potentially handle special orders with additional features in the future. For now, it behaves just like `Order`.