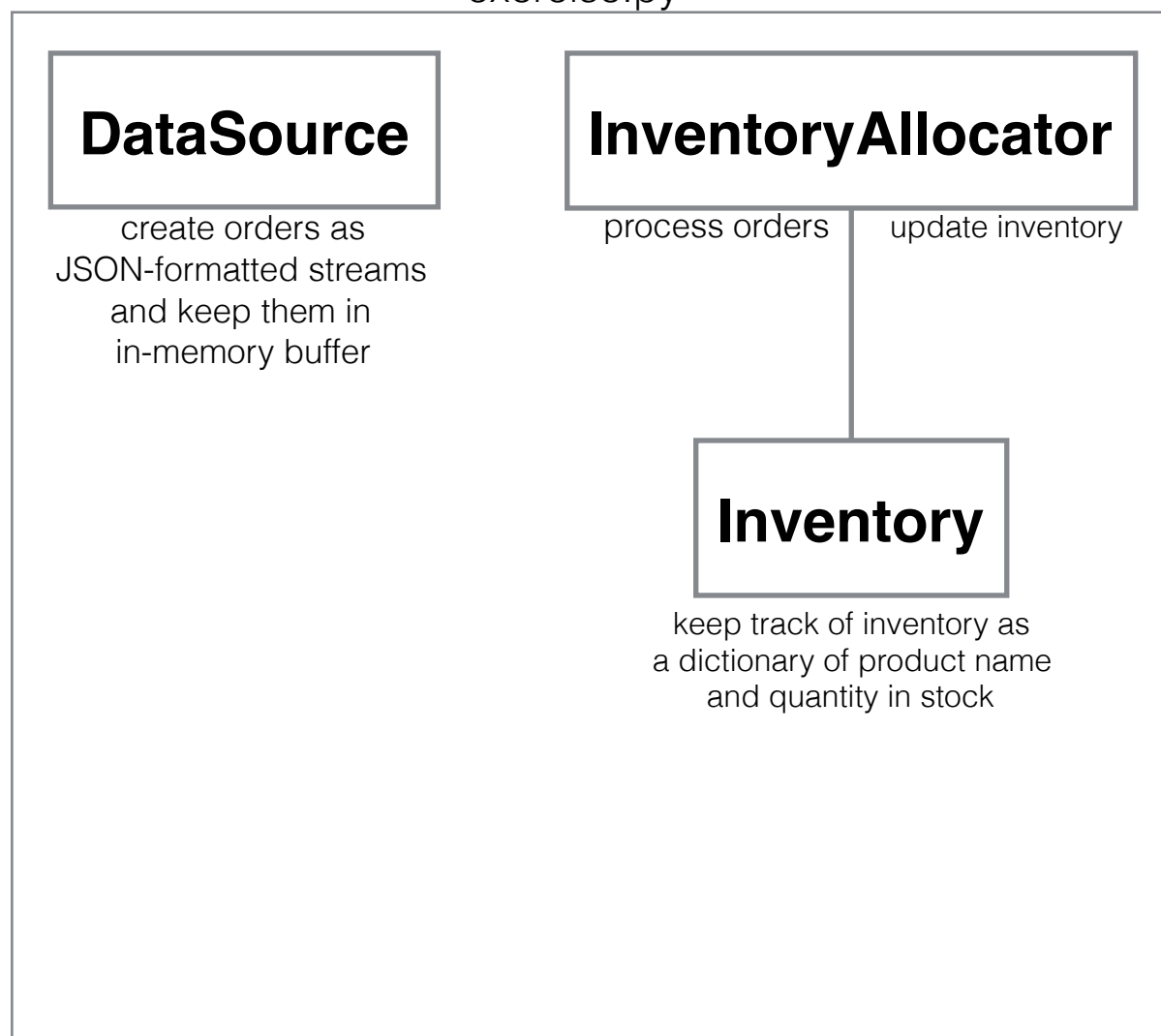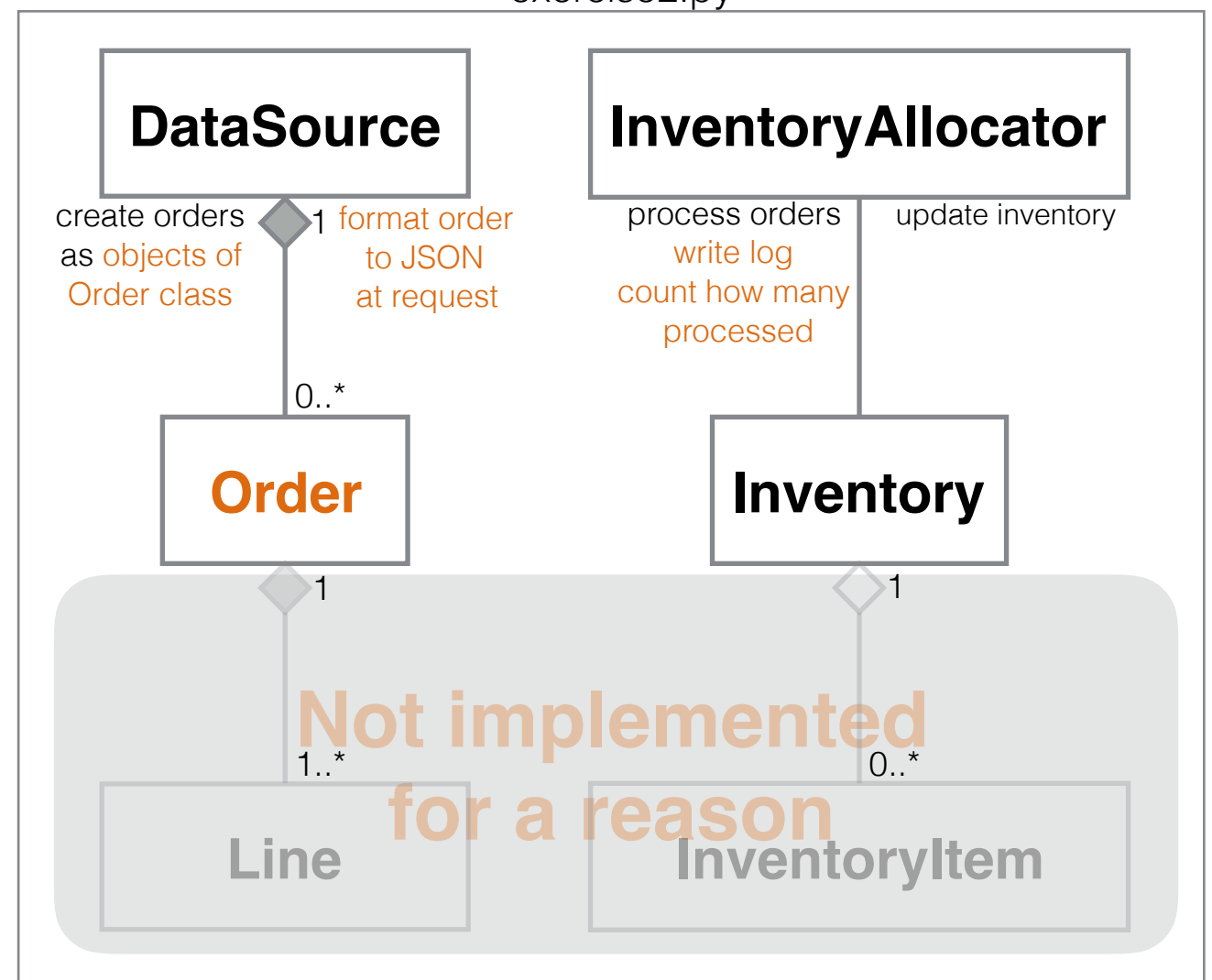# Improvements in exercise2

- The Order class represents an order; in-memory buffer is no longer used
- InventoryAllocator writes processing log and keeps track of order processing count
- DataSource can create not only valid orders but also invalid orders (for testing)

Invalid Order/Line Examples

Initial inventory:

A x 150
B x 150
C x 100
D x 100
E x 200

Case	Example	Result
No "Header" and/or no "Lines"	{"ID": 1, "Lines": [{"Product": "A", "Quantity": 1}]} {"Header": 2, "Items": [{"Product": "A", "Quantity": 1}]}	Not processed
Empty header and/or empty lines	{"Header": "", "Lines": [{"Product": "A", "Quantity": 1}]} {"Header": 3, "Lines": []}	Not processed
Non-positive integer as header	{"Header": -4, "Lines": [{"Product": "A", "Quantity": 1}]}	Not processed
Non-integer as header	{"Header": 3.14, "Lines": [{"Product": "A", "Quantity": 1}]} {"Header": "#0005", "Lines": [{"Product": "A", "Quantity": 1}]}	Not processed
Non-existent product name	{"Header": 5, "Lines": [{"Product": "Yoda", "Quantity": 1}]}	Not processed
*Quantity outside valid range	{"Header": 6, "Lines": [{"Product": "A", "Quantity": 1}, {"Product": "B", "Quantity": 0}]} {"Header": 7, "Lines": [{"Product": "C, "Quantity": 6}, {"Product": "D", "Quantity": 5}]}	Process only the line for A Process only the line for D
Product name not in the same case	{"Header": 8, "Lines": [{"Product": "e", "Quantity": 3}]}	Not processed
*Duplicate lines on the same order	{"Header": 9, "Lines": [{"Product": "A", "Quantity": 1}, {"Product": ""A, "Quantity": 1}]	Process only the last line for A
*Duplicate header	{"Header": 10, "Lines": [{"Product": "A", "Quantity": 1}, {"Product": "B", "Quantity": 2}] {"Header": 10, "Lines": [{"Product": "C", "Quantity": 4}, {"Product": "D", "Quantity": 5}]}	Process both orders

Note: InventoryAllocator treats the cases marked with "*" as <u>valid</u>. Please see the output of test5.py.