

cis112-2025-1-e2Midterm2-Q1-g1: LIFO Stock

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Introduction

Consider an inventory of some item, such as shares in stock exchange or apples.

- One *buys* different amounts at different prices at different times.
- Similarly, one *sells* different amounts at different prices at different times.
- The *total gain* is the profit/lost obtained at a given time.

There are many ways to calculate total gain. One of them is **LIFO**. Assume that the system is using *LIFO*. That is, one sells the newest item first.

Example

1. Buy 4 items at a price of \$5. Stock: 4 @ \$5. TotalGain = \$0.
2. Buy 3 items at a price of \$6. Stock: 4 @ \$5 + 3 @ \$6. TotalGain = \$0.
3. Sell 2 items at a price of \$7. Stock: 4 @ \$5 + 1 @ \$6. TotalGain = 0 + 2 (7 - 6) = \$2.
4. Sell 3 items at a price of \$8. Stock: 4 @ \$5. Total gain = \$2 + 1 (8 - 6) + 2 (8 - 5) = \$10.

ToDo

D0. Common material

Consider `cis000_common` package.

1. Update `StudentInfo` with your info.
2. Read `ExamInLab-forStudents.pdf` carefully.

D1. Stock

1. Complete `StockLIFO`.
2. You can use `StockLIFO_Test` during your development.
3. Evaluate your code with `StockLIFO_jUnit`.

Warning. Do not change `StockLIFO_jUnit`.