

Lean code

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What is Lean?

Lean software development

Eliminate Waste

Focus on Value

Deliver Fast

Decide Late

Can code be lean?

Introducing
the customer

Fresco plc



Iteration 0

10 minutes to choose a pair, and set up your dev environment

We are writing a command line tool: accept stdin, write stdout.

Setup in java:

```
$ git clone https://github.com/martinsson/lean-code-challenge-java.git
```

```
$ bin/checkout
```

Iteration I

10 minutes to write a simple checkout scanner

- Apples cost €1, Bananas cost €1.50, Cherries cost €0.75
- Accept each of these words one per line on stdin
- Print the cart total in pence on stdout each time.
- Questions?

Acceptance Test:

- Apples => 100
- Cherries => 175
- Cherries => 250

Iteration 2

10 minutes to add a discount:

- Same input and output as before
- Two lots of Cherries get 20 cents off.

Acceptance test:

- Apples => 100
- Cherries => 175
- Cherries => 230

Iteration 3

10 minutes to add CSV format:

- Now need to accept the values as comma seperated
- Same prices as Iteration 2

Acceptance test:

- Apples, Cherries, Bananas => 325
- Cherries, Cherries => 130

Iteration 3a

No! Urgent requirement from business! Deadline the same.

- Fresco suppliers notified delay of new API requiring CSV
- Now input back to one per line
- Cherries have now got 30 cent discount
- Bananas are now Buy One Get One Free

Acceptance test:

- Cherries => 75
- Cherries => 120
- Bananas => 270
- Bananas => 270

Iteration 4

10 minutes to support localisation:

- Fresco suppliers still behind on CSV change
- Cherries are now back to 20 cent discount
- Should also support the words “Pommes” and “Mele” for apples.

Acceptance test:

- Cherries => 75
- Pommes => 175
- Cherries => 230
- Bananas => 380
- Bananas => 380
- Apples => 480

Iteration 5

10 minutes to support separate discounts for different names:

- Be advised CSV change is coming next iteration
- 3 x Pommes is discounted to €2
- 2 x Mela is discounted to €1.50

Acceptance test:

- Mele => 100
- Pommes => 200
- Pommes => 300
- Apples => 400
- Pommes => 400
- Mele => 450
- Cherries => 525
- Cherries => 580

Iteration 5a

10 minutes to support separate discounts for different names:

- NEW TILLS DEPLOYED YOUR CODE IS BROKEN!
- 3 x Pommes is discounted to €2
- 2 x Mela is discounted to €1

Acceptance test:

- Mele, Pommes, Pommes, Apples, Pommes, Mele, Cherries, Cherries, Bananas => 680

Iteration 6

10 minutes to work around supplier bug and apply super-discount:

- Supplier bug: support entry of both CR separated and CSV
- 2 x Mele is discounted to €1.50
- Buy 4 apples and get another €1 off the bill.
- Buy 5 pieces of Fruit a get a further €2 off the bill.

Acceptance test:

- Mele, Pommes, Pommes, Mele => 250
- Bananas => 200

Acceptance test:

- Mele, Pommes, Pommes, Apples, Mele => 150

Conclusions

Eliminate Waste

Focus on Value

Deliver Fast

Decide Late

“The quality of your software is inversely proportional to how often you have to say no to your customer.”

-- Uncle Bob Martin

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```
git clone git://github.com/chrismdp/checkout-kata.git  
git checkout lean_code
```