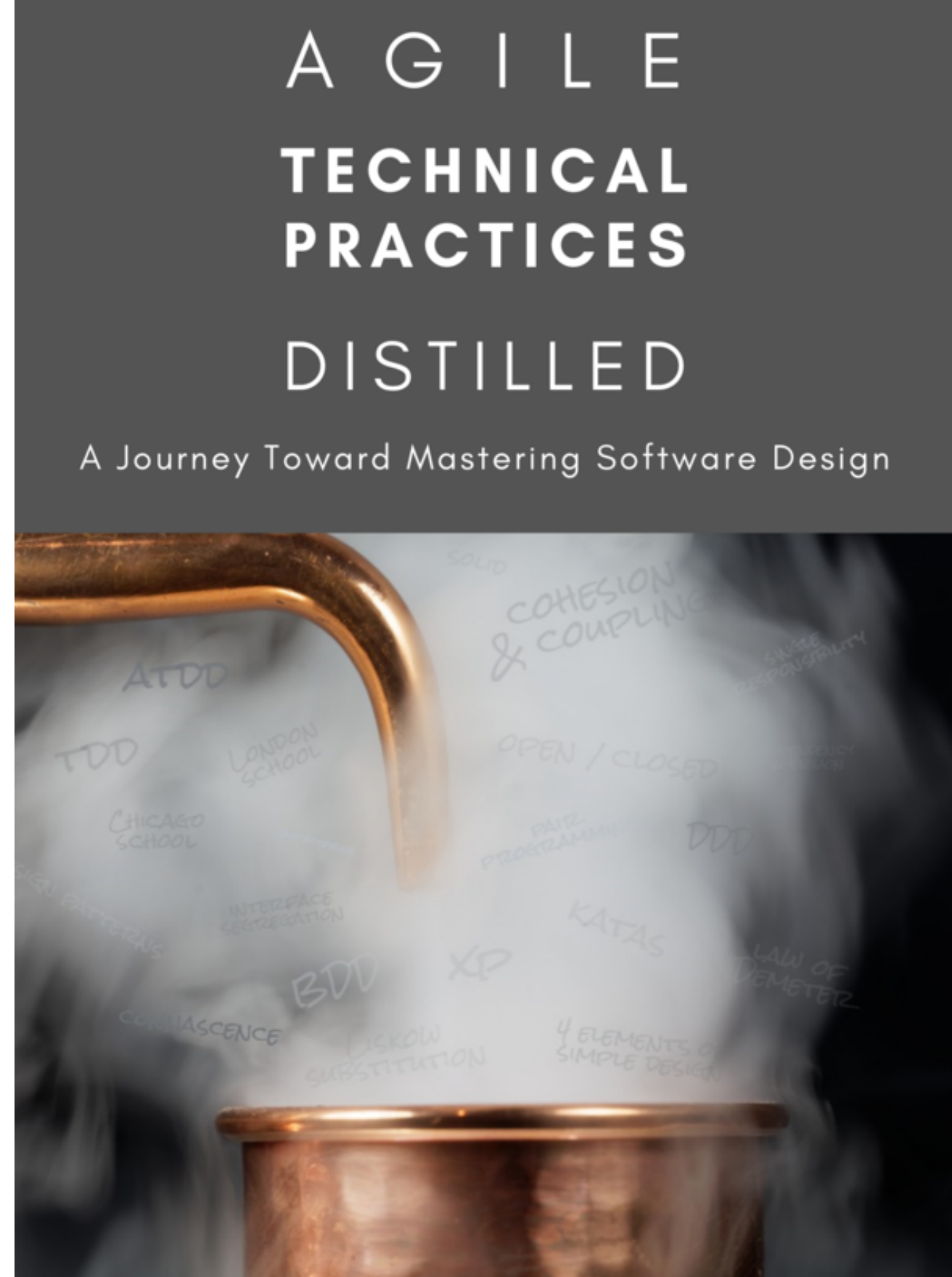


Software design workshop

@pedromsantos

[https://leanpub.com/
agiletechnicalpracticesdistilled](https://leanpub.com/agiletechnicalpracticesdistilled)



Pedro Moreira Santos
Marco Consolaro
Alessandro Di Gioia

- OO design for a known kata, using paper and pencil only.
- Design for the first story of a new product we will be launching soon.
- The product is a toy personal savings ATM machine

- For the first release disregard the card reader and user authentication.
- Implement Deposit, Withdraw and Print Statement operations



Class Name:

Responsibilities

Collaborations

What does the class know
about?

Who does the class
collaborate with?

Customer	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Track work orders assigned to the customer	WorkOrder

WorkOrder	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Track charge slips associated with the work order	ChargeSlip

Inventory	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Manage a collection of parts with information specific to the boatyard	Part

ChargeSlip	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Track charges Parts Additional Charges	ChargeSlip Part Charge

Part	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Has a vendor cost, internal cost, quantity, and tax flag and belongs in inventory	Inventory Vendor
The part is associated with a work order when being purchases	WorkOrder PurchaseOrder
Parts go on charge slips	ChargeSlip
Parts are purchased from vendors	Vendor VendorPart

PurchaseOrder	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Assign parts to a purchase order	Part
Reconcile the purchase order with the vendor's invoice	VendorInvoice Vendor
When the PO is closed, the parts are automatically billed to a charge slip	Customer WorkOrder ChargeSlip Part

Charge	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Manage additional charges on a charge slip	ChargeSlip

Vendor	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Manage Vendors	
Track parts associated with a particular vendor	Part

Invoice	
<i>Responsibilities:</i>	<i>Collaborators:</i>
Track additional charges	Charge
An invoice is associated with a purchase order	PurchaseOrder

Principles

DRY

Tell don't ask

SOLID

YAGNI

4 Rules Simple design

DDD

Coupling

Cohesion

Given a client makes a deposit of 10 on 10-01-2016

And a deposit of 20 on 13-01-2016

And a withdrawal of 5 on 14-01-2016

When they print their bank statement, then they would see:

```

date || credit || debit || balance
14/01/2016 || || 5.00 || 25.00
13/01/2016 || 20.00 || || 30.00
10/01/2016 || 10.00 || || 10.00

```

Class Name:	
Responsibilities	Collaborations
What does the class know about?	Who does the class collaborate with?

Principles

DRY

Tell don't ask

SOLID

DDD

YAGNI

4 Rules Simple design

Coupling

Cohesion



A G I L E T E C H N I C A L P R A C T I C E S D I S T I L L E D

A Journey Toward Mastering Software Design

Thank you

@pedromsantos

pedro.santos.personal@gmail.com

\$5 coupon

[https://leanpub.com/
agiletechnicalpracticesdistilled/c/
socratesCH](https://leanpub.com/agiletechnicalpracticesdistilled/c/socratesCH)



Pedro Moreira Santos
Marco Consolaro
Alessandro Di Gioia