

DAT255 / DIT543 SOFTWARE ENGINEERING PROJECT





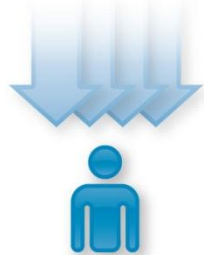
TODAY

Slicing the elephant
Feedback on backlogs

SCRUM

The Agile: Scrum Framework at a glance

Inputs from Executives,
Team, Stakeholders,
Customers, Users



Product Owner



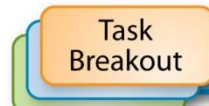
The Team



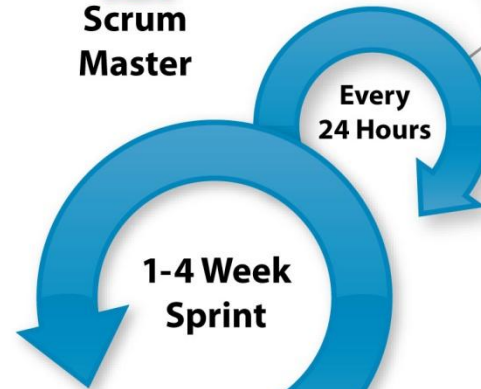
Product Backlog

Team selects starting at top as much as it can commit to deliver by end of Sprint

Sprint Planning Meeting



Sprint Backlog



Sprint end date and team deliverable do not change



Scrum Master



Burndown/up Charts

Every 24 Hours



Daily Scrum Meeting



Sprint Review



Finished Work



Sprint Retrospective



[AGILE
FOR ALL]

STORIES

As a student, I want to purchase a parking pass so that I can drive to school.

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TODO

Coding

Test

Build

Demo

Integrate
parking pass
into
datamodel

Create
connection to
payment
service

Design
GUI for
purchase
process

Define
parking
pass
validation
scheme

SLICING

Automated Teller Machine (ATM)

Horizontal and Vertical User Stories - Slicing the Cake

Vertical User Stories

Cash Withdrawal (90% Usage)

Bank Statement

Horizontal Stories

UI - PIN and Card Reader

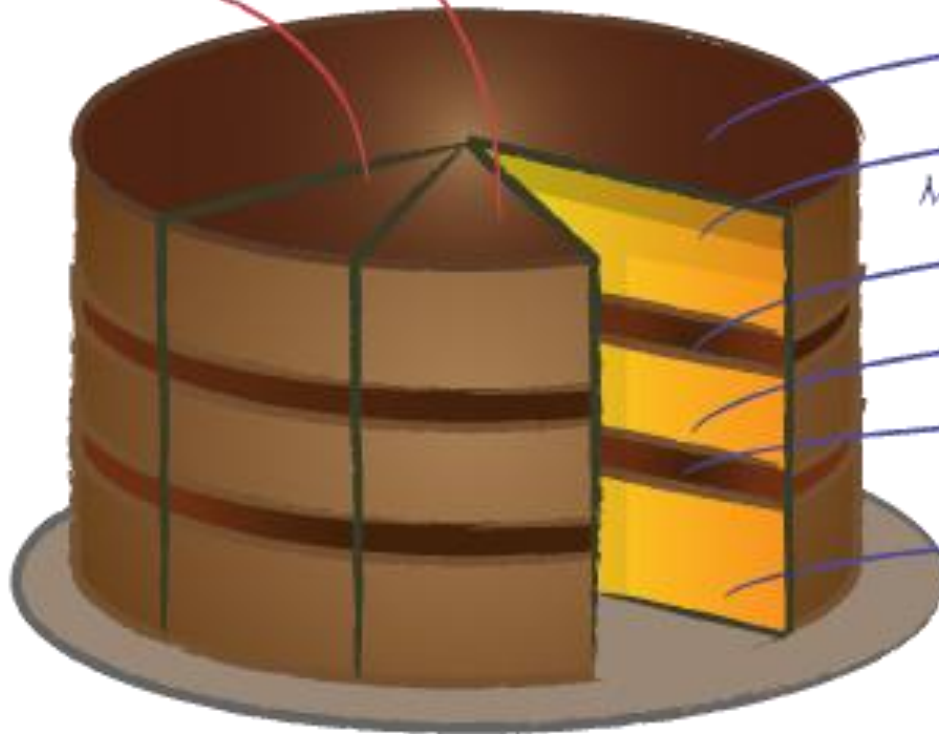
Security Layer

Middleware - Transaction Protocol

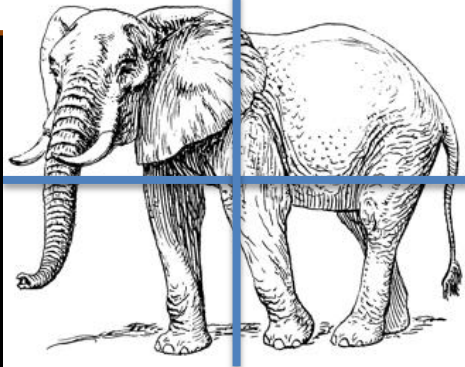
Tuxedo DB Interface

Transport Protocol

Bank Mainframe Database



As a student, I want to purchase a parking pass so that I can drive to school.



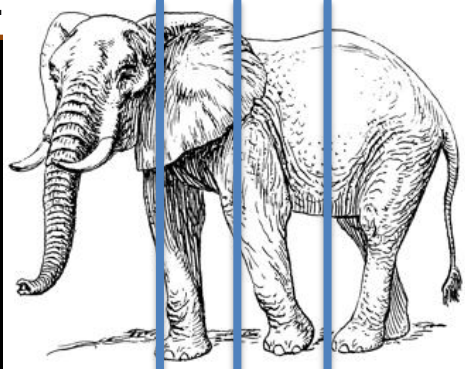
Integrate parking pass into datamodel

Create connection to payment service

Design GUI for purchase process

Define parking pass validation scheme

As a student, I want to purchase a parking pass so that I can drive to school.



Implement purchase process without payment

Integrate payment into the purchase process

Allow users to see their past orders

Define parking pass validation scheme



ELEPHANT CARPACCIO

Vision: Retail calculator – calculate prices for delivery to other countries

Three Inputs:

1. How many items
2. Price per item
3. 2-letter country code

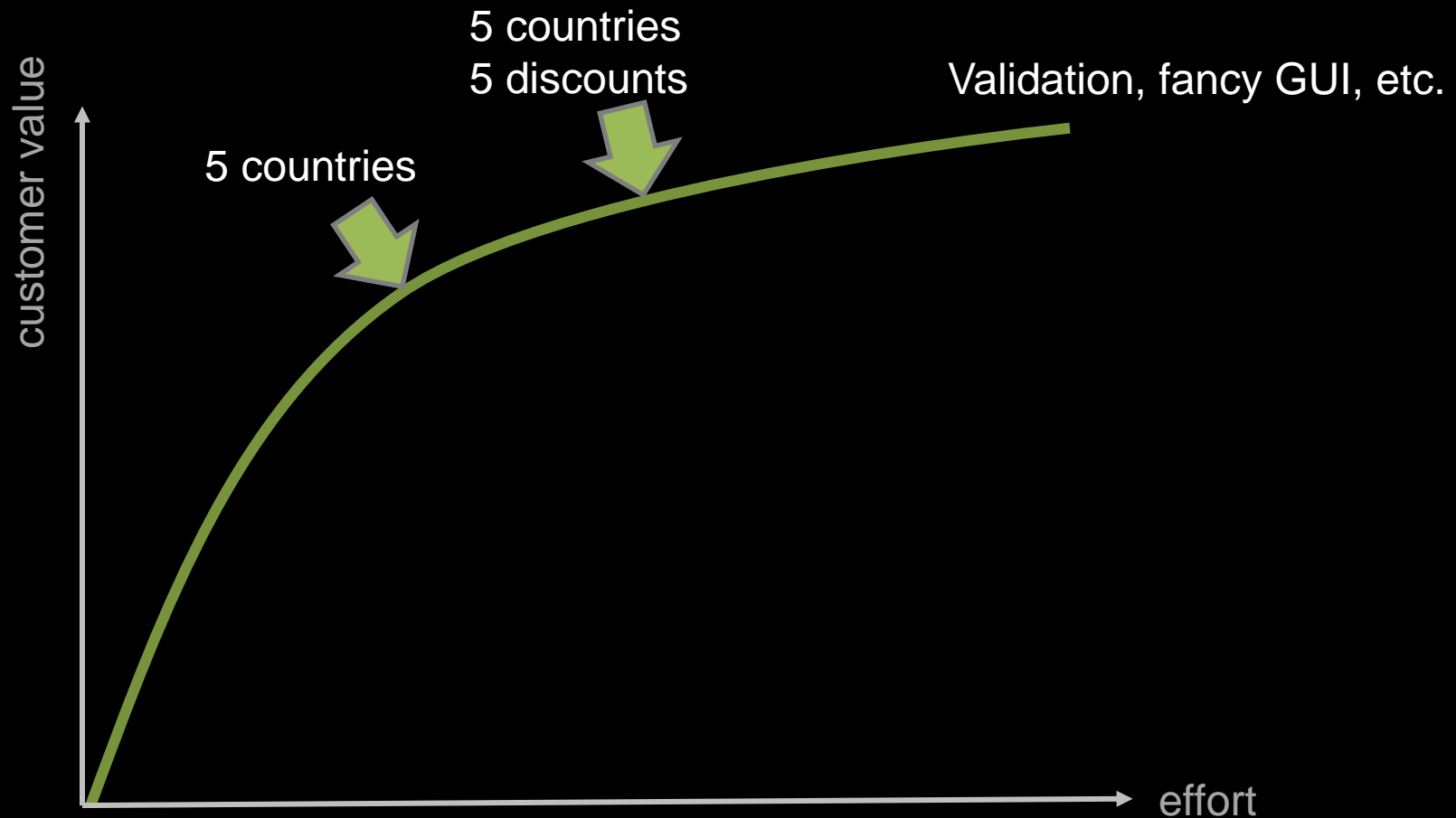
Output: total price of the order.

Algorithm: Give a discount based on total price,
then add state tax based on country code
and discounted price.

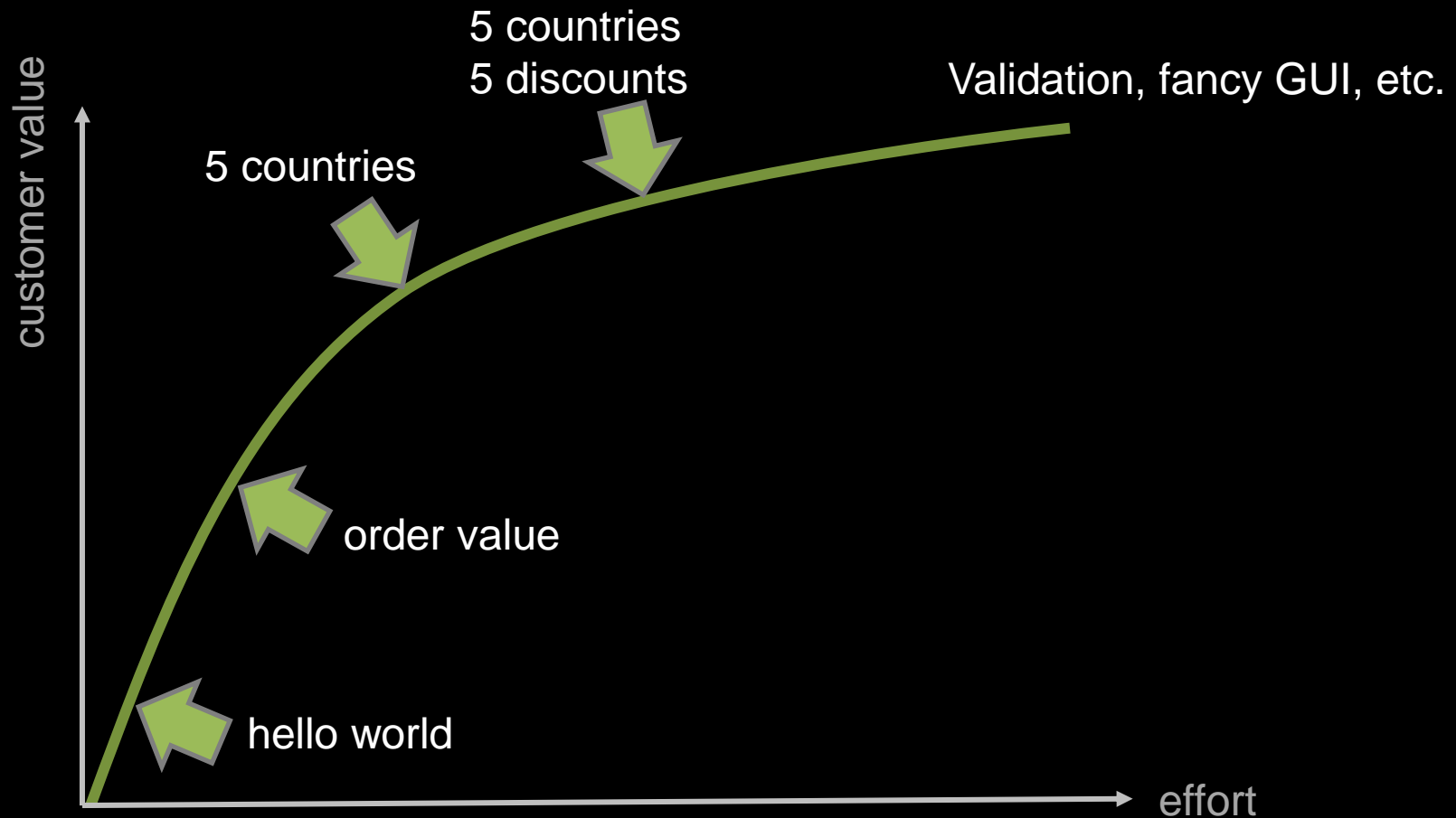
Country	VAT
Belgium (BE)	21%
Germany (DE)	19%
Hungary (HU)	27%
Sweden (SE)	25%
United Kingdom (UK)	20%

Amount	Discount
10.000 SEK	2%
50.000 SEK	3%
100.000 SEK	5%
200.000 SEK	8%
500.000 SEK	10%

Slice user stories as small as possible!



- Split **5 states, 5 discounts** into as many slices as possible
- Each slice must have UI, input & output, and be visibly different from last slice



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<http://scrumtrainingseries.com/>

Series of webinars on different Scrum topics (with quiz!)

<https://scrumalliance.org/community>

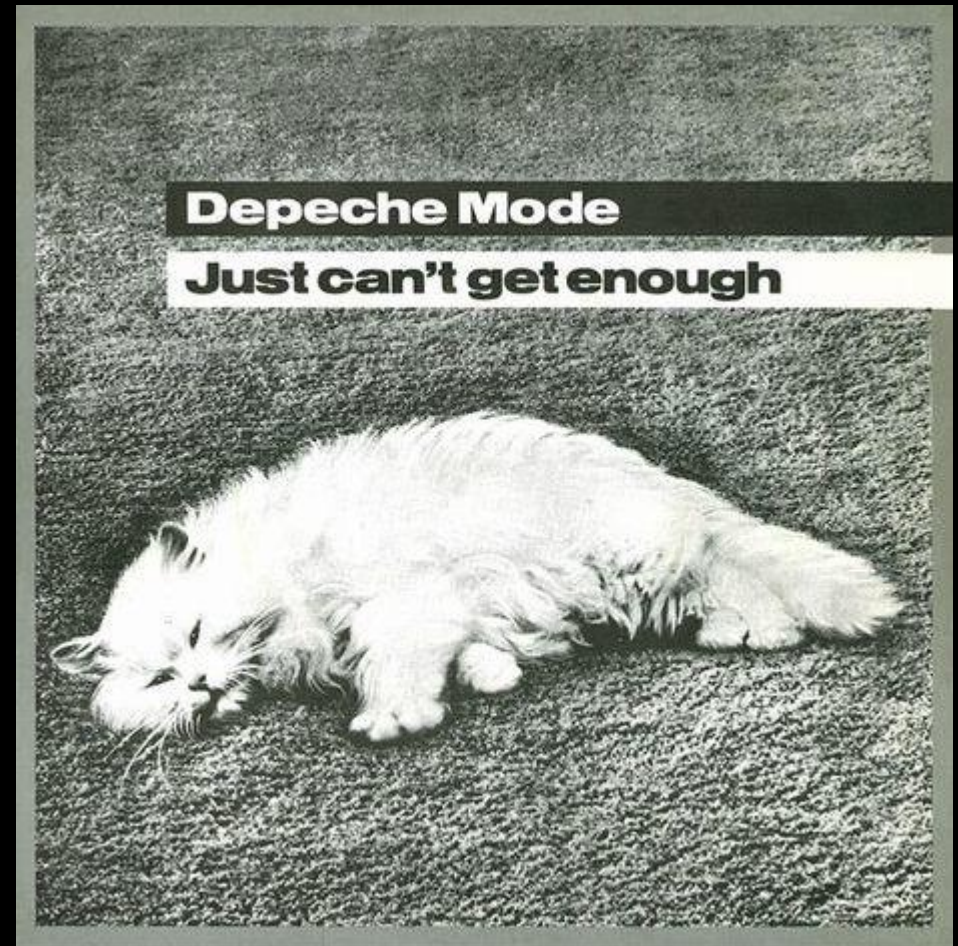
Articles about Scrum in practice

<http://www.solutionsiq.com/what-is-scrumban/>

Discusses combining Scrum and Kanban

<http://scrumandkanban.co.uk/slicing-stories-vertically/>

A chart on splitting user stories



[Cohn, 2005] Mike Cohn. *Agile Estimating and Planning*. Prentice Hall, November 2005

[Buglione & Abran, 2013] Buglione, Luigi, and Alain Abran. *Improving the user story agile technique using the invest criteria*. Eighth International Conference on Software Process and Product Measurement (IWSM-MENSURA), IEEE, 2013.

❗ **Visualize platooning state machine**

#12 opened by

❗ **UDP implementation**

#13 opened by

❗ **Create domain UML**

#14 opened by

❗ **Set a fixed speed**

#7 opened by

acc

❗ **Set a fixed distance to the MOPED in front**

#8 opened by |

acc

❗ **Read data from sensor**

#4 opened by |

acc

❗ **Drive forward/backwards**

#3 opened by |

acc

❗ **Platooning (longitudinal and lateral control)**

#5 opened by |

theme



Adapt velocity



Turn on/off adaptive cruise from the RC/driver seat.



Break for unexpected obstacles



Max velocity



Varying distance depending on velocity




Instead of using an app to switch between Manual/ACC/platooning use terminal



User Stories

...

 As a operator of moped, I want to set the cruise speed so I don't have to manually regulate the speed


As an operator of the moped I want to see all values from sensors in order to facilitate testing

As an operator of the moped I want the moped to decrease its speed if the distance to the object in front of the moped is getting to short


Add a card...

TODO


...

 Set the speed of the moped and keep it (cruise control)


Turn on/off the cruise control in the app

 Slow down speed if a slower vehicle is detected in the front


Add a card...




As a product owner I want the MOPED's speed to match the MOPED in front of it.




Avoid collision appropriately by slowing down/braking entirely.




As a product owner I want the MOPEDs to work individually.




As a product owner I need to be able to translate the input signals from the front sensors into usable information.




As a product owner I want the MOPEDs to be easily upgraded with new software.



As a product owner I want the MOPED to drive in a strict column.



As a product owner I want the MOPEDs to work in a similar way despite having different software-design.



As a product owner I want the MOPEDs to be able to communicate with each other.

I	Independent	User stories should not overlap and they should be formulated so they can be implemented in any order.
N	Negotiable	A user story should be an invitation for a conversation. It can be changed, augmented, and redacted; of course, always in dialog with the Product Owner!
V	Valuable	Each user story should deliver value, either to the Product Owner or to Scrum Team.
E	Estimable	It must be possible to assign effort to each user story. A story that can not be estimated is not complete!
S	Small	A user story must be a manageable task. If its completion takes longer than 3 or 4 days, it must be broken down!
T	Testable	There must be clear, testable criteria to define when the story is done in the eyes of the Product Owner and the Scrum Team.

[Buglione & Abran, 2013]

Vertical slices!

INVEST criteria!

Priorisation!

Definition of Done!

Difference between
Product and Sprint Backlog!

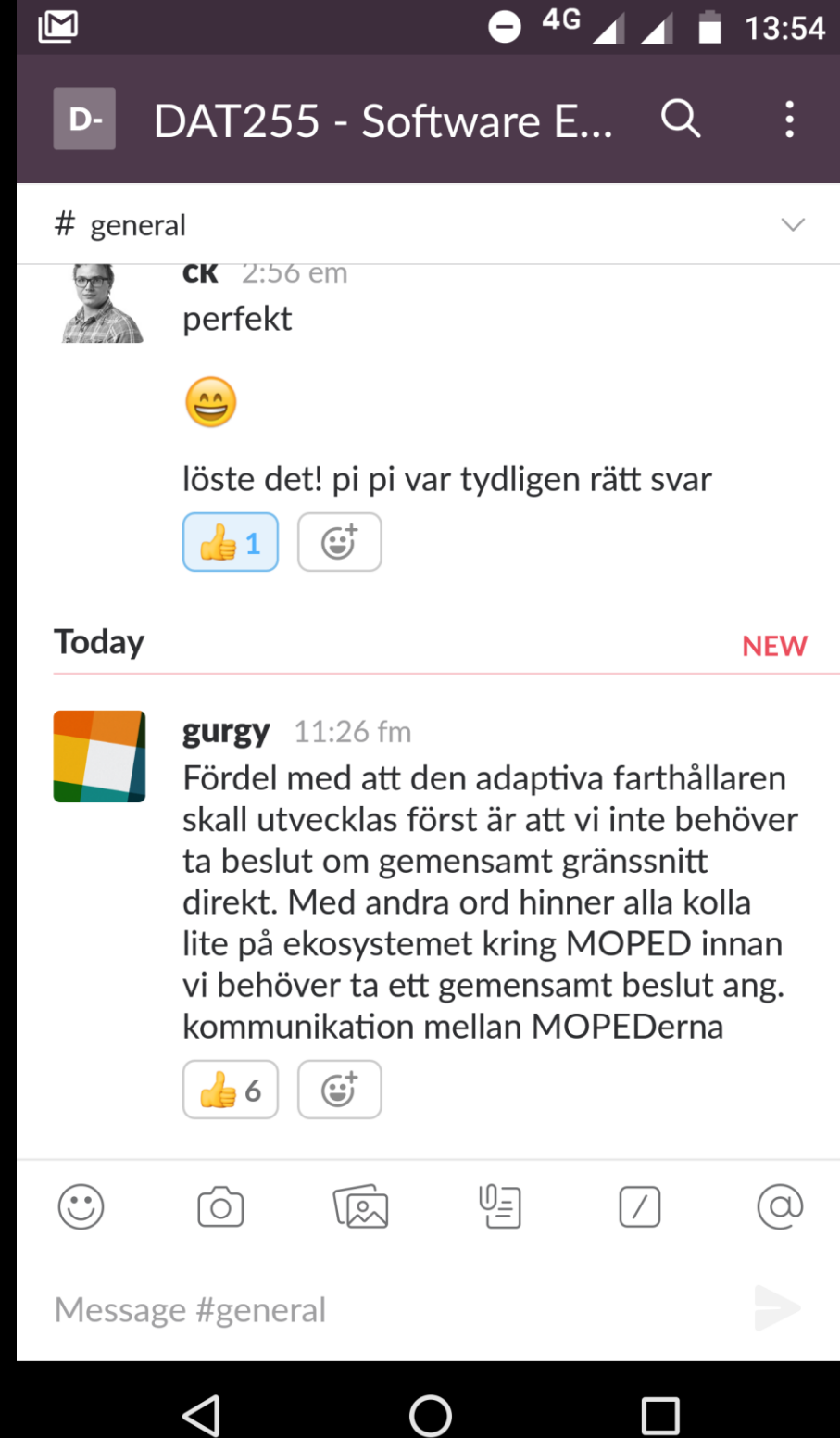
Positive:

You talk to each other!

Somebody takes the initiative to initiate a dialog!

You are thinking about prioritisation!

You see this as a *team effort* instead of an *everyone for themselves* kind of thing!





KEEP
CALM
AND
ASSUME
NOTHING

4G 13:54

D- DAT255 - Software E... 🔍 ⋮

general

 **CK** 2:56 em
perfekt

😊

löste det! pi pi var tydligen rätt svar

👍 1 😊

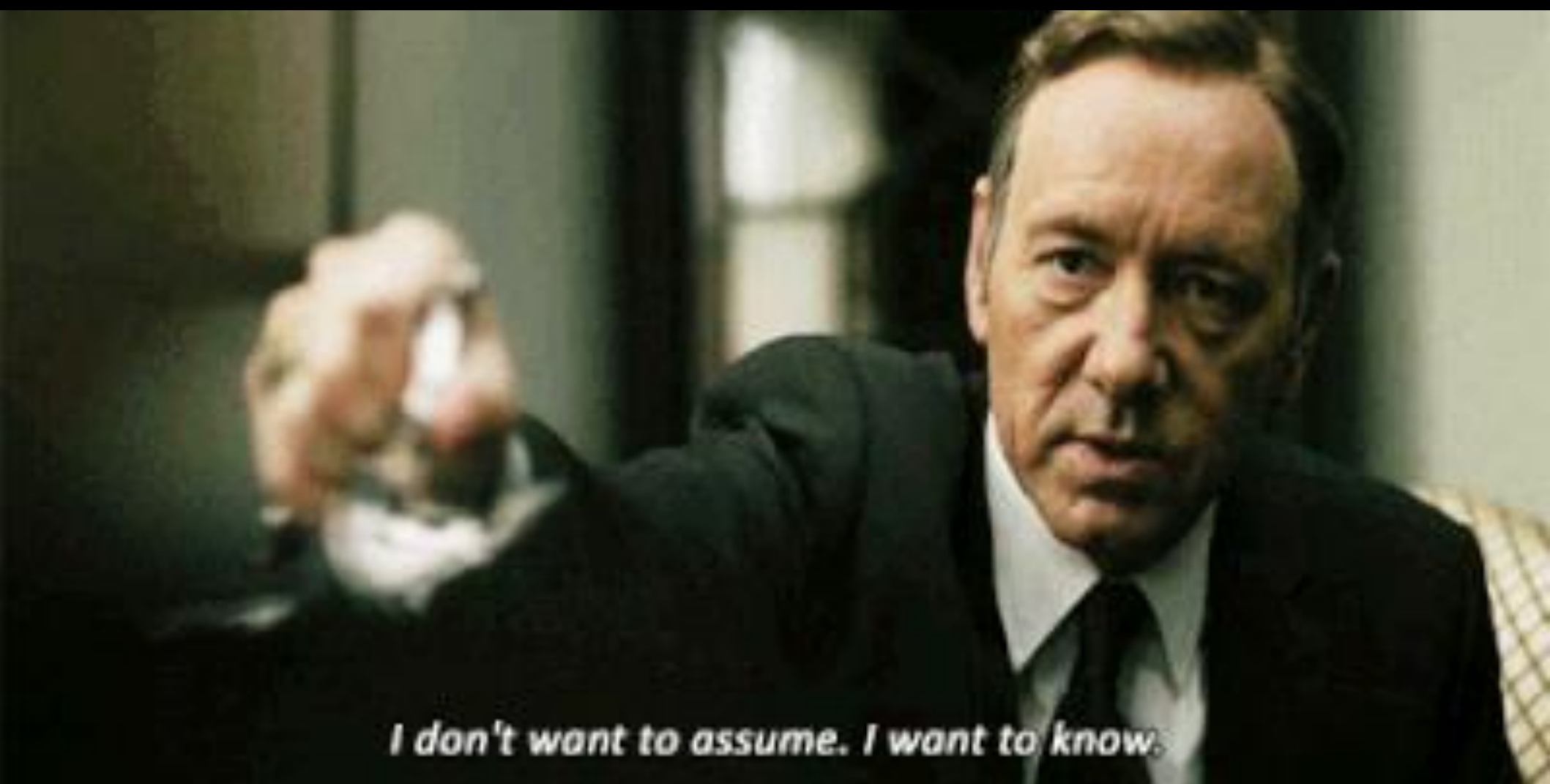
Today NEW

 **gurgy** 11:26 fm
Fördel med att den adaptiva farthållaren skall utvecklas först är att vi inte behöver ta beslut om gemensamt gränssnitt direkt. Med andra ord hinner alla kolla lite på ekosystemet kring MOPED innan vi behöver ta ett gemensamt beslut ang. kommunikation mellan MOPEDerna

👍 6 😊

😊 📷 🖼️ 📋 📄 @

Message #general ▶



I don't want to assume. I want to know.

REALITY CHECK

What was purpose of lecture?

Which learning objectives were covered? How?

What was the relationship to the course assessment?

QA

'Questions don't have to make sense, Vincent', said Miss Susan.

'But answers do'

Terry Pratchett
Thief of Time, 2001