



Everyone's Smart
University

Summer 2022

PMG 622

AGILE PROJECT MANAGEMENT

LECTURE 09: AGILE PLANNING

دكتور مهندس استشاري ادارة المشروعات

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1

المنتدى المفتوح - THE OPEN FORUM

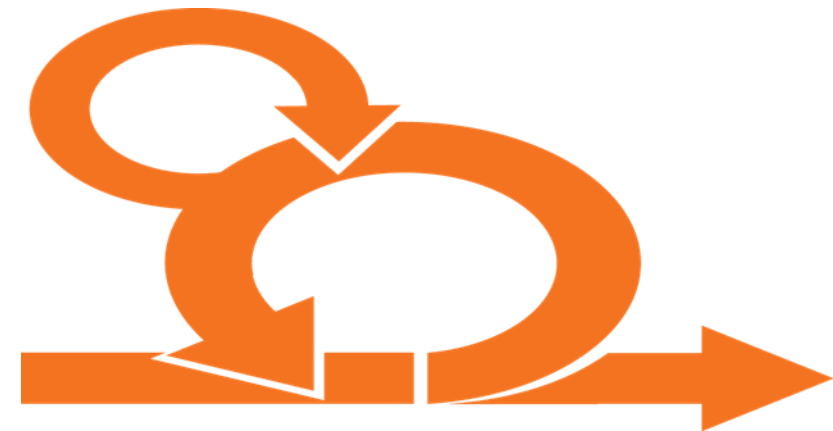
- This is a Standard Forum displayed in a blog-like format
- Students may start new topics in this format.
- Allow multiple topics listed with the most recent topic at the top of the page and replies behind a link.
- في هذا المنتدى يستطيع اي طالب بدء المناقشة ليرد عليه باقي الطلبة
- و اشكركم على مشاركتكم

Forum Topic:
المنتدى المفتوح
The Open Forum -



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WASTE IS A CRIME



THE WASTES CATEGORIES AND ACTIONS

Waste	Actions	PDCA	Examples
Muri	Unreasonableness/ Overburden	P	Absurdity; unreasonable expectations; overburden; emotional waste
Mura	Inconsistency/ Unevenness	D	JIT + FIFO / 6 Sigma
Muda	Outcomes/ Waste	C	
	Will, motivation & determination to do that all	A	

THE 7 WASTES

Transport

(moving products that are not actually required to perform the processing)

Inventory

(all components, work in process and finished product not being processed)

Motion

(people or equipment moving or walking more than is required to perform the processing)

Waiting

(waiting for the next production step)

Overproduction

(production ahead of demand)

Over Processing

(resulting from poor tool or product design creating activity)

Defects

(the effort involved in inspecting for and fixing defects)

Waste

THE 8TH WASTE

Types of Waste

T	Transportation
I	Inventory
M	Motion
W	Wait
O	Over Production
O	Over Processing
D	Defect



T	Transportation
I	Inventory
M	Motion
M	Mind
W	Wait
O	Over Production
O	Over Processing
D	Defect

UNUSED EMPLOYEE CREATIVITY:

- Losing
 - time,
 - ideas,
 - skills,
 - improvements, and learning opportunities
- by not engaging or listening to your employees

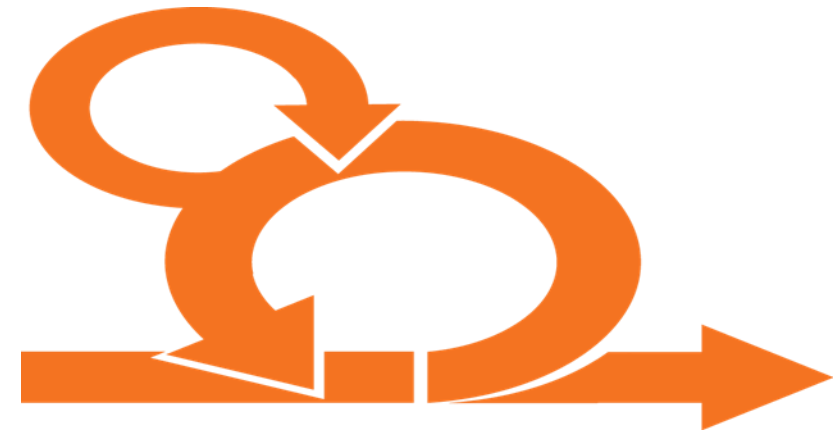
WASTE IS A CRIME

- Everything that stands in the way is waste.
- It is no exaggeration that in a low-growth period such waste is crime against society more than a business loss.
- Eliminating waste must be a business's first objective.
- Senior Management needs to believe that impediments are nearly criminal.



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AGILE PLANNING



PLANNING AND TIME BOXING

1. Effectiveness = Planning
2. Efficiency = Time Boxing (Sprints)
3. Failing to plan is planning to fail •

*Planning Is Useful.
Blindly Following the
Plans Is Stupid*

SCRUM' THREE BEST PRACTICES

- Best Practice #1: User Stories
- Best Practice #2: Planning Poker
- Best Practice #3: Use of the Scrum Board

BEST PRACTICE #1: USER STORIES

- Plain-english requirements, written on common 3X5 index cards
- Form: As [a type of user] I want to [perform a specific action] such that [result]
- Example: “As a web user, I want to make a reservation, such that I may secure my lodging”
- Stories that are big are called EPICS
- Acceptance criteria goes on card back

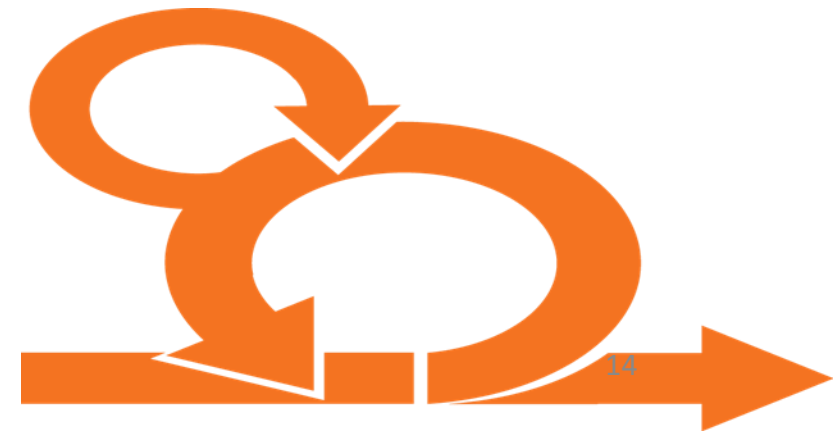
BEST PRACTICE #2: PLANNING POKER

- A way for the team to do estimates
- Each participant has cards numbered 1,2,3,5,8,13,21
- Values represent 'story points' of effort
- Players discuss feature, then throw down a card together
- Differences are noted and discussed, then process repeats till a consensus estimate is formed

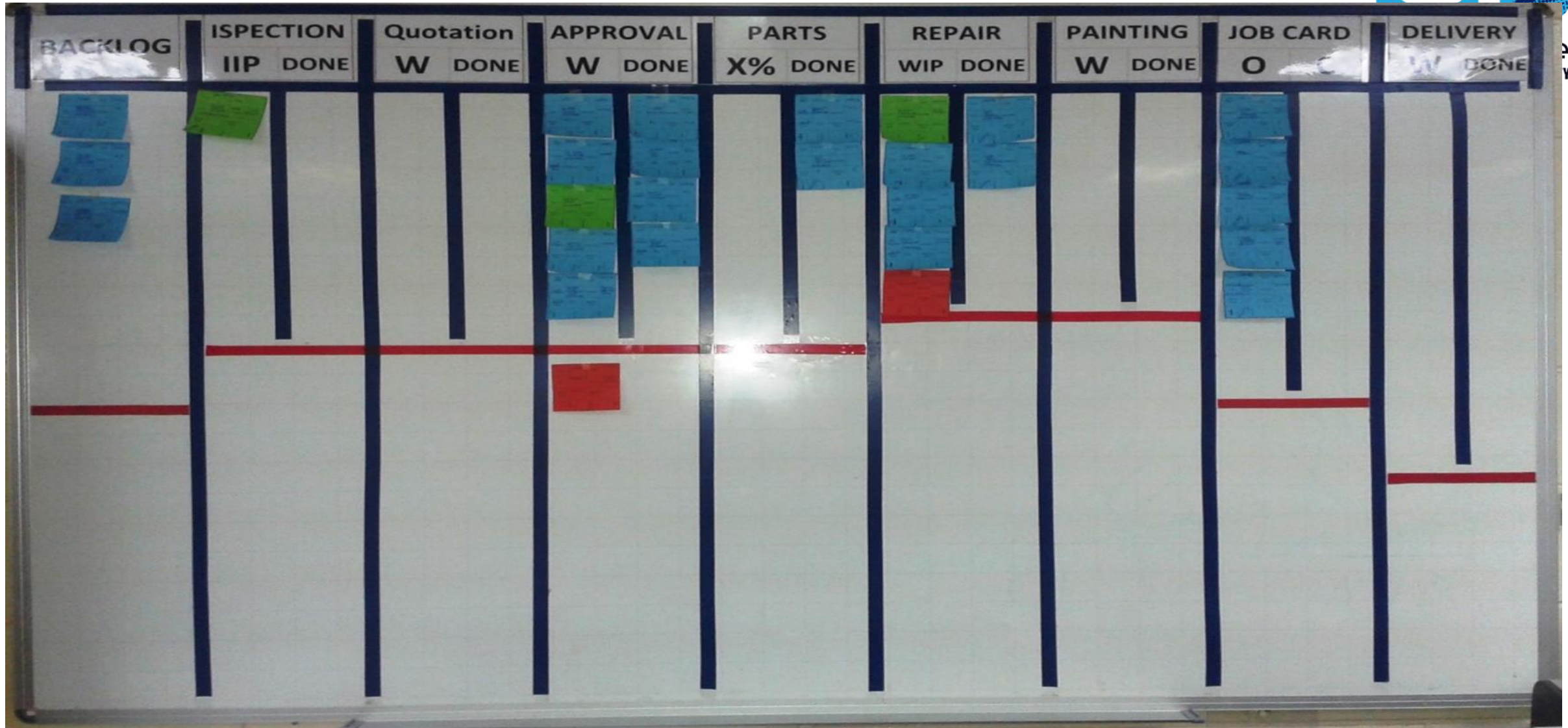


BEST PRACTICE #3: USE OF THE SCRUM BOARD

- Scrum Board is a rows-and-columns depictions of work-in-progress
- Items of work are rows, work status labels are columns
- Work is addressed from top to bottom
- Work migrates from left to right on the board



SAMPLE USE OF THE SCRUM BOARD



USER STORIES

- I.N.V.E.S.T.
 - ✓ Independent
 - ✓ Negotiable
 - ✓ Valuable
 - ✓ Estimable
 - ✓ Small
 - ✓ Testable

As a <user role>

I want <goal>

so that <benefit>.

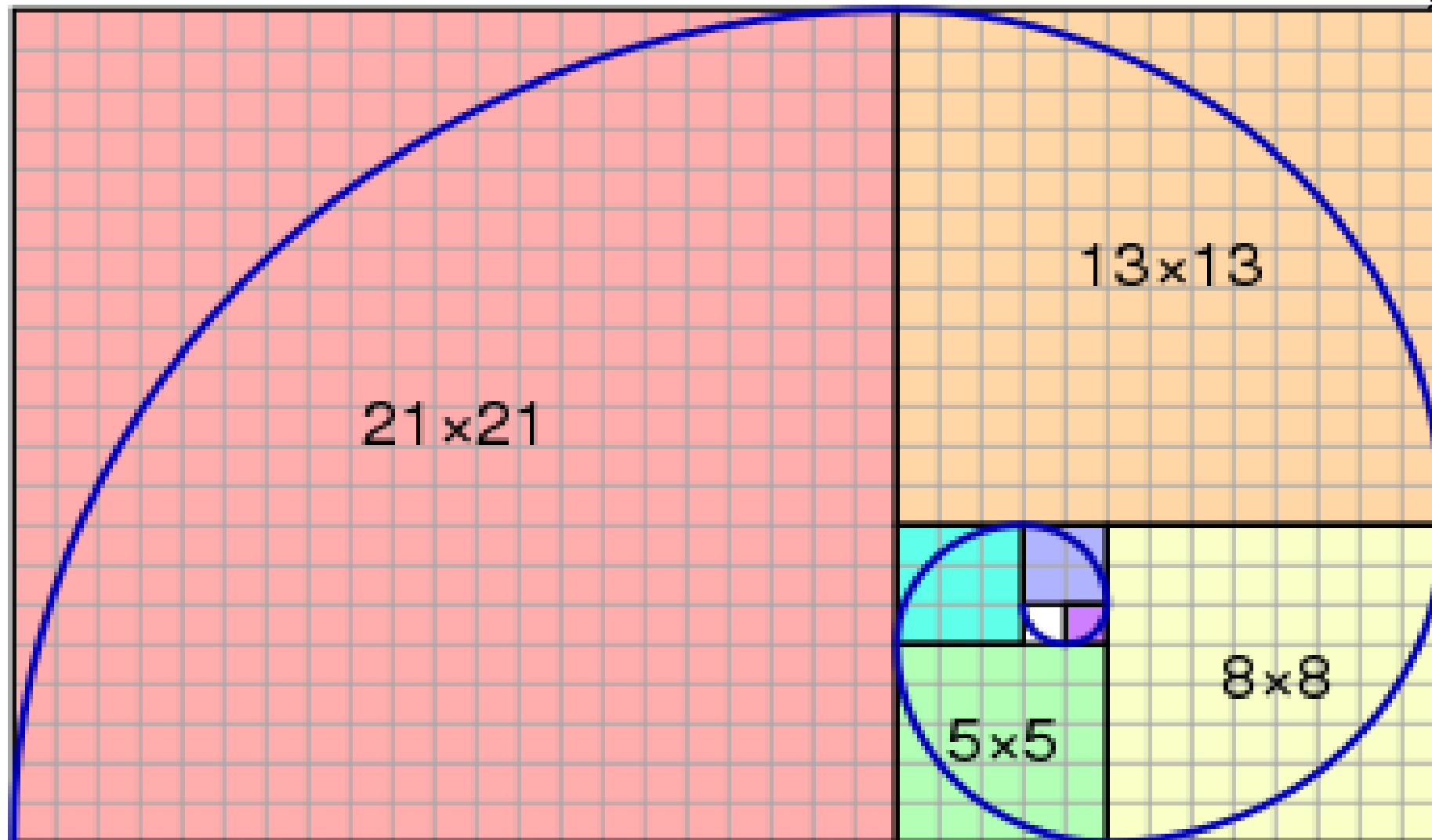
ESTIMATING USER STORIES [1/2]

- Agile Estimating uses “Relative Sizing”
 - Since effort is subjective, we use Relative Sizing to other User Stories
- Fibonacci Sequence – 1, 2, 3, 5, 8, 13, 21+
 - We try to keep it under 13 so we can better categorize Stories
- T-Shirt Sizing is popular
 - XS, S, M, L, XL, XXL

ESTIMATING USER STORIES [2/2]

- The number assigned to these are called “Story Points”
 - Story Points can be thought of as “Effort Points” – more points = more effort
- Breakdown of Estimating
 - Epics = Large and Vague
 - Features = A useable product
 - User Story = One part of a feature
 - Task = The smallest item a person could possibly do

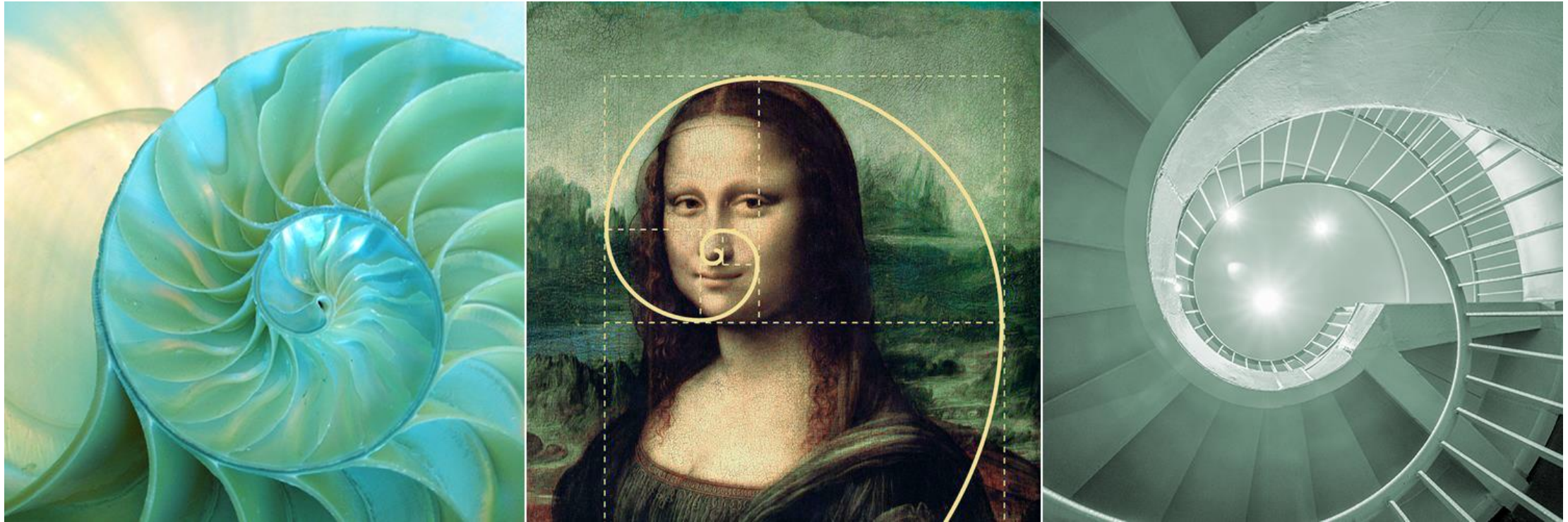
FIBONACCI SPIRAL



GOLDEN RATIO



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- 61.8% - also referred to as "the golden ratio" is found by dividing one number in the series by the number that follows it. For example: $8/13 = 0.6153$, and $55/89 = 0.6179$.

T-SHIRT SIZE ESTIMATING



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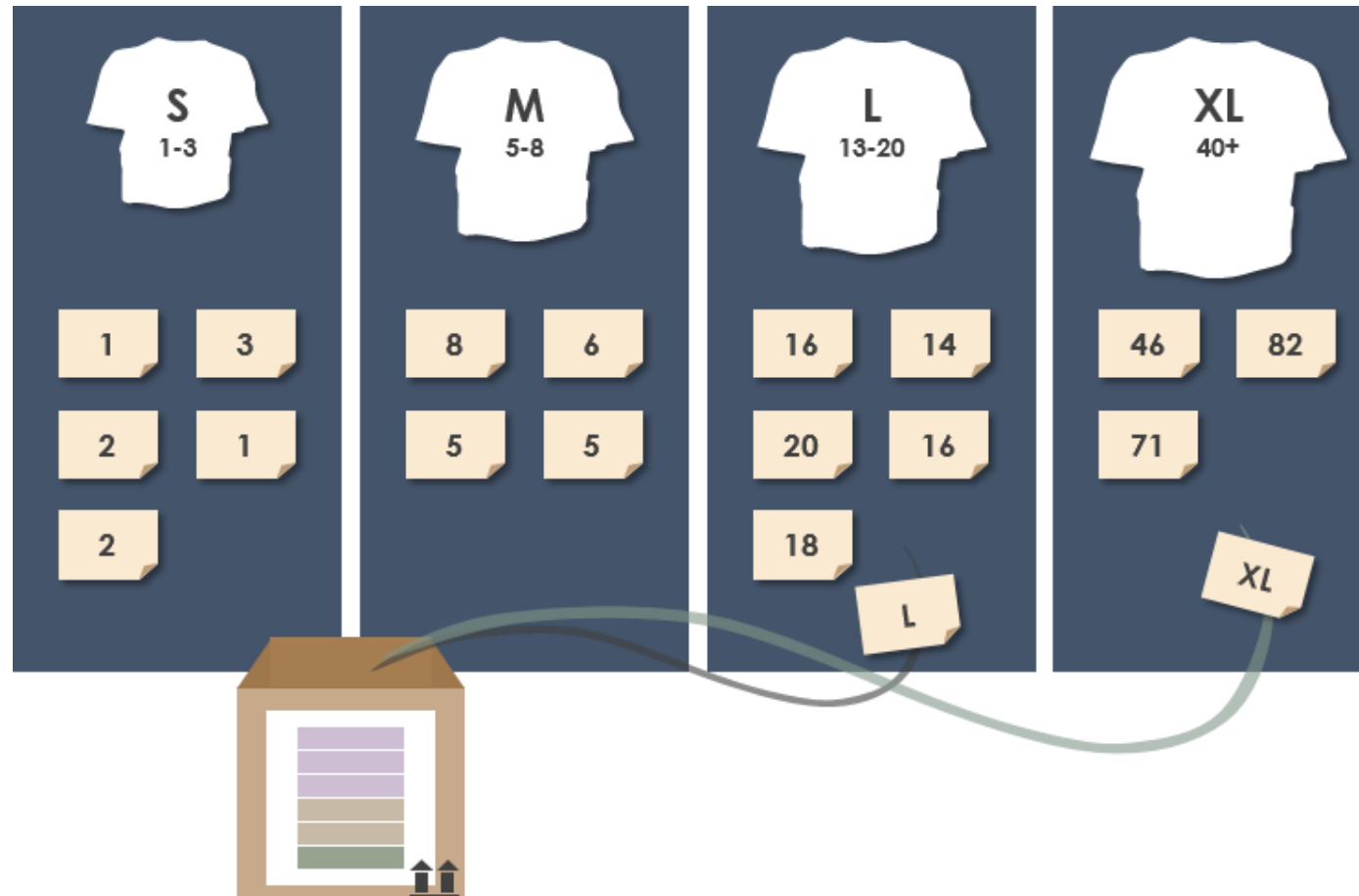
STORY POINTS QUANTIFICATION EXAMPLE



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Size	Calendar time	People	Cost ('000)
XS	1-3 weeks	1	5-15
S	1-2 months	1-5	20-200
M	3-6 months	5-10	300-1,200
L	7-18 months	10-20	1,400-7,200
XL	18+ months	20+	7,200+

SIZED STORIES PLANNING



FURTHER VALUE OF T-SHIRT SIZE ESTIMATION



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AGILE ESTIMATING

- Velocity = The number of Story Points completed during an iteration (Sprint)
 - Points are ONLY added if the User Story is 100% complete
 - Cumulative Average
 - It will take several iterations for Velocity to stabilize
 - Tracked as a TEAM – not for individual performance
 - Velocity will naturally fluctuate (a little) “reasonable amount”
 - The more broken down a Feature can be, the better the estimates will be
 - It can include ANY task so long as there are User Stories (placeholders)

AGILE MATH

- Sprint 1, the team finished 20 story points.
 - Sprint 2, the team finished 30 story points.
 - Sprint 3, the team estimates how many story points will be completed?
-
- A) 20
 - B) 30
 - C) 50
 - D) 25



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AGILE GAMES

FEATURES OF AGILE GAMES

- Designed to promote collaboration
- Have fun
- Gamify the process
- Spark innovation and creativity
- Encourages participation
- Generate organic conversations
- Brings the team closer together
- Promotes diversity

EXAMPLES OF GAMES

- **Planning Poker** – Used to estimate the size of a User Story
- **Coin Game** – Used to show workflow, pull, and batches
- **20/20 Vision** – Used to prioritize User Stories on a board
- **Prune the Product Tree** – Used to prioritize User Stories on a “tree”
- **Product Box** – Used to have stakeholders show what they want and value
- **Buy a Feature** – Used to “buy” features based on priority
- **Draw a House** – Used to encourage reasoning and communication
- **Chair Game** – Used to promote communication and have fun

PLANNING POKER



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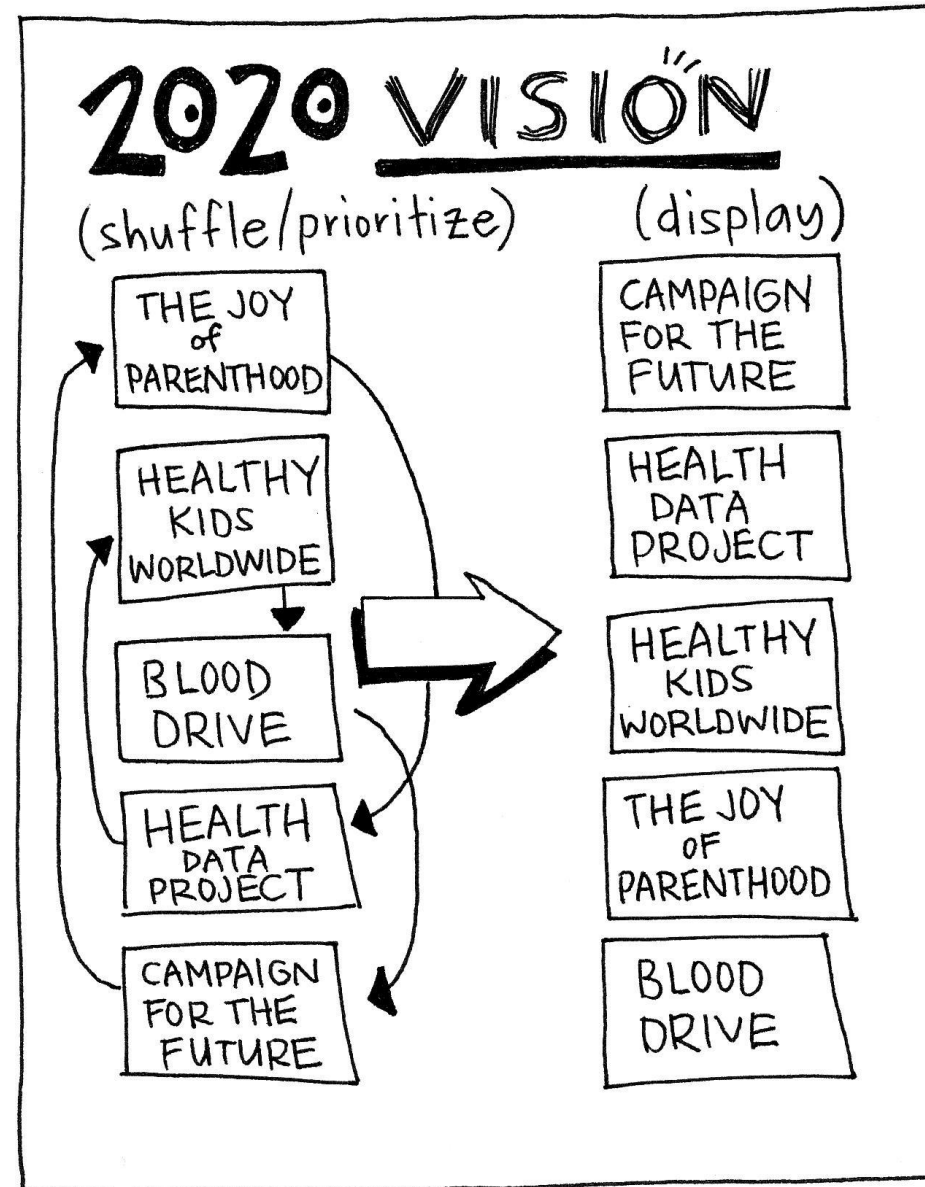
COIN GAME



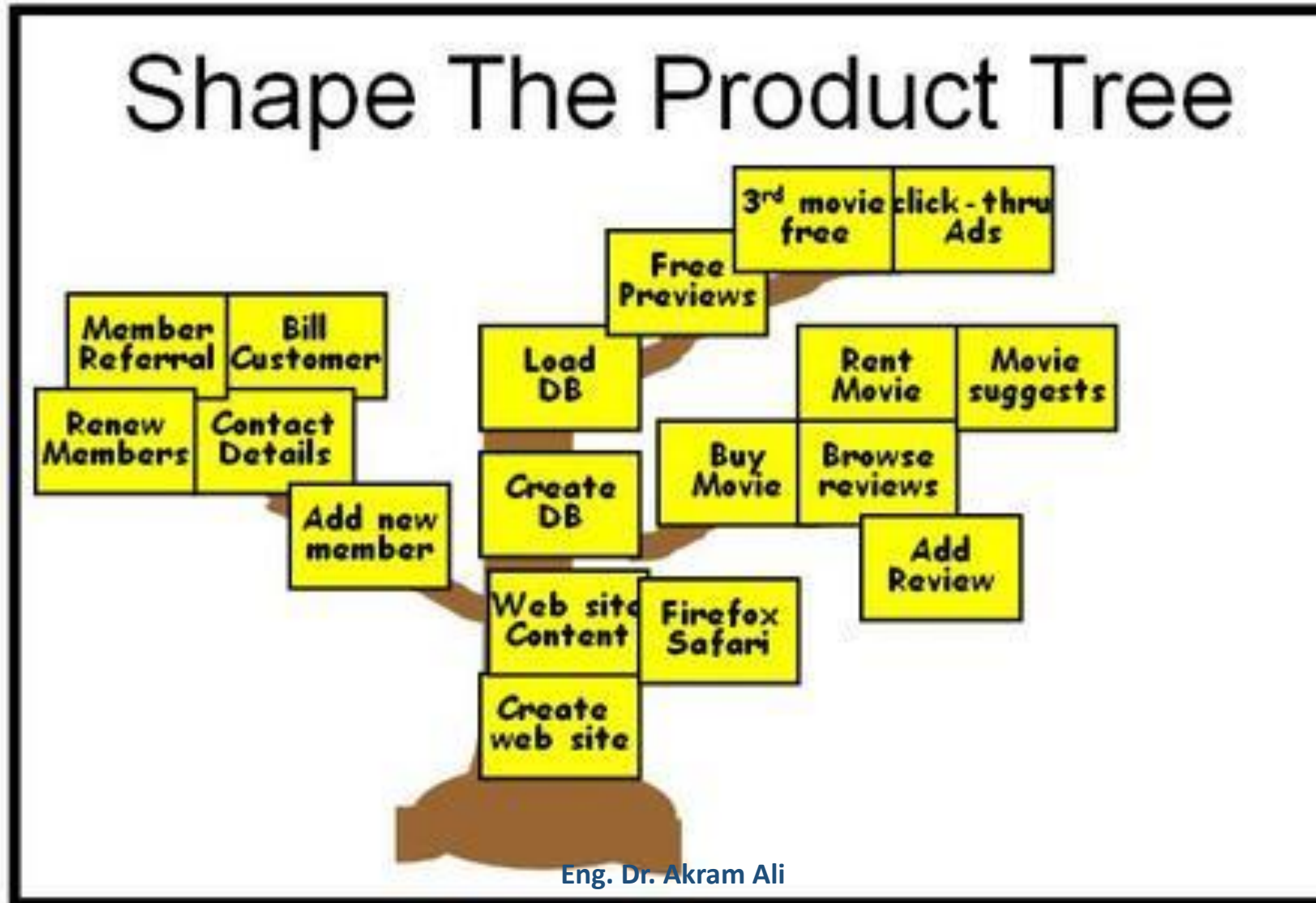
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20/20 VISION



PRUNE THE PRODUCT TREE



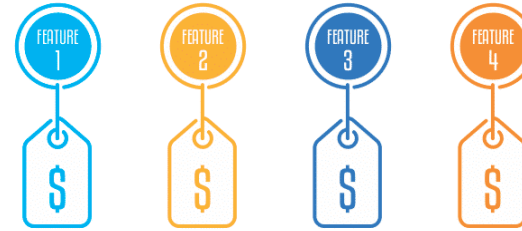
PRODUCT BOX



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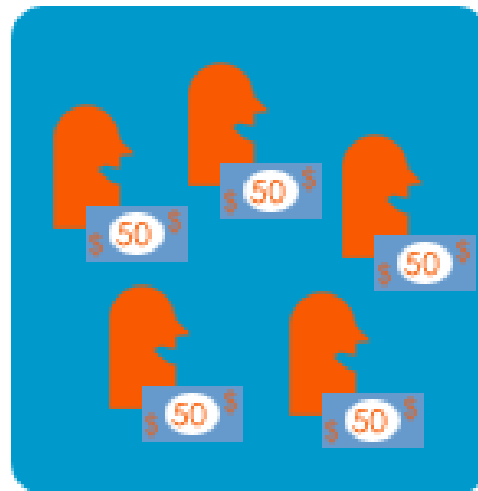
BUY A FEATURE



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Make a list and price each item. Your list can be about anything.



Give your players some money and invite them to the game.



Players then collaboratively purchase the items they think are most important.

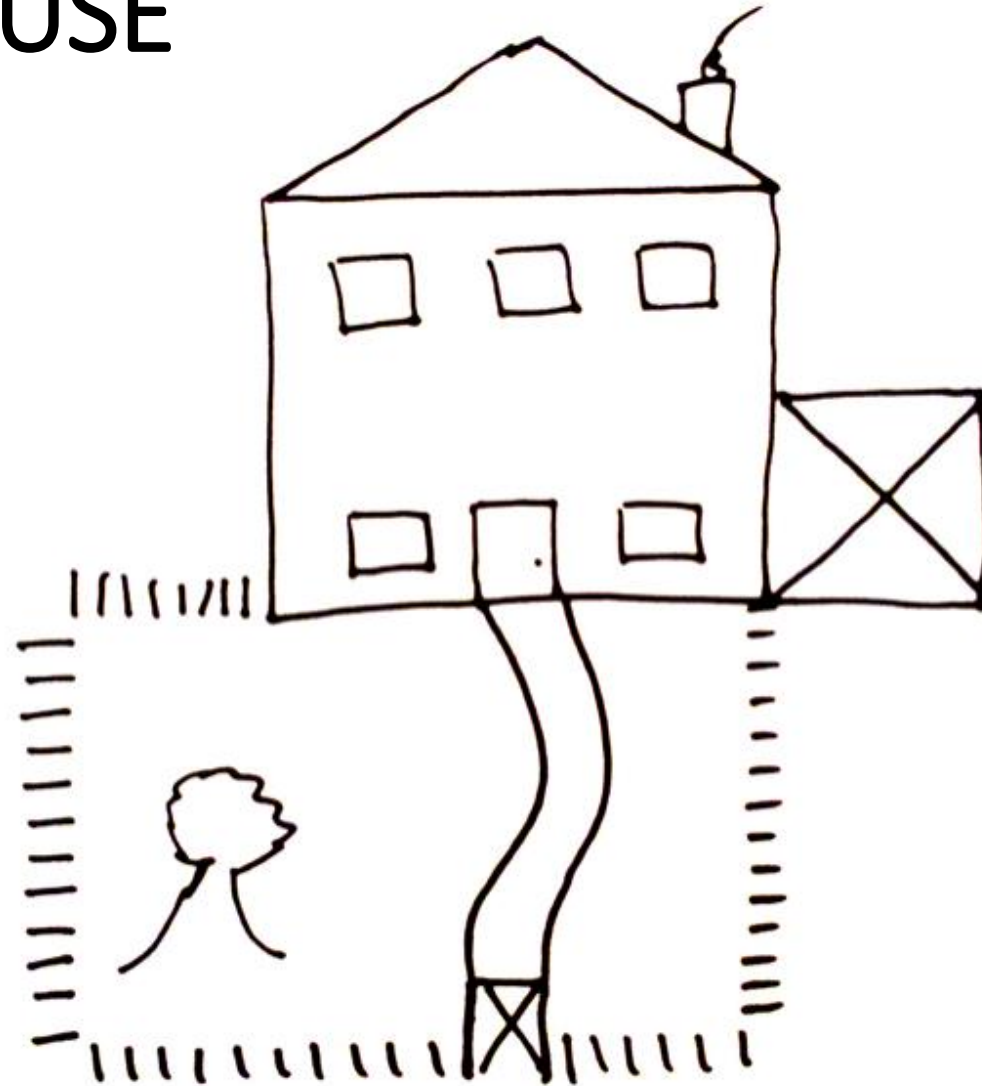


After the game, you can review the players' purchases to learn how they prioritized your list and why.

DRAW A HOUSE



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CHAIR GAME

- <https://www.youtube.com/watch?v=drv-2D6g3Gw>