Applied Frameworks

Agile Estimation and Capacity Planning

Welcome

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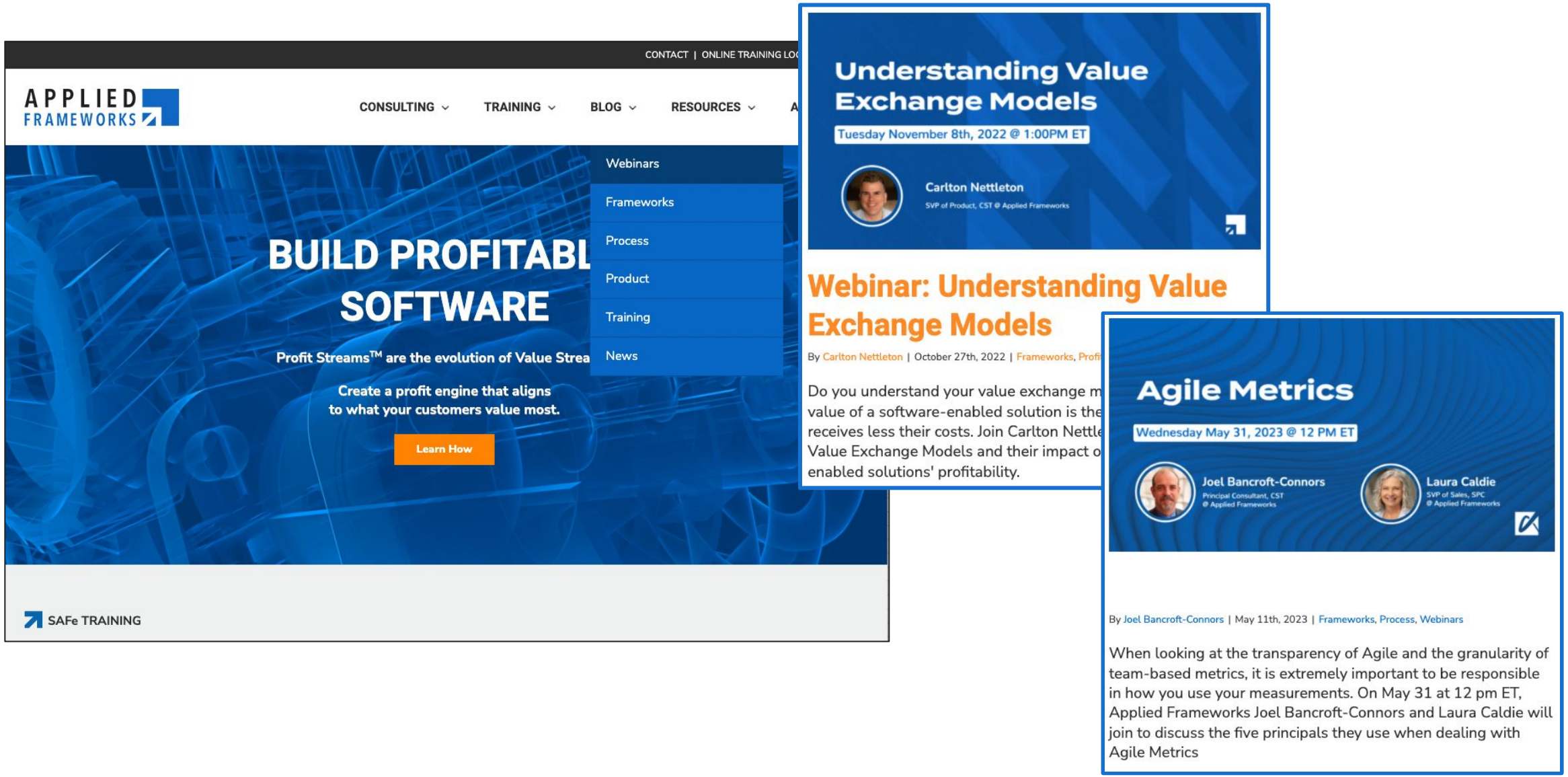
Laura Caldie

- Webinar Host
- SVP Sales, SPC
- Passion for Customer Research / Customer Understanding

We help organizations create sustainable, and profitable software-enabled solutions and services through…

- Agile Acceleration
- Agile Portfolio Management
- Agile Product Management

https://appliedframeworks.com/category/webinars/



About our speaker...

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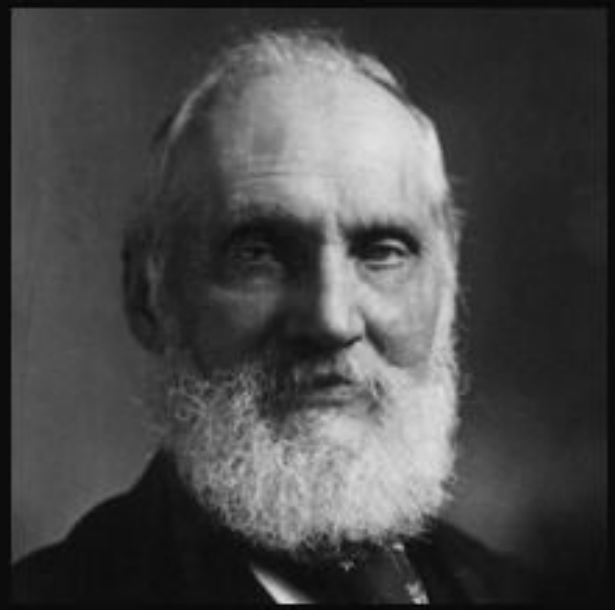


If you can not measure it, you can not improve it.

~ Lord Kelvin

AZ QUOTES

Go to **menti.com** and use the code **4909 146**

Why do we estimate?

How do we estimate?


Planning Poker?

Group Solitaire

Problems with Planning Poker

HOFSTADTER'S LAW

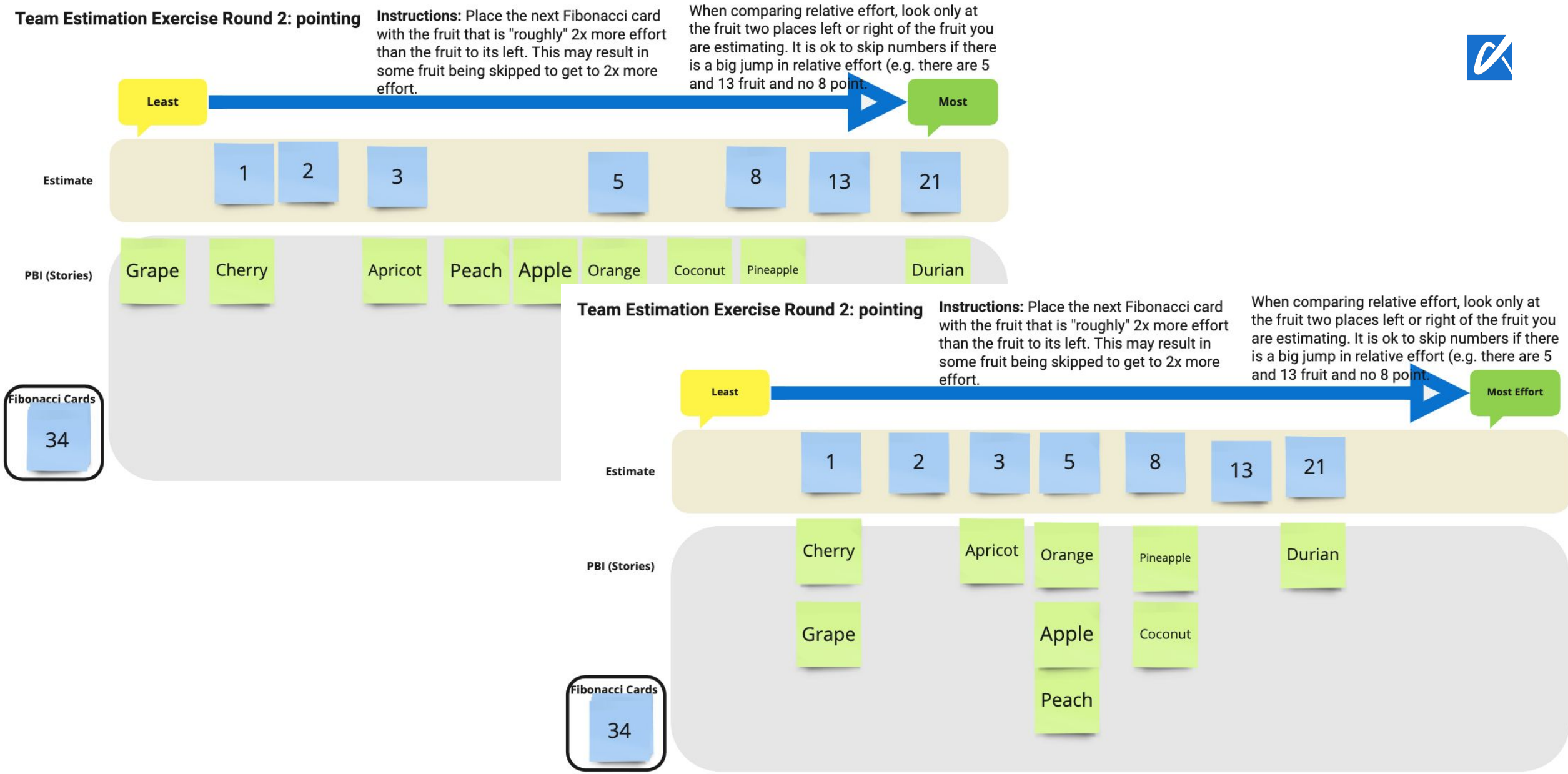
OPTIMISM BIAS

THE PLANNING FALLACY

WE DON'T DO TIME WELL

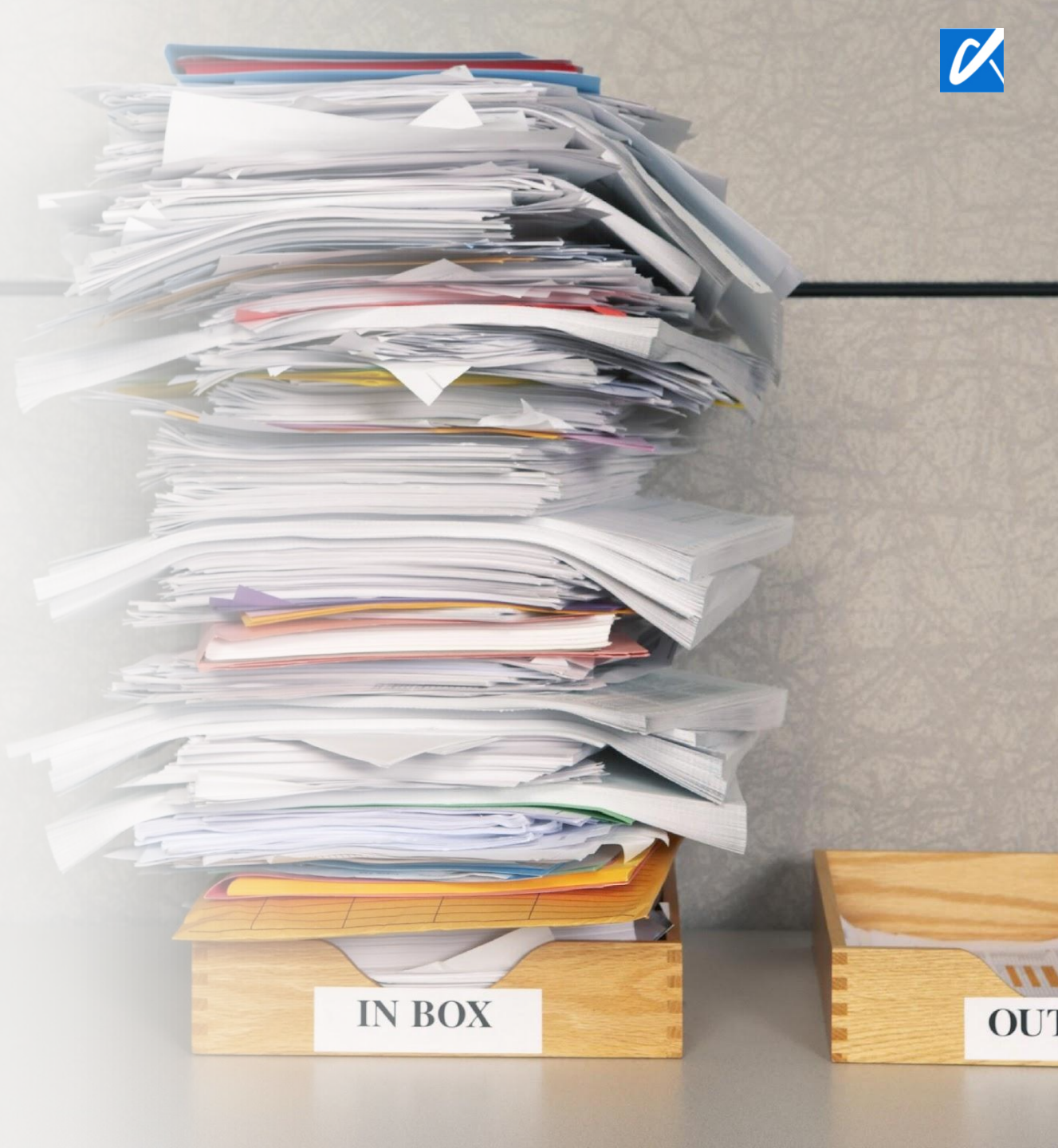
There has to be a better way


20/20 Vision



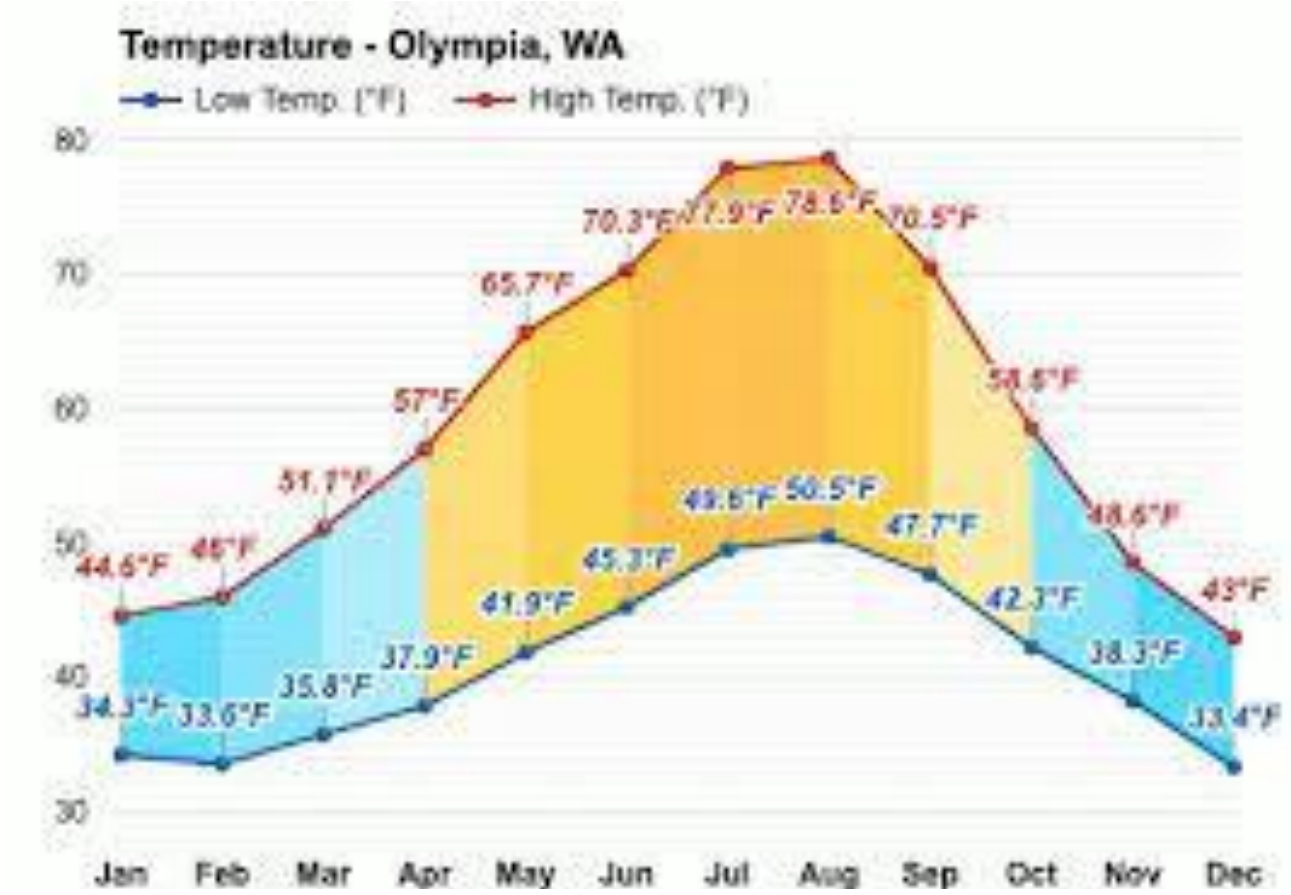
Miro Template: https://miro.com/miroverse/relative-estimation-template/

No matter how good your estimates are, it won’t all get done

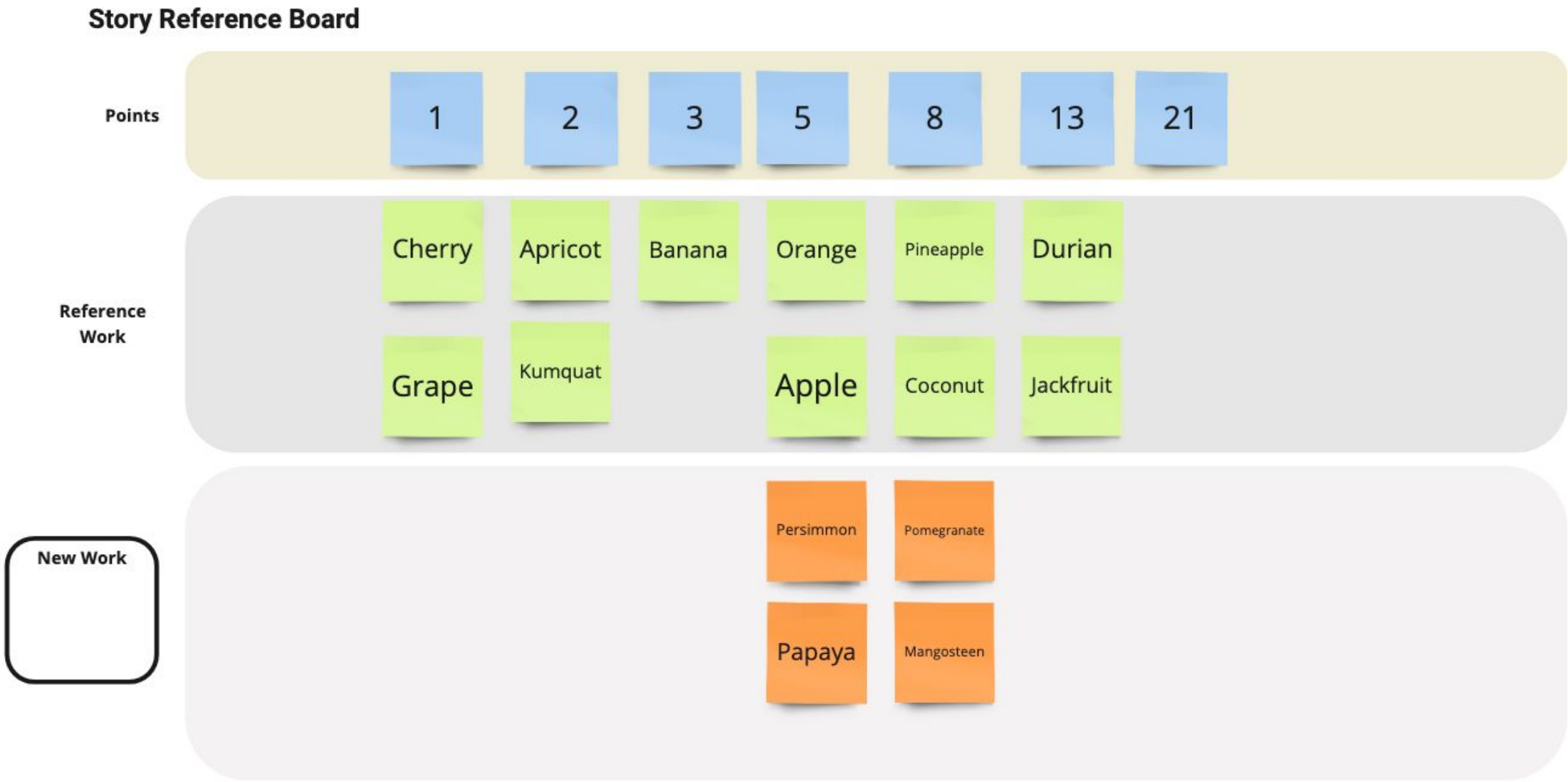


Forecasting and Capacity Planning

- There will always be more work
- Prioritizing helps
- The date will almost never change
- Being able to answer “How much can we do” is vital



Story Reference Boards

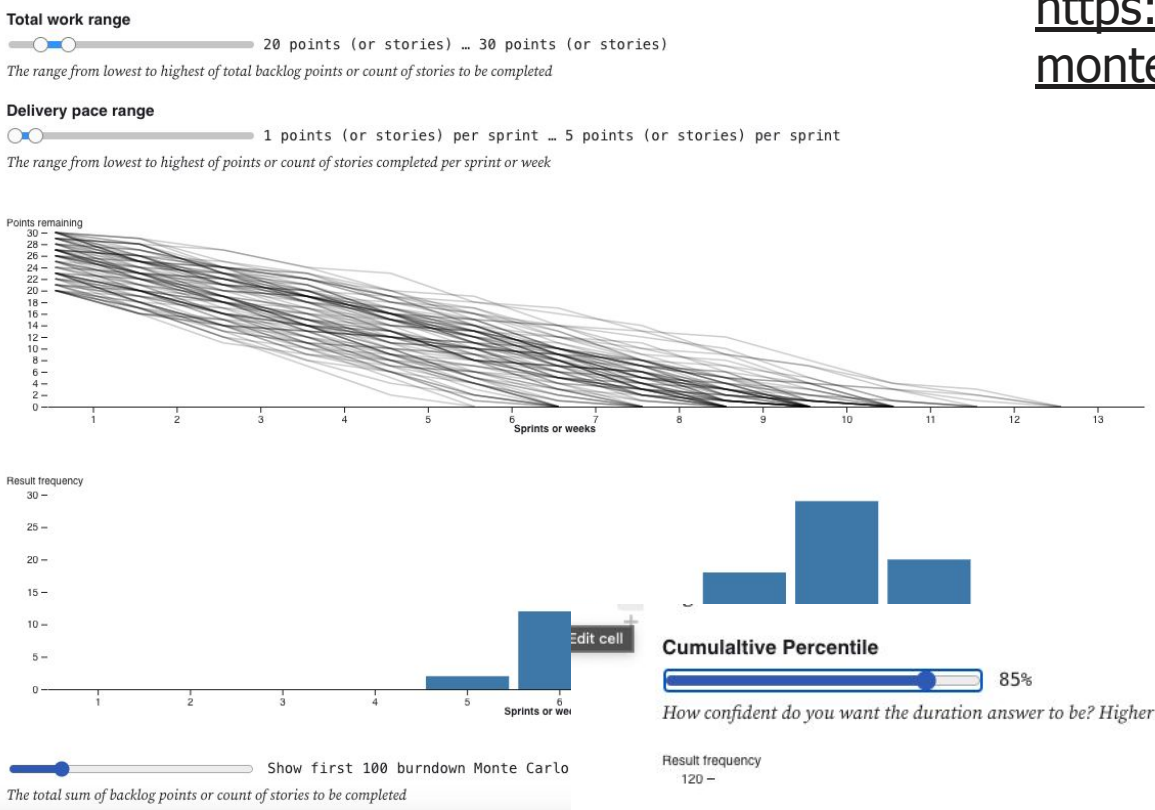


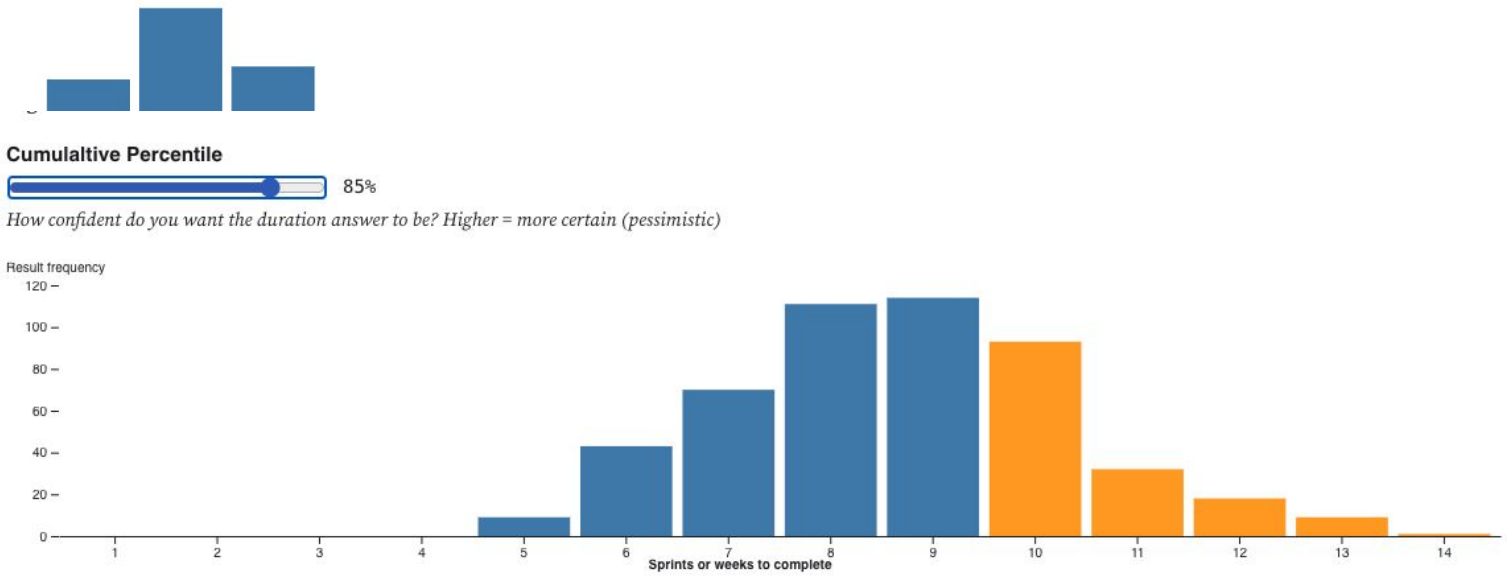
Capacity Planning with Story Reference Boards

An even better way…

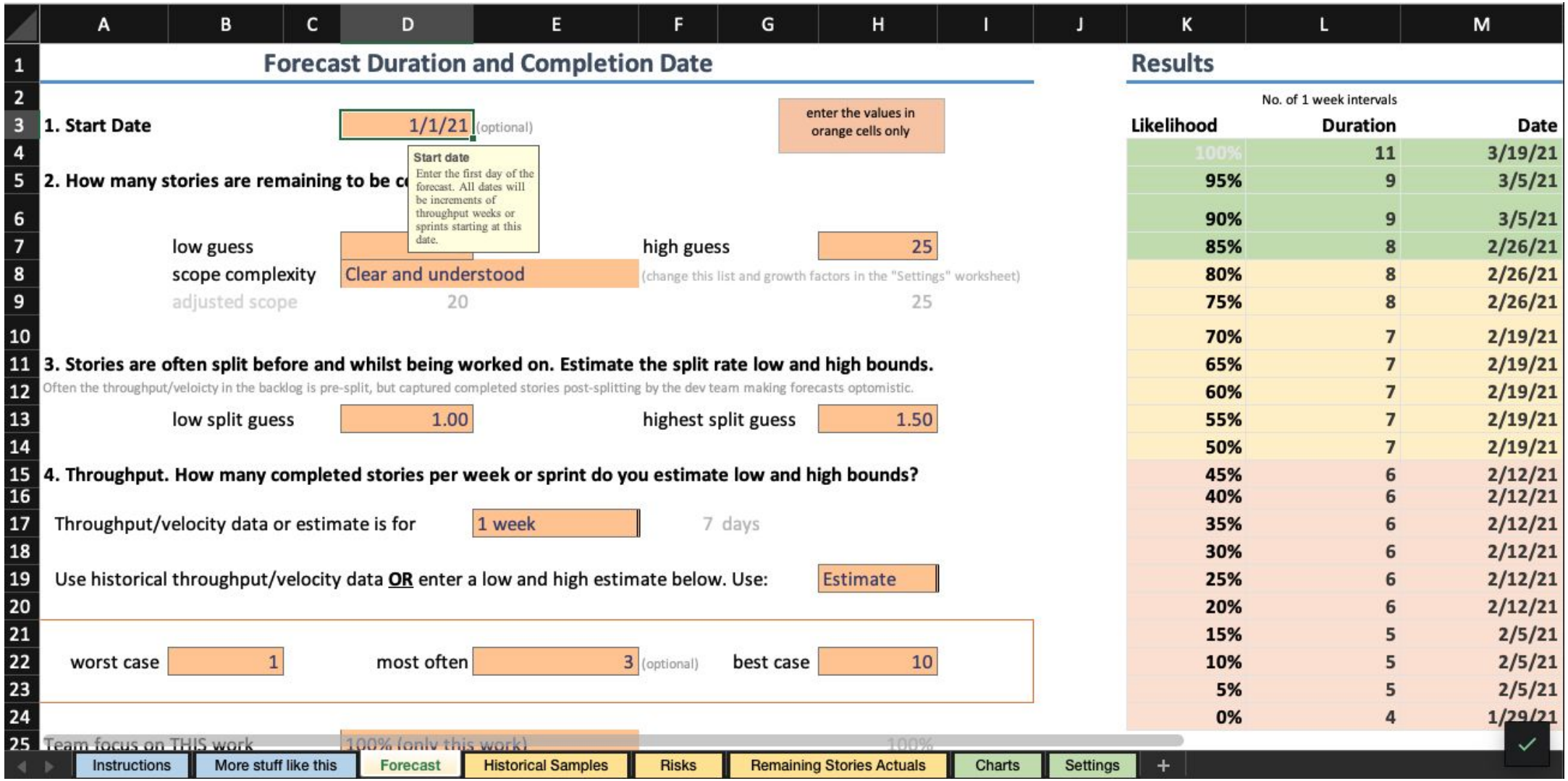
Simple Monte Carlo Examples

https://observablehq.com/@troymagennis/introduction-to-monte-carlo-forecasting





Throughput forecaster



Forecast Duration and Completion Date

1. Start Date: 1/1/21 (optional)

enter the values in orange cells only

Start date
Enter the first day of the forecast. All dates will be increments of throughput weeks or sprints starting at this date.

2. How many stories are remaining to be c

low guess | high guess: 25

scope complexity: Clear and understood (change this list and growth factors in the "Settings" worksheet)

adjusted scope: 20 | 25

3. Stories are often split before and whilst being worked on. Estimate the split rate low and high bounds.

Often the throughput/velocity in the backlog is pre-split, but captured completed stories post-splitting by the dev team making forecasts optomistic.

low split guess: 1.00 | highest split guess: 1.50

4. Throughput. How many completed stories per week or sprint do you estimate low and high bounds?

Throughput/velocity data or estimate is for: 1 week (7 days)

Use historical throughput/velocity data **OR** enter a low and high estimate below. Use: Estimate

worst case: 1 | most often: 3 (optional) | best case: 10

Team focus on THIS work: 100% (only this work) | 100%

Results

Likelihood	No. of 1 week intervals Duration	Date
100%	11	3/19/21
95%	9	3/5/21
90%	9	3/5/21
85%	8	2/26/21
80%	8	2/26/21
75%	8	2/26/21
70%	7	2/19/21
65%	7	2/19/21
60%	7	2/19/21
55%	7	2/19/21
50%	7	2/19/21
45%	6	2/12/21
40%	6	2/12/21
35%	6	2/12/21
30%	6	2/12/21
25%	6	2/12/21
20%	6	2/12/21
15%	5	2/5/21
10%	5	2/5/21
5%	5	2/5/21
0%	4	1/29/21

Instructions | More stuff like this | Forecast | Historical Samples | Risks | Remaining Stories Actuals | Charts | Settings

https://github.com/FocusedObjective/FocusedObjective.Resources/raw/master/Spreadsheets/Throughput%20Forecaster.xlsx

Multiple Feature Cut Line Forecaster

Feature Cut Line Forecaster and Explorer

Only edit orange input cells like this one!

1. Start Date 1/1/21 — 2. Target Date 3/1/21 — 3. Likelihood 85%

Start date: Enter the first day of the forecast. All dates will be increments of throughput weeks or sprints starting at this date.

4. Stories are often spl…ing worked on. Estimate the split rate low and high bounds.

Low gu… 1.00 — Highest guess 2.00

5. Throughput (or velocity): How many completed stories per week or sprint do you estimate low and high bounds?

Throughput/velocity data or estimate is per: Week (7 days)

(choose a time interval that throughput of velocity is measured in weeks from the list in the orange cell above)

Use historical data **OR** enter a low and high estimate below. — Choose here: Estimate

Worst case 5 — Best case 8

Team focus on THIS work: 100% (only this work) 100%

8. Month Throughput Adjustment (increase or decrease throughput by multiplying)

Month		Multiplier	Why? (add a comment with the assumptions)
January	1	1.0	
February	2	1.0	
March	3	1.0	
April	4	1.0	
May	5	1.0	
June	6	1.0	
July	7	1.0	
August	8	1.0	
September	9	1.0	
October	10	1.0	
November	11	1.0	
December	12	1.0	

6. Enter the features and story count (or point) estimates here…

Start date: 01/01/2021

Start Order	Feature (or Epic) Name (just for reference)	Story Count (or points) Low Guess	Story Count (or points) High Guess	Scope complexity (how well understood is this scope)	Complete by Week	Forecast Completion Date (85% CI)
1	Feature 1	5	10		3 ✓	1/22/21
2	Feature 2	8	15		6 ✓	2/12/21
3	Feature 3	15	25		12 ✗	3/26/21
4	Feature 4	20	30		19 ✗	5/14/21
5	Feature 5	10	40		26 ✗	7/2/21
6						
7						
8						
9						
10						
11						
12						

Legend

✓ Forecast on or before the target date

! Forecast misses target date by one Week or less

✗ Forecast misses target date by MORE than one Week

Instructions | More Like This | Forecast | Historical Samples | Settings and Calculations | +

https://github.com/FocusedObjective/FocusedObjective.Resources/raw/master/Spreadsheets/Multiple%20Feature%20Cut%20Line%20Forecaster.xlsx

Questions?

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Thank you!

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