

# Recap: VS Live 2018

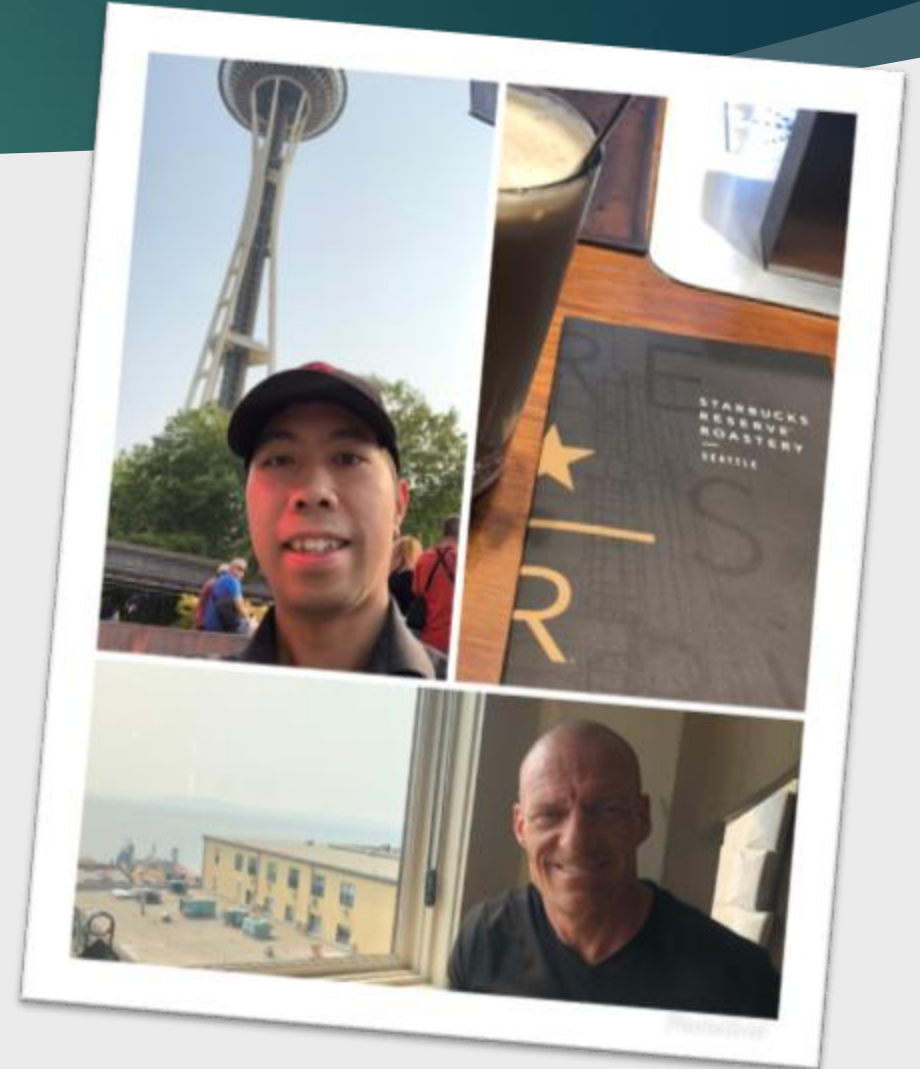
PRESENTED BY WING CHAN

# Agenda

- ▶ Things about VS Live 2018
- ▶ Topics/Sessions attended
- ▶ Sessions Highlighted
  - ▶ Microsoft DevOps Transformation
  - ▶ Deliver on Cadence, Release on Demand
- ▶ Q&A

# Things about VS Live 2018

- ▶ What: .NET developer conference
- ▶ When: August 13 – 17, 2018
- ▶ Where: Microsoft Headquarters, Redmond, WA
- ▶ Who: Ken Plunk & Wing Chan
- ▶ 5 main tracks:
  - ▶ DevOps
  - ▶ Cloud Computing
  - ▶ Data Science/ AI
  - ▶ Web/Mobile development
  - ▶ Software Practices



# Topics/ Sessions Attended

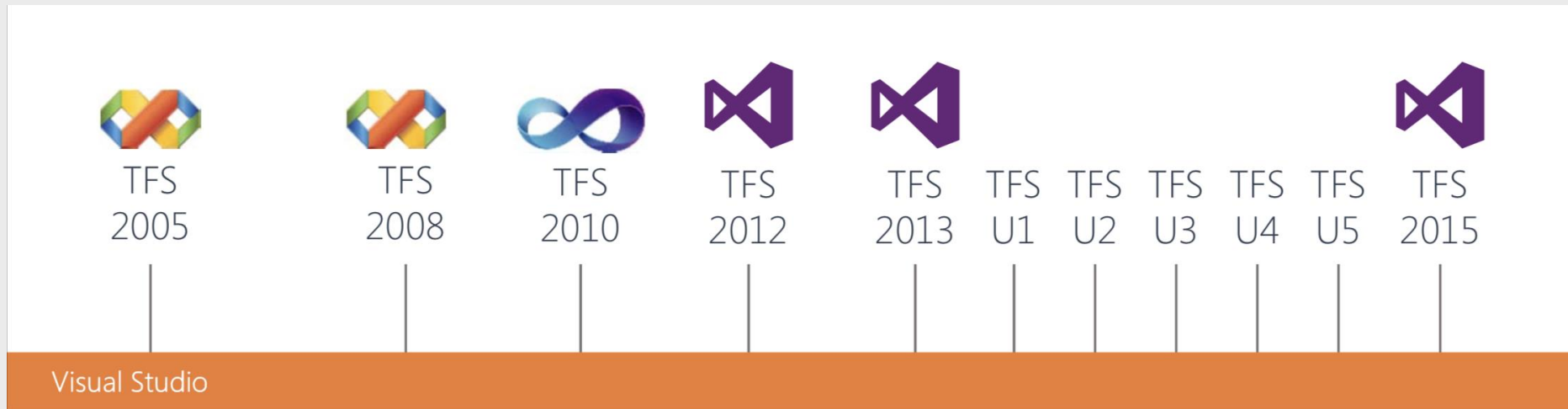
- ▶ Mobile development
  - ▶ Xamarin by Microsoft
  - ▶ Flutter by Google
- ▶ Data science/AI
  - ▶ Azure Cognitive Service
  - ▶ TensorFlow
- ▶ Cloud Computing
  - ▶ Microservice Architecture
  - ▶ Azure DevOps with VSTS, Docker and Kubernetes
- ▶ Software Practices
  - ▶ Agile/Scrum
  - ▶ Azure DevOps (VSTS)

# Session 1: Microsoft's DevOps Transformation

- ▶ Presented by Abel Wang (Senior Cloud Developer Advocate)
- ▶ Share Microsoft's DevOps team transforming from Waterfall to Agile
- ▶ Formula 1 Pit Stops: 1950s vs Today
- ▶ [https://www.youtube.com/watch?v=RRy\\_73ivcms](https://www.youtube.com/watch?v=RRy_73ivcms)

# The Journey

- ▶ How Microsoft became agile and transformed a box software product into a service...



# Team Roles/Structure

## Program Manager

- Responsible to ensure we're building the right thing.

## Engineer

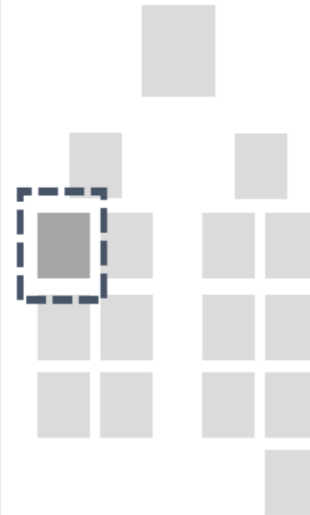
- Responsible to ensure we're building products that are fast, reliable, well-engineered, high quality and meet customers' needs.

## Teams

- Cross discipline, 10-12 people, self-managing, autonomous backlog, intact for 12-18 months in the same physical team rooms

## Our teams

### Program Management

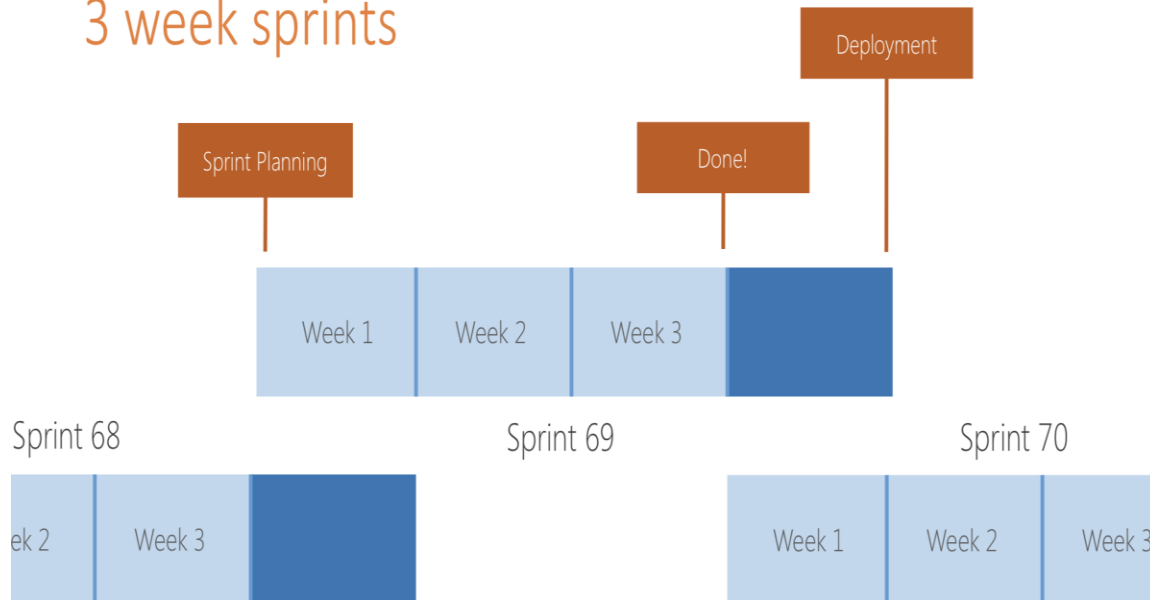


### Engineering

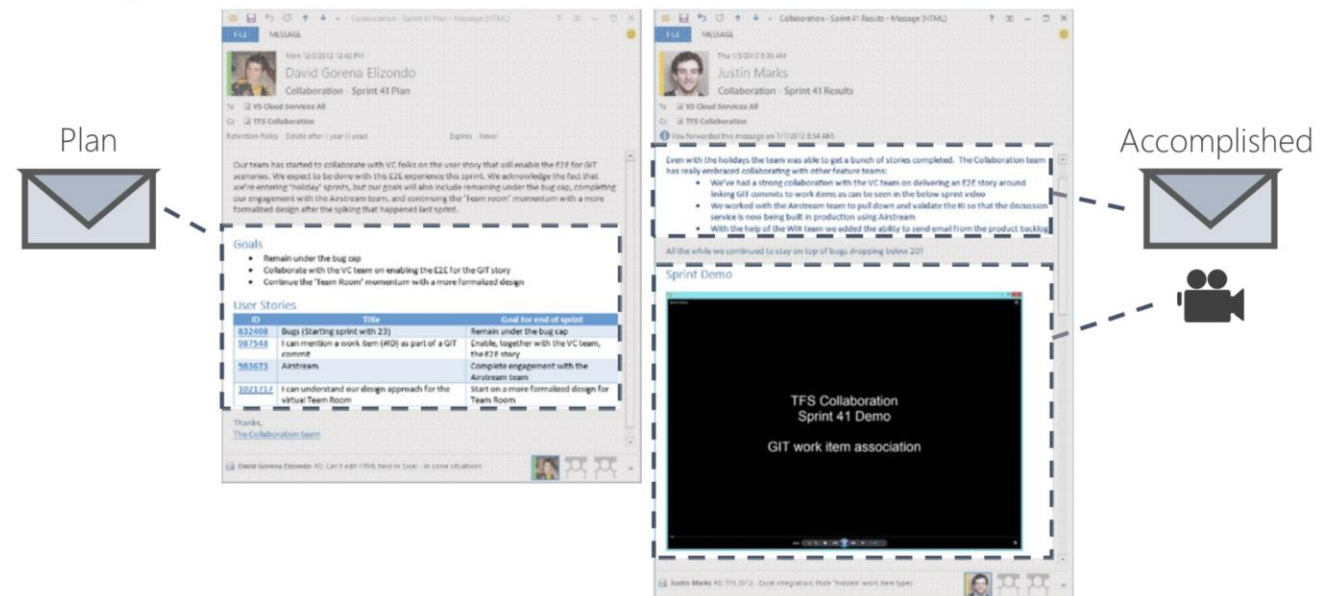


# 3 week sprints

## 3 week sprints



## Sprint mails





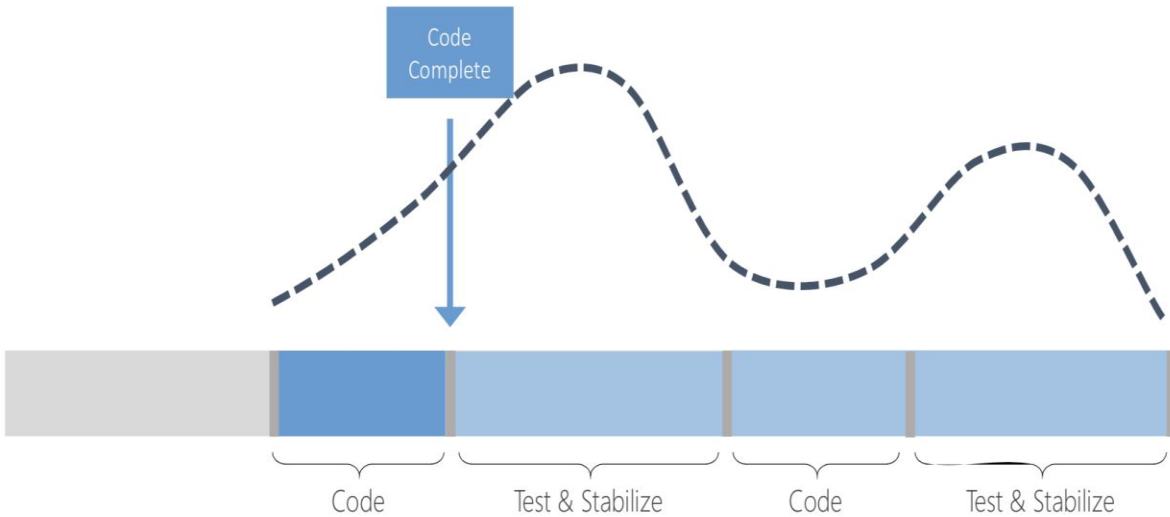
# Planning

## Planning

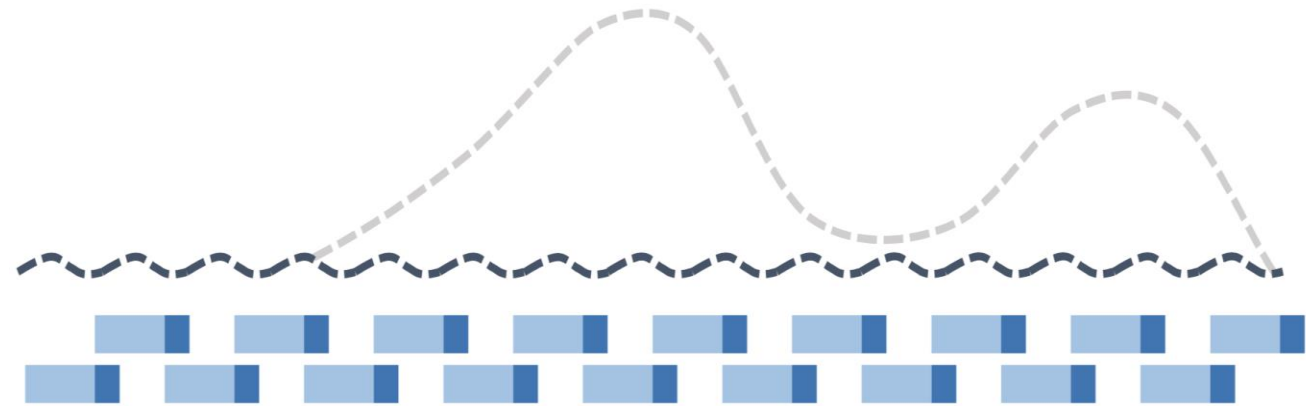


# Quality Before & After

Quality before



Quality after



# Tracking the quality

Bugs

Teams	Active										Resolved										Bug Bar	Active Bugs Diff w/Last Report
	P0 Bugs	VSO Bugs	Hosted Sprint B4	Hosted Sprint B5	Dev14 RTM Bugs	Dev14 Update 1	Stale Bugs	Incoming in last week	Fixed last Week	VSO Bugs	Hosted Sprint B4	Dev14 RTM Resolved	7d ZRB	Total Resolved	Total Active							
Agile	1	144				12		107	99	17		1	5	25	158							
Agile		12				1		14	1			1		1	13	2.63						
Agile IDC		21						32	31	11				13	21	3.18						
Backlogs		24				2		26	37	2			2	4	27	2.53						
Kanban		20				4		4	18	2			1	5	24	2.76						
Modern WIT		27				1		13	7	2			2	2	29	4.19						
WIT IQ	1	40				4		18	5					44		-30						
Cross Site		30					181	1	2	8			9	38	268							
Enterprise Social		96				10	27	25	24	102	4		94	105	111	3						
Code Sharing		22				2	12	9	12	14			9	14	29	2.32						
Dashboards		28				4		6	7	25	3		24	28	32	3.05						
People		46				4	15	10	5	63	1		61	63	50	4.00						
ESSC	1	60					38	27	15	74	1		82	92	113	5						
Engineering Productivity Systems	1	23					8	16	5	8			6	11	42	5.60						
MSDN Subscriptions		11					12	7	9	1			11	16	42	4.94						
Service Insights		26					18	4	1	65	1		65	65	29	3.41						
NC DevX		80	1	2		107	15	115	63	30	4	2	23	85	192	-49						
Build		36	1	2		11	8	43	37	11	1		1	27	49	4.67						
Java		1						3	1					1	4	6.73						
Version Control Client		7					79	43	20	1			7	27	87	6.96						
Version Control Server		36					16	7	26	5	18	3	2	15	30	4.16						
NC Services Platform	2	94	2	2	5	53	24	73	39	23	1		17	27	153	10						
Cloud Admin and Tools	2	30	2	2	5	33	16	28	10	2	1		1	4	69	6.57						
Cloud Services Framework		36					2	21	21	5			2	6	38	3.04						
Open ALM		28					18	8	24	8	16		14	17	46	4.38						
Shared Cloud Services	1	164		3	2	8	45	96	90	95	3	1	71	109	198	-13						
Acquisition		15					1	10	11	22	1		19	23	15	2.31						
Enterprise Authorization		28			1	2	8	10	7	13			8	14	31	3.88						
Identity	1	69		1	1	3	22	16	9	21	2		24	26	73	7.68						
Licensing and Accounts		35		2		2	3	20	23	21		1	11	23	37	6.73						
Shared Cloud Services							1															
VSCOM Site		6					11	12	15	1			3	6	30	1						
VSO Commerce		11						28	25	14			3	14	11	1.47						
TSE		13				2	1	2	3	8			6	8	15	4						
Enterprise Analytics		13				2	1	2	3	8			6	8	15	2.73						
VSCS		4				10		15	4	10			10	12	15	3						
Grand Total	5	685	3	7	7	202	331	461	339	367	13	4	317	501	1223							
Difference w/last report	0	9	1	0	0	202	6			-8	2	2	9	50	-60							

## Engineering scorecard

		Livesite Health					Engineering Debt				
		% of LSIs automatically detected (Current Quarter)	Max TTM (mins)(Current Quarter)	# LSI repair WIs older than 2 sprints	% LSI repair WIs Within SLA(2 sprints)	# of DTS over SLA	# P0 or P1 bugs > 21 days	# Active bugs per engr	DevFabric NAR Reliability	DevFabric SelfTest & Basics Reliability	Security: # WI > 21 days
Agile	Backlogs	NA	NA	1	80.0	0	1	5.4	97.74	99.85	0
	Kanban	NA	NA	0	100.0	0	0	4.6	92.49	NA	0
	Modern WIT	0	360	3	78.6	1	0	2.3	96.98	100.00	0
	Agile IDC	0	NA	0	NA	0	1	3.6	88.56	NA	0
	WIT IQ	100	NA	1	93.8	1	2	3.1	89.68	99.71	0
Enterprise Social	People	NA	NA	1	66.7	0	3	3.8	85.2	NA	0
	Code Sharing	NA	NA	0	NA	0	1	2.8	100	NA	0
	Dashboards	NA	NA	0	NA	0	2	3.1	80.83	99.81	0
ESSC	Engineering Productivity Systems	NA	NA	0	100.0	0	3	4.5	NA	NA	0
	MSDN Subscriptions	NA	NA	0	NA	0	1	5.2	NA	NA	0
	Service Insights	NA	NA	1	83.3	0	5	3.2	NA	NA	0
NC DevX	Build	66	890	1	85.7	4	1	5.5	74.07	99.55	0
	Java	NA	NA	0	NA	0	0	0.2	NA	NA	0
	Version Control Client	NA	NA	0	100.0	0	9	7.5	85.25	99.90	0
NC Services Platform	Version Control Server	66	687	5	82.1	1	2	4.2	96.52	100.00	0
	Cloud Admin and Tools	0	26	3	75.0	0	4	4.9	85.26	99.94	0
	Cloud Services Framework	33	24480	4	78.9	2	5	3.7	99.05	100.00	0
	Open ALM	NA	NA	1	66.7	1	3	3.2	85.15	99.81	0
SCS	Acquisition	100	344	0	100.0	0	1	2.2	86.66	NA	0
	Identity	75	14160	8	52.9	0	25	6.5	91.03	100.00	1
	Licensing and Accounts	NA	NA	0	100.0	0	12	7.3	94.35	99.96	0
	Enterprise Authorization	50	620	3	75.0	0	11	3.6	92.23	99.43	0
	VSO Commerce	NA	NA	0	100.0	0	1	2	93.89	NA	0
TSE	Enterprise Analytics	0	686	0	NA	0	0	2	NA	NA	0
Service Delivery	Service Delivery	80	5280	0	100.0	0	2	1.8	NA	NA	2
VSCS	VSCS	71	24480	32	82.1	10	95	4.3	93	99.00	1

# Outcome

- ▶ No down time (*ready?*)
- ▶ Fully automated
- ▶ Joint ownership between engineering and operations
- ▶ Decoupled services: Clear contacts
- ▶ Feature Flags: Launch Darkly (<https://launchdarkly.com/>)

# Session 2: Deliver on Cadence, Release on Demand

- ▶ Presented by Richard Hundhausen (Microsoft MVP, Scrum Trainer)
- ▶ How to reduce "Frictions" in software development teams
- ▶ 3 categories of Frictions
  - ▶ People
  - ▶ Process
  - ▶ Products

# Why do we need cadence?

- ▶ Purpose: Getting the team into a regular comfortable, and sustainable development rhythm (Cadence).
- ▶ Why would we want this?
  - ▶ Maximizes value
  - ▶ Manages variability
  - ▶ Reduces risk
  - ▶ Increase predictability
  - ▶ Increases collaboration, creativity and morale

# People Frictions

## Friction

- 1. Command and Control
- 2. Component Teams
- 3. QA/DevOps Teams
- 4. Working as Individuals
- 5. Specialists
- 6. Adhoc Team
- 7. Dislocated Teams

## Frictionless

- 1. Self-Organization
- 2. Feature Teams
- 3. Cross-functional Dev Team
- 4. Working as a Team
- 5. T-Shaped
- 6. Long-lived Teams
- 7. Collocated Teams

# Process Frictions

## Friction

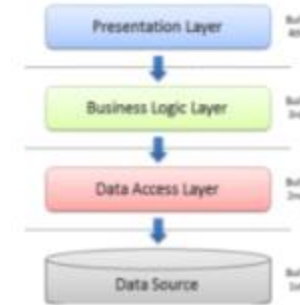
- 1. Develop by Layers
- 2. Multitasking
- 3. Multiple Projects
- 4. Obfuscated Work
- 5. Done is Subjective
- 6. Dependencies
- 7. Team decides what to work on
- 8. Discontinuous Integration
- 9. Code Reviews

## Frictionless

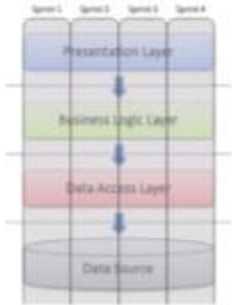
- 1. Thin-Slicing
- 2. Focus
- 3. Sprints
- 4. Visualize Work & Progress
- 5. Definition of "Done"
- 6. Make them Transparent, remove them
- 7. Stakeholder feedback
- 8. Continuous Integration
- 9. Pairing, Swarming, Mobbing

## Thin-Slicing Example

✓ Layers = delayed value



✓ Slices = value every Sprint





# Product Frictions

## Friction

- 1. Private Repositories
- 2. Pull Requests
- 3. Working in Branches
- 4. Manual Deployments
- 5. Manual Testing
- 6. User Acceptance Testing
- 7. Code Deployment
- 8. Local Optimization

## Frictionless

- 1. Collective Code Ownership
- 2. Pairing, Swarming, Mobbing +CI
- 3. Trunk-based Development
- 4. Automated Deployment
- 5. Automated Testing
- 6. Acceptance Testing
- 7. Feature Release
- 8. Global Optimization (System Thinking)

# Q&A

- ▶ Visual Studio Live 2018 Sessions download
- ▶ <https://vslive.com/redmondslides>
- ▶ Microsoft's DevOps Transformation
- ▶ <https://www.youtube.com/watch?v=MOWnShAsj2U>
- ▶ Deliver on Cadence, Release on Demand
- ▶ <https://www.youtube.com/watch?v=MQQsGrQOXKQ>