BITS Pilani

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SS ZG622:

Software Project Management

Contact Session # 10

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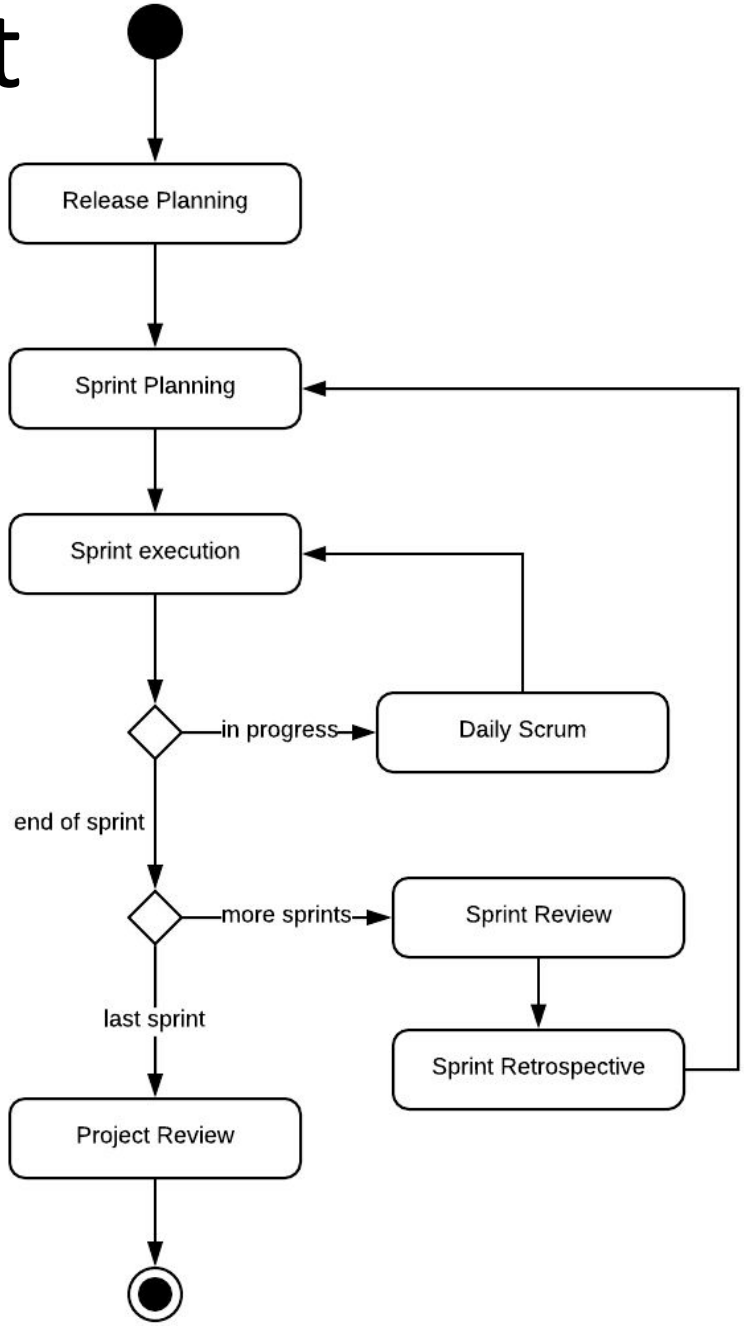
Project Monitoring and Control

Topics

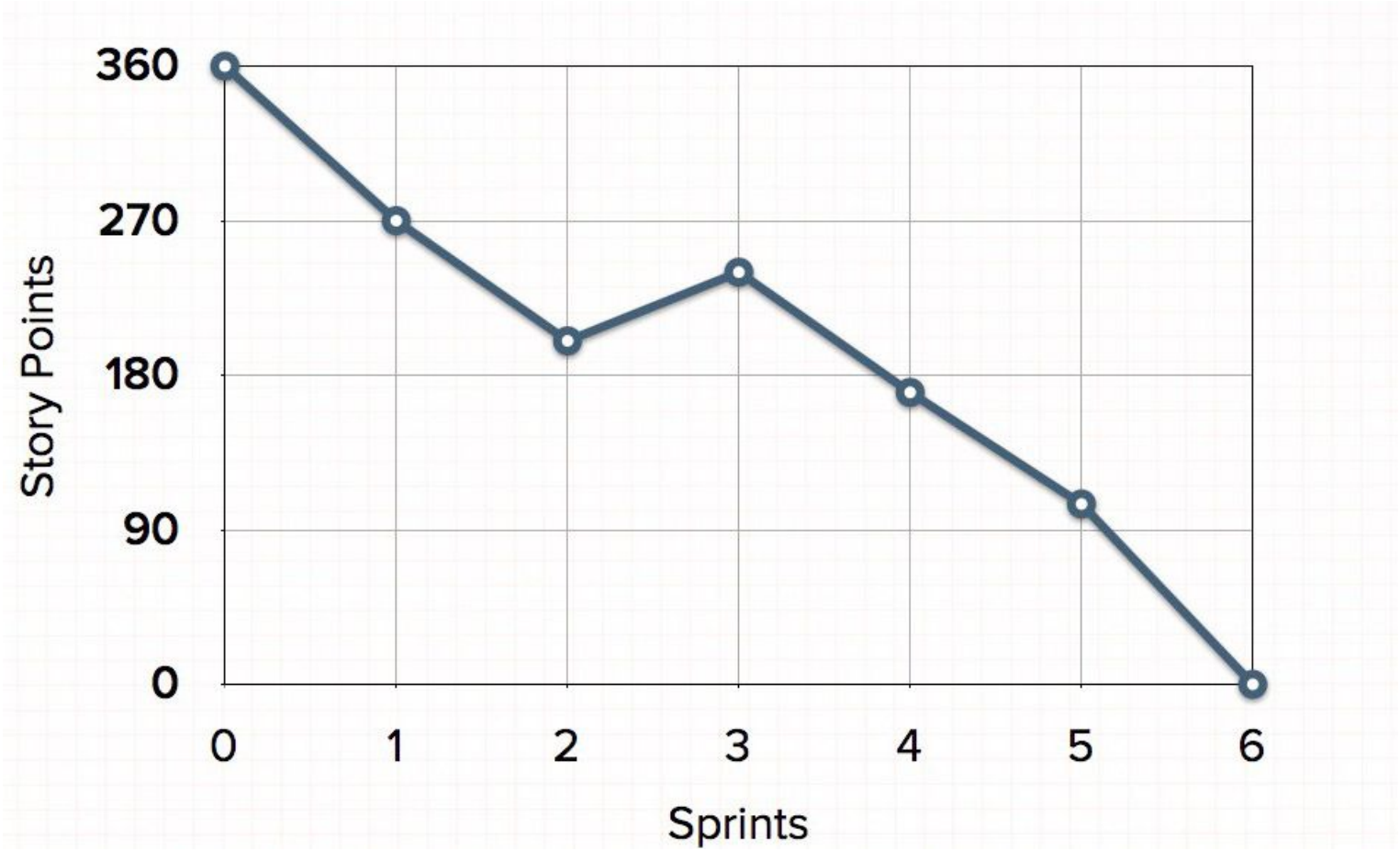
- Project status reporting in agile processes
- Earned value reports and their interpretation

Tracking scrum project progress

- Epic completion
- Velocity
- Burndown charts
- …



Burndown Charts



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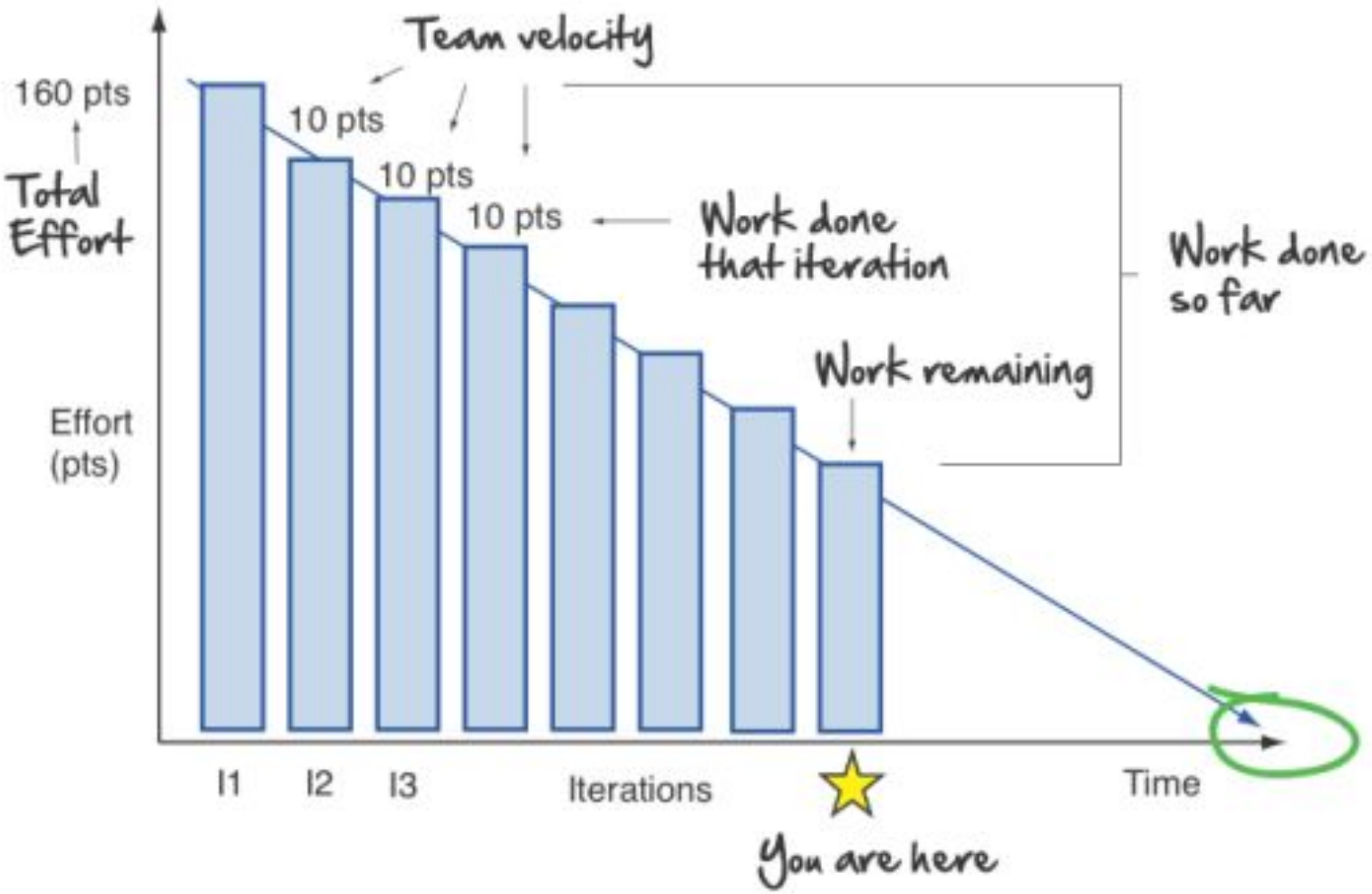
Burndown Charts



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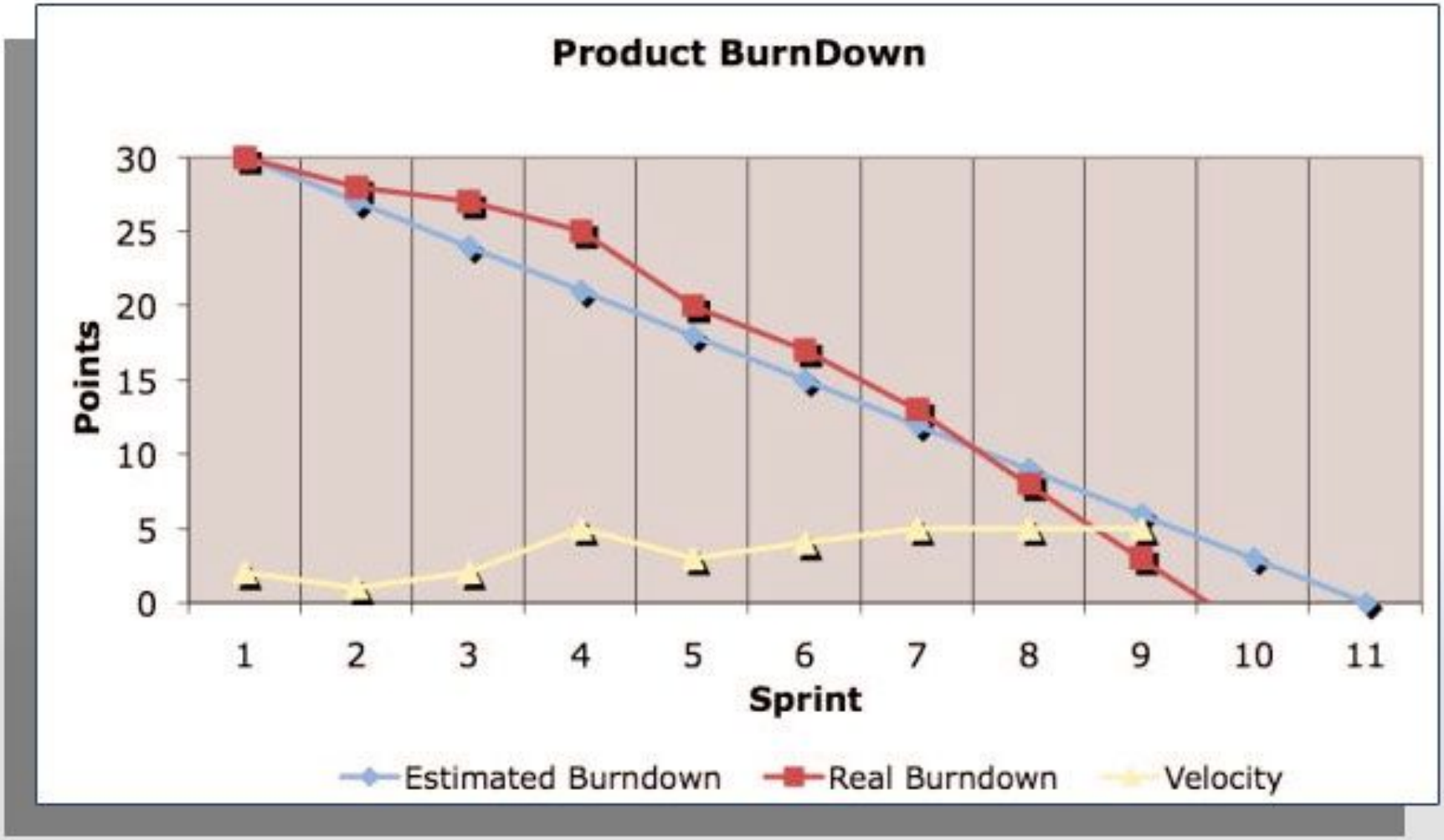


https://www.scrum.as/academy.php?show=0&chapter=13

CS10#1 - Should we use gantt charts in agile project management?

		Status
Budget spent	20%	
Scope delivered	30%	
Estimated date	Nov-1	

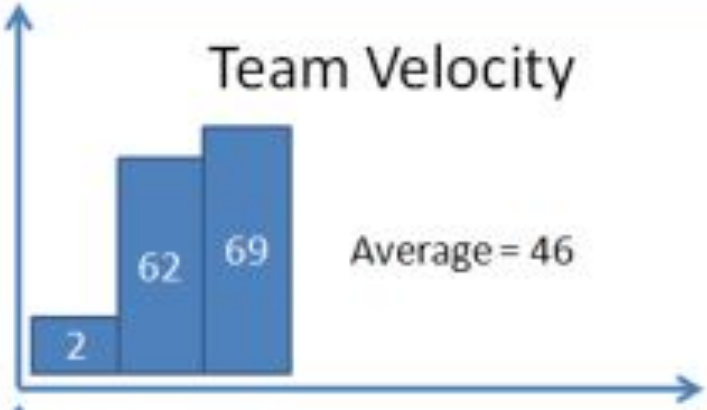
Summary

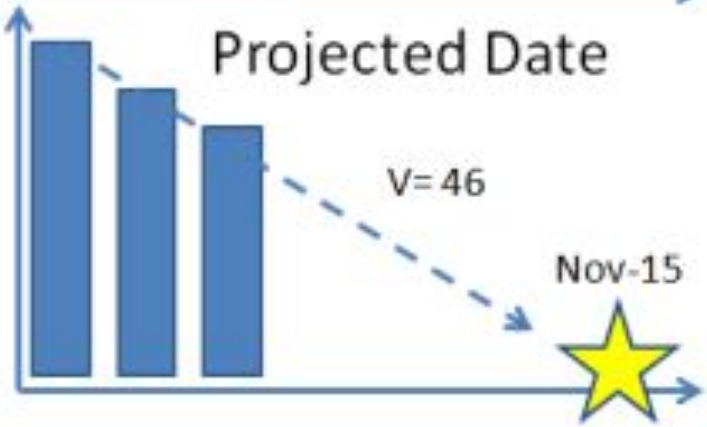
-Project is trending late
-Budget is on track
-QA bottle neck

Work done

<Story Epic #1>
<Story Epic #2>
<Story Epic #3>

Risk	Mitigation
- Bottleneck in QA	-Alex pulled in from Prod Support -New hire: Neil due to start Tuesday -Geddy to perform UAT part time
<Thing going bad #2>	<Plan to fix if possible>





https://agilewarrior.wordpress.com/2013/05/17/agile-project-status-reports/

Pivotal Tracker reports

Pivotal Tracker reports

view releases report

Recent Releases		Total points	Points remaining	Scheduled	Completion
All links in KB	view burndown	179	49		Estimated May 15, 2016

view epics report

Recent Epics		Point progress: Total	Accepted	In-progress	Unstarted	Iceboxed	Completion
Convert to KB framework	view report	3	3				Mar 26, 2016
New images for articles	view report	29	1	24	4		Estimated Jun 12, 2016
Knowledge base content v1.0	view report	124	90	16	11	7	Estimated Jun 12, 2016

Pivotal Tracker reports

CS10#2a - Identify how risk management and project monitoring & control are related to each other

CS10#2b - When you notice that a project is running behind schedule, how will you handle such a situation

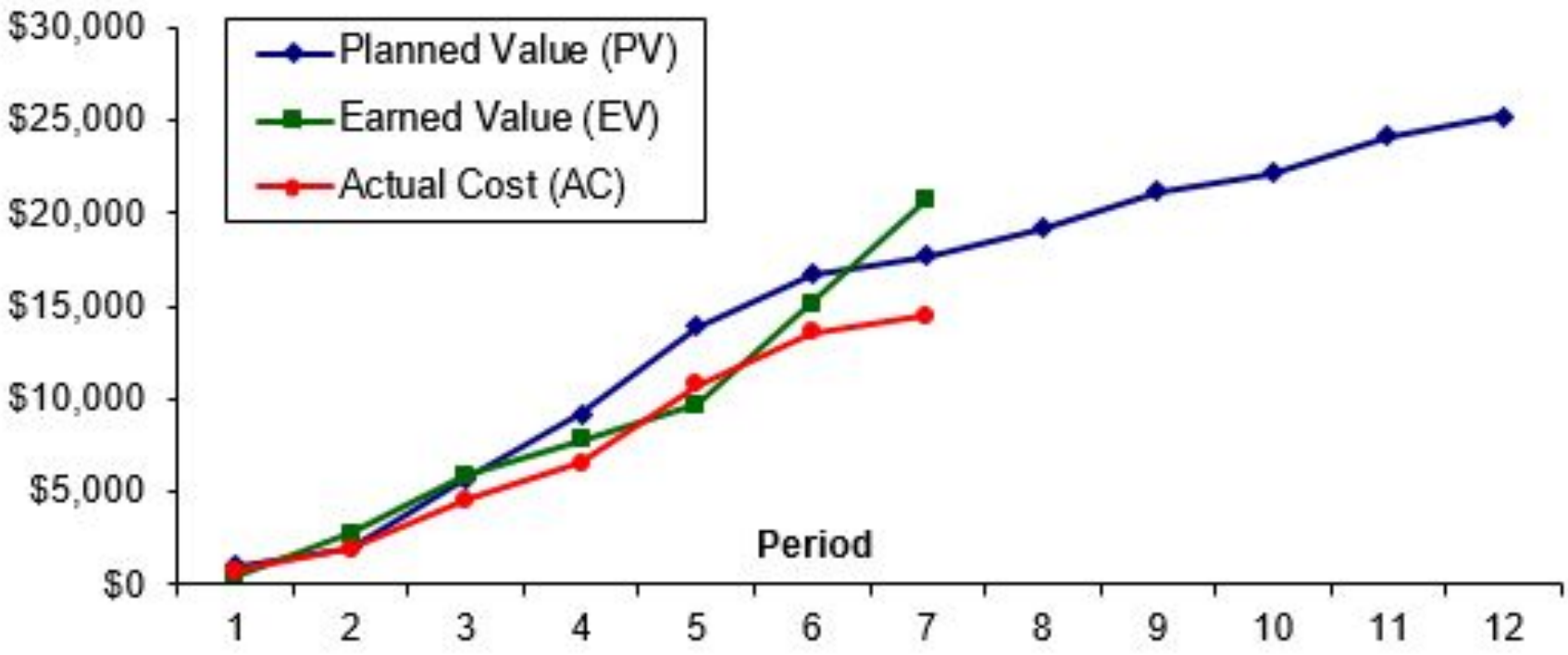
Earned value reporting

Earned value reporting

Work Package	BCWS	ACWP	%Progress	BCWP
	Planned Value	Actual Cost		Earned Value
1	$1,00,000.00	$1,20,000.00	100%	$1,00,000.00
2	$1,00,000.00	$1,10,000.00	100%	$1,00,000.00
3	$1,00,000.00	$80,000.00	90%	$90,000.00
4	$1,00,000.00	$1,25,000.00	80%	$80,000.00
5	$1,00,000.00	$75,000.00	50%	$50,000.00
6	$1,00,000.00	$0.00	0%	$0.00
7	$1,00,000.00	$0.00	0%	$0.00
8	$1,00,000.00	$0.00	0%	$0.00
9	$1,00,000.00	$0.00	0%	$0.00
10	$1,00,000.00	$0.00	0%	$0.00
BAC	$10,00,000.00	$5,10,000.00		$4,20,000.00

BCWS – budgeted cost of work scheduled; ACWP – actual cost of work performed; BCWP – budgeted cost of work performed; BAC – budget at completion

Activity CS10#3: Interpreting earned value reports



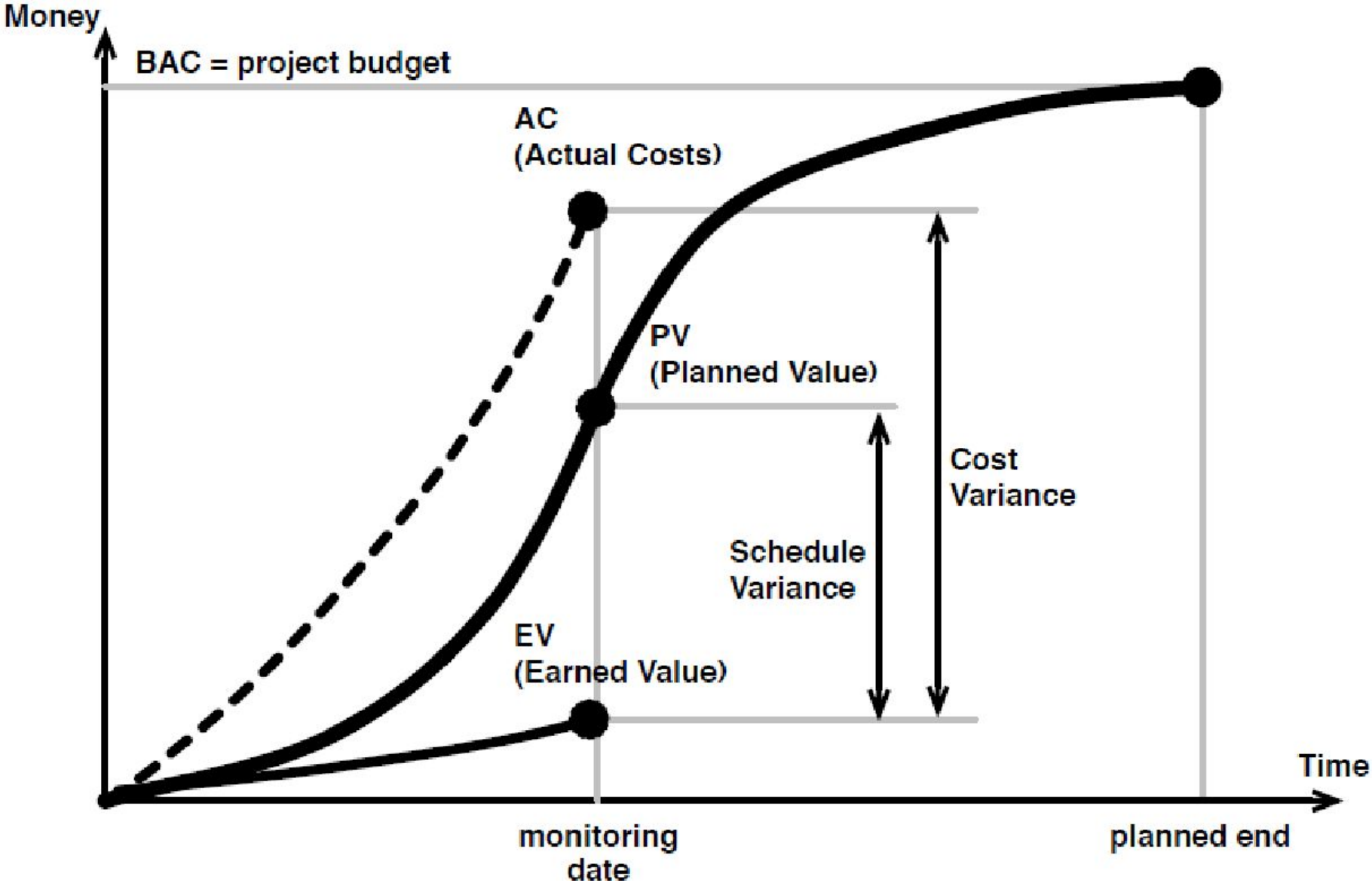
What does the above chart indicate?

Activity CS10#4 : Interpreting earned value reports

PV	$5,00,000.00
AC	$5,10,000.00
EV	$4,20,000.00

Cost Variance (CV = EV - AC)	-$90,000.00
Cost Performance Index (CPI = EV/AC)	0.82
Schedule Variance (SV = EV - PV)	-$80,000.00
Schedule Performance Index (SPI = EV/PV)	0.84

How will you interpret and use these variances and indices?



https://www.spmbook.com/downloads/slides/pdf/C03.08-09-ExecutionMonitoringControl.key.pdf

Interpreting CPI and SPI

Performance Measures		Schedule		
		SV > 0 & SPI > 1.0	SV = 0 & SPI = 1.0	SV < 0 & SPI < 1.0
Cost	CV > 0 & CPI > 1.0	Ahead of Schedule Under Budget	On Schedule Under Budget	Behind Schedule Under Budget
	CV = 0 & CPI = 1.0	Ahead of Schedule On Budget	On Schedule On Budget	Behind Schedule On Budget
	CV < 0 & CPI < 1.0	Ahead of Schedule Over Budget	On Schedule Over Budget	Behind Schedule Over Budget

https://mosaicprojects.com.au/WhitePapers/WP1081_Earned_Value.pdf

CS10#5 - Earned value reporting exercise

Month #	Planned Value	Actual Cost	%Progress	Earned Value
1	Rs. 2,00,000	Rs. 2,20,000	100%	
2	Rs. 1,50,000	Rs. 1,10,000	100%	
3	Rs. 1,00,000	Rs. 80,000	90%	
4	Rs. 1,50,000	Rs. 1,20,000	80%	
5	Rs. 1,50,000	Rs. 75,000	50%	
6	Rs. 1,50,000	Rs. 0	0%	
7	Rs. 1,50,000	Rs. 0	0%	
8	Rs. 1,00,000	Rs. 0	0%	
9	Rs. 1,00,000	Rs. 0	0%	
10	Rs. 1,00,000	Rs. 0	0%	
Budget at completion				

a) Compute the earned values for the first five months of this project.

b) Calculate the cost and schedule variances and performance indices.

c) Explain your interpretation of project status based on the indices calculated in (b).

d) Based on the schedule performance indices, by when the project is expected to be completed.