

CSCI 3308 – Software Development Methods and Tools



University of Colorado
Boulder

Reminders



Topics

- Agile Project Management



What is Agile Development?

- Set of guidelines in which we take an adaptive approach and make it agile in all development activities and tasks.

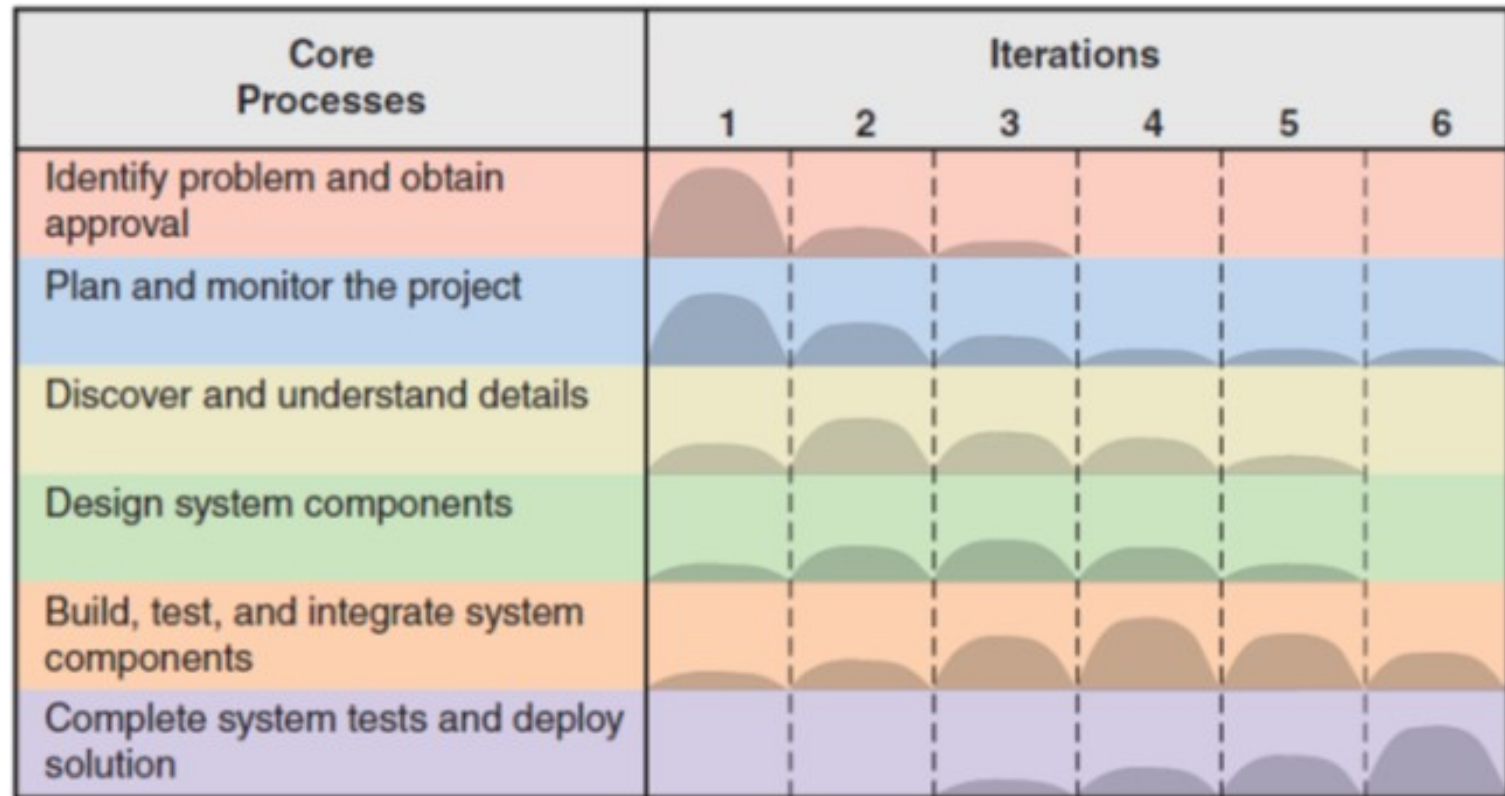


Manifesto for Agile SW Dev

- Four basic values which represent the core philosophy of Agile development:
 - Value responding to change over following a plan
 - Value individuals and interactions over processes and tools
 - Value working software over comprehensive documentation
 - Value customer collaboration over contract negotiation



Iterative Development

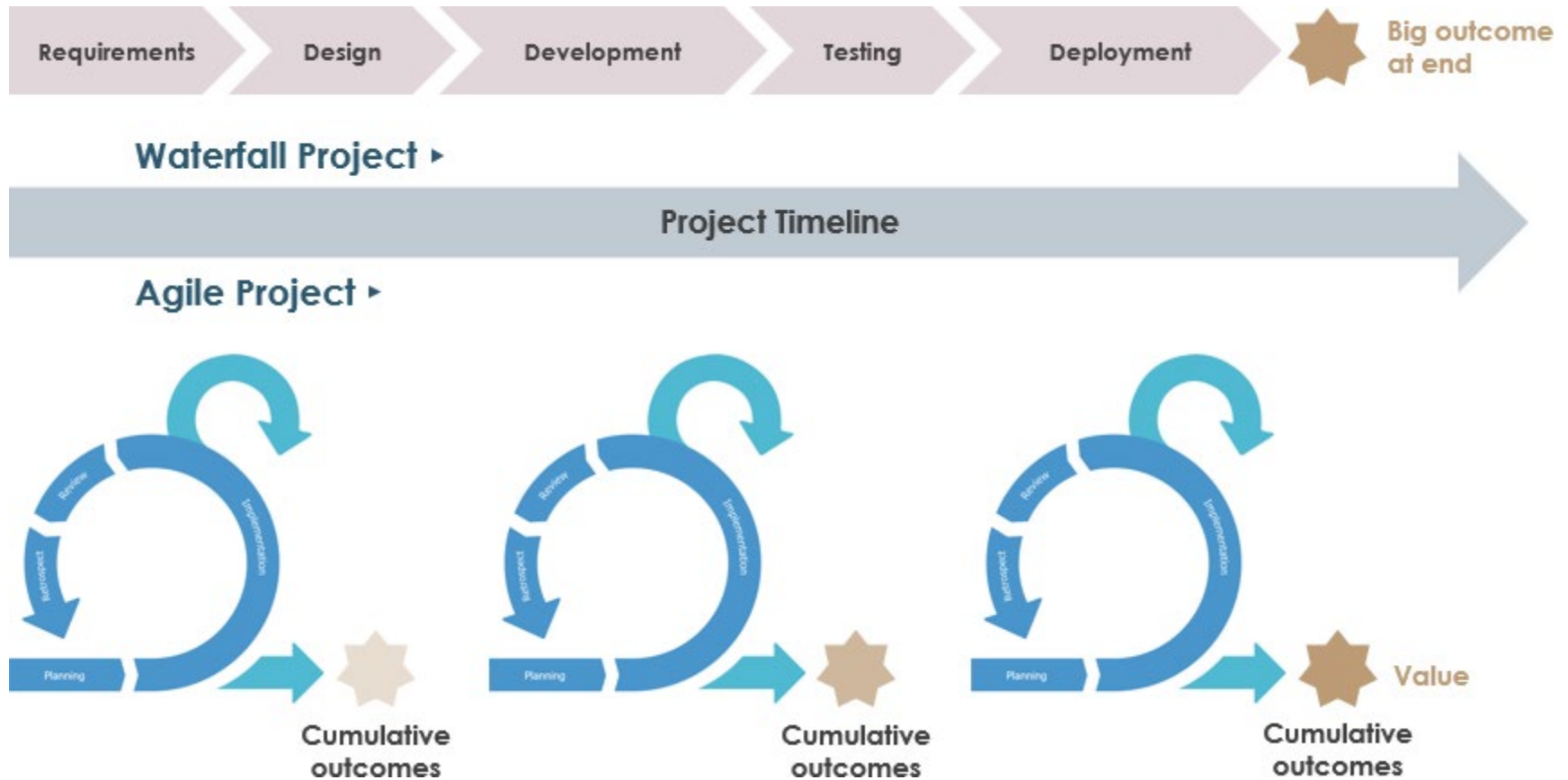


12 Principles of Agile Meth.

1. Satisfy the Customer
2. Welcome Change
3. Deliver Frequently
4. Work Together
5. Build Projects around Motivated Individuals
6. Face-to-Face Time
7. Working Software is a Measure of Progress
8. Sustainable Development
9. Continuous Attention to Technical Excellence
10. Keep It Simple
11. Organized Teams
12. Reflect for Effectiveness



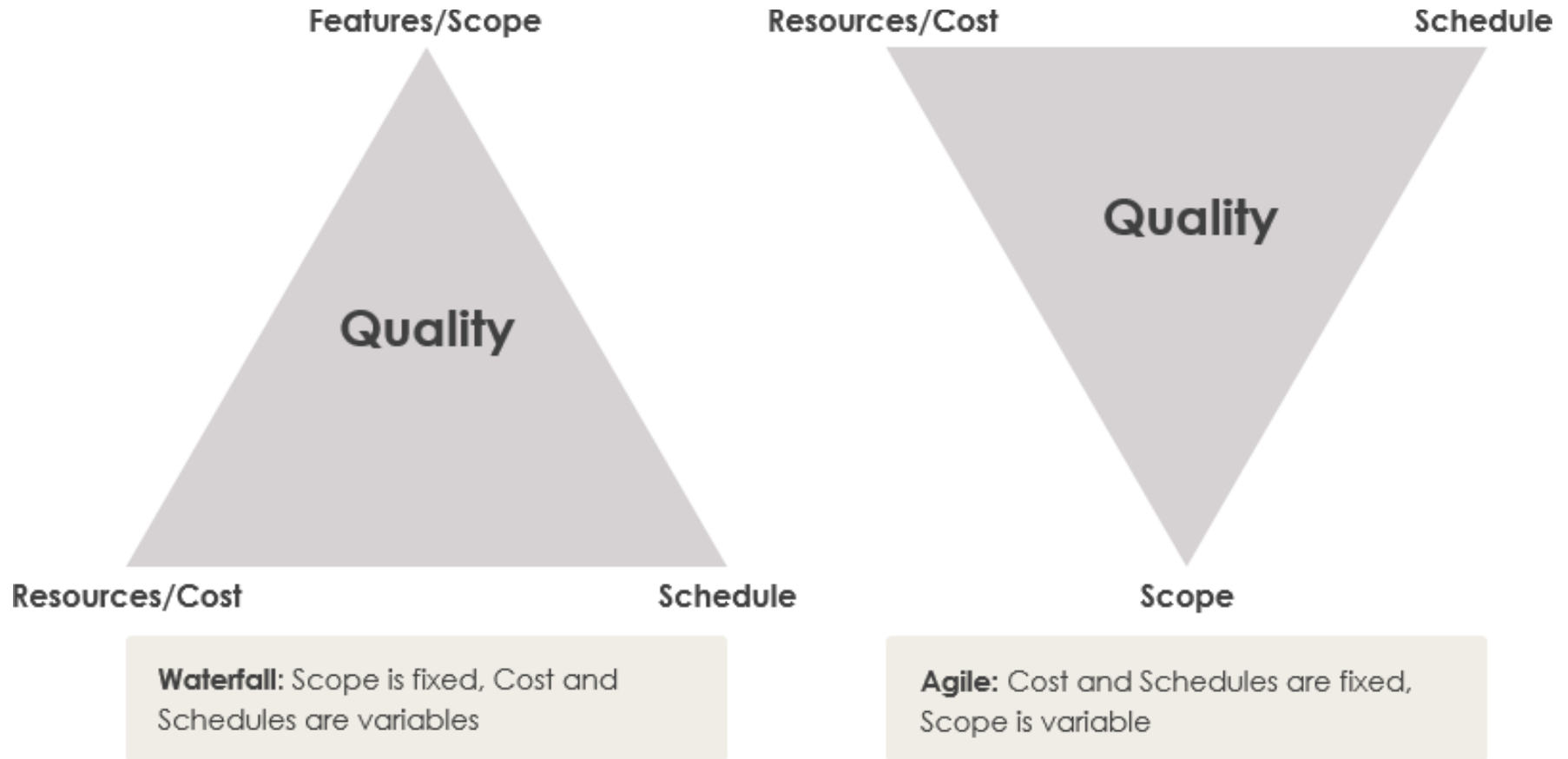
Waterfall vs Agile



Source: <https://www.visual-paradigm.com/scrum/scrum-vs-waterfall-vs-agile-vs-lean-vs-kanban/>



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Scrum

- Scrum is a framework for managing a process.
- Consists of principles and practices.
- One of the most popular ways to implement agile.

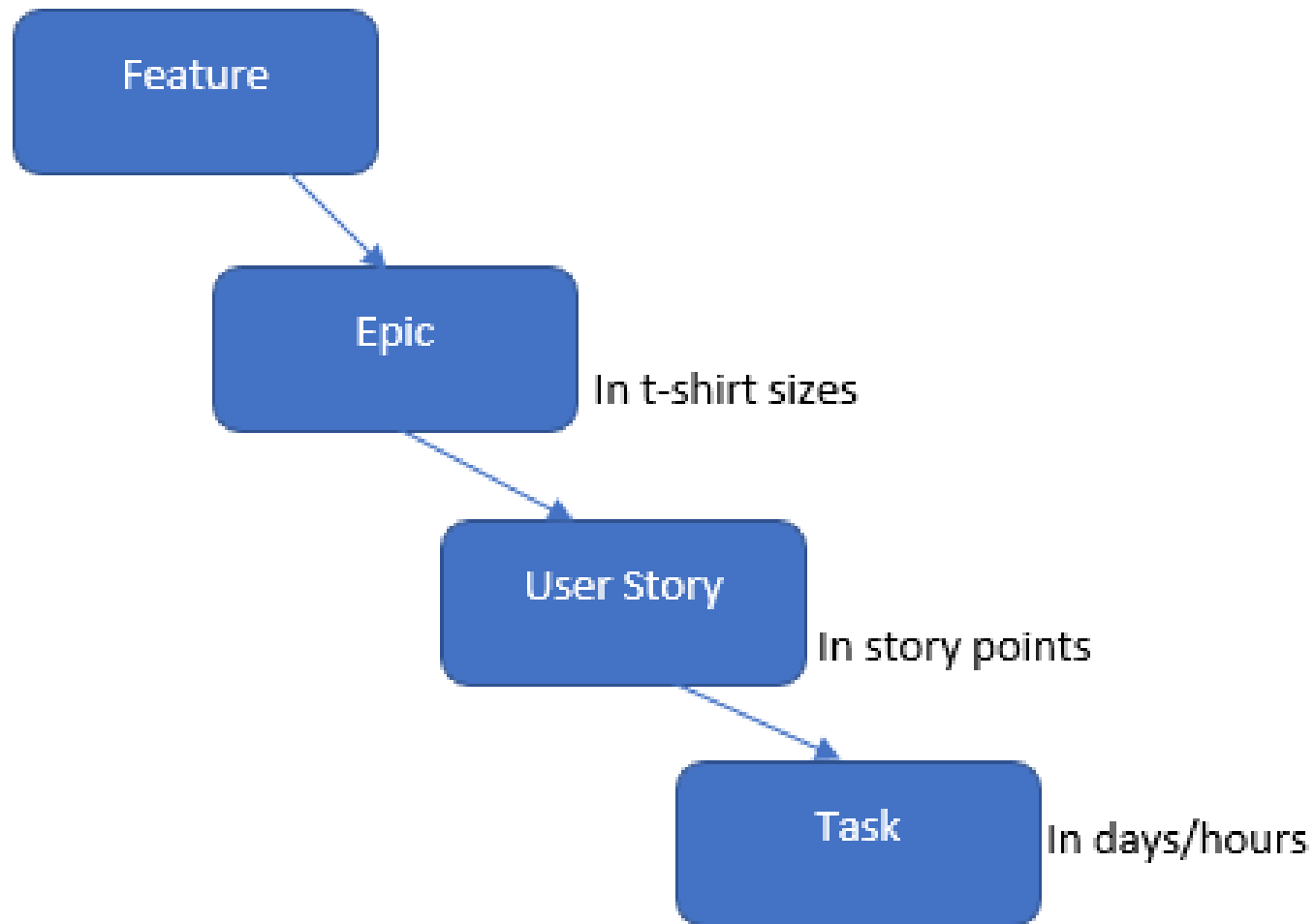


Scrum Philosophy

- User Stories
 - “As a <user type> I want <action> so that <goal>” e.g. “As a bank user, I want to be able to submit alerts, so that I can notify customers of important account details.”
- Feature – service that fulfills a requirement/functionality.
- Product Backlog – prioritized list of user requirements used to choose work to be done on a Scrum project.
 - Continuously being prioritized
 - Several of the high-priority items are worked on at a given time.



Scrum Philosophy



Scrum Organization

1. Sprint Team

- small group of developers; usually 5-9 people
- no roles or titles

2. Scrum Master

- “coach” who keeps the Sprint Team on the right track/follows Scrum processes
- Similar to a Project Manager

3. Product Owner

- maintains the backlog list
- prioritizes work
- provides guidance and vision on what to build



Scrum Practices

- Sprint – time-controlled mini-project that implements a specific portion of a system.
- A max of 30 days weeks in length.
- Commit to work, do all of that work, do only that work.
- Can take in new work, but decide as a team.



Quote

“Success is neither magical nor mysterious. Success is the natural consequence of consistently applying the basic fundamentals.”

-Jim Rohn



Real-world Example

- Banking platform
- 4 quarterly releases per year
- 2 of the 4 quarters consist of six 2-week sprints and the other 2 quarters consist of seven 2-week sprints
- Consists of features



Real-world Example

Monday	Tuesday	Wednesday	Thursday	Friday
		1 Sprint Planning (up to 4 hours)	2 Daily Scrum	3 Daily Scrum
4 Daily Scrum	5 Daily Scrum	6 Daily Scrum Grooming	7 Daily Scrum	8 Daily Scrum
9 Daily Scrum All Code in QA	10 Daily Scrum Review Retrospective	1 Sprint Planning	2 Daily Scrum	3 Daily Scrum
4 Daily Scrum	5 Daily Scrum	6 Daily Scrum Grooming	7 Daily Scrum	8 Daily Scrum
9 Daily Scrum All Code in QA	10 Daily Scrum Review Retrospective			



Real-world Example

- Product Champion
 - Sprint Planning
 - *Bi-weekly meeting*
 - *Select items from backlog*
 - *Base scope of work on team's velocity*
 - *Get commitment from full team to deliver*
 - *When in doubt, commit to less*
 - Grooming/Backlog Refinement
 - *Break out stories from epics for current features*
 - *Writing stories*
 - *Writing acceptance criteria*





Real-world Example


- Team Enabler/Flow Wizard
 - 15 minute Daily Standups
 - *Daily feedback*
 - *Blockers*
 - Demo
 - *Bi-weekly meeting*
 - *Team, stakeholders, clients, and customers*
 - *Promised work, Delivered work*
 - *Demo what team finished*
 - Retrospective
 - *Bi-weekly meeting*
 - *Conducted after each sprint*
 - *What did we like? What did we improve?*





Real-world Example


 **UI Team**


 UI Renovation


 **User story map**


 Backlog


 Active sprints

 Releases

 Reports

 Issues

 Components

 Timesheets

Story Map by Easy Agile

#1 REQ 6420 - General Search Component 61 PUIT-2	#2 REQ 6420 - Advanced Search Component 107 PUIT-65	#3 REQ 6418 - API CIF Inquiry 9 PUIT-426	#3 REQ 6418 - UI CIF Inquiry 46 PUIT-50
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UI Sprint 13 **ACTIVE**

Tab Description - Customer Search ! PUIT-837	REQ 6418 - IRAs - Return Plan # ! PUIT-827	REQ 6418 - Four Digit Year ! PUIT-726
Tab Description - Account/Tax ID search ! PUIT-838	REQ 6420 - API: Interest and Late Charge fields returned PUIT-409	REQ 6418 - API: "CIF Comments" is not displayed under Customer Info Header PUIT-694
REQ 6420 - Advanced Search Rest API for Account PUIT-273	REQ 6420 - API: CIF Inquiry Customer Net PUIT-417	Additional Info - Safe Deposit - Transfer Account is not getting displayed ! PUIT-829
REQ 6420 - Advanced Search Rest API for Credit Card PUIT-274	REQ 6418 - API: CIF Inquiry Thumbnail for No Image PUIT-433	REQ 6418 - UI: CIFINQ - Accounts PUIT-277



Additional Resources

- Kanban overview:
 - <https://www.youtube.com/watch?v=jf0tlbt9lx0>
 - <https://www.youtube.com/watch?v=N3BoLRVXoI0>
- Scrum overview:
 - <https://www.youtube.com/watch?v=9TycLR0TqFA>



Questions?

