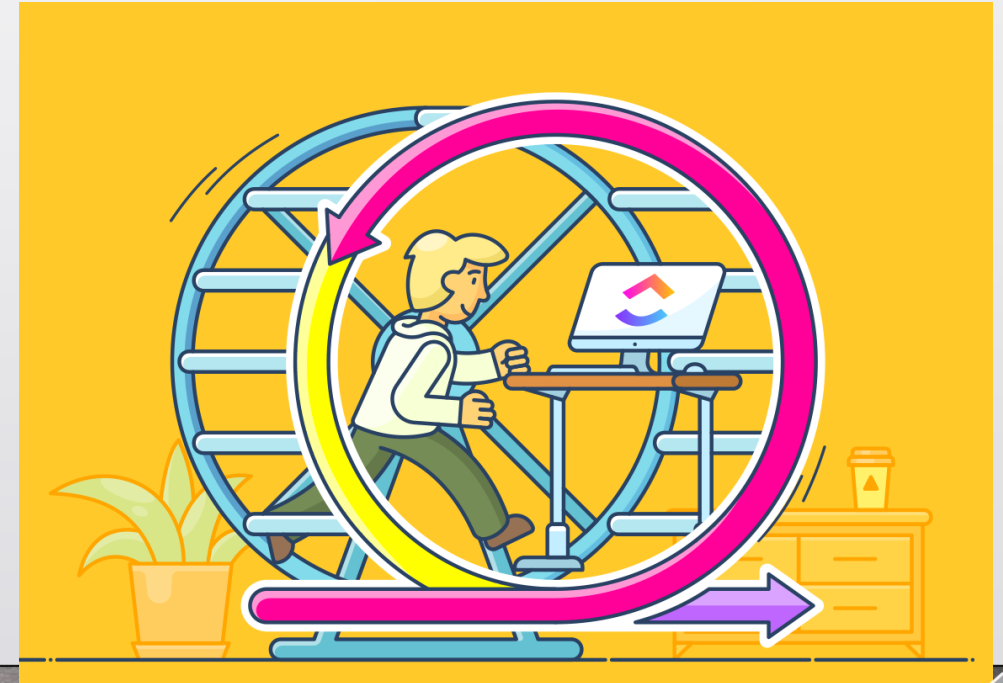


Agile Software Development(cont.)

Lecture # 13



Plan-Driven and Agile Development

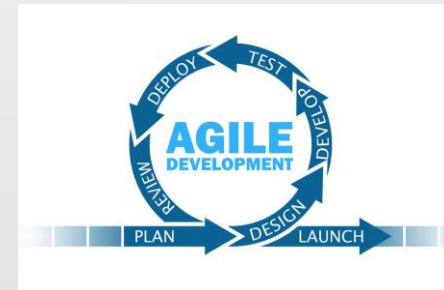


- **Plan-driven development**

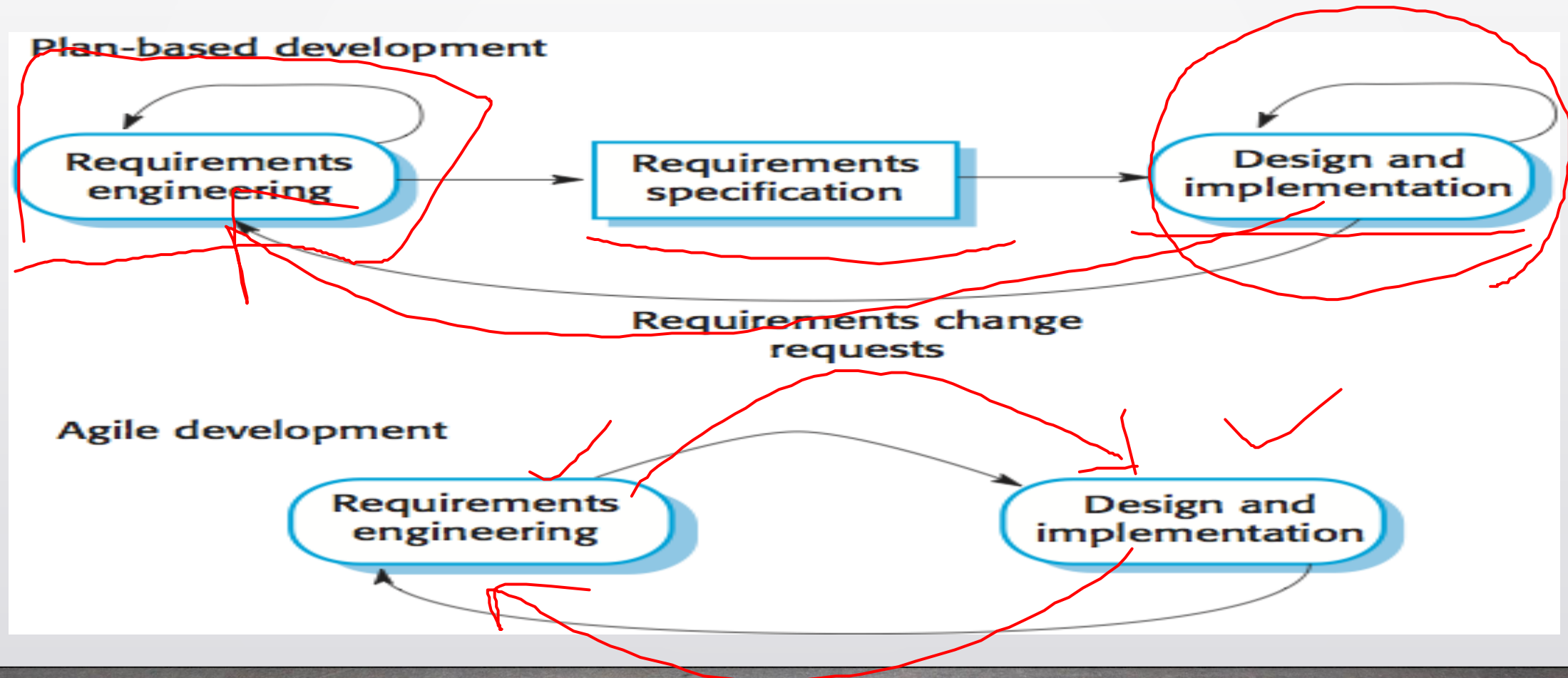
- A plan-driven approach to software engineering is based around separate development stages with the outputs to be produced at each of these stages planned in advance.
- Not necessarily waterfall model – plan-driven, incremental development is possible
- Iteration occurs within activities.

- **Agile development**

- Specification, design, implementation and testing are inter-leaved and the outputs from the development process are decided through a process of negotiation during the software development process.

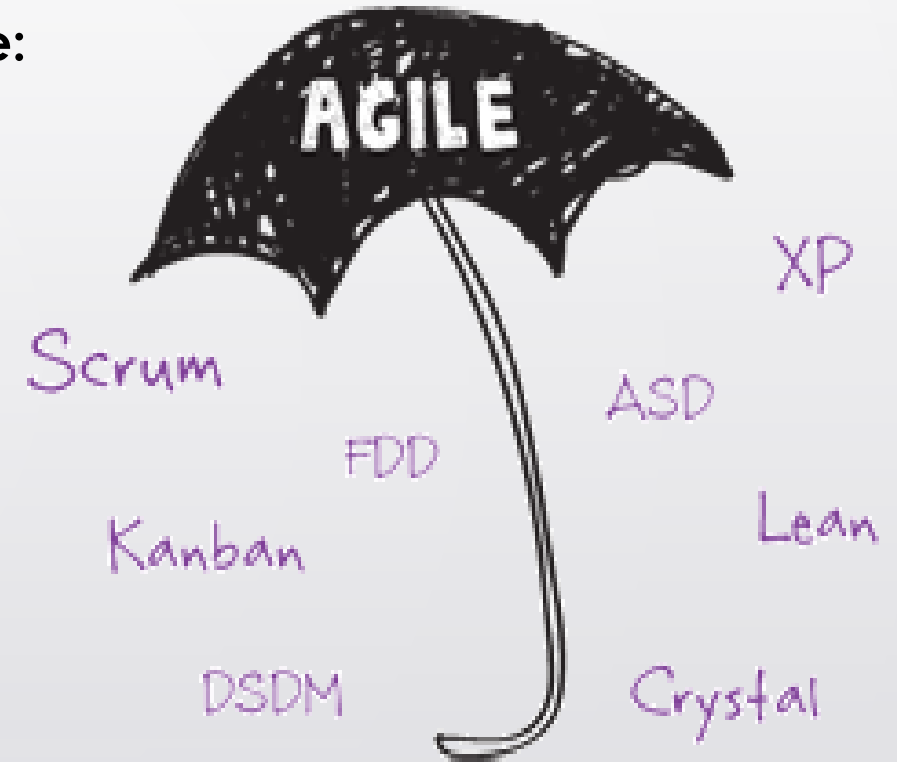


Plan-Driven and Agile Development



Agile Methodologies

- **The most widely-used Agile methodologies include:**
- Extreme Programming (XP)
- Agile Scrum Methodology
- Lean Software Development
- Kanban
- Crystal
- Dynamic Systems Development Method (DSDM)
- Feature Driven Development (FDD)

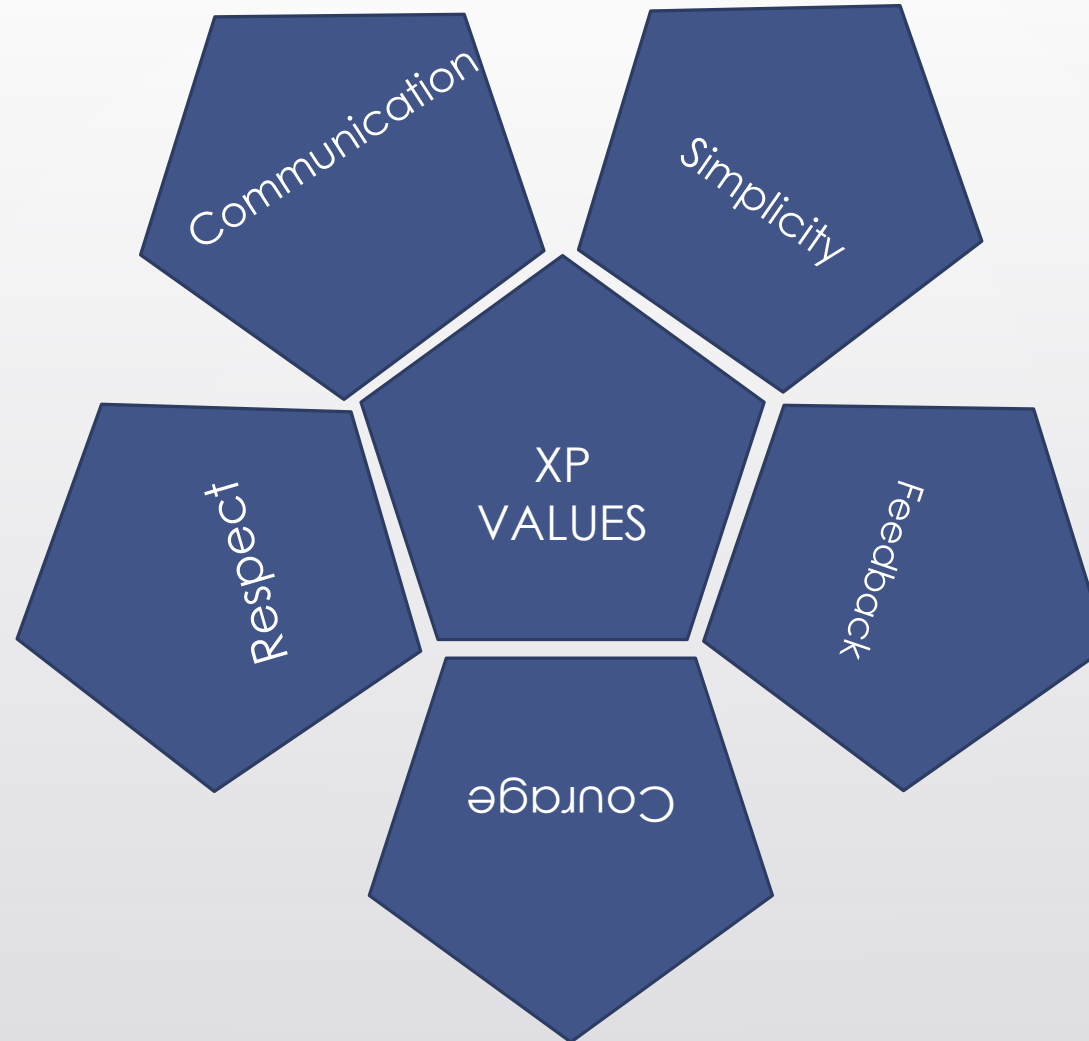


Extreme Programming(XP)

- XP, originally described by Kent Beck, has emerged as one of the most popular agile methodologies.
- XP is a disciplined approach to delivering high-quality software quickly and continuously.
- It promotes high customer involvement, rapid feedback loops, continuous testing, continuous planning, and close teamwork to deliver working software at very frequent intervals, typically every 1-3 weeks.
- The original XP recipe is based on five simple values and twelve supporting practices



5 Simple Values



12 Supporting Practices

- Simple Design
- Pair Programming
- Test-Driven Development
- Refactoring
- Continuous Integration
- Collective Code Ownership
- Coding Standards
- Sustainable Pace
- Planning Game
- Small Releases
- Customer Acceptance Tests
- Metaphor

