Agile Project Management

Outline

- Common characteristics
- Key terms
- Practices

Agile – Common Characteristics

- Iterative development
  - Principle: focus on priority requirements, deliver tangible solutions for evaluation as early as possible, and finish with the desired result.
  - Useful when complete set of requirements not available.
  - Iterations also called waves, sprints, phases, or even milestones.
  - Typically, an iteration is between 30 and 60 days.
  - Iterative techniques other than agile: prototypes, pilot projects, and focus groups.
- Phased deployment
  - Excellent for risk management.
  - Examples: test markets, beta releases, pilot projects, phased implementations, or staged rollouts.

Agile – Common Characteristics

- Detailed, short-term schedules
  - Schedule for the rest of the project is high-level, time-boxed.
  - Future path of project is adjustable based on results of the current iteration.
- Timeboxing
  - Work requirements (scope) for a given timebox are fixed, with little change allowed.
  - Time element strictly enforced, regardless of work completion status.
  - At the end of the timebox, customer review is conducted to evaluate the results and plan the scope of the next iteration.
  - Effective in situations with high uncertainty, or situations that need frequent review and evaluation.
- Customer value-driven
  - Focused on customer satisfaction.
  - Delivering tangible solutions as early as possible to get feedback and clarify requirements as soon as possible.
  - Customer stays involved, makes decisions with better data (by reviewing tangible results), and remains in control throughout the iterations.

Agile – Common Characteristics

- Change expected
  - This is a core differentiator of agile approaches.
  - Agile approaches are ideal when unpredictability factors are high.
- Plan-do-review model
  - Subsequent planning increments are driven by results achieved at the finale of the recently completed iteration, or timebox.
- Solution focused
  - Focus on customer experience and on what customer is after: the targeted solution.
  - There is a strong results orientation with an emphasis on early value and clarifying requirements based on experience and evaluating tangible results.

Agile – Common Characteristics

- People-focused project management
  - Emphasizes the “people” aspect of projects over the bureaucratic, administrative procedures.
  - Focus is on relationships, leading (versus managing), and value.
  - Project management deliverables are limited to the minimal set that offers the most value.
  - Servant leadership principles are a strong fit for agile approaches.
- Collaborative
  - Partnering arrangement between customer and project team, with minimized boundaries.
  - Customers placed on the core team, and often collocated with the team.
  - Frequent feedback loops and continuous focus on customer’s requirements.
- Risk management focused
  - Main purpose of an agile project approach is to manage risk.
  - Key risk: final solution not meeting the satisfaction of customer.

Agile – Key Terms

- Sprint
  - A time block (time-box) for development, normally 2–4 weeks.
- Epic
  - Major items (group) of scope; can be a functional area of the system or key process workflow.
- Stories
  - Aspects and/or components of an epic; similar to use cases or function points.
- Tasks
  - Specific work items needed to accomplish (to develop) a story.
- Backlog
  - Inventory of prioritized work items for project.
  - Includes original features (stories, tasks) to be developed, plus defects found during testing, and enhancements identified during the process.

Agile – Key Terms

- Daily standup
  - Daily checkpoint meeting during a sprint.
  - Time-boxed at 15 minutes and held at the same time each day.
  - Meant to encourage communication, sharing, and accountability.
  - Each participant provides a concise update addressing:
    - What did you do yesterday?
    - What will you do today?
    - Are there any obstacles in your way?
- Retrospective
  - Review meeting at the end of a sprint for the purpose of continuous improvement.
  - Allows for early identification of anything not meeting expectations, or agreement on the corrective actions to take to improve performance in the next sprint.

Agile – Key Terms

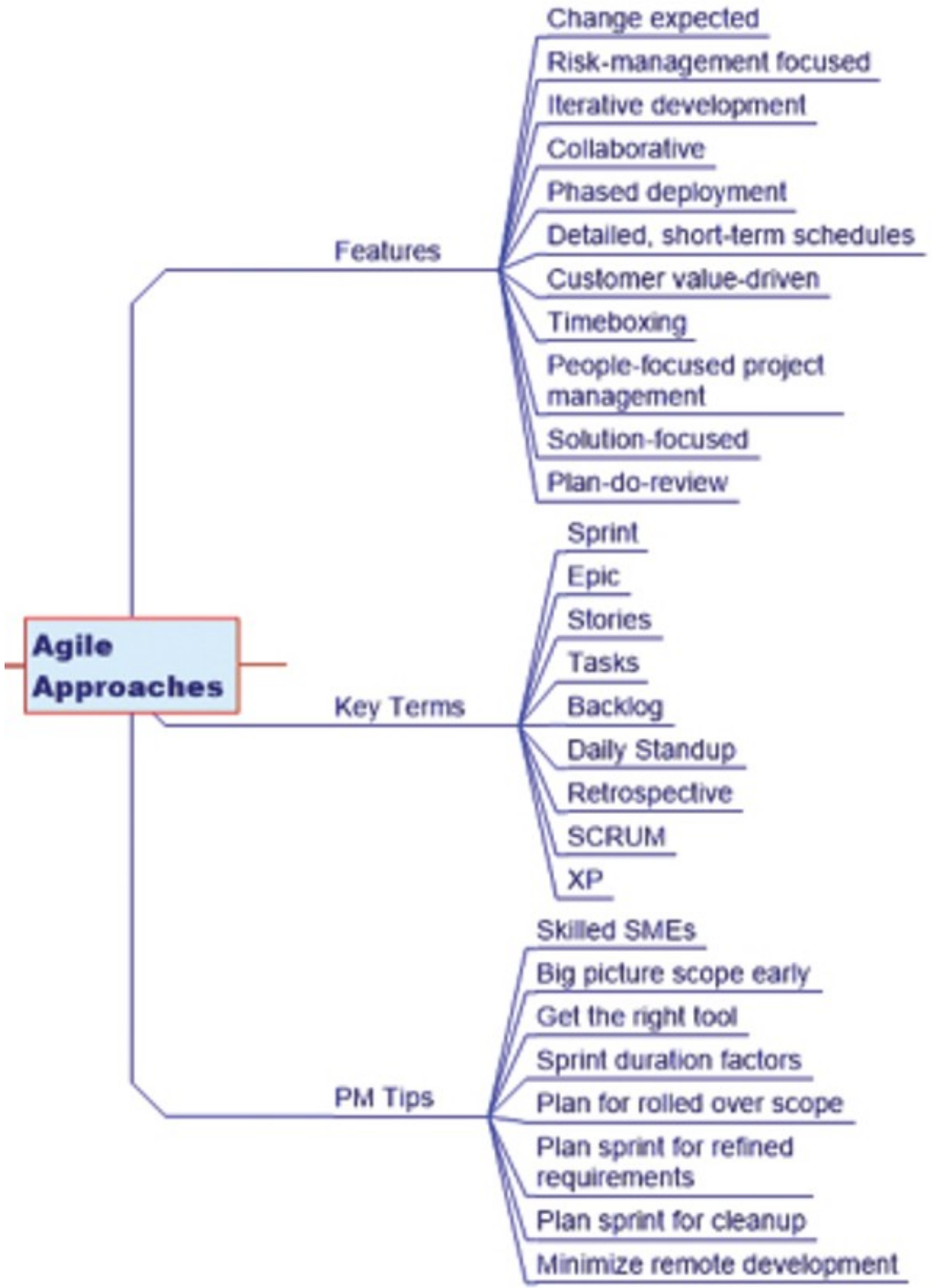
- SCRUM
  - One of the most popular ways to implement agile methodology for software development.
  - An iterative software model that follows a set of roles, responsibilities, and meetings that never change.
  - Sprint development cycles are used to deliver software on a regular basis.
- XP
  - Acronym for extreme programming.
  - Similar to SCRUM.
  - Key differentiators:
    - Use of 1-week iterations (versus 2–4 week sprints)
    - Strict adherence to developing scope in priority order
    - Emphasis on software engineering practices like test-driven development, automated testing, and pair programming.

Agile – Practice

- Skilled subject matter experts (SMEs)
  - Have skilled SMEs on team to support the tight frames and need for quick decisions.
- The right tool
  - Leverage software development process and management tool designed for agile development.
  - Examples: monday.com, Nifty, Wrike, SpiraTeam, ClickUp, Teamwork, etc.
- Big-picture scope
  - Important to clarify and define the big picture scope as soon as possible, to avoid project delays, sprints completing with planned work not done, or rework of previous developed scope.

Agile – Practice

- Sprint duration factors
  - Frequency of progress reporting
  - Experience of project team
  - Capacity of development team
  - Estimated work efforts of key stories
  - Tolerance for outstanding defects
  - Overhead impact of supporting processes (testing, code reviews, etc.)
- Allocate a sprint(s) for requirement refinement
- Allocate a sprint(s) for planned work rolled back into backlog
- Allocate a sprint(s) for test defect resolution
- Minimize remote development if necessary


Agile Approaches
Features
Change expected
Risk-management focused
Iterative development
Collaborative
Phased deployment
Detailed, short-term schedules
Customer value-driven
Timeboxing
People-focused project management
Solution-focused
Plan-do-review
Key Terms
Sprint
Epic
Stories
Tasks
Backlog
Daily Standup
Retrospective
SCRUM
XP
PM Tips
Skilled SMEs
Big picture scope early
Get the right tool
Sprint duration factors
Plan for rolled over scope
Plan sprint for refined requirements
Plan sprint for cleanup
Minimize remote development