IA FOR THE WEB

Project Management/Software Lifecycle
Fall 2014

LESSON TARGETS

- State the steps of the PM lifecycle
- Create a work breakdown structure and Gantt chart
- Differentiate between traditional and agile software development

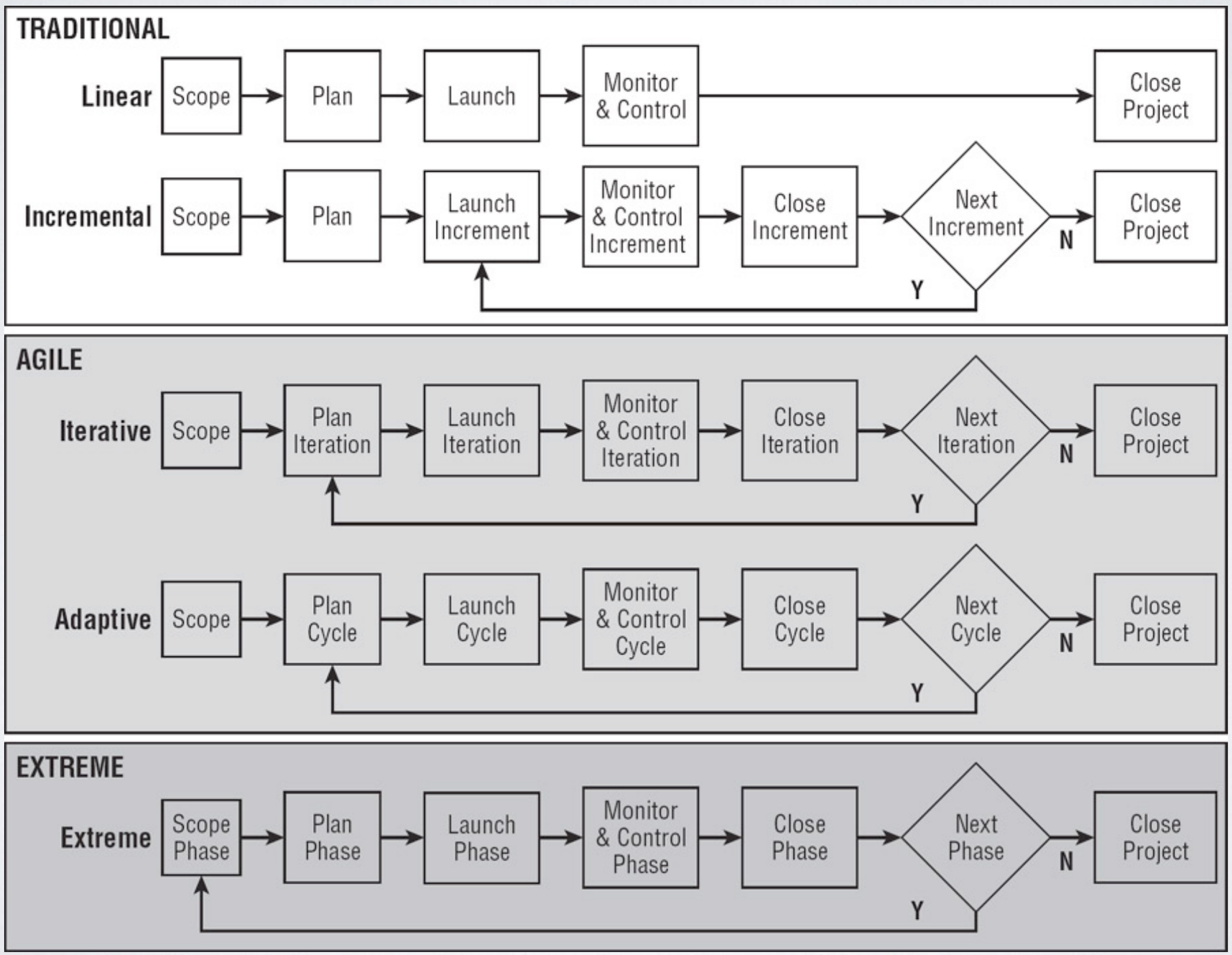
Targeting these objectives:

- Interpret and deliver upon client website requirements
- Read and write basic project documents

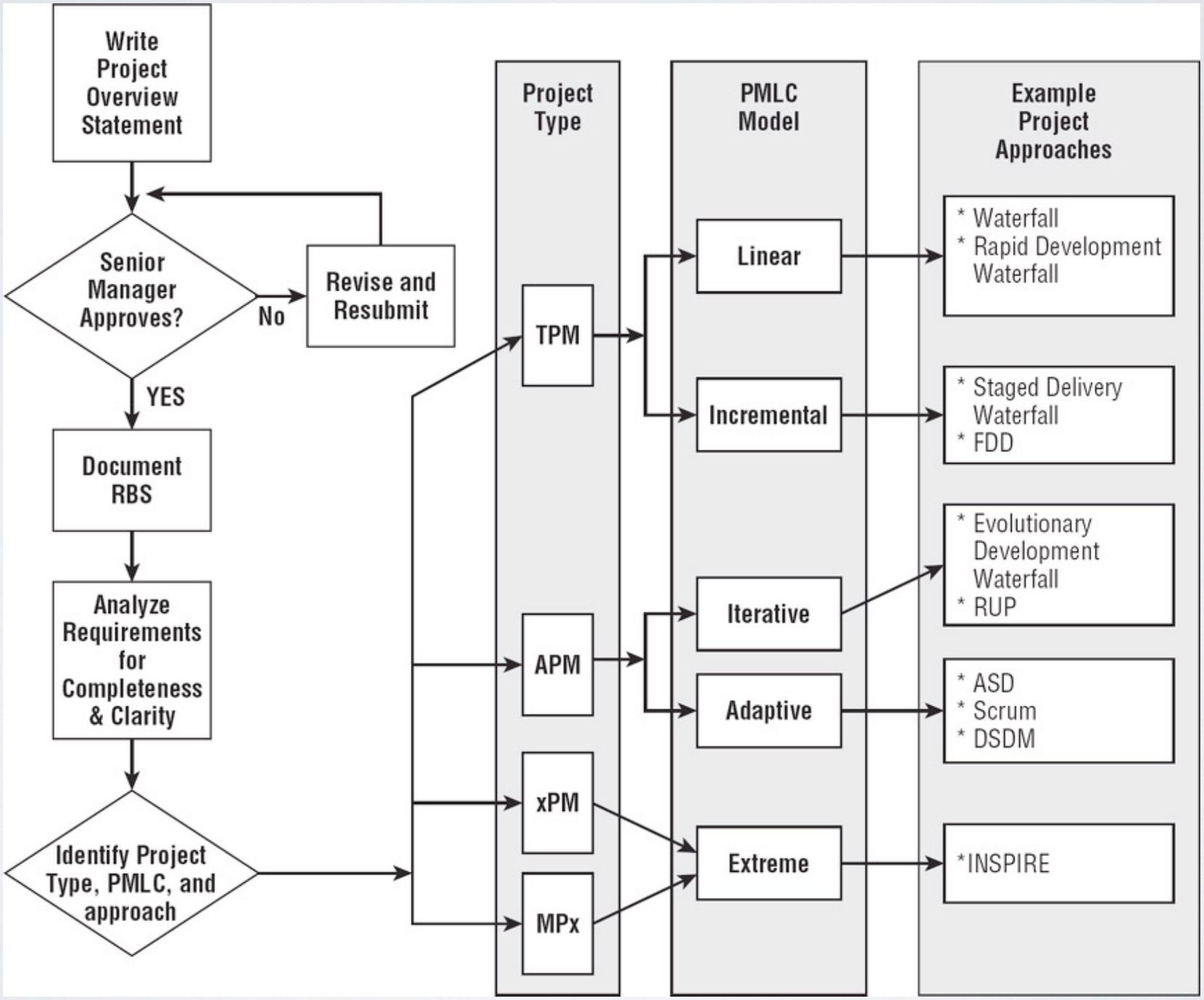
PROJECT MANAGEMENT LIFECYCLE

- scoping
- planning
- launching
- monitoring and controlling
- closing

PMLC MODELS


TRADITIONAL
Linear
Scope
Plan
Launch
Monitor & Control
Close Project
Incremental
Scope
Plan
Launch Increment
Monitor & Control Increment
Close Increment
Next Increment
N
Y
Close Project
AGILE
Iterative
Scope
Plan Iteration
Launch Iteration
Monitor & Control Iteration
Close Iteration
Next Iteration
N
Y
Close Project
Adaptive
Scope
Plan Cycle
Launch Cycle
Monitor & Control Cycle
Close Cycle
Next Cycle
N
Y
Close Project
EXTREME
Extreme
Scope Phase
Plan Phase
Launch Phase
Monitor & Control Phase
Close Phase
Next Phase
N
Y
Close Project

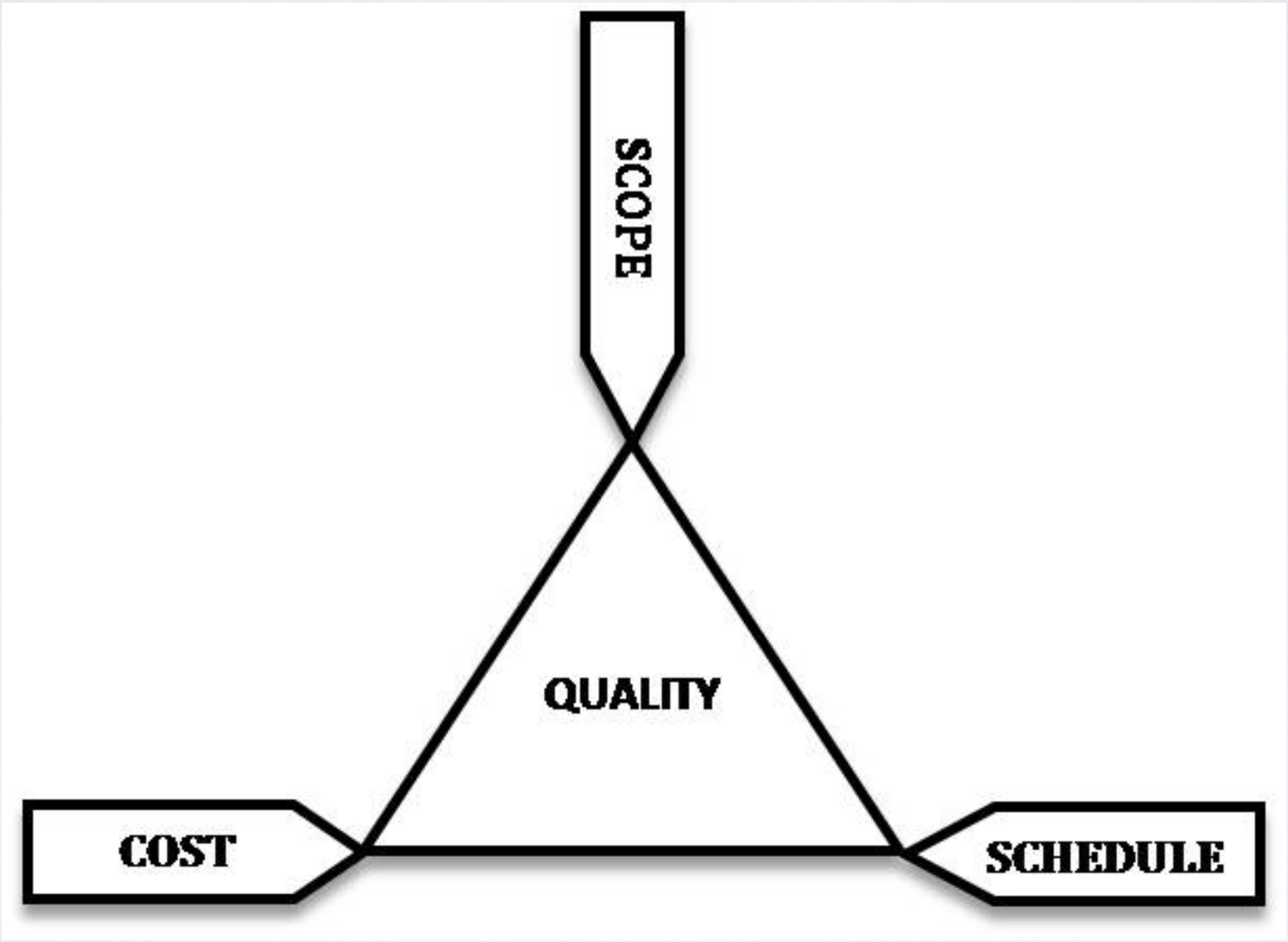
CHOOSING A MODEL



SCOPING

- What are our project goals?
- How will you know when a quality product has been made?
- Can this project realistically be completed?
- Does this project benefit the organization?
- What can we afford?
- How long do we have?

PM TRIANGLE



PLANNING

WHO AND WHEN

- Typically the team plans together
- Planning is done at the beginning of a project, after the scope has been determined

PLANNING SESSION

- Review existing documentation on project and scope
- Create a Work Breakdown Structure (WBS)
- Estimate task length and resource requirements
- Establishes completion date and resource allocation
- Gain consensus on project plan

LEADING THE SESSION

- PM can lead planning session for small projects
- For larger projects, consider having someone else run the session

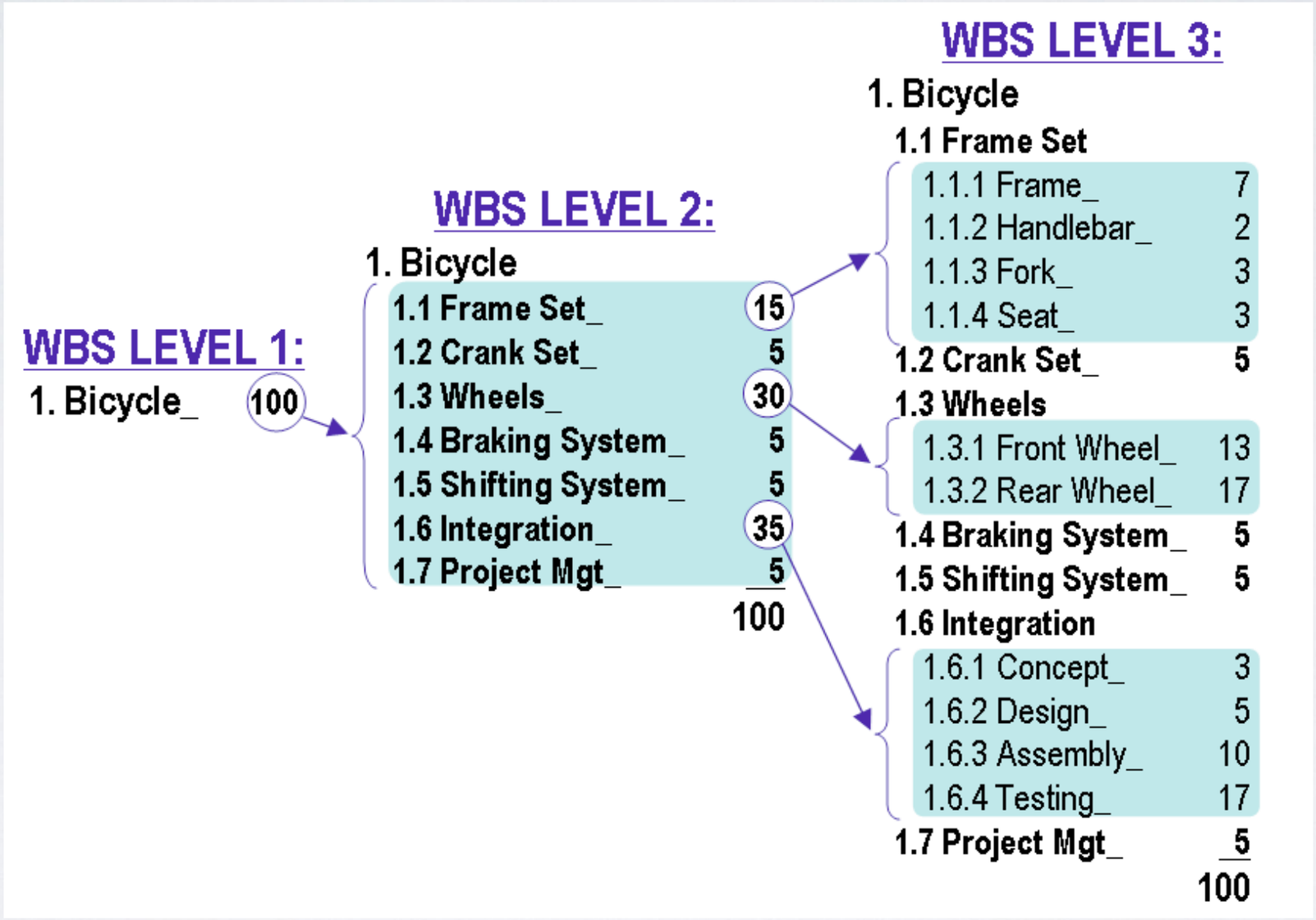
PROJECT PROPOSAL

- States business case, cost, time
- Usually takes several revisions
- Approved by management and project planning team

PROJECT PROPOSAL

- Executive summary
- Background
- Objective
- Approach
- Summary of Work
- Summary of Time and Cost
- Appendices

WBS


WBS LEVEL 1:
1. Bicycle_ 100
WBS LEVEL 2:
1. Bicycle
1.1 Frame Set_ 15
1.2 Crank Set_ 5
1.3 Wheels_ 30
1.4 Braking System_ 5
1.5 Shifting System_ 5
1.6 Integration_ 35
1.7 Project Mgt_ 5
100
WBS LEVEL 3:
1. Bicycle
1.1 Frame Set
1.1.1 Frame_ 7
1.1.2 Handlebar_ 2
1.1.3 Fork_ 3
1.1.4 Seat_ 3
1.2 Crank Set_ 5
1.3 Wheels
1.3.1 Front Wheel_ 13
1.3.2 Rear Wheel_ 17
1.4 Braking System_ 5
1.5 Shifting System_ 5
1.6 Integration
1.6.1 Concept_ 3
1.6.2 Design_ 5
1.6.3 Assembly_ 10
1.6.4 Testing_ 17
1.7 Project Mgt_ 5
100

WBS

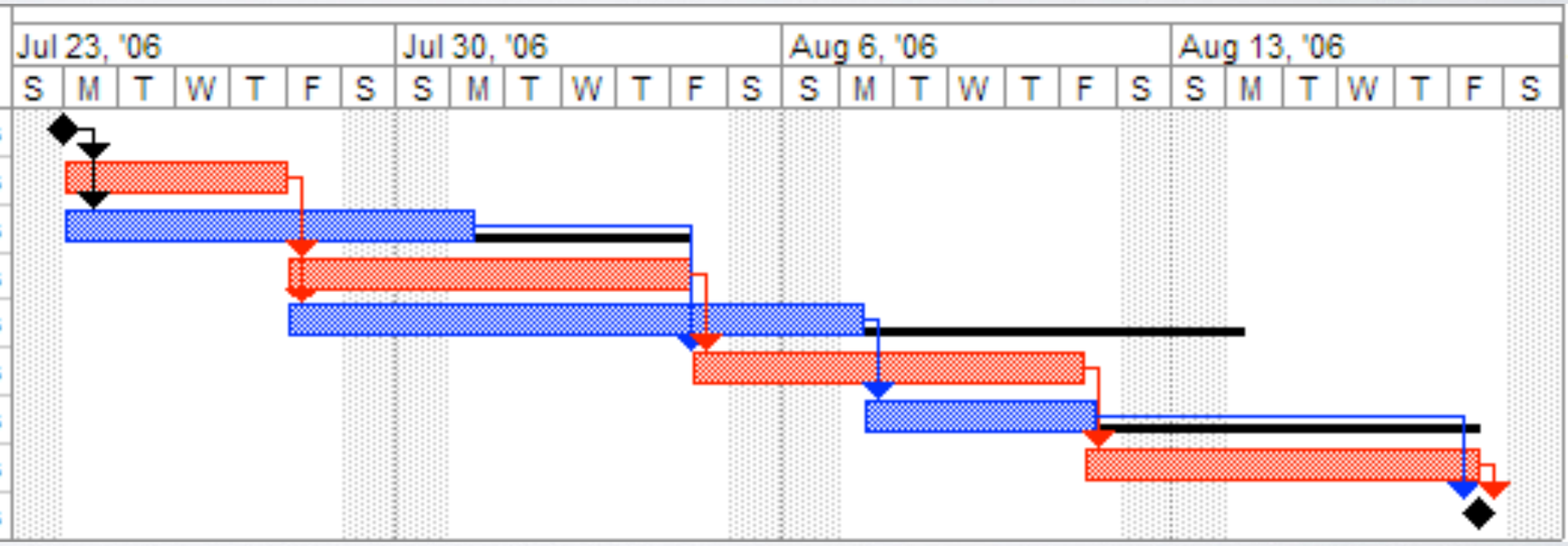
1. Wedding
   1.1 Location
      1.1.1 Determine location
      1.1.2 Sign contract
   1.2 Officiant
      1.2.1 Determine officiant
      1.2.2 Sign contract
2. Reception
   2.1 Location
      ...
3. Honeymoon
   3.1 Destination
   3.2 Passport
   ...

IA WBS EXAMPLE

- See Canvas

GANTT CHARTS

ID	Task Name	Predecessors	Duration
1	Start		0 days
2	a	1	4 days
3	b	1	5.33 days
4	c	2	5.17 days
5	d	2	6.33 days
6	e	3,4	5.17 days
7	f	5	4.5 days
8	g	6	5.17 days
9	Finish	7,8	0 days



LAUNCHING

- Make the team aware of responsibilities
- Distribute tasks
- If necessary, communicate the project goals to those who weren't involved in the planning

MONITORING AND CONTROLLING

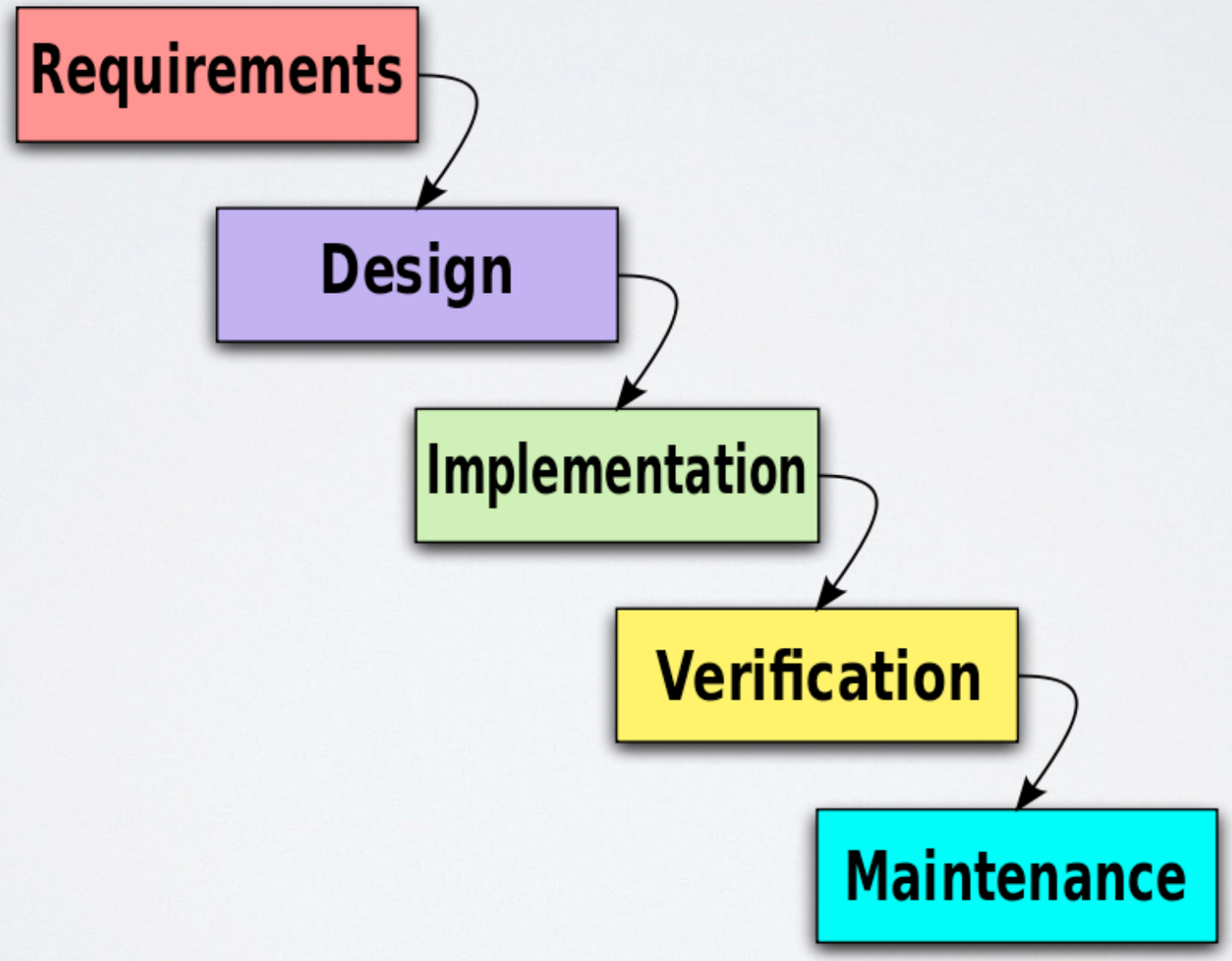
- How does the WBS/Gantt chart need to change?
- Are we on time, within scope, and on budget?
- Do we need extra resources (people, things, etc.)?
- The PM is not always the direct supervisor of the project team

CLOSING

- What have we learned?
- What did we do well?
- What should we change for the next project?
- What do we need to let the production maintenance people and/or customer service know about the project?

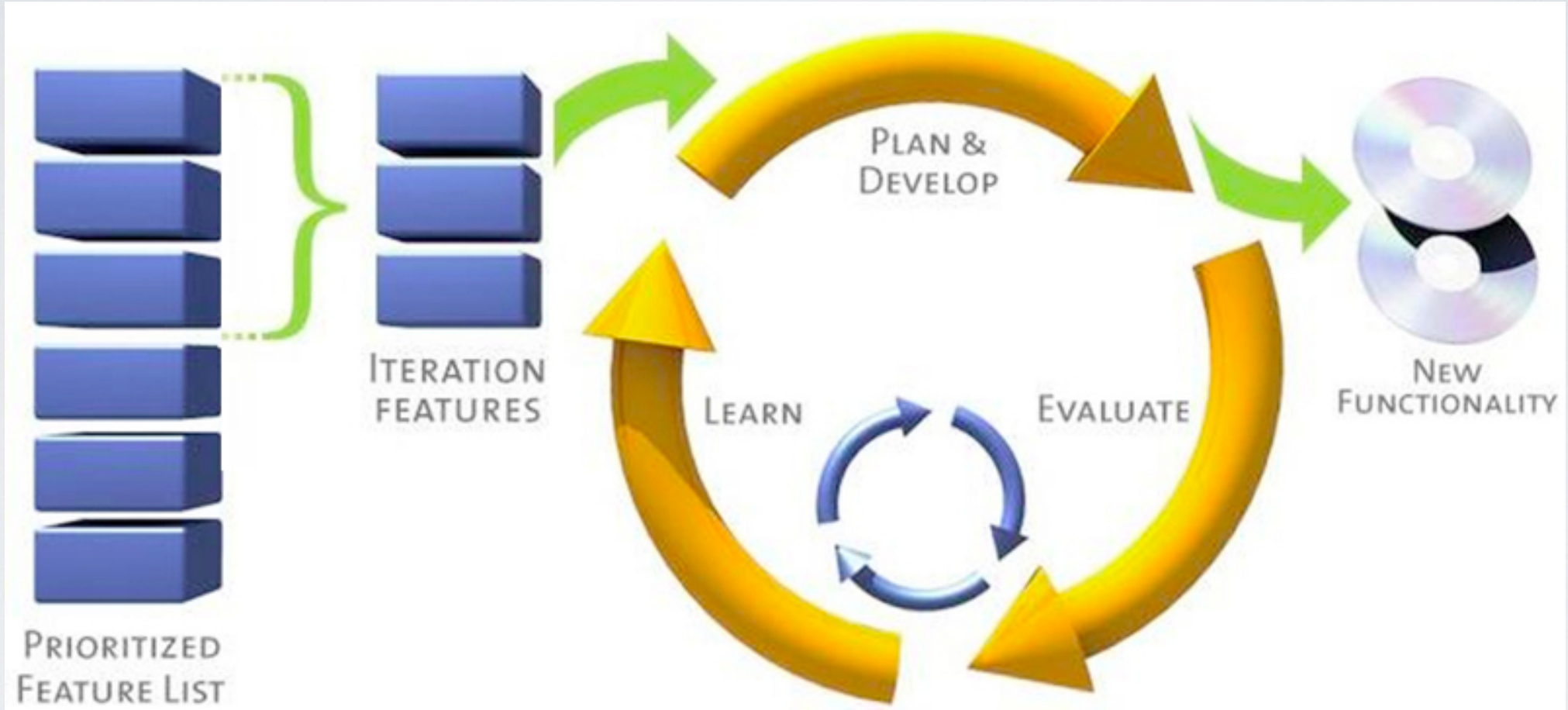
SOFTWARE DEVELOPMENT METHODOLOGIES

SOFTWARE DEVELOPMENT LIFECYCLE (WATERFALL)



AGILE METHODOLOGIES

- Flexibility
- Iteration
- Customer interaction
- Working code


Prioritized
Feature List
Iteration
features
Plan &
Develop
Learn
Evaluate
New
Functionality

PROJECT MANAGEMENT INSTITUTE CERTIFICATION

- Project Management Professional (PMP)
- Certified Associate in Project Management (CAPM)

PMP REQUIRES

- Bachelor's degree
- Three years of PM experience
- 7500 hours leading and directing projects (that's 187 weeks or 3.6 years)
- 35 hours project management education
- Passing grade on an exam

CAPM REQUIRES

- High school diploma or equivalent
- 1500 hours of project experience OR 24 hours of PM education
- Passing grade on an exam

EXERCISE

- On Canvas, you have been assigned to one of three groups
- Your group is tasked with planning a project. This project can be anything as long as it can be broken down into multiple steps; writing software, baking a cake, assembling a puzzle, etc. are possible examples.
- Your group will turn in a short project document. The document should:
  - Define the project scope (i.e., explain what the project will do, what a successful project will look like)
  - List the hypothetical duties of each team member
  - Include a work breakdown structure