CHAPTER 16
Setting requirement priorities

- This chapter discusses the importance of prioritizing requirements

- Describes several prioritization techniques, and presents a spreadsheet tool for prioritization analysis based on value, cost, and risk.

- After finish this chapter, student should priority list of requirements basing on their projects.

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Why prioritize requirements?

- Prioritization, also called requirements triage (Davis 2005), helps reveal competing goals, resolve conflicts, plan for staged or incremental deliveries, control scope creep, and make the necessary trade-off decisions.

- Prioritization is a critical strategy for agile or other projects that develop products through a series of fixed-schedule timeboxes

- Establish priorities early in the project, when you have more flexibility for achieving a successful project outcome, and revisit them periodicall

Some prioritization pragmatics

Alan Davis (2005) indicates that successful prioritization requires an understanding of six issues:

- The needs of the customers
- The relative importance of requirements to the customers
- The timing at which capabilities need to be delivered
- Requirements that serve as predecessors for other requirements and other relationships among requirements
- Which requirements must be implemented as a group
- The cost to satisfy each requirement

To encourage customers to acknowledge that some requirements have lower priority, the analyst can ask questions such as the following:

- Is there some other way to satisfy the need that this requirement addresses?

- What would the consequences be of omitting or deferring this requirement?

- What effect would it have on the project's business objectives if this requirement weren't implemented for several months?

- Why might a customer be unhappy if this requirement were deferred to a later release?

- Is having this feature worth delaying release of all of the other features with this same priority?

- In or out

- Pairwise comparison and rank ordering

- Three-level scale

- MoSCoW

- $100

Prioritization based on value, cost, and risk

TABLE 16-1 Sample prioritization matrix for the Chemical Tracking System

Relative weights		2	1			1		0.5		
Feature		Relative benefit	Relative penalty	Total value	Value %	Relative cost	Cost %	Relative risk	Risk %	Priority
1.	Print a material safety data sheet.	2	4	8	5.2	1	2.7	1	3.0	1.22
2.	Query status of a vendor order.	5	3	13	8.4	2	5.4	1	3.0	1.21
3.	Generate a chemical stockroom inventory report.	9	7	25	16.1	5	13.5	3	9.1	0.89
4.	See history of a specific chemical container.	5	5	15	9.7	3	8.1	2	6.1	0.87
5.	Search vendor catalogs for a specific chemical.	9	8	26	16.8	3	8.1	8	24.2	0.83
6.	Maintain a list of hazardous chemicals.	3	9	15	9.7	3	8.1	4	12.1	0.68
7.	Change a pending chemical request.	4	3	11	7.1	3	8.1	2	6.1	0.64
8.	Generate a laboratory inventory report.	6	2	14	9.0	4	10.8	3	9.1	0.59
9.	Check training database for hazardous chemical training record.	3	4	10	6.5	4	10.8	2	6.1	0.47
10.	Import chemical structures from structure drawing tools.	7	4	18	11.6	9	24.3	7	21.2	0.33
	Totals	53	49	155	100.0	37	100.0	33	100.0	