Chapter 6 summary

**Categorizing or grouping the requirements**

* Business vs functional
* By viewing stakeholder
* Reusability

Most common requirement categories are:

* Business (what the business needs to do)
* Functional (how the business requirement is accomplished)
* Nonfunctional (system requirements)
* Technical (specificiations0

**Core Requirement Components (exist in all four categories of requirements)**

* Data (entities, attribute and relationships)
* Process (Use Case)
* External Agents (actors)
* Business Rules (constraints in which the business operates)

**Data**

Relationships represent business rules

Entities are things (nouns) customer, product, order

Data is processed into information

Attributes are the detail fields

Are they unique, mandatory, repetitive

**Process Use Case**

Start with a verb and include a noun

**External Agents (Actors)**

Person organization of system that the business interacts with

Actors are external to the software solution

Important to determine internal vs external actors, external actors are not affected by the project where internal actors may have their work flows changed

**Business rules**

Decision points

Many rules are data related

**Analysis Techniques and presentation formats**

**Glossary:** of terms, insure they are consistently used during conversations

**Workflow Diagrams,** show how work is accomplished (UML Activity Diagram, flowcharts or process maps

Standard shapes

Swim lanes

Can be used for documenting “As is” or “to be”

Can be detail or high level

Can be used for business or functional

Business (what does the business do) Take order

Functional (how does the business do it) Answer phone call, write down items, create invoice

**Entity Relationship Diagram:** represents data requirements

This comprises the data model

Logical data model

Looking at the business processes from a different view.

Logical data model facilitate reuse of data and remove of redundancy

**Business Process modeling with Decomposition Diagram**

Presentation of processes without sequence or relationship between them

Looks like and organization chart with hierarchy built in

Rules for building the diagram

Parent child relationships only

Only one component type (rules, entity, actor or rule), do not mix

Every parent must have more than one child

No sequence in represented, no arrows for direction

**Use Case Diagram**

Use case is a goal of the software

How does the software interact with the users (actors)

Actors are people, organizations or systems

Use case is an oval

Box shows the boundary of the software

Lines are association between the actors and the software

Use case diagrams will have accompanying case descriptions which include a happy path interaction aka primary path

There may be redundancy when representing data and process

**Prototype / Simulations (Justinmind)**

Screen layouts

Report layouts

Data Entry layouts

A story board is a presentation of a series of screens

**Other Tools**

Event Modeling

Entity State

Object Modeling/Class Modeling

User Stories

Traceability Matrices

CRUD Matrix

Gap Analysis

Data Flow Diagram

Options for documenting requirements

Text

Graphics

Text and Graphics

Choose the options that best communicates to the specific user

**“AS is” vs “To Be”**

Deliverable to Project Matrix

Deliverable to Audience Matrix

Listen for facts vs Opinion

Important to document “as is”, “what the problem is” and “recommend solution”