

Process
descriptions

Include

Plan driven
and
Agile processes

Process models

Describe
and
discuss
processes

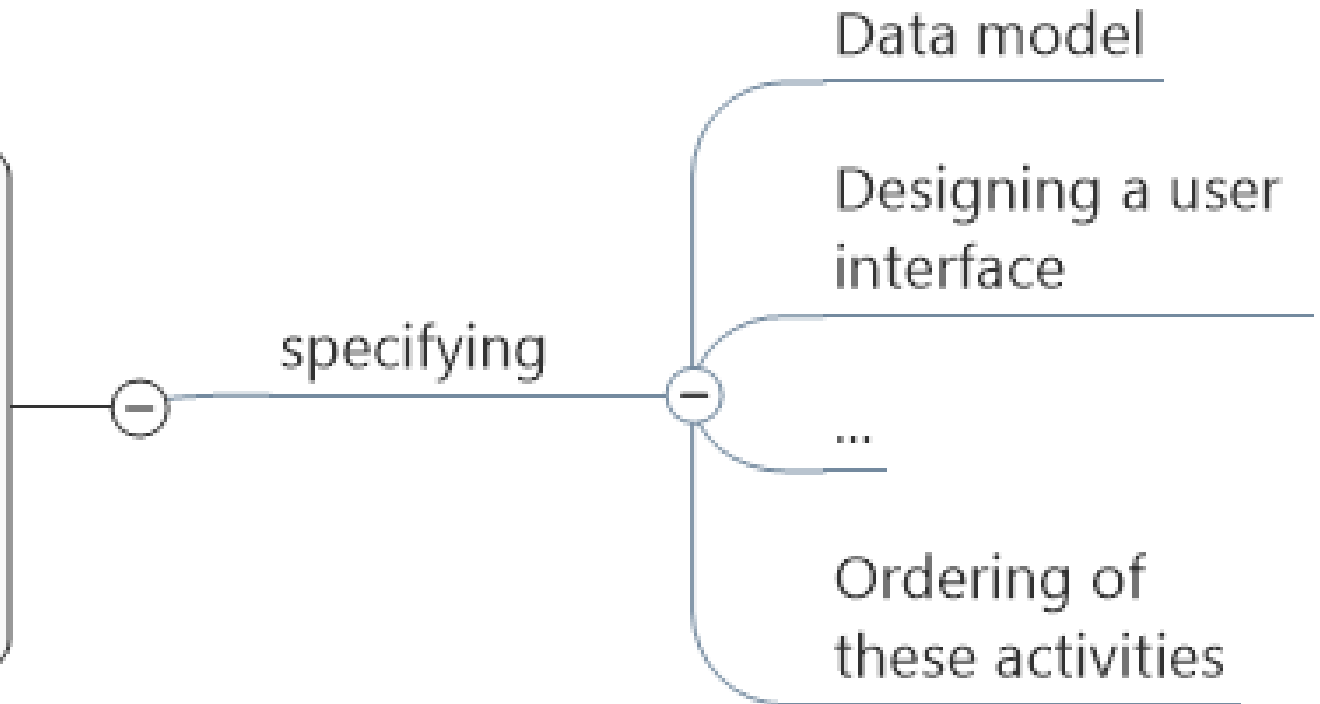
specifying

Data model

Designing a user
interface

...

Ordering of
these activities



Software Process

Waterfall model

Incremental development

Process
descriptions

Include

Plan driven
and
Agile processes

Process models

Process descriptions

Products

outcomes of a
process activity

Roles

reflect the
responsabilities of the
people involved in the
process

Pre- and
post-
conditions

statements that
are true before
and after a
process activity
has been
enacted or a
product
produced.

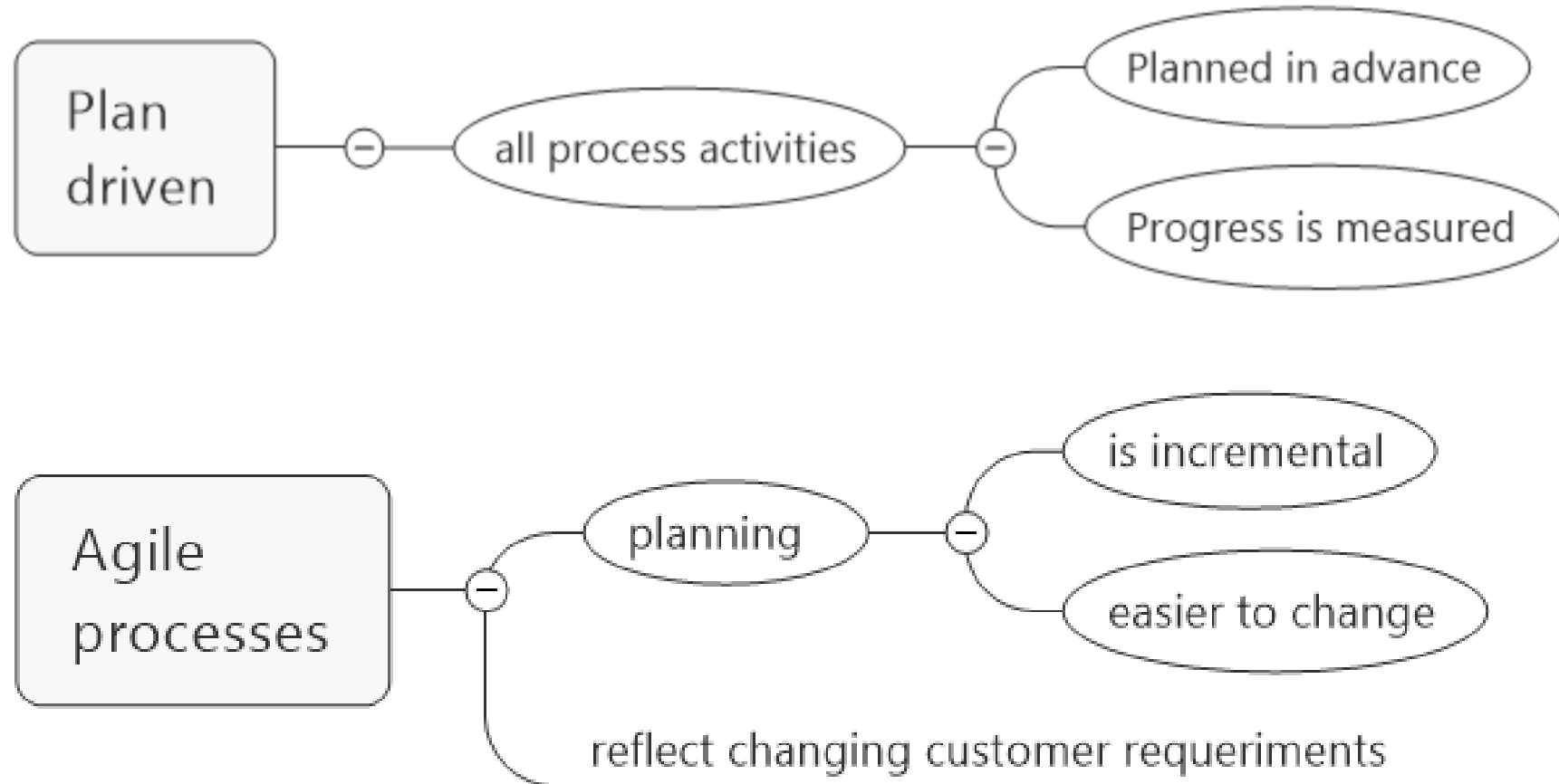
Process
descriptions

Include

Plan driven
and
Agile processes

Process models

In practices, most practical processes include elements of:



Software Process

Waterfall model

Incremental development

Process
descriptions

Include

Plan driven
and
Agile processes

Process models

Waterfall
model

Plan driven
model

phases

Separates

Distinct

Specification

Development

Incremental
development

Specification

Interleaved

Development

Validation

May be

Plan driven

Agile

Integration
and
configuration

System is
assembled

from existing configurable components

May be

Plan driven

Agile

Software Process

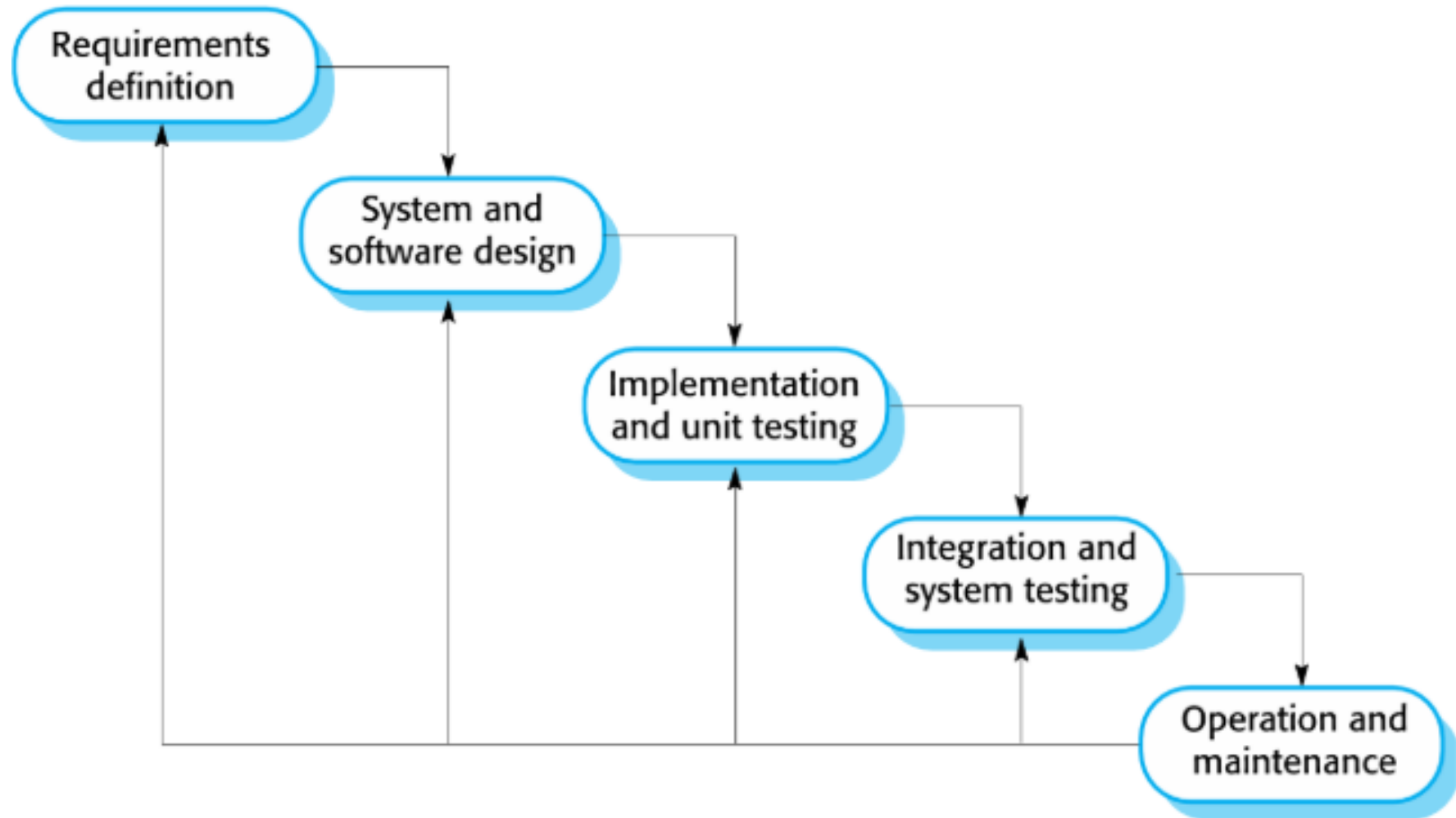
Waterfall model

Incremental development

Model

Phases

Problems



Software Process

Waterfall model

Incremental development

Requirements

Design

Implementation

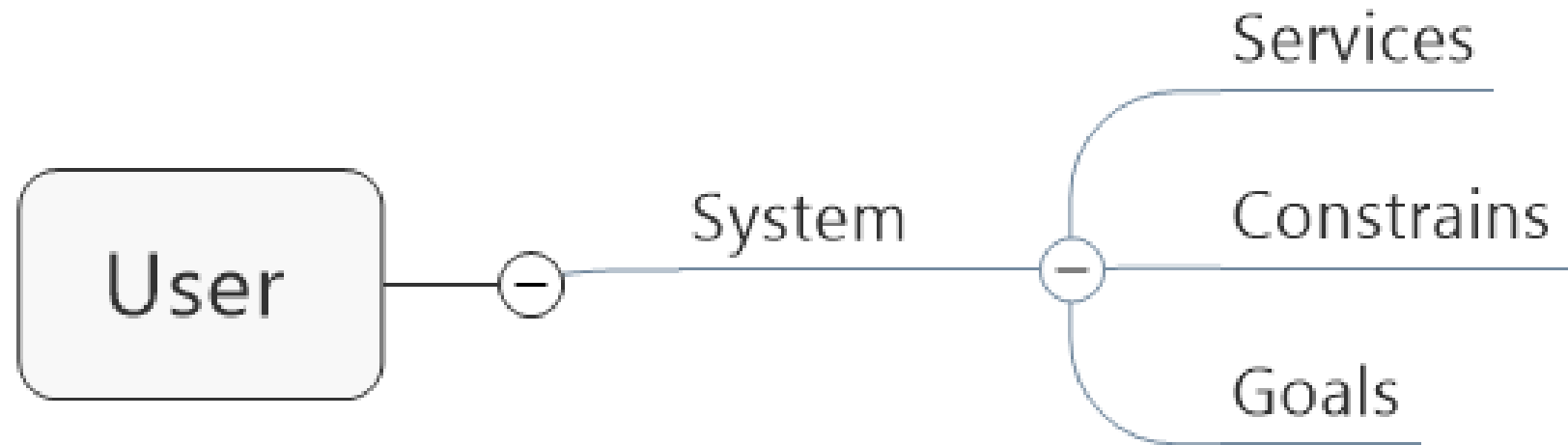
Testing

Maintenance

Model

Phases

Problems



Software Process

Waterfall model

Incremental development

Requirements

Design

Implementation

Testing

Maintenance

Model

Phases

Problems

Design

allocate

requirements

software

hardware

Stablish

Architecture

identify

describe

Abstraction

Relationships

Software Process

Waterfall model

Incremental development

Requirements

Design

Implementation

Testing

Maintenance

Model

Phases

Implementation
and unit testing

Design

is realized

involve

verify

each unit
meets its
specification

Problems

Software Process

Waterfall model

Incremental development

Requirements

Design

Implementation

Testing

Maintenance

Model

Phases

Integration
and system
testing

program units

integrated

tested

Problems

Software Process

Waterfall model

Incremental development

Requirements

Design

Implementation

Testing

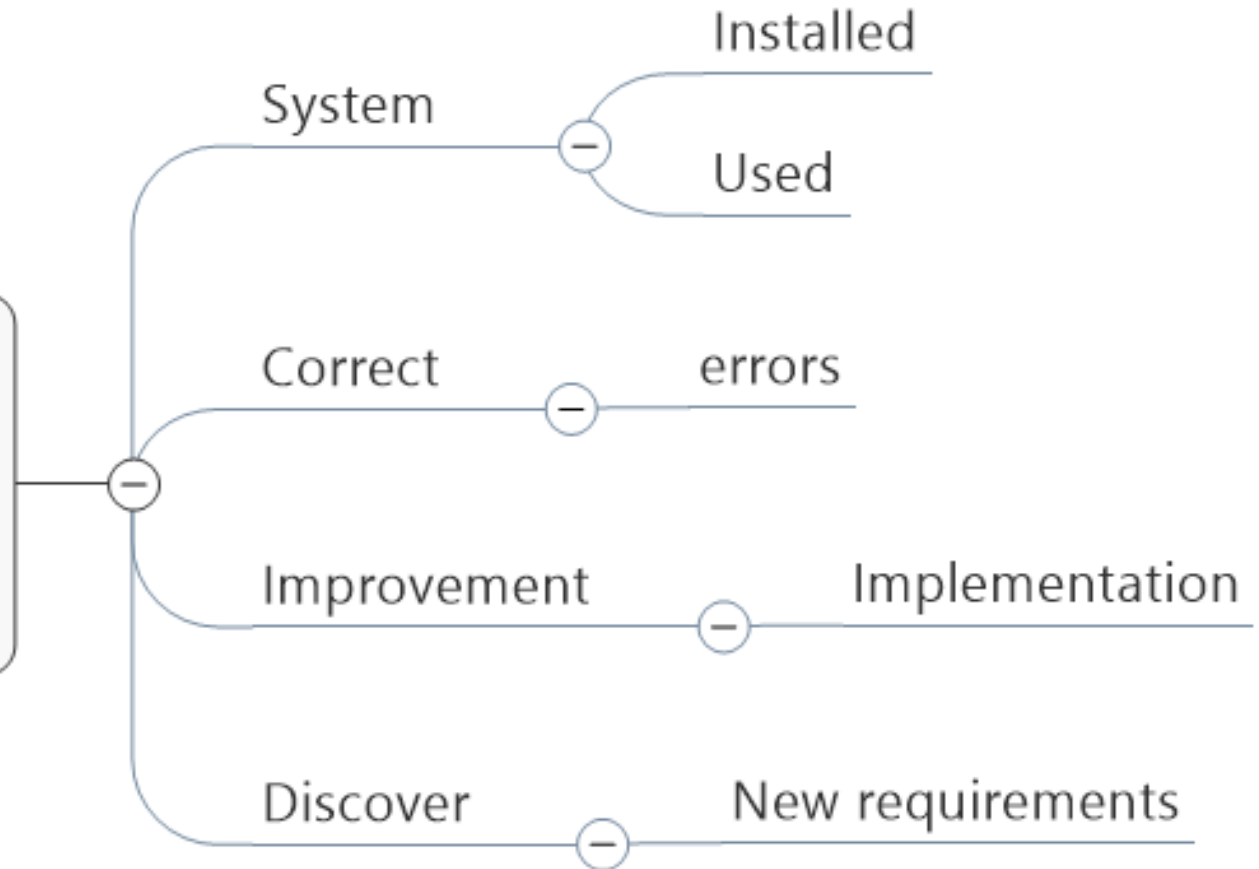
Maintenance

Model

Phases

Problems

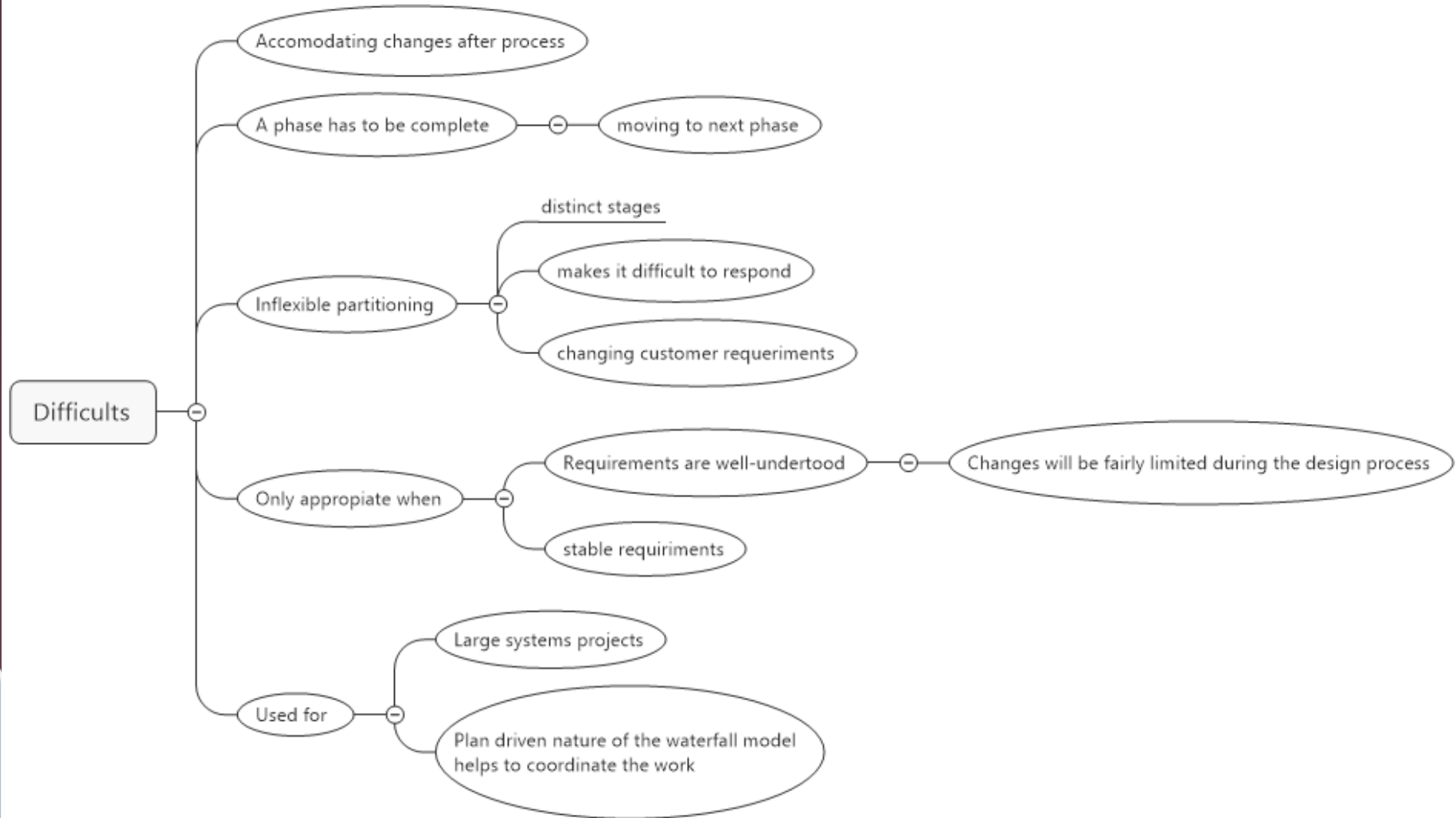
Operation
and
maintenance



Model

Phases

Problems



Software Process

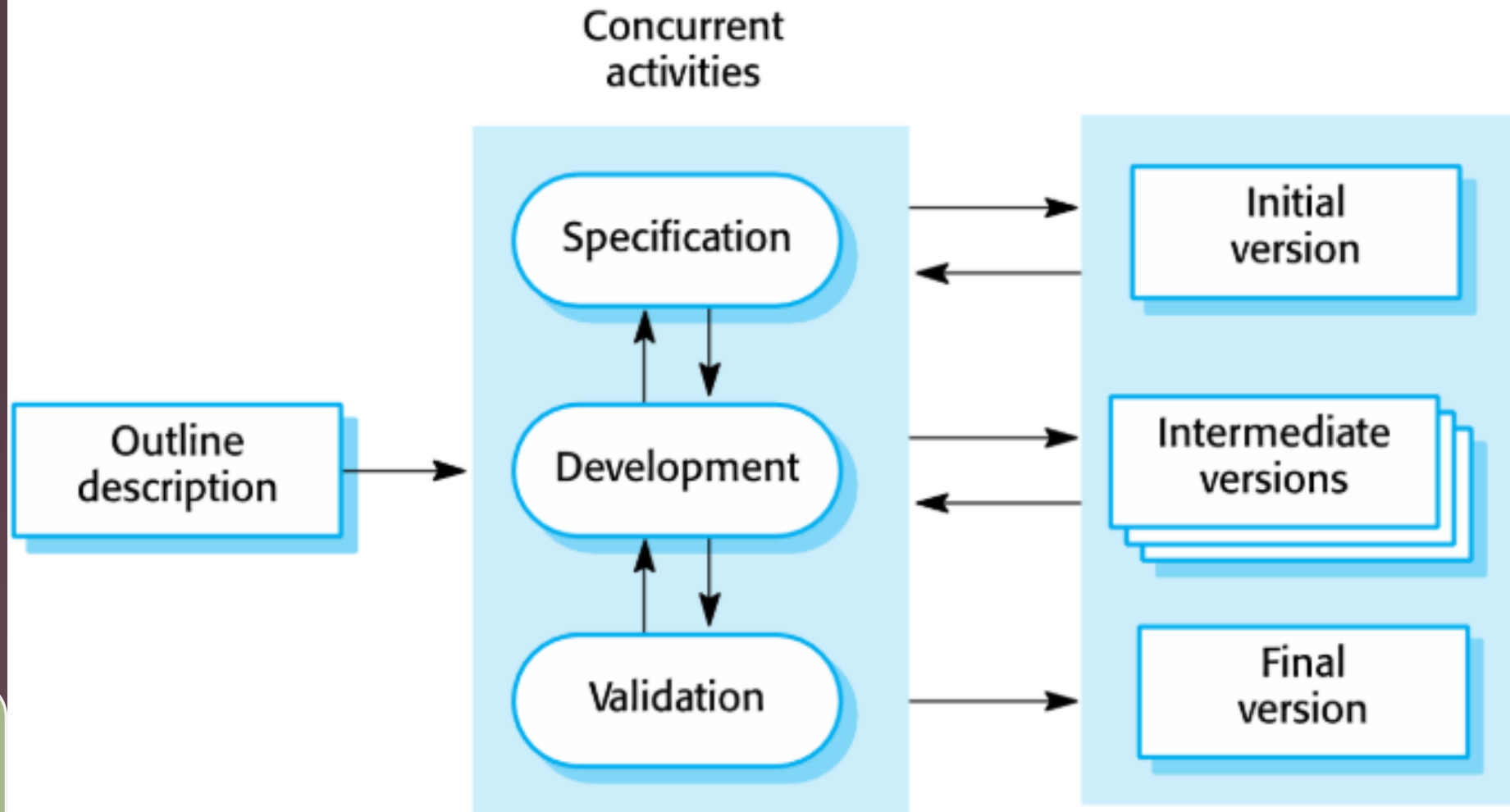
Waterfall model

Incremental development

Model

Phases

Problems



Software Process

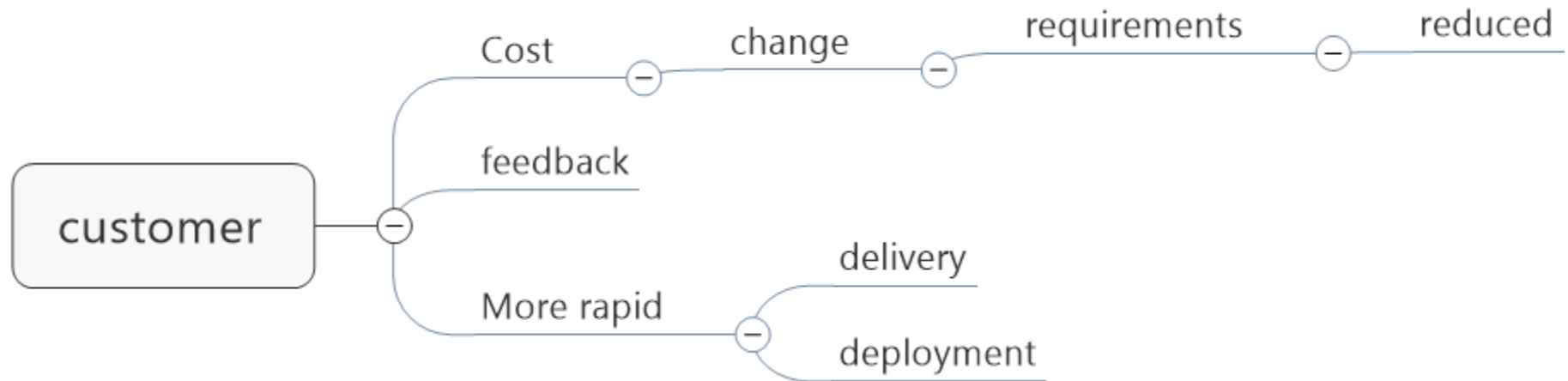
Waterfall model

Incremental development

Model

Benefits

Problems



Software Process

Waterfall model

Incremental development

Model

Benefits

Problems

Incremental
development
problems

The process is not visible

System structure

degrade

increments

added

-

-