Building Object Graphs with the Specification Pattern

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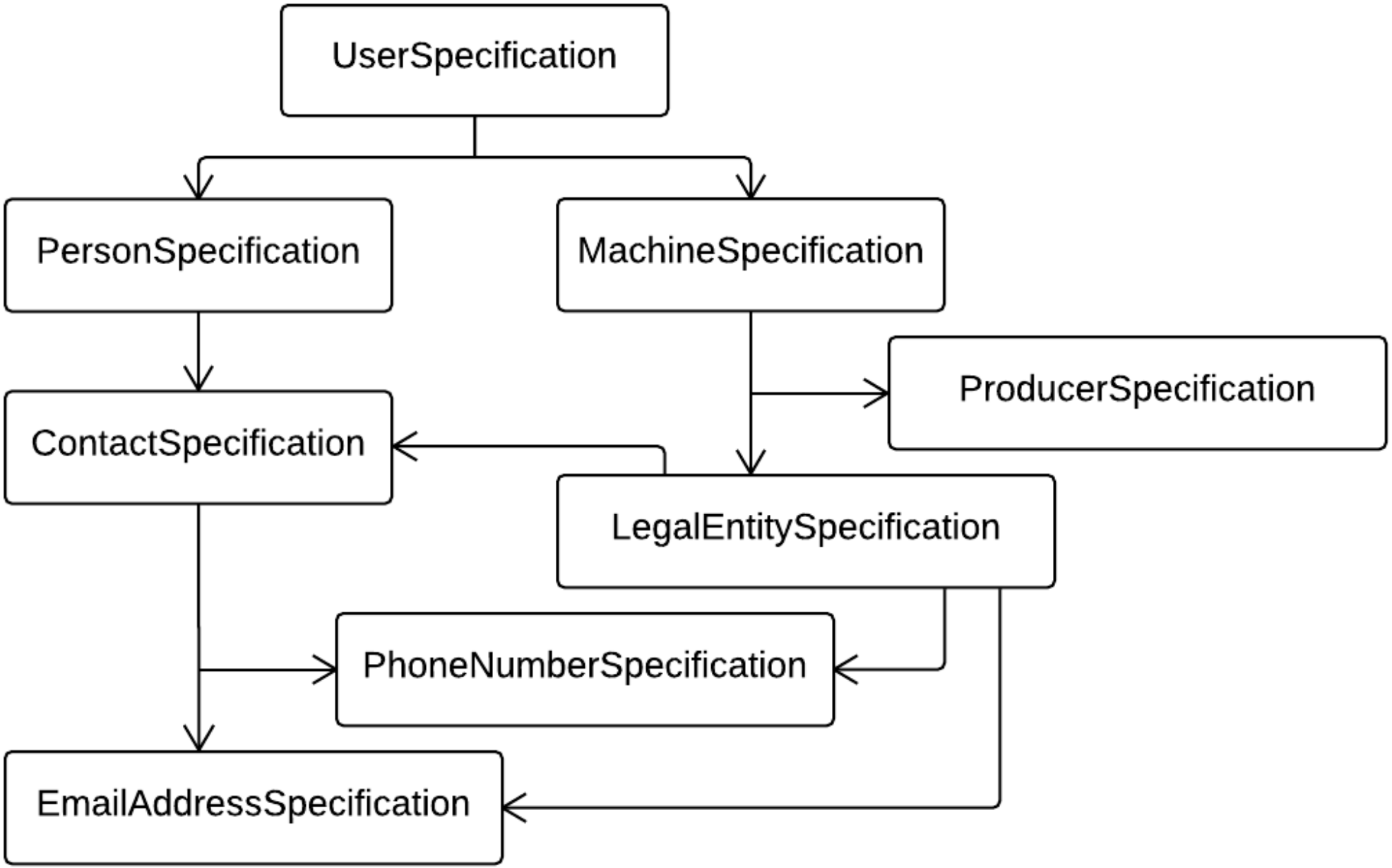
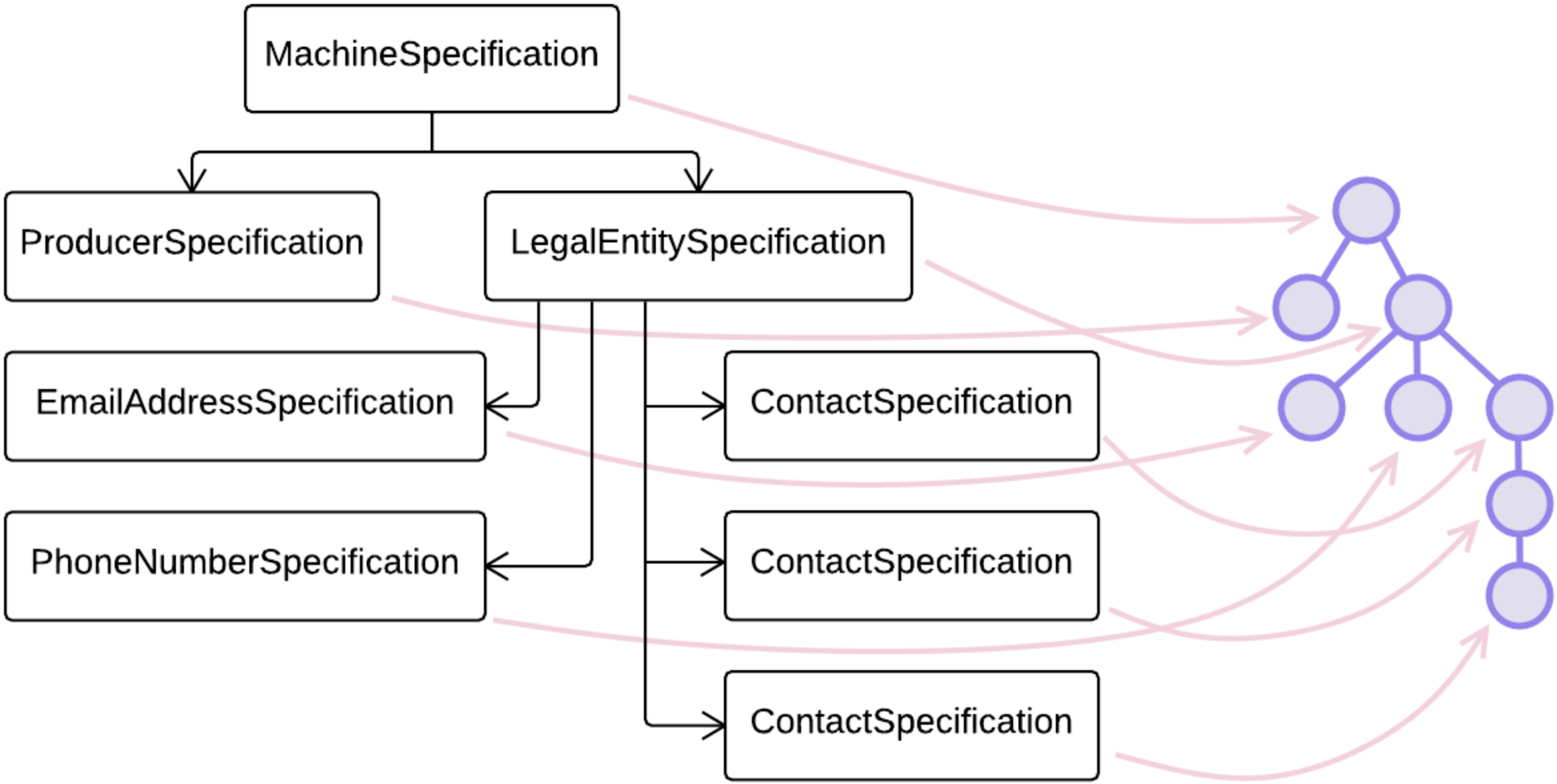

UserSpecification
PersonSpecification
MachineSpecification
ProducerSpecification
ContactSpecification
LegalEntitySpecification
PhoneNumberSpecification
EmailAddressSpecification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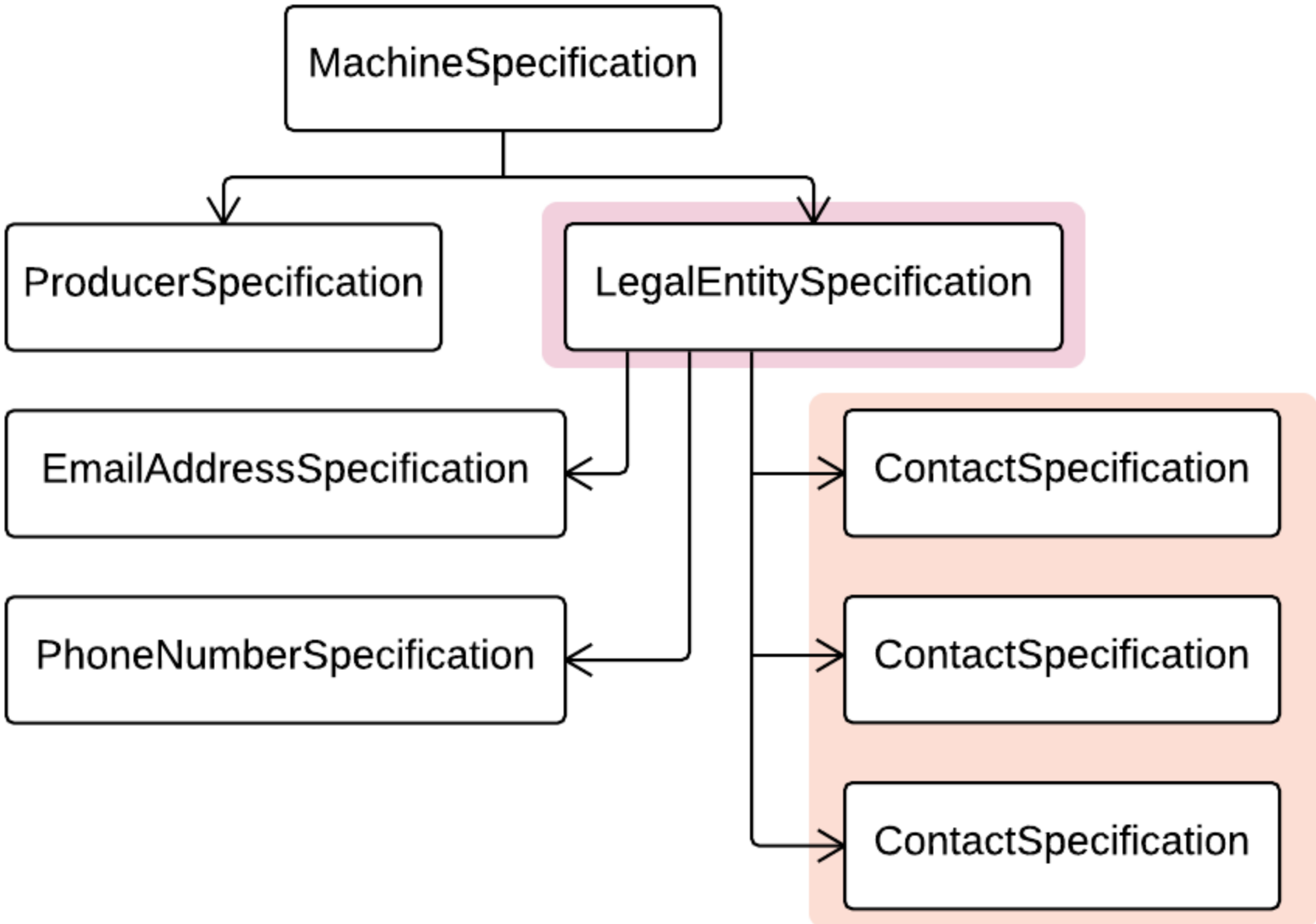


Are all these contacts unique?

Choosing Creational Method

Constructor?

Everything is said
in one line of code

Abstract Factory?

Separates consumer
from provider,
and still in one
line of code

Factory Method?

Covariant on its
product,
and still in one
line of code

Builder?

Validation rules,
temporal coupling during
object construction;
acts as executable documentation

Specification?

Builder has grown too large,
parts of the product must be
specified recursively

Summary

Specification design pattern

- Wraps entire building process
- Includes order of operations
- Includes data validation

Advanced Specification pattern

- Remove compile-time requirement to be covariant on the product type
- Comparison of future objects

Choosing appropriate creational method

- Pull the desired benefits
- Pay as low as possible in added code

Summary

Non-default constructor

- Use it always
- Avoid default constructor

Abstract Factory and Factory Method

- Very frequently in use
- Use lambda returning new object

Builder

- Used from time to time
- Construction process is complicated
- Full interface segregation, immutable Builder, state transition control

Specification

- Very rarely useful
- Only use with very complicated model

Other Pluralsight Courses

Design Patterns Library
by a group of authors

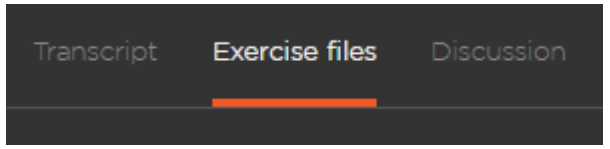
Design Patterns On-Ramp
by Jeremy Clark

Tactical Design Patterns in .NET series

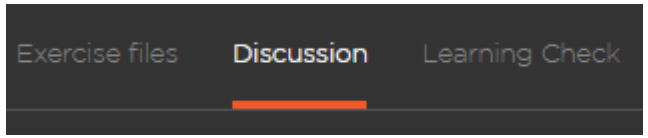
- Managing Responsibilities
- Control Flow
- Creating Objects

Kind Reminder

Please download materials from this course



Please participate in the discussion



- Ask questions
- Bring more ideas

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