Factories

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Module Overview
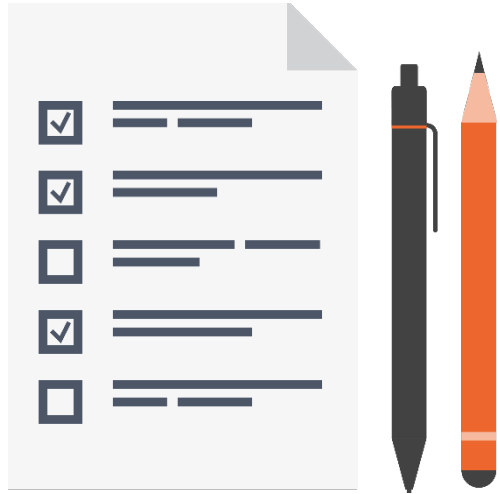
- Motivation

- Point Initialization Example

- Factory Method

- Factory External Class

- Factory Inner Class

- Abstract Factory

Motivation

- Object creation logic becomes too convoluted

- Constructor is not descriptive
  - Name mandated by name of containing type
  - Cannot overload with same sets of arguments with different names
  - Can turn into 'optional parameter hell'

- Object creation (non-piecewise, unlike Builder) can be outsourced to
  - A separate function (Factory Method)
  - That may exist in a separate class (Factory)
  - You can even have a hierarchy of classes with Abstract Factory

Factory

A separate component responsible solely for the wholesale (not piecewise) creation of objects.

Abstract Factory

A factory construct used to construct object in hierarchies.

Factory Method

A function that helps create objects. Like a constructor but more descriptive.

Module Overview

A factory method is a function that creates objects

A factory can take care of object creation

A factory can reside inside the object or be external

Hierarchies of factories can be used to create related objects