The Builder Pattern

Gerald Britton
IT SPECIALIST

@GeraldBritton www.linkedin.com/in/geraldbritton

Overview

Classification: Creational

Separates construction of an object ...

... from its representation

Encapsulate object construction

Multistep construction process

Implementations can vary

Client sees only the abstraction

Demo

Motivating Example:

Custom computer builder

Can be many components

That can lead to bad design choices

Notes for Demo 1

Progress so Far

Long parameter list is gone

Attributes are encapsulated
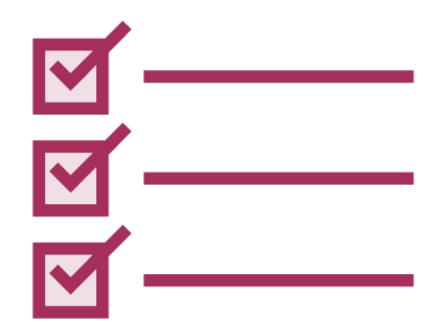
Ordering!

Notes for Demo 4

Builder Pattern Structure

Notes for demo 5

Problems solved:

Too many parameters

Exposing attributes to client

Encapsulated the attributes

Enforced assembly order

Separated assembly from the components

Summary

Separates the "How" from the "What"

Assembly separate from components

Encapsulates what varies – the parts

Permits different representations

Client creates Director object

Director uses concrete builder

Builder adds parts to the product

Client receives the product from builder